The Role of the Land Surveyor in Land Acquisition and Compensation – A Case Study of the Tarkwa Mining Communities, Ghana

Naa Dedei TAGOE, Saviour MANTEY, Stephen ADJEI, Michael Soakodan ADUAH and Edward Attimo Amihyiah KWESI, Ghana

Key words: Crop Compensation, Crop Identification Map, Land Surveyor, Minerals and Mining Act, AngloGold Ashanti Iduapriem Limited

SUMMARY

Land acquisition for mining activities often results in either displacing people economically (Economic displacement) or physically (Physical displacement) and in either way, compensation of affected persons is required. Major challenges faced by mining companies in Tarkwa and its environs are to ensure peaceful negotiation for land acquisition and prompt payment of fair and adequate compensation in consonance with relevant articles of the 1992 Constitution of Ghana and the Minerals and Mining Act 2006 (Act 703).

The paper discusses the procedure for Crop Compensation carried out by these mining companies, using AngloGold Ashanti Iduapriem Limited as a case study. Farmers are compensated an appropriate amount of cash for destruction of their crops. Crops compensation rates are calculated to reflect current markets prices, cost of production and other biological and chemical factors including maturity of the crop, state of the farm and life expectancy of the asset.

The paper focuses on the role of the Land Surveyor in the Crop Compensation Procedure: - the Land Surveyor accurately surveys the farm, plots the farm polygons and generates an undisputable farm map which is otherwise known as crop identification map and assists in locating farms on the ground and translates that unto the concession map. The paper further discusses activities of Land Surveyors that usually threaten the Crop Compensation Procedure.

The paper concludes by challenging Land Surveyors to adhere to code of ethics as regulated by Ghana Institution of Surveyors (GhIS). Land Surveyors in Ghana have the opportunity to educate themselves well on both the statutory and customary tenure systems by taking advantage of the Continuing Professional Development (CPD) program organized by the Institution. Mining companies are also charged with the key responsibility of employing the services of Land Surveyors recognized by the Institution.
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1. INTRODUCTION

Land as an invaluable asset, plays a pivotal role in the sustenance and socio-economic developments of every nation and its people. Land acquisition for mining activities often results in either displacing people economically or physically and in either way requires compensation for the affected persons. Crop (Economic displacement) and structural (Physical displacement) compensation are the two main types of compensation carried out by mining companies. With crop compensation, farmers are compensated an appropriate amount of cash for destruction of their crops, while structural compensation leads to resettlement of affected people. The paper therefore seeks to highlights the role of the surveyor in crop compensation.

In Ghana, land is owned predominantly by customary authorities (stools, skins, clans and families). According to Larbi et al. (2004), there are principally three major types of land ownership, namely state land, vested land and customary land with the latter forming about 70% of the land in Ghana. Customary land is held in trust for the land owners by traditional authorities. These traditional authorities allocate land to families and individuals for cultivation and habitation using their discretion. The land is generally not deeded to an individual; such land remains within the family through inheritance. In developing a compensation program, therefore, land use rights become important criteria. The major economic activity in Tarkwa and its environs is farming. Farmers cultivate both cash crops like cocoa and citrus and food crops like maize and cassava. A farmer may either be a landlord or a tenant. A landlord holds exclusive rights to use or dispose of use rights to land. A tenant, on the other hand, is an individual or a household who has come to a private agreement with a landlord for use rights of a parcel of land. There are two types of tenants: sharecroppers and caretakers. Sharecropping (the ‘abunu’/’abusa’ system) is a specific type of land tenancy in which the landlord extends farming rights to a specific parcel of land for an agreed upon period of time. The revenue from sharecropping is distributed between the tenant and landlord depending on the type of crop harvested. A caretaker is employed to tend a particular field (e.g., a cocoa farm) and in exchange receives a share of the proceeds from the sale of crops, typically a one-third share (Anon, 2005).

