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Mining versus Farming An Analysis of the Farmers' Livelihood System

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Mining versus Farming: An Analysis of the Farmers' Livelihood System

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Abstract: The implementation and main objective of the community compensation package program for farmers in the Prestea mining area is to deal with some of the grievances emanating from the operations of Golden Star Resource Limited (GSR) in the Prestea community. Some of these reservations of the local farmers relate to the impact on the local people's farmlands by the large-scale mining company's operations. This has consequently led to violent conflicts sometimes resulting in the loss of life and property. There are well-known complaints including the destruction of farms and homes of local people through expansive activities of GSR and the digging of mining pits close to farms. The large-scale mining company has a compensation package that is normally given to the farmers for affecting their farms. It is therefore crucial to assess the livelihood system of local farmers including the community compensation program for farmers since the farmers appear not to be content with the program. This paper contends that many indigenous farmers have been deprived of their livelihoods and the farmers perceive the community compensation package program as a bad initiative in Prestea with many of them regarding it as mere public relations gimmick that does not take the welfare of the local people into consideration.

Keywords: Compensation Package, Community Farmers, Indigenes, Environmental Impact, Conflict

Introduction

This paper examines the livelihood systems of local farmers and their perceptions of the impact of the community compensation package initiative by Golden Star Resource (GSR) on the well-being of Ghana's Prestea farmers. The agrarian nature of many Ghanaian communities has existed for centuries with extensive peasantries cutting across the whole of the country. Subsistence farming was strengthened and supported by colonial governments that paved the way for the immediate post-independence government in Ghana to follow that path by formulating policies that were geared toward the expansion of agriculture production. The post-independence government was interested in transforming the subsistence nature of farming with the use of technology to increase subsistence yields and the standard of living. However, "deagrarianization" and "depeasantization" of communities seem to be the order of the day, which is negatively affecting the livelihoods of farmers. Bryceson (2004, 617–18) defines "deagrarianization" as "a process of occupational adjustment, income-earning reorientation, social identification and spatial relocation of rural dwellers away from strictly agricultural-based modes of livelihood." In the Prestea mining area, "deagrarianization" is significantly due to the mining activities in the area that have led to the removal of topsoil, vegetation, and forest cover of the landscape. Furthermore, Bryceson (2004) explains that "deagrarianisation" and "depeasantisation" are terms used to explain the long-term and evolving nature of current trend. The long-established system of bush fallow arrangement through which considerable volumes of nutrients are recycled on the farmland making the next farming cycle productive can no longer be practised in Prestea in view of inadequate land size. Bryceson (2004) suggests that after more than a century of establishing the peasant farming system, there is increasing "deagrarianization" and "depeasantization." Agricultural lands and forest cover in Prestea are being destroyed and dwindling in land size for the purpose of agricultural production. This phenomenon has resulted in the lessening of the fallow time span from 10–15 years to 2–3

years. Additionally, significant portions of farmlands in Prestea are experiencing degradation, and the once significant economic worth is fast shrinking. It is obvious that, GSR is contributing to this phenomenon through its expansive mining operations. The activities of GSR are affecting the vegetation cover of Prestea to the extent that its biodiversity is being destroyed.

The major components of the environment—land, water, and air—have been devastated by GSR mining operations. The constant suitability of these components to promote sustainability and development of the rural populations in the Prestea area are presently uncertain. Significant parcels of farmland and vegetation cover in Prestea have been eroded by GSR to make way for surface mining operations. Presently, surface mining concessions have dominated more than 70% of the vegetation cover or aggregate land size of Prestea community. It is approximated that siting of mines, heap leach facilities, tailings dump and open pits, mine camps, roads, and resettlement for displaced communities would draw 40–60% of the company's total concession space. The operations of GSR in the Prestea area have intensified the scramble for farmlands by the local people since farming also constitutes a major livelihood for a significant number of the indigenes.

The mining activities of GSR are negatively affecting the land and vegetation cover of Prestea. The land and vegetation cover of the area constitute a source of livelihood for many of the local people. Farmers' incomes and food security have been threatened through the operations of GSR. The long-term effects of deforestation resulting from surface mining cannot be over-emphasized. The management of GSR suggests that there is a soil replacement and tree replanting clause under GSR's agreement with the government of Ghana. However, the argument made by GSR that after mine decommissioning there will be soil replacement and tree replanting is not sustainable since GSR's surface mining operation is presently affecting the livelihood of local farmers. The fresh vegetation species that may be introduced have the possibility to subsequently alter topsoil composition. This may dictate soil fertility, the land fallow system, and yielding duration for some crops. Moreover, there is the potential for serious soil erosion in the community as a result of eroding the vegetation cover of the land. There is a downturn in the viability of the vegetation cover for agricultural enterprises and loss of habitat for birds and other animals. The mining operations of GSR is impeding flourishing of vegetation cover, biodiversity, cultural sites, and water bodies. Kitula (2006) maintains that natural resource extraction is comprised of the appropriation of lands from the local population and the large-scale dislocation of communities.

