# Assessment of Value Variations in Compensation of Mineral Land in Bin Yauri and Garin Awwal, Kebbi State

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**Received: 23/09/2023** **Revised: 28/09/2023** **Accepted: 26/05/2024**

The rising issue of variation in value of land has continued to affect fair compensation for acquired mineral land. Therefore, this study examined three ways of assessing the value of mineral land for compensation in Kebbi State, Nigeria. Data were sourced from both the primary and secondary sources. The sampling method was purposive which deals strictly with those that were affected by the mining activities. Questionnaire was used to obtain information on the amount negotiated as compensation value from a sample size of 72 claimants out of a sample frame of 138, while values based on Nigeria Minerals and Mining Act, 2007 and World Bank Operational Policy 4.12 were calculated based on criteria of each respectively. The three values obtained were subjected to one-way ANOVA test of significant differences**.** The results showed that there is a significant differences in the compensation values obtained using existing practice (Negotiation), legal provisions (NMM Act, 2007) and international standard practice (Word Bank Operational Policy 4.12), with each of the three methods having a p-value of 0.000 which is less than 0.05 {F (21) = 32.986, $p < 0.05$);F (50) =14659.2, $p < 0$ .05);F (71) = 2475.276, $p < 0.05$} respectively. The study recommends that claimants should engage experts to value their land before going in for negotiation as this will give them a base on which to leverage their negotiation.

**Keywords:** Claimants, Compensation, Mineral land, Mining, Variation

https://dx.doi.org/10.4314/etsj.v15i1.14

## INTRODUCTION

Mining activities, most especially surface mining require large tracts of land during mineral exploitation processes (Ayitey *et al.*, 2011). However, in order to obtain land when and where it is needed in Nigeria, section 28 (1) of the Land Use Act 1978 gave the government the power of compulsory acquisition of land. Compulsory acquisition of land by the Federal, State or Local Government is for overriding public interest and includes the requirement of land for mining purposes, oil pipelines or public purposes (Oludayo, 2011). Depriving people access to their lands (compulsory acquisition by the government) can affect them greatly, especially in mining communities where a huge scale of excavation has led to a complete change of landform suitable for agriculture (Awudi, 2002). Therefore, compulsory acquisition of land necessarily implies the constitutional and statutory obligation to pay compensation to the landowner, whether an individual, family or community (Oludayo, 2011). In another word, compensation remains a crucial precondition for the compulsory acquisition of land in many jurisdictions across the world (Kidido *et al*., 2015). However, when the compensation is paid, it is usually insufficient in terms of the value of the land compulsorily acquired and for which compensation is being paid, as a result of a lack of appropriate valuation of and compensation for lost assets (Asian Development Bank, 2007). This is as a result of compensation valuation being a complex issue with its attendant problems of its classification as statutory - the bases of which are determined through various enactments, laws, policies and regulations, rather than through independent professional processes (JerryDeebom & Kakulu, 2021).

Numerous scholars have carried out studies on mineral land compensation; Chang (2011) revealed that both the desired compensation by the expropriated and the expropriator are above the Fair Market Value that was calculated in New York and suggests focus should be more on the assessment methods. The study of Kidido *et al*. (2015) concluded there is no clarity as to who among the stakeholders is rightfully entitled to receive compensation for the deprivation of the use of mineral land in Ghana and recommended that a legislative instrument is required to clearly outline the eligible beneficiaries for compensation under various possible heads of claim. John and Samuel (2018) revealed a wide discrepancy between communities' perceptions and mining company compensation practices and weak enforcement of mining legislation in Ghana. The study concluded that the imbalance has negative implication for community-mining company relations and threatens sustainable mining operation. It thus recommended rigorous enforcement of legislation and improved CSR packages by mines as mean of bridging the gap between communities' perception and compensation practice.

Gilbertson (2020) showed that multinational coal mining industry provided just enough compensation to

satisfy legal requirements in the Northeast Caribbean Colombian coal mining region and concluded that compensation projects obfuscate the direct, structural and cultural violence of coal mining by diverting community-based legal resistance strategies, dividing impacted communities and distracting public attention away from direct and structural violence enacted upon human and nonhuman nature. Twerefou and Ayimpusah (2021) while examining the determinants of satisfaction of compensation packages in Ghanaian mining communities emphasised that an improved and highly improved mining effect on livelihood increases the likelihood of households being satisfied with compensation packages by 19.4 and 24% respectively and urge the government to improve compensation negotiation process by educating communities on the compensation regulation.

Gilbert *et al*. (2021) revealed that consultation and compensation processes for rectifying mining damages and methods of providing and renewals of environmental licenses to operate are flawed in Colombia's coal mining region of La Guajira and stated that corporate and state-backed consultation and compensation projects are incommensurable with the damage caused by coal mining operations. In a related development, Uche and Khalid (2022) revealed how the institution of compensation committees undermined fair compensation in Ghana by adopting inconsistencies between talks, decisions, and action with respect to compensation committees to facilitate, manage and defend unfair compensation. In Nigeria, studies on compensation of mineral land were centred on environmental contamination, particularly oil spills and infrastructural developments (Fekumo 2001; Akujuru 2005; Akujuru & Baridoma 2007; Kakulu 2008; Ige & Oladapo 2018; Olukolajo 2019). In Kebbi State, compensation assessment for acquired land for mining activities is determined by negotiations. This may not be unconnected with the acquiring authorities and the land owners being oblivious to the actual value of such land before agreeing to any compensation due to the absence of professionals charged with such responsibilities. Whereas, Nigerian Minerals and Mining Act of 2007, provides that the amount of the compensation payable shall be determined by the Mining Cadastre Officer after consultation with the State Minerals Resource and Environmental Management Committee and a Government licensed Valuer. However, the World Bank in providing support to the preparation of a strategic roadmap for mining sector development in Nigeria under the Mining Mineral Sector Support for Economic Diversification Project (MinDiver) adopted compensation assessment Operational Policy 4.12 which is one of the acclaimed international standard in compensation assessment (Abdulazeez, 2023). This situation has resulted in three ways of valuing mineral land for compensation, thus, the research question - is there any variation in the values arrived at using these three different valuation approaches? Therefore, the focus of this study is to examine whether there is variation in the values of compensation arrived at using existing practice (negotiation), legal provisions and international standard practice using Bin Yauri and Garin Awwal in Kebbi State as the study area.

