

## CHAPTER ONE

### INTRODUCTION:

This study discusses the key issues relating to the effects of gold mining on livelihoods with particular emphasis on gender. The underlying assumption is that gold mining activities, especially surface gold mining, affect all and sundry but issues regarding compensation are most often than not discussed with men. However, women are about one-half of the world's population but do two thirds of the world's works. In view of this, women are expected to dominate in livelihood areas and one would expect women issues to dominate on the effects of gold mining on livelihoods. However, this is often not the case and most issues about the effects of gold mining are addressed without particular emphasis on women. It is in this respect that the study provides the basis for analyzing the effect of gold mining on livelihoods, paying particular attention to the missing gender component.

Ghana, like several developing countries, has made giant strides in its attempt to attract Foreign Direct Investment (FDI). One area that has seen much attention is the mining sector. The sector has received a large chunk of FDIs taking about 55% of FDIs coming into the country (OECD, 2002). In addition, the contribution of mining to GDP has been estimated to be 1.5% (Awudi, 2002). Notwithstanding these achievements by the sector, it has also received many criticisms for their blatant disregard for environmental standards and its attendant social conflict and human right abuses (Tanufour 2004).

As a way of ameliorating the effects of mining in the mining communities and its environs, many measures have been put in place, which includes the Corporate Social Responsibility. This demands that mining companies advance not only economically but should also be socially and environmentally responsible (Aaron, 2005). In line with this, mining companies operating in these areas have instituted compensation schemes for various families and individuals that suffer in one-way or the other from mining activities. In some cases, whole communities have been resettled. These compensations are normally in monetary form and have increased the physical incomes of families, it have not been adequate to restore livelihood of community people. In addition to the monetary compensation and other schemes, some of the community members are also employed in the mining companies on casual bases usually lasting three months.

One area where the mining companies have failed to address is the extent to which gold mining activities affect livelihoods in general and women in particular. In most cases, attempts to address the effects of corporate gold mining activities on livelihoods have mostly been skewed in favour of men in that men own the land. They also epitomize power and authority in most societies and most often monetary compensation for families that loose their land and other property to gold mining are paid to men on behalf of the extended family members.

The problem is that women seem to be affected most when gold mining companies deprive the community of their livelihood. Aside the compensation for physical property which gold mining activities destroy, other social, natural, human and financial assets that mining activities destroy are ignored in compensation schemes. Most of these assets have much more relevance for women. This is because women are responsible for the collection of foodstuffs, many non-timber forest products as well as the fetching of water. In addition, there are many women in agriculture, which implies that their livelihoods depend on tilling the land.

The assumption is that the compensation will trickle down to all stakeholders in the family including women and children. However, given the patriarchal nature of the Ghanaian society, women are excluded from decisions relating to the use of the compensation thereby defeating the very essence of the principle of compensation, which is geared towards providing alternative and sustainable livelihood systems. This unfortunate oversight seems to have contributed to the perpetuation of the feminization of poverty that is making women extremely poor, and vulnerable to social ills and diseases like HIV/AIDS in gold mining communities. It is in attempt to bring out the missing gender component in the effects of corporate gold mining activities on livelihoods that the study is deemed necessary and worthy.

### **1.1 The specific objectives of the study include:**

- To identify the livelihood areas affected by corporate gold mining activities and analyse the gender ratios in the affected livelihood areas.
- To assess the effect of gold mining on cultural significance, social capital and natural environment or natural capital.
- To analyse the extent to which gold mining activities deprive women of their livelihoods.
- To identify the Alternative Livelihood Strategies (ALS) adopted by the gold mining companies and analyse its gender sensitivity.
- Identify the legal basis of compensation and analyze respondents' satisfaction.
- Discuss peculiar problems of resettled communities.
- Make appropriate policy recommendation to the government, Gold Mining Companies and other stakeholders.