GSR's compensation package for farmers is concerned with making amends or counterbalancing for properties or farms that belong to local community people, normally in the form of monetary consideration. The package has become necessary in view of the environmental impact of GSR's operation that is affecting the livelihoods of farmers. There is therefore a process of negotiation about compensation packages between farmers of Prestea and GSR. The inherent discontent with the model of negotiation and subsequent compensation package for farmers is conspicuous. Macintyre and Foale (2004) point out that the source of dissatisfaction and conflicts between large-scale mining companies and local farmers have to do with the size of compensation package. Filer (1990) demands a review of the size of compensation package(s) and criteria for negotiating agreements for local farmers. Perceptions of the local people relative to their rights to the land and resources deepens their discontentment. These perceptions are especially reinforced by the cultural underpinnings of indigenous knowledge on mining. Macintyre and Foale (2004) point out that the social impact debate dwells on inequitable resource distribution and waste inherent in consuming mine-associated gains in relation to inter-generational conflicts.

Mining history demonstrates that perceptions of indigenous communities are diverse, since expectations of communities change within the lifecycle of mining projects. There are similarities, consistencies, and diverse responses from local farmers. This is because many indigenes perceive mining as a roadmap to infrastructure development and modernity. Even

though, mining, logging, and fishing are industries that have been taken over by foreign companies, they also offer indigenes an avenue for penetrating the capital economy. Local people also take part in the economy at various stages. There are numerous lessons to be learnt from Prestea, which has earned a global reputation for violent conflicts as a result of community dissatisfaction with the mining industry. The experiences of farmers in Prestea indicate that enforcement of the compensation package policy is associated with sizeable reservations owing to the weak bargaining position of local farmers. Many of the local farmers are illiterate and constrained by having little or no bargaining skills. Additionally, there is a hidden and powerful vested political interest in the community that work against the poor local farmer. Similarly, Adonteng-Kissi (2015) asserts that “normally, there are hidden interests behind the extraction of natural resources in some of these indigenous communities.” The implication of this is that local farmers are incapable of negotiating for fair compensation packages relative to farm destruction. This discontentment at the community level are further exacerbated by the widespread perception at the grassroots level that mining resources should be indigenously owned rather than nationally or foreign owned. In the twenty-first century, farmers’ experience negotiating with management of large-scale mines is relevant. This is in view of World Bank’s (1998) initiative on sustainable policy development and sustainability planning framework for the mining sector.

Ballard (1997) observes that the inconvenience associated with mining in indigenous lands is due to the fluidity in the legal regime of property rights. In addition, Filer and Imbun (2009) suggest that the government has a penchant for formulating fresh policies to govern the mining environment regardless of the government’s growing dependence on the private sector for assistance leading to enforcement of those policies. Maponga and Maxwell (2001) explain that a series of natural resources-controlled environment coupled with economic instability compelled a number of the foreign companies to invest their stake in the relatively stable economies of North America and Oceania. Additionally, Ericsson and Tegen (1992) point out that the redirection of investment into a new part of the world led to a boom in mineral production in the advanced world while production declined in the developing world.

In the mid-1980s, economic reforms masterminded by the Bretton Woods institutions relative to liberalization and diversification compelled many developing countries to pursue a privatization drive. Many of the state-owned mining entities in the developing world, including Ghana, were privatized. There was a planned, deliberate, and concerted effort of many governments in the developing world to attract foreign investment. The reluctance of many governments in the developing world to enforce environmental laws is partly due to this reason. This situation coupled with weak legal regimes has urged many large-scale mines to violate environmental laws. Furthermore, Damania (2002) observes that the poor legal regimes have created avenues for large-scale mining companies to break environmental laws with impunity. Similarly, Roberts et al. (2001) indicate that a significant number of large-scale mines are capitalizing on the weakness of legal regimes to violate local laws. Additionally, these countries have challenges concerning adequate expertise relative to environmental issues. Warhurst and Isnor (1996) explain that the large-scale mines exploit systemic weaknesses in the developing world to their advantage.

In many of these jurisdictions, financial malfeasance, cronyism, and environmentally unfriendly practices are widespread. The presence of systemic challenges in infrastructure, monitoring, data systems, and weak institutions due to insufficient budgetary allocations do not compel large-scale mines to exhibit best environmental and economic practices. Bell and Russell (2002) point out that effective legal regime, accountability, and transparency are non-existent in the greater part of the developing world. A series of economic, social, political, and environmental impacts neutralize the gains of large-scale mines in the developing world. Moreover, Filer and Macintyre (2006) observe that the risks and costs inherent in mines are regarded as the idea of “resource curse.” Auty (1991) explains that, usually, the resource curse is

shown in a typical economic sense with over reliance on natural resources having an adverse impact on other areas of the economy.

Nevertheless, the adverse impact of large-scale mining companies can be demonstrated in political, cultural, or environmental dimensions. This implies that the resource curse may have multifaceted perspectives on the local community. In relation to the political dimension of the matter, Banks (2005) observes that there is an eruption of disputes among stakeholders competing with one another for royalties. In the cultural context, Guddemi (1997) explains that the resource curse is comprised of the possession of unattainable hopes by a section of the local people who derive nothing from the industry. Sections of the local people believe fresh resource discoveries will enhance their standard of living. However, Kirsch (2001) points out that the curse includes a level of long-term harm suffered by the environment outweighing the immediate economic gains derived by a small proportion of the local people. In present times, the mines are confronted with growing pressures from diverse segments of the society to take responsibility for their operational impacts. It is therefore normal for indigenous communities to demand compensation for environmental impacts because a greater proportion of mineral extraction occurs in indigenous areas. The mines have evolved into a major and influential stakeholder in the local economy with far-reaching powers that affect the livelihood of the local farmer. Large-scale mines, therefore, hold significant economic and political influence over many of the developing countries.