## LITERATURE REVIEW

### Concepts of Mineral Resources and Mineral Land

Minerals are chemical elements and compounds that have been formed through inorganic processes (Sani *et al.,* 2019). According to Nordhaus and Kokkelenberg (1999), mineral resources is a concentration of naturally occurring solid, liquid, or gaseous material, in or on the earth's crust, in such form and amount that economic extraction of a commodity from the concentration is currently or potentially feasible. However, the Nigerian Mining/Minerals Act No. 34 of 1999 defined minerals as substances whether in solid, liquid or gaseous form occurring in or on the earth; formed by or subjected to geological processes including occurrences or deposits of rocks, coal, coal bed gases, bituminous shale, tar sands, any substances that may be extracted from coal, slate or tar sand, mineral water, and mineral components in tailings or waste piles, but with the exclusion of petroleum and waters without mineral content. By the Act, minerals exclude petroleum but would include natural gas such as coal bed methane gas. Minerals are by definition not a part of the land, nevertheless, land has to be penetrated or worked upon to access the minerals. Thus "mineral land" is not and cannot be known until a mineral is discovered through mineral prospecting. Upon discovery of minerals on the land, the land turns into a "mineral land," overriding all categories of land except conservation areas in the reserved land category (Lugoe, 2012).

### Concepts of Compensation

The principle underlying compensation was expressed by Lord Justice Scott in the case of Horn v Sunderland Corporation as reported in Omotola (1984):

> Compensation is the right to be put, so far as money can do it, in the same position as if his land had not been taken from him. In other words, he gains a monetary payment not less than the loss imposed on him in the public interest, but, on the other hand, no greater.

Belachew (2013) defined compensation as full indemnity or remuneration for the loss or damage sustained by the owner of the property taken or injured for public use. It denotes some form of restitution

which attempts to place a property owner, as near as possible to the position he would have been had his property not been acquired for public purposes (Otubu 2014). In theory, compensation makes the injured person whole; it aims at repaying for losses and should therefore be based on principles of equity and equivalence. The sum payable may represent a sum not only for the land taken but also for other losses suffered as a result of the acquisition of the property (Alias & Daud, 2016).Compensation is the way of putting land owners or occupants whose lands have been acquired compulsorily by the government in the position they were before their lands were acquired through re-settlement or monetary means (John & Samuel, 2018). According to the Australian Property Institute and New Zealand Institute of Valuers' guidance paper (ANZVGP, 2021), the assessment of compensation is to put the claimant back into the same position as it was before the compulsory acquisition, as far as money can do it, while the subject of the assessment is not simply the property, rather the claim of the claimant for compensation. This could include the value of the interest being acquired to the claimant, including claims under various other heads such as any special value, reinstatement and disturbance which include any disadvantage resulting from relocation. This may also apply to severance and injurious affection. Conceptually, when private property is acquired by the State, compensation is paid not only for the actual loss of the land but also for other socio-economic losses occasioned by the act.

**Value Variance in Compensation Valuation**

Studies on value variance in compensation valuation for compulsory land acquisition and environmental damages abound. Hordijk and Van De Ridder (2005) examined the Valuation model uniformity and consistency in real estate indices: the case of the Netherlands. The study revealed that differences in compensation values estimated by valuers representing the expropriating authority and the displaced people are caused by adopting different assumptions on variables used when calculating the compensation. Kakulu (2008) examined the assessment of compensation in the compulsory acquisition of oil and gas-bearing lands: The Niger Delta experience. The study established that the application of multiple standards, procedures and methods of valuation results in alarmingly wide discrepancies in compensation values over the same interest in land.

Udoekanem (2013) studied the effect of land policy on compensation for environmental damage caused by gas flare in the Niger Delta region of Nigeria. The result of the study showed that compensation determined based on the basic valuation methods was far higher than those determined based on the provision on the Land Use Act of 1978. Similarly, Oladapo and Ige (2014) examined the assessment of claimants' satisfaction with the variation in compensation paid for compulsory land acquisition in Ondo State, Nigeria. The research revealed a wide disparity between the mean of compensation paid and the market value of the acquired property. Also, Bello and Thomas, (2015) examined variance in the valuation of commercial properties among Estate Surveyors and Valuers in Lagos Metropolis. The study indicated that the coefficient of variation of valuers' opinion lies within +5% to 11% in the Lagos Metropolis and that the p-value (0.129) is > 0.05. Bello and Olanrele (2016) examined the value gap in Nigerian property compensation practice: measurement and economic effects. The findings indicated a gap in the value of above 41% between the claimant's valuers and the government's valuers. Ige and Oladapo (2018) studied variation in compensation for compulsory property acquisition in Ondo state; the Nigeria experience. Comparing the means between compensation offered to the affected property owners by the government and the private valuer's value. It was found that a significant difference existed in the compensation paid by the government to the affected property owners and the value arrived at by the private estate surveyors and valuers.