The issues of land acquisition and compensation in Ghana and other African countries such as Nigeria and Malawi have been fairly documented. A regularized and proper coordination of land ownership based on customary tenure systems with proper boundary demarcation and registration of land rights, will provide a conducive socio-economic environment for investors, businesses, governments and society at large in order to attract both local and foreign investors (Arko-Advie et al., 2005; Dotse, 2003; Toulmin and Quan, 2000; Larsson, 1991, Kwesi et al., 2011). This in the long term reduces poverty and enhances sustainable development in the communities.
2. LEGISLATIVE FRAMEWORK FOR MINING IN GHANA

The legislative framework for mining in Ghana is the Minerals and Mining Act, 2006. According to Article 74(1) of the Minerals and Mining Act, a mineral rights holder must compensate for any disturbance to the rights of owners or lawful occupier for:

- deprivation of the use or a particular use of the natural surface of the land or part of the land,
- loss of or damage to immovable properties,
- 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,
- loss of expected income, depending on the nature of crops on the land and their life expectancy, but claim for compensation lies, whether under this Act or otherwise
- in consideration for permitting entry to the land for mineral operations,
- in respect of the value of a mineral in, on or under the surface of the land, or
- for loss of damage for which compensation cannot be assessed according to legal principles in monetary terms.

Again, the Minerals and Mining Act 2006 makes it clear in Article 73(3) that the amount of compensation payable shall be determined by agreement between the parties (affected farmers, representative of the affected farmer, mining company and local traditional and political leaders). 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 sector minister who shall, in consultation with the Government agency responsible for land valuation and subject to this Act, determine the compensation payable by the holder of the mineral right. The Minerals and Mining Act 2006 however is not clear on compensation for the land itself.

The Minerals and Mining Act 2006 further states in Article 73(2) that in making a determination of amount of compensation payable, the provisions of Article 20(2)(a) of the Constitution of Ghana which guarantees the prompt payment of fair and adequate compensation, in the case of compulsory acquisition of property shall be observed.

To enhance peaceful negotiation in the compensation process, Article 72(5) of the Minerals and Mining Act, 2006 states that the owner of a mining lease shall, in the presence of the owner or lawful occupier or accredited representative of the owner or lawful occupier of land, the subject of a mining lease and in the presence of an officer of the Government agency responsible for land valuation carry out a survey of the crops and produce a crop identification map for the compensation in the event that mining activities are extended to the areas.

AngloGold Ashanti Iduapriem Limited like many mining companies in Tarkwa and its environs adheres to the Ghanaian legislation on compensation to show their commitment to social responsibility in the mineral exploration process.

3. CROP COMPENSATION PROCEDURE OF ANGLOGOLD ASHANTI IDUAPRIEM LIMITED

The main indicators for compensation are: crop rate and crop assessment methods. Crop rates are determined and reviewed annually or as and when needed by the Crop Compensation Committee. The Committee negotiates crops rates to reflect:

- Current markets prices
Cost of production
Other biological and chemical factors including: maturity of the crop, state of the farm and life expectancy of the asset (e.g. matured crops, seedlings).

There are two main types of crop assessment methods; the Head Count Method/Tree Counting Method and the Acreage Method. Each method has its strengths and weaknesses. In most cases, farmers in the Tarkwa mining area as well as the mining companies prefer the Acreage method on account of its speed. The method also encourages good planting practices as recommended by the Ministry of Agriculture. The Head Count Method/Tree Counting Method on the other hand is time consuming, as each tree will be countered and it encourages unethical planting. Additionally, there are difficulties in assessing farms where the planting density do not follow acceptable procedure.

The Crop Compensation Procedure adopted by AngloGold Ashanti Iduapriem Limited allows the company to track the number of farmers affected each year in a specified area. Appendix 1 illustrates the Compensation Procedure Framework of the Company. A summary of the procedure is as follows:

- Informing farmers and community to be affected,
- Forming Compensation Committee to assist in determining crop rate and other modalities,
- Demarcating farm boundary by the affected farmers,
- Carrying out Farm Survey(to produce a crop identification map) and Crop Assessment in the presence the affected farmer or their nominated representative,
- Issuing the Crop Compensation Chit to the farmer; the chit is the written record of the crop inventory indicating farmer’s satisfaction with the type, number and age of crops.
- Preparing Claim Forms for endorsement by affected farmer,
- Endorsing and processing the Claim Forms using annual agreed upon rates, calculated for each affected farmer. Appendix 2 and 3 show samples of Claim Forms and Crop Compensation Report respectively.
- Issuing a cheque to the affected farmer.