Zwetsloot (2003) observes that mining companies appear to have embraced the compensation package as a productive force to facilitate the success of their business operations. Additionally, nationals of the countries of origin of these mines have growingly been advocating for best operational practices in weak legal regimes. Dembinski et al. (2003) point out that many of the Western countries have considerably recognized moral inappropriateness of the operations of their offshore mines. Management systems' enforcement for social accountability by some mines have contributed to accomplishing extensive social norms and significant transparency of mines in the developing world, in particular. Macdonald (2004) observes that global NGOs dwell on the adverse effects of the mines specifically in the indigenous environments. Relative to such issues is the development of a fresh relation with the right ethical standards of the mines. Furthermore, NGOs have become a third category of players advocating for a good compensation package regime for indigenous communities. NGOs have been advocating for fair and just ethical practices in the operations of mines globally. NGOs have been campaigning against the environmental impact of mining activities, insufficient wages, and financial malfeasance. In response to some of these issues, Zwetsloot (2003) indicates that the mines are attempting to formulate compensation packages that will enhance the standard of living for host communities and employees, as well as improve financial gains. Moreover, the activism of indigenes is also influencing the operational direction of the mines. Whiteman and Mamen (2001) explain that natural resource extraction, especially in local communities, seems to have evolved into an inevitable operation for large-scale mines. This is the case despite the numerous challenges associated with mining in indigenous areas.

Background of the Prestea Mining Community

Mining in the Prestea area dates back many centuries in the mining history of Ghana. Canadian-listed GSR is one of the multi-national large-scale gold mining entities in Ghana. It is federally incorporated for mining and exploration. GSR is also involved in gold mining and exploration in South America. Adonteng-Kissi and Ohene-Konadu (2015) indicate that the leasehold of GSR's operations in Ghana is situated in Prestea in the Western Region. This is about 200 km from the capital city of Accra and 50 km from the coast of the Gulf of Guinea. In 1880, Gio Apanto Gold Mining Company and the Essaman Gold Mining Company were established as being the first direct participation by Europeans in the area. In 1900, these mining entities evolved to become

Apanto Mines and Prestea Mines Limited respectively. They subsequently merged in 1927 under a new British company name called Ariston Gold Mines. In 1912, Ariston Gold Mines made significant production from the Prestea mine. The company was in operation until the 1950s. Ariston Gold Mines developed greater component of the present underground facilities. This precedes the post-independence nationalization of the mining industry in Ghana (Adonteng-Kissi and Ohene-Konadu 2015).

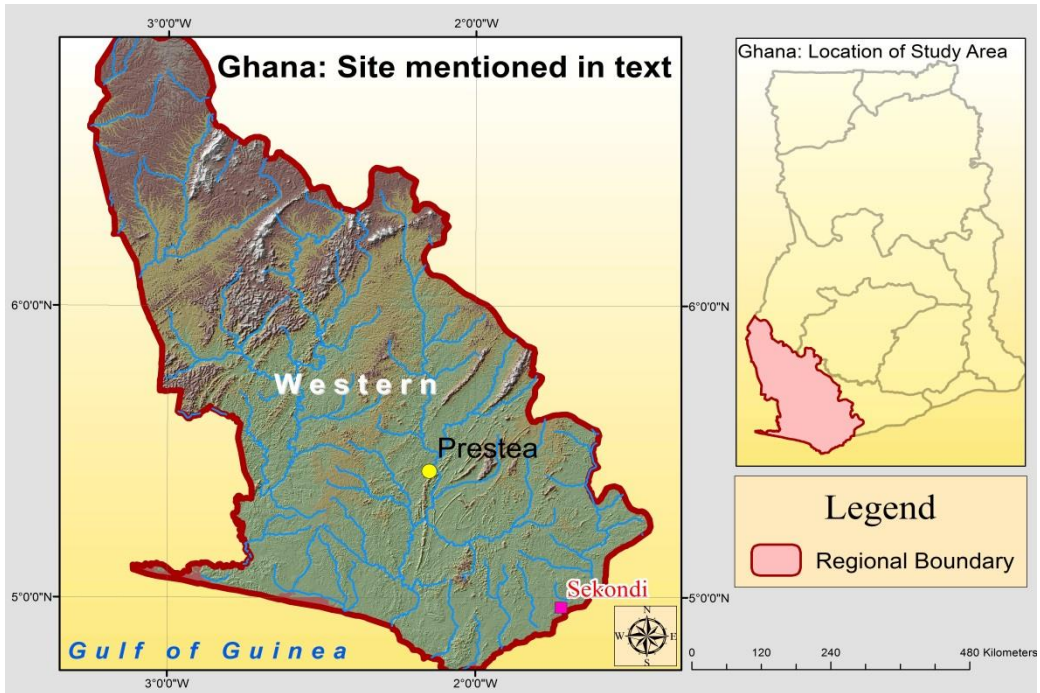


Figure 1: Map of Ghana with Location of Study
Sources: Osei 2015

In 1933, these concessions were taken over by Ghana Main Reef Limited and the company experienced uninterrupted operation until 1961. An Instrument of Incorporation signed by the President of Ghana in March 1961 constituted the State (Ghana) Mining Corporation (SGMC). Adonteng-Kissi and Ohene-Konadu (2015) explain that in the 1990s, the Government of Ghana pursued a foreign direct investment drive. In 1988, Barnex Johannesburg Consolidated Investment (JCI), Prestea Gold Limited, the SGMC, and the government of Ghana entered into a joint venture agreement. Consequently, Barnex JCI Limited sold its stake in the arrangement owing to declining prices of gold on the world market and obsolete mining facilities. However, the Ghana Mine Workers Union established an investment consortium to operate the mine under the name Prestea Gold Resource (PGR). Adonteng-Kissi and Ohene-Konadu (2015) indicate that the Prestea underground mines operated for three continuous years and folded up in the initial period of September 1998. This was due to falling gold prices on the world market and inadequate financial investment in the sector. In 1994, the Prestea mines had their mineral rights transferred to Golden Star Resource (GSR), a Canadian listed company.