Holtslag-Broekhof *et al.* (2018) worked on exploring the valuation of compulsory purchase compensation. The study attributed the problem of vast differences in the property value of compensation to different systems of valuation and different interpretations of ambiguous laws guiding expropriation and compensation. Okolo *et al*. **(**2020) carried out assessment of variations in oil spill compensation valuations in Rivers State, Nigeria. The findings indicated a variation of 22.36% and 37.49% in the valuations of fishing rights and economic trees respectively. Also, Partson *et al*. (2021) conducted a study on consistency and fairness of property valuation for compensation for land and improvements in Zimbabwe. The findings revealed evidence of wide gaps (variations) in the valuation estimates of designated valuation officers and private valuers compared to those of the independent valuation experts authorised by the courts. In addition, Amposah *et al*. (2023) examined compensation for farms compulsorily acquired for mining in Ghana. The result revealed that the lack of expressed standards for assessing compensation for mining-impacted crops has occasioned variations in the valuation methods and by extension the values arrived at.

**Study Area**

Yauri and Fakai Local Government Areas of Kebbi State, Nigeria, are located between latitudes 10°10′N and 11°40′N of the equator and longitude 3°30′E and 5°10′E of the Greenwich meridian respectively. The study area falls within a vast, geologically well-noted zone called Yelwa-Zuru in the north-west of Nigeria (Abubukar *et al*., 2020). Both Bin Yauri and Garin Awwal fall to the Yelwa-Zuru deposit of schist belts of north-west Nigeria. They are both of vein-type quartz-sulphide carbonate gold mineralization hosted by a brittle fault zone. The areas are characterized by flat topography with a few elevated areas. It is an extension of the Sokoto plain, dotted with some doom-shaped hills and complemented by a portion of the great river Niger and its numerous tributaries, which gently meanders on the landscape (Udu, 1991).

**RESEARCH METHODOLOGY**

The study is a survey and descriptive research which involves questionnaires administered to the target population to extract the necessary information for the study. The target population for this study consists of compensation Claimants in both Bin Yauri and Garin Awwal in Kebbi State, Nigeria. The sampling method adopted was purposive which deals strictly with those that were affected by the mining activities. A total of 138 questionnaires were administered, however, due to the insecurity as a result of bandits' activities in this part of the country, only 72 questionnaires, representing 52% were retrieved and adopted for analysis (Table 1).

**Table 1: Response rate**

| Location | Questionnaires administered | Questionnaires returned | % |
|---|---|---|---|
| Bin Yauri | 60 | 32 | 53.33 |
| Garin Awwal | 78 | 40 | 51.28 |
| Total | 138 | 72 | 52.17 |

Damages and losses incurred as a result of the acquisition of land for mining activities and the amount negotiated and received as compensation by individual claimants were obtained through the questionnaire. Computation of the compensation based on the criteria in the Nigerian Minerals and Mining Act, 2007 and World Bank Operational Policy 4.12 were conducted to establish the amount of compensation due to individual claimants.

In calculating the compensation value using the NMM Act 2007, the farmland compensation rate (400,000/hectare) (Appendix A) and rates for economic trees (Appendix B) provided by the Kebbi state government were adopted as value for the surface right of the landowner and rates of economic trees respectively. Cash/food crops were not considered because landowners were at the privilege to harvest their crops before the commencement of mining activities. Thus, the total number of economic trees on the land was multiplied by the applicable rate and added to the land surface right value of the landowner to arrive at the compensation value as shown in Table 2.

**Table 2: Compensation Values Based on Legislation (NMM Act. 2007)**

| | |
|---|---|
| **Claimant 1.** | **Claimant 2** |
| Land Size – 2000m$^2$ (0.2 hect.) = 80,000 | Land size – 750m$^2$ (0.075 hect) = 30,000 |
| Economic trees: | Economic trees: |
| i.1Mango (matured)@10000/stand= 10,000 | i.1Neam (matured)@ 4000/stand= 4,000 |
| ii.1Dorawa (matured) @10000/stand= 10,000 | ii.1Dorawa (matured) @ 10000/stand= 10,000 |
| iii.1Shearbutter(mat) @ 10000/stand = 10,000 | Crop: |
| Crop: | i. Maize = (2 bags @ harvest) = Nil |
| i. Guinea corn = 4bags @ harvest = Nil | Compensation Value **= N44,000** |
| Compensation Value = **₦110,000** | |
| **Claimant 3** | **Claimant 4** |
| Land size – 1 Hect. = 400,000 | Land size – 1.2 Hect. = 480,000 |
| Economic trees: | Economic trees: |
| i.4 Mango (matured)@10000/stand= 40,000 | i. 2 Dorawa (matured)@10000/stand= 20,000 |
| ii.7Cashew (matured) @10000/stand = 70,000 | ii.2 Mango (matured)@10000/stand = 20,000 |
| iii.17Cashew(medium)@3000/stand = 51,000 | iii.1Mango (medium)@4,5000/stand = 4,500 |
| Crop: | iv 3Shear but(mat.)@10,000/stand =30,000 |
| i.Corn3 Bags @ harvest = Nil | v.2Cashew(matured) @10,000/stand= 20,000 |
| Compensation Value =**₦561,000** | vi.1 Cashew (medium)@3000/stand = 3000 |

| | |
|---|---|
| | Crops – None<br>Compensation Value**= ₦577,500** |
| **Claimant 5……** | **…….Claimant 72** |
| Land size 1350m$^2$ (0.135 Hect) = 54,000 | Land Size - 0.325 hect.= 130,000 |
| Economic trees: | |
| i.2 Mango (matured)@10,000/stand = 20,000 | Crop: |
| ii.3 Shear butter(mat.)@10,000/stand=20,000 | i.Groundnut - 6 Bags@ harvest = Nil |
| iii.1Dadawa (mat.) @10000/stand= 10000 | **Compensation Value = ₦ 130,000** |
| Crop: | |
| i. Maize– 2 Bags @ harvest = Nil | |
| **Compensation Value**= **₦104,000** | |