Some notable challenges associated with crop compensation are:

- Some farmers take the compensation but still remain/farm on the land,
- Law suits occur from time to time due to multiple ownership and claims for the same piece of land.
- Individual land owners and the communities appear not to be thoroughly satisfied because the Minerals and Mining Act 2006 seems not to have directly addressed the issue of compensation for the land itself. This contributes to community dissatisfaction and disputes over land ownership.

4. THE ROLE OF THE LAND SURVEYOR IN CROP COMPENSATION

The major challenges faced by mining companies is to ensure peaceful negotiation for land acquisition and prompt payment of fair and adequate compensation in consonance with relevant articles (Article 20(2)(a)) of the 1992 Constitution of Ghana and (Article 72 (5) Article 73 (2), Article 73 (3) and Article 74 (1)) of the Minerals and Mining Act 2006. In land acquisition and compensation activities, two things are critical and relevant:

- Measurement of affected farm or area to be affected or taken and
- Assessment of the property or area to be affected.

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Rome, Italy, 6-10 May 2012
Land Surveyors are responsible for making accurate measurement of the affected farms whereas Land Valuers handle assessment of the value of affected farms. The role of the Land Valuer is, however, not discussed in this paper. It is important to mention that, the role of Land Surveyor starts from reconnaissance (Prospecting) through to mining and to closure. Land Surveyors delineate the boundaries or space required for the mining activity and also shows the location or position of field to be affected or taken. This in principle shows that the role of Land Surveyor is critical for land acquisition and its subsequent activities including compensation. The role of Land Surveyors in crop compensation is to accurately survey the farm, plot the farm polygon and generate an undisputable farm map which is otherwise known as crop identification map. They also assist locate farms on the ground and translate that unto the concession map. Locating farmers who have been compensated and those who are yet to be compensated on the concession map helps the compensation officer to advice management on land acquisition and compensation issues.

The Crop Compensation Committee of AngloGold Ashanti Iduapriem Limited usually consists of the: affected farmer, affected farmer’s representative, chief farmers, local chief representative, representative of Land Commission and AngloGold Ashanti Iduapriem Limited and an independent Land Surveyor. Activities of Land Surveyors that usually threaten the compensation activities particularly in the mining industry are:

- Some Land Surveyors may connive with community members to farm ahead in areas planned for future explorations,
- It is possible for some Land Surveyors to falsify the results of their surveys with regard to the area of the farms or the numbers of counted crop-trees,
- Also, errors may be unwittingly made by some Land Surveyors in some farm surveys leading to conflicts and,
- Crucially, Land Surveyors who do not have an understanding of local customs and nuances stand the risk of antagonizing and alienating the very people he should cooperate with in order to perform his duties.

4.1. Proposed Mitigation Plan

In Ghana, the Land Survey Profession is governed by the Ghana Institution of Surveyors (GhIS). The Institution can only monitor the affairs of its members; hence the various mining companies have a duty to hire the services of a qualified Land Surveyors. Pursuant to Article 18 of the Constitution, 2007, section II (2) of the GhIS code of ethics Continuing Professional Development (CPD) is defined as the systematic maintenance, improvement and broadening of personal qualities necessary for the execution of professional and technical duties throughout the practitioner’s working life. It also states under section II (1) that every Fellow, Professional Member and Technician Member of the Institution shall, so long as he remains a Member, undergo in each year Continuing Professional development (CPD) and shall from time to time provide the Institution such evidence that he has done so as provided by these Regulation. The GhIS code of ethics therefore ensures that Land Surveyors work with utmost professionalism, accuracy and clarity.
5. CONCLUSIONS AND RECOMMENDATION

The role of the Land Surveyor in peaceful negotiation of land acquisition for mining activities and prompt payment of fair and adequate crop compensation has been elaborated. In AngloGold Ashanti Iduapriem Limited, farmers are compensated an appropriate amount of cash for destruction of their crops. Crops compensation rates are calculated to reflect current markets prices, cost of production and other biological and chemical factors including maturity of the crop, state of the farm and life expectancy of the asset.