Theoretical Framework and Research Question

This study is guided by the “Framework of Sustainability,” which offers a very important structure for discussion. Generally, the route of examining the components of change and

sustainability framework is pursued by the Prestea community. This paper explores the size and value of the compensation package, which is a community-based intervention for farmers. It is aimed at averting conflicts for the mines' impact on local farmlands. The goal is also to aid continuity in the production of crops in the community. This framework hinges on the concept that local community members obtain their livelihoods from diverse forms of "capital." Warren, Batterbury, and Osbahr (2001) explain that sustainability is the continuance of capital spanning across time. A sustainable community is the one that is able to foster and improve these capitals. Families may have a different fusion of stock in their livelihoods stock, which allows for their livelihood sustenance over time.

Additionally, Stocking and Murnaghan (2001) observe that in case there is a scarcity of assets, one classification may be transformed to another livelihood in capital classification in a family. However, Maconachie and Binns (2007) observe that alteration in the degree of existing assets may influence the capacity to eventually participate in sustainable activities. Livelihood options are likely to be influenced by change across time and space. This is a result of change in the outside conditions of local communities, which generates dynamism in livelihood alternatives. Chambers and Conway (1992) observe that livelihoods encompass assets and actions needed for decent living. Scoones (1998) points out that sustainability in livelihood occurs in instances of strong resistance to the shocks of a stressful life and the ability to withstand difficulties, as well as being able to maintain and improve one's capacities and assets. Maconachie and Binns (2007) add that capital comprise of natural, economic or financial, human, physical and social capital. Natural capital has to do with natural resource stocks such as soil, water, air, and vegetation, which are important for sustaining livelihoods.

Again, an economic or financial capital base includes cash, credit, savings, economic assets, and remittance, which permits the individual and families to decide on livelihood matters such as investment in natural, human, or other forms of assets. Skills, knowledge, capacity to provide labour, good health, and physical capability are the other economic bases for individual and household decisions. They permit indigenes and families to pursue livelihood arrangements to successfully constitute human capital. Social capital involves the social resources and associations on which local people derive livelihoods when pursuing strategies that require synchronized actions. Scoones (1998) points out that agriculture intensification, livelihoods diversification, and migration emerge in the three "cluster" of livelihood alternatives within the sustainability framework. Additionally, Scoones (1998) suggests that more livelihoods from agriculture may be obtained through intensification process at the expense of labour input expansion or vice versa. The implication of this scenario is ensuring more production per unit area through capital investment or expansion in labour effort. Agriculture has the capacity to provide livelihoods through the intensification process. This means availing a greater proportion of land for production or diversification by local farmers to include outside farm income and to generate other occupations. This will provide local populations with livelihood alternatives. Besides, temporal or indefinite migration may be pursued in an entirely different place. Ordinarily, indigenes may follow a fusion of survival plans in their livelihood arrangements. In enhancing and protecting their livelihoods options, the local community do not only depend on agriculture but also depend on other diverse alternative resources available to them such as non-farming occupations and migration.

This paper reveals a significant link between farming and small-scale mining dating back centuries. The focus of this paper is based on conditions such as the impact on farmlands: Small-scale mining makes living conditions unbearable for farmers, compelling them to diversify their livelihoods. The consequences of such diversification arise out of external factors to provide incentives for local people to move into illegal small-scale mining in view of the economic and social dislocation. The contemporary global debate on the mining industry to support the elusive objective of "sustainable development" has been featured prominently in Prestea. The effort to lay the foundation for "sustainable development policy and sustainability planning framework"

relative to the mining industry constitute a section of an institutional reinforcement project sponsored by the World Bank (1998). In other words, sustainable development has received the universal affirmation as management and development strategy. The author of “Mining and the Environment: The Berlin Guidelines” (1991) observes that environmental, economic, and social development have been projected as the three major components of sustainable development and promoting their fusion.

However, the suitability of these ideas to the natural resource industry has been challenged. This is due to the non-renewable nature of mineral resources resulting from its depletion in the course of its lifecycle. Ednie (2002) explains that the depleting nature of mineral resources restrains the development and sustainability of this sector. Sustaining the natural resource industry is viewed in terms of natural resource availability, the environmental implications for health, and the socio-economic dimensions of affected communities. There are different approaches to addressing sustainability issues confronting the mining industry universally. Veiga, Scoble, and McAllister (2000) define a mining community as a society whose peoples are considerably affected by social and environmental impact of mining operations. The impact of minimal employment has been experienced by some mines. This pattern has been highly connected with sophistication, mechanization, and automation. It is also linked to economies of scale and declining commodity prices and depleted or exhausted mineral reserves of the company leasehold. Veiga, Scoble, and McAllister (2000) point out that the realization of net benefits from the introduction of mining until its subsequent fold-up and afterwards is considered a sustainable mining community.