In the case of World Bank Policy 4.12, the criterion is that where land replacement is not possible or available, then cash compensation at full replacement value as well as disturbance allowance of 10% suffices. The economic trees compensation is the market value of the trees, which was calculated based on the annual net income generated from the trees and 5% yield in perpetuity. For cash/food crops, compensation was at the full market value of the crop's yield on the land. All these were summed together to arrive at the value as presented in Table 3.

**Table 3: Compensation Values Based on International Standards (World Bank Policy 4.12)**

| | |
|---|---|
| **Claimant 1** | **Claimant 2** |
| Land Size – 2000m$^2$ (0.2 Hect.) = 80,000 | Land size–750m$^2$ (0.075 Hect). = 30,000 |
| Disturbance @10% = 8000 | Disturbance @10% = 3000 |
| Economic trees: | Economic trees: |
| i.1Mango @ 2,500/a x 20=50,000 | i.1 Neam – 1,500/a x 20 = 30,000 |
| ii.1Dorawa @ 2,000/a x 20 = 40,000 | ii.1Dorawa – 2000/a x 20 = 40,000 |
| iii. 1Shea butter @ 5000/a x 20 = 55,000 | Crops: |
| Crops: | 2 Bags of maize @5000/bag = 10,000 |
| 4 Bag of G/corn @ 9000/bag = 36,000 | **Compensation Value=₦113,000** |
| **Compensation Value=₦269,000** | |
| **Claimant 3** | **Claimant 4** |
| Land size –1 Hect.= 400,000 | Land size 1.2 Hect. = 480,000 |
| Disturbance @10% = 40,000 | Disturbance @10% = 48000 |
| Economic trees: | Economic trees: |
| i.4 Mango @ 3,125/a x 20 = 250,000 | i.2 Dorawa @4000/a x 20 = 80,000 |
| ii. 2 Mango @ 4,000/a x 20 = 80,000 | ii.3 Mango @2,500/a x 20 = 150,000 |
| iii.7 Cashew @ 1,964/a x 20 = 275,000 | iii.1 Mango @2,250/a x 20 = 45,000 |
| iv. 15 Cashew @ 1200/a x 20 =300,000 | iv.3 Shear but @1,950/a x 20 = 117,000 |
| Crops- | v.2 Cashew @2,750/a x 20 = 110,000 |
| 3 Bags of corn @5000/bag =15,000 | vi.1 Cashew @1,650/a x 20 = 33,000 |
| **Compensation Value=₦1,360,000** | **Compensation Value=₦1,063,000** |
| **Claimant 5…….** | **……Claimant 72** |
| Land size0.135Hect.= 54,000 | Land size - 0.325 Hect.= 130,000 |
| Disturbance @10% = 5,400 | Disturbance @10% = 13,000 |
| Economic trees: | Crops: |
| i.2 Mango @1,500/ax 20 = 100,000 | 6 Bags of G/Nuts @8000/bag = 48,000 |
| ii.3 Shear butter @2,750/ax 20 = 165,000 | **Compensation Value = ₦191,000** |
| iii.1 Dadawa@ 6,000/a x 20 = 120,000 | |
| Crops: | |
| 2 Bags of maize @5000/bag = 10,000 | |
| **Compensation Value = N454,400** | |

Analysis of variance (ANOVA) was employed to test if there was no significant difference within the values arrived at using the existing method (negotiation), legal provisions and international standard practice.

**RESULTS AND DISCUSSION**

Table 4 shows the demographic/socioeconomic information of the claimants assessed for analysis in the study areas. The majority (70.83%) of the

claimants' age were in the age bracket of 61-70 years, followed by the age bracket of 51-60 years22.22%, while the 41-50 years age bracket was 6.94%. These showed that the respondents were of age and could adequately respond to questions affecting them. Also, analysis of the years of residing in the study area revealed that all the respondents have stayed in the study area for over 31 years, thus, long enough to provide answers to research enquiries on their land.

**Table 4: Demographic/Social Economic Background of the Claimants**

| Ages of Respondents | | % |
|---|---|---|
| Below 30 years | 0 | 0 |
| 30-40 years | 0 | 0 |
| 41-50 years | 5 | 6.94 |
| 51-60 years | 16 | 22.22 |
| 61-70 years | 51 | 70.83 |
| **Educational Levels of Respondents** | | |
| Islamic education | 56 | 77.78 |
| Primary education | 16 | 22.22 |
| Secondary education | 0 | 0 |
| Tertiary education | 0 | 0 |
| **Occupational status of respondents** | | |
| Civil servant | 0 | 0 |
| Trader | 0 | 0 |
| Farmer | 69 | 95.83 |
| Miner | 0 | 0 |
| Retiree | 0 | 0 |
| Others | 3 | 4.17 |
| **Years of residing in the mining area** | | |
| Below 11 years | 0 | 0 |
| 11-20 years | 0 | 0 |
| 21-30 years | 0 | 0 |
| 31-40 years | 2 | 2.77 |
| 41-50 years | 21 | 29.16 |
| 50 years above | 49 | 68.05 |

**Compensation Values Using Existing Practice, Legal Provisions and International Standard Practice**

Data on existing practice (Negotiation) was obtained directly from the individual claimants in the study area, while computation based on criteria in the legal provisions (NMM Act 2007) and international standard practice (World Bank Operational Policy 4.12) were carried out to arrive at the values due to each claimants and values summary presented in Table 5.