Land Surveyors are entreated to work with utmost professionalism, accuracy and clarity. The paper further recommends Surveyors to take advantage of the Continuing Professional Development (CPD) program organized by the Ghana Institution of Surveyors (GhIS) as it offers them the opportunity to educate themselves on both the statutory and customary tenure systems as well as improves their communication skills in dealing with indigenous people at the community level. Mining companies in Ghana have a key responsibility to hire the services of a qualified Land Surveyor to deal with compensation task.

REFERENCES

APPENDICES
Appendix 1: Crop Compensation Procedure Framework for AngloGold Ashanti Iduapriem Limited

ANGLO GOLD ASHANTI IDUAPRIEM LIMITED
COMPENSATION PROCEDURE FRAMEWORK

INITIATING DEPARTMENT
Inform Head of Community and Public Relations of the area to be compensated. (At least 2 months notice should be given to his office)

Compensation Office/Survey Section
Undertake reconnaissance survey of the area to be compensated with the view to estimating both the financial and social cost of the area to be compensated within 2 weeks

Compensation Office
Summit detailed report to Head of Community and Public Relations who will also inform management of the financial and social cost of the area to be compensated for advice and approval

Management
Assess whether benefits outweigh costs?

Not Viable
(No)

YES-Viable

Compensation Office
Meet with all relevant stakeholders including the Land Valuation Board and Representative from the Municipal Assembly to inform them of take-over and to arrive at a consensus on the modus operandi for the compensation exercise including placing a restriction on all developments in the area to be compensated.

Compensation Office
1. Negotiate crop/structure rates with farmers with the assistance of the independent Valuer and Chief farmer of the area

NO

YES

Compensation Office
Consult Municipal Assembly to assist in reaching agreement with farmers

Compensation Office
Consult Western Regional Minister to assist in reaching agreement with farmers

Compensation Office
Consult Municipal Assembly to assist in reaching agreement with farmers

Compensation Office
Sign Memorandum of Understanding (MOU) with affected farmers on rates and other issues agreed upon

Compensation Office
1. Conduct an Enumeration Team (including Compensation Officer, Surveyor, Independent Valuer, Land Valuation Board, Municipal/ District Assembly, Affected Stool, Affected Community and Affected farmers)
2. Undertake enumeration exercise
3. Validate numbers/acreages of crops and square footages/materials of structures in the presence of the Enumeration Team on the property/field
4. Compute the amount of compensation to be paid to each farmer based on the results of the enumeration exercise and the agreed rates
5. Document to be signed by representatives of all stakeholders

Compensation Office
1. Organize financial management training for the farmers with assistance from the Municipal Assembly
2. Pay-off farmers with the assistance of a Bank (Barclays)

SURVEY DEPARTMENT
1. Develop a Crop Identification Map of the area

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Appendix 2: Sample Crop Compensation Claim Form for AngloGold Ashanti Iduapriem Limited

<table>
<thead>
<tr>
<th>PHASE XI - G</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANGLOGOLD ASHANTI IDUAPIEM LIMITED</td>
</tr>
<tr>
<td>CROP COMPENSATION CLAIM/PAYMENT FORM</td>
</tr>
<tr>
<td>FARMER: Sample Farmer</td>
</tr>
<tr>
<td>ASSESSMENT #: 2</td>
</tr>
<tr>
<td>LOCATION OF FARM: BLK THREE WEST</td>
</tr>
<tr>
<td>DATE OF ENUMERATION: 19TH OCTOBER, 2011</td>
</tr>
<tr>
<td>TOTAL COMPENSATION PAYABLE = GH¢3,127.00</td>
</tr>
</tbody>
</table>

I, AFTER SHOWING PROOF OF OWNERSHIP OF THE FARM, HAVE RECEIVED FROM ANGLOGOLD ASHANTI IDUAPIEM LIMITED, A TOTAL SUM OF GH¢3,127.00 (THREE THOUSAND, ONE HUNDRED AND TWENTY SEVEN GHANA CEDIS) BEING 100% (HUNDRED PER CENT) OF THE AMOUNT OF COMPENSATION DUE ME IN FULL IN ACCORDANCE WITH THE ATTACHED CROPS DETAILS.