The most significant task confronting all mines is good community relations leading to equitable partnerships. This will leave durable footprints of sustainability and community welfare devoid of environmental unfriendliness and social dislocation. Issues in the context of culture that have substantial diverse characteristics are political orientation, geographical location, and environmental impacts. Others are shared attitudes toward resource development and mining communities. In considering mining companies as intruders into the environment, culture and history share a lot in common in mining communities. This is more pronounced in communities where the proceeds from mining are not equitably distributed. The creation of sustainable mining community is dependent on the reduction of such perception and subsequent creation of lasting relations with mining communities.

Sustainability issues differ according to varying organizational and societal expectations, values, and interests. Bridge (2004) indicates that there are challenges associated with natural resources extraction in local communities. These challenges in the mining community come from diverse sources of importance. People encounter both good and bad effects of mining in connecting with ecosystems, negative cultural effects of the natural resource life span, and intrinsic composition of different minerals. The benefits of natural resources have to do with accrued revenue, its application, and beneficiaries of the revenue and uses/utilization of the end product. Examples of end products of natural resources are cutlasses or hoes for farming, bracelets, and necklaces. Veiga, Scoble, and McAllister (2000) suggest that ecological sustainability, economic vitality, and social equity should be the yardstick for measuring the needs of a sustainable mining community. The mines should utilize these concepts in relation to the entire operational cycle and the aftermath of its closing. The footprints of the mines after closing down have evolved to be an essential component of planning. The principles of sustainability are realized through value addition leading to the transformation of a community.

Research Questions

This paper examines farmers’ livelihood systems by considering the community compensation package initiative’s impact on the well-being of the local mining community. The following research questions were asked to direct the analysis of the study:

- 1) How does one examine the livelihood systems in the Prestea Mining community?
- 2) What is the size of the community compensation package in the Prestea community?
- 3) What is the impact of the community compensation package on the well-being of local farmers?

Methodology

The study was designed utilizing qualitative research techniques to collect the necessary data for the study. Purposive sampling was used for the selection of all the sample units deliberately identified to provide specific information about the study population. Tongco (2007) observes that the purposive sampling approach, otherwise known as judgment sampling, is the purposeful identification of key informants. This is in view of the good characteristics of the key informants. Tashakkori and Teddlie (2010) point out that purposive sampling techniques involve selecting certain units or cases based on a specific purpose rather than random selection. Furthermore, Bernard (2002) suggests the investigator puts modalities in place to identify key informants who have the abilities and are willing to offer required information. The abilities of key informants are due to their knowledge or experience. The authors used purposive sampling to help identify the specific targets to answer the research questions. The population of the study area is estimated at 31,607, and the authors conducted some of the interviews in the local language (Akan). Local people who could not read or write were assisted (via interpretation) to answer the questions.

The study population consisted of twenty key informants: thirteen males and seven females. The majority of the key informants were males because farming in Prestea is a male-dominated occupation. The local people have been violently confronting the mining company since the inception of GSR's operations. The following is the breakdown of the sampling frame: three members of the environmental NGOs/civil society organizations, five community farmers affected by mining activities, five members of illegal ASM, two members of registered ASM, and five members of GSR management.

The qualitative research approach enabled the authors to gather sufficient, in-depth, and detailed knowledge that led to an understanding of the indigenous people's perceptions of the community compensation package for farmers. The authors therefore made use of key informant interviews. Some of the key informants were people who have basic knowledge about the community compensation package for farmers. They provided basic information and in some cases in-depth information to inform the study. All interview sections were tape recorded, transcribed, translated, and complemented with accurate notetaking. An interview schedule, mainly consisting of open-ended questions, was prepared and used for the interviews. Details that were not brought out initially were sought through follow-up questions or probes.

Results

The findings of this study included farmers' livelihood systems, local perceptions about the size of the farmers' compensation package, and the community compensation package's impact on the welfare of farmers in the Prestea community.

Analysis of Farmers' Livelihood System

GSR has not taken seriously the needs of farmers, refusing to spend considerable time and money on researching farmers' concerns. This includes liaising with farmers in relation to a compensation package. In some cases, GSR does not pay any compensation to farmers. One member of the leadership of the farmers' association said: "Come and let me go and show you where my farm is and where a mining pit is being dug. It will surprise you, GSR will come and

tell me to move from here. They will pay me a small amount of money based on the number of crops on my farm without considering other resources I have invested in my farm.”

An angry farmer said: “We’re strangers and beggars in our own land because the company has dug so many pits close to farms. GSR has not bothered to look for alternative site where they can carry out their mining operations. They pay us paltry sums of money to look for alternative sites for farming. This can only happen in Ghana.”

One farmer who was concerned about the environmental impact said: “Through GSR’s actions, cracks could be seen on people’s buildings in their farms. We know a pit has been dug close to our farms and we’re not supposed to work here. However, we will relocate if GSR finds us a good land. The compensation package is bogus and does not improve the lots of farmers. It is only public relations gimmick.”

One local farmer whose farm has been affected happened to be a study participant. He said: “I perceive the compensation package very poor because it has made my life miserable. Compensation package for impacting on one’s farm, house or village do not include the cost of the land. It is only made up of the cost of the crops, building or property. Relative to crop compensation, farmers pay 20% to the family that owns the land. They in turn pay one third of the crop compensation to the traditional chief.”