Table 5 revealed that claimant 1 was paid N65,000 while the calculated amount by legal provision and international best practice is N110,000 and N269,000 respectively. Claimant 2 received N15,000 as compensation based on existing practice while the calculated amount using legal provisions and international best standards are N44,000 and N113,000 respectively. Also, claimant 6 was paid N68,000 as compensation amount while the calculated amount by legal provision and international best practice is N110,000 and N336,000. This showed that the application of different standards and methods of valuations resulted in discrepancies in compensation values of the same interest in land. This revelation is in tandem with the study of Kakulu (2008) which showed that the application of multiple standards, procedures and methods of valuation results in alarmingly wide discrepancies in compensation values over the same interest in land. Also, the study revealed that the amount paid by the negotiation method is lower compared to the calculated amount by legal provisions and international best standards. Therefore, the negotiated amount paid to the claimants in the study areas was inadequate compared to what it would have been if legal provisions or international best standard was applied. This finding is in tandem with the finding of Akujuru and Ruddock (2014) that land owners were paid compensations that did not meet the minimum standard of equivalence as the compensation they were paid fell far short of both legal provision and international standard best practice.

**Table 5: Summary of Values of Existing Practice, Legal Provision and International Standard**

| Claimants | Existing (Negotiated) ₦ * | Legal Provisions (Mineral Act) ₦ ** | International Standard Practice (World Bank OP4.12) ₦ ** |
|---|---|---|---|
| 1 | 65,000 | 110,000 | 269,000 |
| 2 | 15,000 | 44,000 | 113,000 |
| 3 | 160,000 | 501,000 | 1,360,000 |
| 4 | 200,000 | 577,500 | 1,063,000 |
| 5 | 65,000 | 107,000 | 454,400 |
| 6 | 68,000 | 110,000 | 336,600 |
| 7 | 70,000 | 170,380 | 327,068 |
| 8 | 20,000 | 40,000 | 44,000 |
| 9 | 25,000 | 50,000 | 114,000 |
| 10 | 20,000 | 30,000 | 65,000 |
| 11 | 80,000 | 190,000 | 419,000 |
| 12 | 65,000 | 220,000 | 370,000 |
| 13 | 95,000 | 278,000 | 326,000 |
| 14 | 120,000 | 275,000 | 698,800 |
| 15 | 60,000 | 146,000 | 423,200 |
| 16 | 60,000 | 140,000 | 397,000 |
| 17 | 200,000 | 484,000 | 1,337,600 |
| 18 | 80,000 | 243,000 | 1,160,800 |
| 19 | 80,000 | 130,000 | 191,000 |
| 20 | 40,000 | 91,000 | 234,120 |
| 21 | 100,000 | 212,000 | 467,200 |
| 22 | 92,000 | 254,000 | 1,002,400 |
| 23 | 30,000 | 56,000 | 149,600 |
| 24 | 85,000 | 190,000 | 460,000 |
| 25 | 80,000 | 199,200 | 489,120 |
| 26 | 160,000 | 501,000 | 1,360,000 |
| 27 | 120,000 | 212,000 | 467,200 |
| 28 | 65,000 | 220,000 | 370,000 |
| 29 | 90,000 | 278,000 | 326,000 |
| 30 | 140,000 | 212,000 | 467,200 |
| 31 | 68,000 | 110,000 | 336,600 |
| 32 | 60,000 | 130,000 | 191,000 |
| 33 | 40,000 | 91,000 | 234,120 |
| 34 | 80,000 | 190,000 | 460,000 |
| 35 | 100,000 | 199,200 | 489,120 |
| 36 | 90,000 | 190,000 | 460,000 |
| 37 | 20,000 | 40,000 | 44,000 |
| 38 | 75,000 | 146,000 | 423,200 |
| 39 | 120,000 | 212,000 | 467,200 |
| 40 | 98,000 | 190,000 | 460,000 |
| 41 | 175,000 | 484,000 | 1,337,600 |
| 42 | 55,000 | 91,000 | 234,120 |
| 43 | 36,500 | 56,000 | 149,600 |
| 44 | 32,000 | 50,000 | 114,000 |
| 45 | 80,000 | 107,000 | 454,400 |
| 46 | 43,000 | 56,000 | 149,600 |
| 47 | 115,000 | 254,000 | 1,002,400 |
| 48 | 225,000 | 484,000 | 1,337,600 |
| 49 | 220,000 | 501,000 | 1,360,000 |
| 50 | 80,000 | 110,000 | 336,600 |
| 51 | 90,000 | 278,000 | 326,000 |