AS OWNER OF THE FARM MENTIONED ABOVE, I FURTHER CERTIFY THAT I HAVE RECEIVED THE PAYMENT AND THAT NEITHER I NOR MY SUCCESSORS SHALL MAKE ANY FURTHER CLAIM IN RESPECT OF THIS SAME FARM.

<table>
<thead>
<tr>
<th>NAME OF FARMER:</th>
<th>CHECKED BY VALUE PROPERTIES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>THUMB PRINT:</td>
<td>SIGNATURE:</td>
</tr>
<tr>
<td>DATE:</td>
<td>DATE:</td>
</tr>
<tr>
<td>WITNESS TO FARMER:</td>
<td>FINANCIAL CONTROLLER:</td>
</tr>
<tr>
<td>ADDRESS:</td>
<td>SIGNATURE:</td>
</tr>
<tr>
<td>DATE:</td>
<td>DATE:</td>
</tr>
<tr>
<td>H. C. A</td>
<td>MANAGING DIRECTOR:</td>
</tr>
<tr>
<td>SIGNATURE:</td>
<td>SIGNATURE:</td>
</tr>
<tr>
<td>DATE:</td>
<td>DATE:</td>
</tr>
</tbody>
</table>
Appendix 3: Sample Report on Crop Compensation for AngloGold Ashanti Iduapriem Limited

REPORT ON COMPENSATION ACTIVITIES AT BLOCK 3 WEST – OCT, 2011

1.1 The Purpose of This Document
The purpose of this report is to give a detailed account of compensation activities that took place at Block 3 West from 19th October – 1st November in the year 2011.

1.2 Purpose of Valuation
The rationale behind this farm survey and assessment at Block 3 West was due to numerous complaints received from farmers that during blasting hours, rocks fly into their farms which pose a threat to their lives. Series of investigations were conducted on the issue with AAIL mining safety officers, complaint and grievance management officer, mining representative and some farmers within the zone.

1.3 Location and Description of the Area
The area is located at Block 3 West within the AngloGold concession. It lies along the access road to Mile Six camp. The land use is purposely for agriculture and the dominant crops that thrive in the area are oil palm, cassava, pineapple and others. The topography of the area is undulated.

<table>
<thead>
<tr>
<th>NO.</th>
<th>NAME</th>
<th>PICTURE</th>
<th>CROPS</th>
<th>FARM SIZE (ACRE)</th>
<th>FARM ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sample Farmer 1</td>
<td>![Picture](Sample Farmer 1.png)</td>
<td>Cassava, cocoa, plantain, pawpaw, timber</td>
<td>0.67</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Sample Farmer 2</td>
<td>![Picture](Sample Farmer 2.png)</td>
<td>Cassava, cocoa, pineapple</td>
<td>0.34</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Sample Farmer 3</td>
<td>![Picture](Sample Farmer 3.png)</td>
<td>Cassava, oil palm, cocoa, plantain</td>
<td>0.78</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Sample Farmer 4</td>
<td>![Picture](Sample Farmer 4.png)</td>
<td>Cassava, plantain, maize, oil palm, rubber, pineapple</td>
<td>0.72</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Sample Farmer 5</td>
<td>![Picture](Sample Farmer 5.png)</td>
<td>Cassava, cocoa, pineapple</td>
<td>0.29</td>
<td>5</td>
</tr>
</tbody>
</table>

1.4 CONCLUSION
Generally, the farm survey and assessment at Block 3 West was a peaceful one and no complaints have been received so far concerning the entire processes and procedures that were followed. The farmers were cooperative and this must be really encouraged in the other communities.
BIOGRAPHICAL NOTES

Naa Dedei Tagoe is an Assistant Lecturer at the University of Mines and Technology (UMaT), Tarkwa-Ghana. She was awarded a BSc. degree in Geodetic Engineering at the Kwame Nkrumah University of Science and Technology (KNUST), Kumasi-Ghana. She obtained her MSc. degree in Photogrammetry and Geoinformatics Stuttgart University of Applied Sciences, Germany. Her research interests include Application of Photogrammetry in Cultural Heritage, 3D Modelling, Remote Sensing and GIS in Environmental Analysis, Web GIS Applications using Open Source Software. She is a Member of IFUW.

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