Secondly, some indigenes are not aware of the criteria for determining crop compensations in Prestea. One farmer said: “I don’t have any property that GSR is impacting upon. If I had any property, it would have been war. I wouldn’t accept that meagre compensation. In case one owns cocoa or orange farm, that person would receive income for more than 50 years. In this present arrangement, one is compensated with meagre money that is not commensurate with what one will earn from his farm.”

The researcher spoke to members of registered ASM who do not believe they are the source of the problems of local farmers. They claim they do not apply sophisticated and heavy equipment so they cannot possibly impact farmlands. One member of a registered ASM said: “I am an indigene of this community so I will not do things that will affect the livelihoods of my own people. All my siblings and parents are farmers so we make sure we don’t impact negatively on the environment. My family members are farmers so any negative activity of my company will affect me too.”

There are many farmers who have been compelled to engage in ASM because their farmlands have either been affected or their farmlands have been taken from them. An ASM operator had this to say: “I am into illegal ASM because all my farmlands have been taken from me. I was paid nothing because the mines claims my farm falls within their concessions. However, I need to make a living to be able to cater for my family.”

The Researcher interviewed members of environmental non-governmental organization (NGO) on the issue. A member of environmental NGO said: “I don’t know the details and criteria for calculating compensation packages for farmers because that is not our focus. Our focus as an environmental NGO has to do with the protection of the environment and not calculation of compensation packages. Farmers complain to us when their farms and homes are impacted upon. However, they do not invite us to their negotiation meetings.”

Another member of civil society organization said: “It’s very serious to see the extent of vegetation and forest covers that are being stripped off by this madness in mining. Are this people thinking about sustainability of the environment and livelihoods of the local people? We have been advocating and we’ll continue advocating for change.”

A former farmer who is presently engaged in an illegal ASM operation had this to say: “I believe, it is better to be into this business (illegal ASM) rather to go and farm for my farm to be impacted upon and be paid a meagre amount based on the number of crops on the farm. I am not going back into farming anymore; after all I am able to look after my family with this business. My parents and my sisters are still engage in farming because my parents are too old and cannot do this risky mining. My sisters are also scared of engaging in this business.”

Another illegal ASM operator said: “My father’s farmland was impacted upon last year. He was compensated based on the number of crops on the farm. I believe this is daylight robbery by GSR because you can’t compensate a farmer without talking about the value of the land and other resources such as fertilizer and seedlings.”

The company has moved from paying lump sum compensation to community people on crop issues and this has a negative impact on community members in relation to small-scale conflicts. A member of the mine management indicated: “As for small scale conflicts, I don’t think compensation packages to the community people have done enough to address them.”

Another member of the mine management also said: “When they [community people] take the money, some of them desert their families out of irresponsibility and go to spend it only to come back and cause problems.”

Another member of the mine management of Golden Star Resource Company the researcher spoke to said: “I think one issue that normally brings the conflict is that, when the company impacts on just 5% of the farm, they expect us to pay for the entire farm. I believe sometimes the intentions of the farmers are not to do farming. Some farmers deliberately operate close to the mines only to be compensated.”

The mining company believes that they pay the right compensation to the community members affected by mining. This is supported by one member of the mine management who said: “We are not the only mining company in Ghana, so we are not supposed to unduly pay over and above what other mining companies are paying.”

One farmer who was previously compensated opined: “Sometimes we [farmers] walk several times to their end to no avail. Local farmers are not allowed to put their proposal before the mines management for negotiation. GSR has its own criteria for awarding community compensation package to farmers without the involvement of farmers in the negotiation process. In fact, the compensation arrangement is making me unhappy.”

Most of the respondents perceive the compensation package for farmers unsatisfactory. This is because there is an increasing incidence of conflicts in Prestea. This creates untold hardships for farmers since some farmers are compensated and re-settled in communities that are far from their houses. This is after local farms or villages have been affected. The chief farmer also had this to say: “Farmers’ compensation packages are inherent with numerous problems in Prestea. After a farmer has been compensated in event of impacting on his/her farmland, GSR refuses to compensate that same farmer in subsequent cases. The reason according to GSR, is that the farmer did not relocate to a place far from the original site.”

Farmers’ compensation negotiation committee is normally set up to negotiate every compensation package for affected farmers. This happens before compensation actually takes place. Prior to the setting up of a farmers’ compensation negotiation committee, the Environmental Protection Agency (EPA) comes in to agree on the need for compensation for farmers. Some of farmers lack negotiation skills and therefore negotiate from a weak bargaining position. In view of this, some farmers come back to GSR to express discontent after compensation has been paid. When GSR is able to reach an agreement, it places a moratorium on the land. The District Assembly, Ghana Chamber of Mines, Valuation Board, Environmental Protection Agency, the Divisional Chief, representatives of the community, and a mediator are represented in the negotiation. A member of GSR management said: “Sometimes GSR provide a school and a clinic in the new settlement at the end of the day. We make sure the community people are satisfied with basic amenities. We are in the process of improving our image which has been soured over the years.”

The compensation package for farmers is only embarked on when the company and the farmers’ association reach a negotiated settlement. One key mine management superintendent said: “So far as I am concern, there are not supposed to be conflicts because we reach negotiated settlement anytime GSR impact on local farms. The company agrees with the farmers’ association and the government of Ghana relative to how much affected farmers should be paid. I

don't understand why farmers should come back to complain about the size of their compensation package.”