| | | | |
|---|---|---|---|
| 52 | 85,000 | 220,000 | 370,000 |
| 53 | 110,000 | 254,000 | 1,002,400 |
| 54 | 80,000 | 278,000 | 326,000 |
| 55 | 30,000 | 91,000 | 234,120 |
| 56 | 170,000 | 275,000 | 698,800 |
| 57 | 230,000 | 577,500 | 1,063,000 |
| 58 | 95,000 | 190,000 | 460,000 |
| 59 | 90,000 | 243,000 | 1,160,800 |
| 60 | 90,000 | 199,200 | 489,120 |
| 61 | 72,000 | 146,000 | 423,200 |
| 62 | 80,000 | 243,000 | 1,160,800 |
| 63 | 95,000 | 278,000 | 326,000 |
| 64 | 80,000 | 220,000 | 370,000 |
| 65 | 100,000 | 275,000 | 698,800 |
| 66 | 90,000 | 170,000 | 327,068 |
| 67 | 85,000 | 140,000 | 397,000 |
| 68 | 80,000 | 110,000 | 336,600 |
| 69 | 75,000 | 146,000 | 423,200 |
| 70 | 110,000 | 243,000 | 1,160,800 |
| 71 | 100,000 | 278,000 | 326,000 |
| 72 | 75,000 | 130,000 | 191,000 |

Source: * Field survey, 2023; **Calculated

**Analysis of Variance (ANOVA)**

Furthermore, the study conducted an ANOVA to examine whether the differences in compensation values based on the three methods: existing practice, legal provisions, and international standard practice are significant.

The ANOVA results indicated that there is a significant difference in the compensation values obtained using the three approaches. {F (21) = 32.986, $p < 0.05$; F (50) =14659.2, $p < 0$ .05; F (71) = 2475.276, $p < 0.05$}. Since each of the three methods (negotiation, legal provisions and international standard practice) has a p-value of 0.000 which is less than 0.05 ($p < 0.05$), therefore, there is a significant difference within the compensation values obtained using existing practice, legal provisions and international best standard. This finding is in agreement with the study of Amaechi and Ifeanyi (2019) where it was noted that the practices of compensation assessment in Nigeria were not consistent with the global best practice even when they were made in line with the guiding laws.

**Table 6: One-way ANOVA test of significant difference**

| Variable | Df | F | P-value | Decision |
|---|---|---|---|---|
| Existing practice (Negotiation) | 21 | 32.986 | 0.000 | Significant |
| Legal provisions | 50 | 14659.2 | 0.000 | Significant |
| International standard practice | 71 | 2475.276 | 0.000 | Significant |

**CONCLUSION**

The study concludes that there are variations between the values of compensation paid to the claimants through negotiation and the values of compensation arrived at using the legal provisions and international standard best practices in the study areas. Thus, the current compensation practices in the study areas do not align with fair and just compensation principles thus, leaving claimants financially short changed and disadvantaged. The implication is that land owners were paid compensations that do not meet the minimum standard of equivalence. There were differences in the amount paid as compensation (by negotiation) compare to what the claimants were supposed to be paid under the legal provisions and international best practice. The study recommends that claimants should engage professionals such as Estate Surveyors and Valuers to value their land before going in for negotiation as this will give them a base on which to leverage their negotiation.

**REFERENCES**


Abdulazeez, H.O. (2023). *Assessment of Compensation Valuation for Mineral Land in Kebbi State, Nigeria.* Unpublished PhD thesis in the Department of Estate Management, Federal University of Technology Akure.

Abubakar, M.Y**.,** Zankan, J.A.A. & Isah, M. N. (2020). Impact of Small Scale Mining on Rural Livelihoods in Some Parts of Yauri and Fakai Local Government Areas of Kebbi State, Nigeria. *Scientific Research Journal (SCIRJ), viii(iv) 106 -119.*

Adegoke, O.J. (2016). Effects of Valuation Variance and Inaccuracy on Nigerian Commercial Property Market: An Empirical Study. *Journal of Property Investment and Finance, 34*(3), 276-292.

Akujuru, V. A. (2005). Determining the Value of an Oil/Gas Bearing Land for Compensation in a Deregulated Economy: Being a paper presented at the 35th Annual Conference of the Nigerian Institution of Estate Surveyors and Valuers –Oil Cities 2005, Port Harcourt River State.

Akujuru, V.A. & Baridoma, M.B. (2007). Determinating the Value of an Oil/Gas Bearing Land for Compensation in a Deregulated Economy: *Journal of Nigerian Environmental Society (JNES)*, 4(1), 100 -112

Akujuru, V. A. & Ruddock, L. (2015). Dichotomizing Compulsory Land Acquisition and Land Contamination Valuations. *International Journal of Disaster Resilience in the Built Environment,* (3), 268-288.

Alias A. & Daud M. D. N. (2016) Payment of Adequate Compensation for Land Acquisition in Malaysia. *Pacific Rim Property Research Journal*, 12(3), 326-349

Amponah, E., Halvitigala, D., Hwang, H. & Eves,C. (2023). Compensation for farms compulsorily acquired for mining in Ghana: an analysis of the laws, compensation practices and valuation methods. *Property Management*, 41(2), 244 - 260 https://doi.org/10.1108/PM-06-2022-0042

Asian Development Bank (ADB) (2007). Capacity Building for Resettlement Risk Management Compensation and Valuation in Resettlement: Cambodia, People's Republic of China, and India. Rural Development Institute.