Normally the company gives options to the community groups before they are compensated. A mine management member said: “Don't forget compensation package provides local farmers a better opportunity to get enough capital to expand their farms. You can't eat your cake and still have it. Sometimes, the actions of some of the local farmers are as a result of ignorance. It is expected that farmers would know the consequence of their action after signing a compensation package agreement. You cannot expect everybody to know about your industry and we also can't go and educate everybody about our industry.”

Another member of GSR management said: “If people know what goes into a negotiated settlement, then they would know that local farmers are being unfair to us [GSR] in these situations. No farmer is forced under the barrel of a gun to sign compensation agreement.”

Discussion

A common perception of the local population is that there have been environmental, cultural, and historical intrusion by foreign mines. This perception is given more credence because of the inequitable distribution of the benefits of mineral resources. Furthermore, the mines do not engage the local population in decisions in relation to the compensation package. The ability of GSR to diminish this perception and establish a lasting community engagement framework will constitute the key to creating a sustainable mining community. Mines possess a growing knowledge especially on community engagement matters. Mining entities are able to design policies relative to community engagement leading to a good compensation structure for local populations. However, there is still room for regular development of programs that is geared toward addressing suitable principles of sustainability.

Since environmental impact has featured prominently in the responses of key informants, it is incumbent on GSR to prove their integrity. This integrity should be proven relative to managing and designing environmental impact systems. It can be achieved by establishing measures of independent auditing and reporting on the environment. This will further confirm to the local population and environmental NGOs that GSR is adhering to environmental protection principles. The authors are not suggesting that the pursuance of sustainable mining community can be completely addressed. It will be a step in the right direction if a broad objective is set by GSR. Mining activities that are carried out in an ethically appropriate fashion enhance the welfare of the local population. This should leave a sustainable legacy for posterity in the development of any mining community where sustainability is the basic decision-making philosophy. Francis (2006) observes that sustainability is considered a commitment inherent in ethics. Additionally, sustainability is grounded on the conviction that the globe is natural and therefore it should be maintained in its natural state. The globe also possesses the nature of life and humanity which are in themselves valuable.

The Prestea community is structured in a fashion of dual-economy comprising of farming and mining. Scoones (2009) explains that local populations fuse a variety of occupations in an intricate livelihoods portfolio. The results of this fused and varied livelihoods is diversity. Livelihoods paths are influenced by transformation, diversification, improvement, and coping strategies. An assessment of livelihoods at the individual level can intricately sum up livelihoods strategies and routes at the family and community level. Diversity cuts across local communities and results in different approaches to livelihoods. Livelihoods do not support a one-sector strategy to addressing complicated rural development challenges. There is the need to have local perspectives to challenges and respond to them appropriately.

Toner (2003) observes that people-centeredness and identification of intricacies of livelihoods are the fundamental goals of sustainable livelihoods approaches. A substantial product of policy dialogue is hinged on implementation of principles and a framework of

sustainable livelihoods. Critical assessment of the two reveals that the ideas and suppositions applied are usually over-simplified. Moreover, the assessment seeks to structure and justify the intricacies to a large extent. It should be acknowledged that institutional structures can refine and restrain livelihoods strategies that can be pursued by the local population. This is a principal benefit of sustainable livelihoods approach. It also establishes a significant connection between the trivialities of everyday lives in the arena of social, economic, and institutional macro components. Local people act upon and refine these macro components. Generating and transforming knowledge of institutions is needed to deal with the theoretical and practical approaches. An actual theoretical explanation hardly provides any significance to the local population and GSR. There is the need to identify the diverse values and interests of players in the “compensation package” conflict. There is also the need to recognize the mode of harmonizing the interests of players to establish local rights, diverse social associations, and activities. Complex matters lead people to confront policies with different approaches to social problems. Such policies are made up of inconsistent components arising out of inequalities and the deprivation experiences of a local population.

The connection between the two economies can generally lead to a shift or swing of a significant number of indigenes to other economies through the pull-push factor. The pull-push factor normally depends on the prevailing socio-economic situation. Therefore, particular attention must be paid to indigenous farmers. The social and environmental linkages to community conflicts need close assessment and immediate action. Hilson, Hiron, and Maconachie (2011) explain that the livelihoods diversification capacity of families has supported and enabled many people to withstand economic tribulation. Stress also offers people strong ammunition to survive challenging periods and to minimize risk. Barrett, Reardon, and Webb (2001) estimate that 40% to 45%, on average, of family revenues are derived from non-farming activities. However, there is no reliable statistics to determine the real degree of livelihood diversification.

Local communities that are rich in natural resources have changed from farming activities to participating in ASM. Banchirigah and Hiron (2010) indicate that ASM is associated with inexpensive technology. Furthermore, ASM is labour intensive with a crude method of operation and minimal obstacles to entry. Banchirigah (2008) estimates that ASM offers occupations to a significant number of indigenous populations. This makes it an essential component of their livelihood arrangements. It is therefore non-negotiable to take a closer look at the size and criteria for determining a compensation package. Attractive compensation packages can serve as an incentive to prevent local farmers from engaging in ASM. In fact, the farmers whose farmlands and properties are affected are not content with the size and criteria for determining compensation. Cho and Patten (2007) point out that there is a social contract between GSR and the Prestea community. Deegan, Rankin, and Voght (2000) observe that the social contract is used to represent the nuanced expectations that society has about how an organization should conduct its operations. Cho and Patten (2007) explain that an organization’s survival will be endangered if the local people perceive the mines as breaching its social contract. The crisis in Prestea implies that GSR is not meeting the expectations of farmers. This has the potential to endanger the survival of the mines. Local perceptions of large-scale mines hinge on breaches of social contracts. It is a fact that GSR pay royalties and taxes to government of Ghana. However, this is part of GSR’s promise to transform Prestea and corporate social responsibility.