Australian Property Institute& New Zealand Institute of Valuers' Guidance Paper (ANZVGP, 2021). Valuations for Compensation and Compulsory Acquisitionshttps://propertyinstitute.org.nz

Awudi G.B.K. (2002). The role of Foreign Direct Investment (FDI) in the mining sector of Ghana and the environment. A paper presented at the conference on Foreign Direct Investment and the Environment http://www.oecd.org/dataoecd/44/12/1819492

Ayitey, J.Z., Kidido, J.K. & Tudzi, E.P. (2011). Compensation for land use deprivation in mining communities, the law and the practice: case study of Newmont Gold Ghana Limited. *The Surveyor Journal of Ghana Institution of Surveyors,* 4(1), 32–40.

Belachew, Y.A. (2013). *Expropriation, Valuation and Compensation in Ethiopia*. Unpublished PhD thesis in Real Estate Planning and Land Law, Department of Real Estate and Construction Management, Royal Institute of Technology (KTH) Stockholm, Sweden.

Bello, V.A. & Thomas, O.J. (2015). Valuation Variance in the Commercial Property Market in Lagos, Nigeria. *International Journal of Investment Management and Financial Innovations*, 1(4), 105-110.

Bello, N. A. & Olanrele, O.O. (2016). Value gap in Nigerian property compensation practice: measurement and economic effects. *Pacific Rim Property Research Journal*.

Chang, Y. C. (2011). An Empirical Study of Court-Adjudicated Takings Compensation in New York City: 1990– 2003. *Journal of Empirical Legal Studies,* 8(2), 384-412.

Fekumo, J.F. (2001) *Oil Pollution and the Problems of Compensation in Nigeria.* Port Harcourt: F&F Publishers

Gilbert, J. E., Gilbertson, T. & Jakobsen, L. (2021) Incommensurability and corporate social technologies: a critique of corporate compensations in Colombia's coal mining region of La Guajira. *Journal of Political Ecology,* 28, 435-452

Gilbertson, L. T. (2020). *Compensating for Development at the In-between and Edges of Extractive Capitalism: Socio-nature and Cultural Erasure in the Northeast Caribbean Colombian Coal Mining Region*. Unpublished PhD dissertation, University of Tennessee, Knoxville.

Holtslag-Broekhof, S., Beunen, R., Marwijk, R.V. & Wiskerke, J.S. (2018). Exploring the valuation of compulsory purchase compensation. *Journal of European Real Estate Research,* .https://doi.org/10.1108/JERER-04-2016-0018

Hordijk, A. & Van De Ridder, W. (2005), Valuation Model Uniformity and Consistency in Real Estate Indices: The Case of The Netherlands. *Journal of Property Investment & Finance*, 23(2), 165-181 https://doi.org/10.1108/14635780510584355

Ige, V.& Oladapo, R.A. (2018). Valuation in compensation for compulsory property acquisition: Ondo State, Nigeria experience. *Pacific Rim Property Research Journal*, 24(11), 1-10.

JerryDeebom, Z. & Kakulu, I.I. (2021). Challenges Associated with the Valuation of Damaged Farmland for Compensation. *American Journal of Humanities and Social Sciences Research*, 5(3), 351-356

John, T.B. & Samuel, K. (2018). Dynamics of community perceptions, common resources and compensation practices in mining: the case of Newmont Ghana Gold Ltd at Ahafo. *International Journal of the Commons*, 12(1), 1-25.

Kakulu, I. I. (2008). The assessment of compensation in compulsory acquisition of oil and gas bearing lands: The Niger Delta experience. *Land reform / refomeagraire / reformaagraria*, (1), 57-65

Kidido, J.K., Ayitey, J.Z., Kuusaana, E.D. & Gavu, E.K. (2015). Who is the rightful recipient of mining compensation for land use deprivation in Ghana? *Resources Policy*, 43, 19-27.

Lugoe, F. (2012). Governance in Mining Areas in Tanzania with Special Reference to Land Issues. *ESRF Discussion Paper* No. 41

Nasir, A.M. (2016). Valuation Variance of Commercial Properties in Malaysia. *Pacific Rim Property Research Journal*, 12(3), 272-282. DOI:10.1080/14445921.2006.11104210

Nordhaus, W.D. & Kokkelenberg, E.C. (1999). *Nature's Numbers: Expanding the National Economic Accounts to include the Environment*. Washington D.C: National Academy Press

Okolo, C.Y., Udoekanem, N.B. & Nuhu, M.B. (2020). Assessment of Variation in Oil Spill Compensation Valuations in Rivers State, Nigeria. *Centre for Human Settlements and Urban Development Journal*, 8(1), 58-67.

Oladapo, R.A. & Ige, V. (2014). Assessment of Claimants' Satisfaction to Variation in Compensation Paid for Compulsory Land Acquisition in Ondo State, Nigeria. *FIG Congress*. Engaging the Challenges – Enhancing the Relevance Kuala Lumpur, Malaysia 16-21

Oludayo, G.A. (2011). Compensation for compulsory acquisition of land for mining activities in Nigeria. *Essays in African Land Law*, 171-190

Olukolajo, M.A. (2019). Causes of Discrepancies in Value Estimates on Compensation for Oil Spill Damages in the Niger Delta. *Journal of African Real Estate Research*, 4(2), 42-55.

Omotola, J.A. (1984). *Essay on Land Use Act*. Lagos: Lagos University Press

Otubu, A.K. (2012). Private Property Rights and Compulsory Acquisition Process in Nigeria: The Past, Present and Future. *ACTA Universitatis Danubius*, 8(3), 5-29

Otubu, A. K. (2014). Compulsory Acquisition without Compensation and the Land Use Act. http://dx.doi.org/10.2139/ssrn.2420039

Partson, P., Joseph, A.Y. & Benita, Z. (2021). Consistency and Fairness of Property Valuation for Compensation for Land and Improvements in Zimbabwe. *Sciendo Real Estate Management and Valuation*, 29(4), 67-84.

Sani, G. D., Danladi, B. S., Abdulrasheed, M., Lawali, S. & Birnin-Tudu, A.M. (2019). Identification of Mineral Deposits in Garin Awwal Mining Site, Kebbi State, North-Western Nigeria. *Journal of Multidisciplinary Engineering Science and Technology (JMEST)*, 6(6), 10276 -10280.

Twerefou, D.K. & Ayimpusah, E.A. (2021). The Quest for Fairness: An Empirical Examination of the Determinants of Compensation Satisfaction in Ghanaian Mining Communities. *Studies of Applied Economics*, 39(3) DOI: http://dx.doi.org/10.25115/eea.v39i3.4668

Uche, C. & Khalid, S. (2022). The effect of organized hypocrisy: compensation committees and fair compensation in the Ghanaian mining industry. *Critical Perspectives on Accounting*, 102509 https://doi.org/10.1016/j.cpa.2022.102509

Udoekanem, N.B. (2013). Effect of land policy on compensation for environmental damage caused by Gas flare in the Niger Delta region of Nigeria. *Ethiopian Journal of Environmental Studies and Management*, 6(2), 170-176.

Udu, R.K. (1991). *Geographical Regions of Nigeria*. Ibadan: Longman Ltd.

APPENDIX A

## FARM LANDCOMPENSATION IN KEBBI STATE (2022)

| S/No | LOCATION OF LAND | CURRENT RATES PER HECTARE (2022) |
|---|---|---|
| 1. | B/kebbi | # 1,000,000:00 |
| 2. | Argungu, Jega, Yauri, Koko & Zuru | # 700,000:00 |
| 3. | Other urban center Include Kalgo, Bunza, Kangiwa, Kamba etc. | # 500,000:00 |
| 4. | Rural areas | # 400,000:00 |
| 5. | Fadama land | # 500,000:00 |

**APPENDIX B**

## ECONOMI TREES COMPENSATION RATES- (2022)

| S/N | BOTANICAL NAME | HAUSA NAME | LESS THEN TEN (10) YRS | OVER TEN (10 )YRS |
|---|---|---|---|---|
| 1. | Mangi Fera Indica | Mangoro | 4,500:00 | 10,000:00 |
| 2. | Ctrust SPP | Lemu | 2,500:00 | 10,000:00 |
| 3. | Psidium Guava | Gwiba | 1,500:00 | 6,000:00 |
| 4. | Parkia Biglobosa Dorawa | Dorawa | 4,000:00 | 10,000:00 |
| 5. | Vitellaria Paradoxum | Kade S Butter | 4,000:00 | 10,000.00 |
| 6. | Termirindus Indica | Tsamiya | 2,500:00 | 10,000:00 |
| 7. | Craica Papaya | Gwanda | 300:00 | 8,000:00 |
| 8. | Vitex Dobiana | Dunya | 800:00 | 2,000:00 |
| 9. | Adansonia Digitata | Kuka | 2,000:00 | 4,000:00 |
| 10 | Annacarium Ocidentale | Kashu | 3,000:00 | 10,000:00 |
| 11. | Faidahabia Albida | Gawo | 1,000:00 | 8,000:00 |
| 12. | Azadirachta Indica | Neem | 1,800:00 | 4,000:00 |
| 13. | Kyanya Senegalenesis | Madaci | 2,800:00 | 6,000:00 |
| 14. | Isoberlinia doka | Doko | 2,500:00 | 8,000:00 |
| 15. | Eucalyptus SPP | Zaiti | 800:00 | 6,000:00 |
| 16. | Acacia Nilotika | Bagaruwa | 800:00 | 3,000:00 |
| 17 | Gmelina Arborrea | Malina | 1,800:00 | 4,000:00 |
| 18. | Meringa Oliefera | Zogala | 300:00 | 2,000:00 |
| 19. | Budden Mango | Mango-Aure | 4,000:00 | 12,000:00 |
| 20. | Diopyros Mespiliformis | Kaiwa | 800:00 | 4,000:00 |
| 21. | Prosopis a Africana | Kirya | 1,500:00 | 4,000:00 |
| 22. | Anegeissus I Eicarpus | Marke | 1,000:00 | 3,000:00 |
| 23. | Balanites a egytiaca | Aduwa | 800:00 | 2,000:00 |
| 24. | Acacia Senagal | Dakwara | 2,000:00 | 5,000:00 |
| 25. | Ceiba Petendra | Rimi | 3,000:00 | 8,000:00 |
| 26. | Ficus SPP | Durimi | 500:00 | 2,000:00 |
| 27. | Borossus aethiopun | Giginya | 2,000:00 | 8,000:00 |
| 28. | Hyphenate thebiaca | Kwakar manja | 500:00 | 2,000:00 |
| 29. | Elaiis guineenis | Goriba | 1,000:00 | 3,000:00 |
| 30. | Detarium Segalnsis | Taura | 400:00 | 2,000:00 |
| 31. | Lauciania innermis | Lalle | 400:00 | 2,000:00 |
| 32. | Phonix declinate | Dabino | 5,000:00 | 12,000:00 |
| 33. | Deniellia oliveri | Maje | 1,500:00 | 4,000:00 |
| 34. | Musa capensis | Ayaba | 800:00 | 5,000:00 |
| 35. | Bitter leaf | Shuwaka | 500:00 | 2,000:00 |