The complicated connection between farming and ASM has the potential of motivating food production. This in turn could lead to an economic boom in the local economy. In other words, mining is offering a relevant economic incentive to farming in the local community. This is accomplished through a general increase in demand for food within the Prestea community. One major drawback to a sustainability framework is the impediment posed to the otherwise successful local farming by GSR’s operation. The environmental impact on farmlands needs urgent attention. GSR should therefore minimize the degree of affecting farmlands and the

environment in general. This includes ending indiscriminate felling of trees and stripping off vegetation and forest cover in the community. The top soil, forest, and vegetation cover of a significant proportion of the landscape suitable for agricultural farming have been removed by GSR operations resulting in the loss of agricultural lands. Farmers contribute to the local economy in addition to the number of job openings created through subsistence farming to otherwise unemployed local people. Kamete (1998) observes that growing competition in urban areas implies that local traders need to search for market options. Urban communities require farm products as a result of the high cost of living in the area.

Prestea has experienced negative sociocultural dislocation as a result of mining. They encompass child labour, theft, and accidents. Others include unemployment and a massive influx of migrants hunting for jobs. Others are changes in lifestyles of local population and intensification of competition among the local population for natural resources. The mining operation has attracted many migrants into Prestea in search of jobs. It appears the influx of migrants has caused over-crowding and has put pressure on the limited facilities in the area. Adger (2006) suggests the need for broad measures to arrest relative vulnerability and the seriousness of its dispensation since vulnerability is relative. The vulnerability of the local population is not only explained in terms of the number of people who are unsafe as a result of exposure to stresses. Vulnerability is also explained in the context of exposure to crime and diseases. These stresses come with the environmental impact or the absence of a coping strategy. Broad action against the seriousness of vulnerability should be taken into consideration. Adger (2006) explains that action requires that redistribution of risk of fragile local populations will be taken into serious consideration.

Conclusion

This paper reveals that there is the need for community engagement in the decision-making process relative to the size of the farmer's compensation package and GSR's environmental practices. This will lead to acknowledging the local population as partners in decision making relative to matters of mutual benefit. There should be the inclusion of issues that suit their own cultural needs and physical requirements. The need to adapt to the local environment, making it flexible and culturally sensitive, is critical to operating in a local community. In addition, responsiveness to community needs and mutual respect for the indigenous population as well as the environment are matters that mines should consider in future, if mining communities intend to pursue a philosophy of sustainability.

This paper further concludes that an essential component of reinforcing the sustainability framework relative to the livelihood of the local people will be the review of the existing compensation package for farmers. This could improve the standard of living of the impoverished local farmers. Mining operations in Prestea could be carried out in a more humane and environmentally and economically sustainable fashion.

Analytical sensitization and awareness creation through the present sustainable livelihoods policy may bring out the needed explanation of diverse local livelihood portfolios. These emerge from centuries of income diversification. The extensive capital stock of international corporate market's financial, physical, natural, human, or social capital cannot be equated to the "capital" stock of the deprived local population. Capital trade-offs need to go beyond local community levels if livelihoods sustainability within local populations would be achieved. Arce (2003) observes that sustainability still remains an elusive subject. Sustainability permits public choices and policy alteration devoid of any obstacles to theoretical or practical engagements.

The paper concludes that the cluster of livelihoods arrangements acknowledged by Scoones (1998) is available in Prestea's dual economy. Agriculture intensification, livelihoods diversification and migration are obvious among the complex issues associated with farming and artisanal mining. Local farmers living on subsistence have been excluded from the mainstream

economy, which is a cyclical subject in a capitalist expansion over time. In the end, these “relic agrarian indigenous communities” will be integrated into the mainstream national economies. Relative to Prestea’s local economy, it is unlikely that any concept of booming national economy will have the capability of absorbing the local economy into the national economy. The international market dynamics have also created labor displacement in the local communities.

This paper reveals that nearness to market is easily the ordinary comparative advantage of the large informal farming sector and not mechanized farming or less expensive foods. The sector has no clear-cut sustainability policy and program other than to integrate labor in a subsistence fashion. This enables local community people to have sustainable livelihoods. The livelihoods sustainability of the local population require that present inconsistencies between micro and macro local programs should be recognized and dealt with. There is the need to take into consideration the livelihoods interests of local communities by engaging in serious advocacy relative to people in the corridors of power.

The paper indicates that there should be attempts to provide incentives for fresh and creative labor expertise with potential for market opportunities. Liaising with the local population to generate trading opportunities for available local goods should also be promoted. The Bretton Woods institutions that claim to be seeking the interests of the marginalized populations in society should be pressured to pursue practical actions to eliminate serious local labor displacement. The rhetoric of the Bretton Woods institutions needs to be supported with practical actions. Other global bodies possessing the political weight should also pursue dynamic activities to eliminate poverty if that will imply forgoing global capital in certain crucial context.

There is a strong connection between mining and farming in Prestea. Local people facing challenges in farming activities are most likely to change their livelihoods strategy and embrace ASM or vice-versa.

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