## **CHAPTER TWO LITERATURE REVIEW**

### **2.0 Introduction**

Ghana, like many other developing countries, has been struggling to make a mark on the landmark of development. Before the nation attained independence in 1957, the then governor of the Gold Coast – now Ghana embarked on a five-year development plan that was infrastructure biased compared to other sectors. After independence, various attempts at development have focused on increasing export earnings. From the beginning of 1983, Ghana started implementing International Monetary Fund's (IMF) Economic Recovery Programs (ERP) and the Structural Adjustment Program (SAP), which focused on export-led growth. They included measures to devalue the currency and remove various barriers to trade (Tockman, 2001). Even though the SAP resulted in significant economic gains, it has also meant severe detrimental consequences for the rainforest and forest dwelling people.

In an attempt to increase export earnings, various government policies pertaining to the export sector especially the extractive industries were relaxed to attract foreign investors. As part of the conditions for an IMF loan of \$239million in 1999-2000, Ghana relaxed its mining regulations and nurtured investment by the mining industries through generous incentives and tariff reductions during the 1980s and 1990s (Tockman 2001). Tockman further observed that investors responded to these relaxed policies and as a result, more than 250 mining companies have been granted concessions, totalling 58,167 square kilometres. One observation is that most of these mining companies granted concessions are operating surface gold mines. Only few are operating underground mines.

### **2.1 Contributions of Mining to Ghana's Socio-Economic Development**

The Ghana government earns foreign exchange from the operations of the gold mining firms. Export earnings from mining have overtaken earnings from cocoa. From 1992 to 1995, mining exports increased from \$107.9 million to \$682.2million. Investment in the extractive sector resulted in 60% annual foreign exchange earnings in Ghana, employed 5% of the people and contributed 6% to GDP of Ghana (Ross, 2001). Tockman (2001) writes that output for Ghana's gold industry alone grew by 500 percent between 1983 and 1995, and by 750 percent between 1983 and 1998. The wage levels in the mining companies are also said to be good. Mining companies also have social responsibility agreements with mining communities. Other benefits are the alternative livelihood projects most mining companies implement.

Although mining investment is believed to generate employment to some of the people in the communities that companies operates in, GAG and IFC report (2004) states that priority problems given by the various communities revealed insufficient job avenues and lack of employable skills. The report further states that the unemployment levels of youth in the area are 70-90% whilst the national unemployment average is 30% of the population in the age group within 15 to 24.

### **2.2 Some Negative Effects of Mining on the Environment and Livelihoods**

**2.2.1 Forest:** Tockman, (2001) notes that mining has had a tremendously detrimental effect on the country's tropical forests, which blanket one-third of the nation. Sixty percent of rainforests in the Wassa West District have already been destroyed by mining operations.

Drillbits and Tailings (2000) have noted that surface mining requires the acquisition of large tracts of land, the average of which is about 150 square kilometres, with a thirty-year lease period. Anane (2003), reported that "Dozen of bulldozer and excavators belonging to five

multinational mining companies operating in Ghana were poised to tear apart thousands of hectares of forest reserves in the Ashanti, Western and Eastern regions of the country, if the government gives them approval to haul out what they described as rich deposits of gold beneath the forests”. This generated a lot of controversy among policy makers, opinion leaders, miners, chiefs, non-governmental organization etc. Below were some of their arguments against the request to mine in forest reserves as presented by Anane 2003 in the Environment Newsletter.

Owusu Koranteng, Executive Director of WACAM “Sometimes, I wonder what the mining companies and their friends mean by only asking for a small part of the forest reserves. The fact is, once you start tearing out swaths of ecosystems you upset the existing balance in ways that harm even areas you did not intend to touch.

Akosua Birago, Farmer Abekoase “our villages have already been so rapaciously deforested by mining, and the health and the quality of remaining forests continue to decline, and now they are asking for the forest reserves, do they think Ghanaians wash their faces from their chin upwards”.

Sisi Nana, mother Bibiani “ When we went into the forest to plant cocoyam, plantain and pepper to feed our families, government people chased us out and told us not to farm there again. They told us it’s a forest reserve and farming is not allowed there, they won’t even let us collect snails from the reserves, but now government itself wants to send bulldozers there to destroy the forest because the white man says so”

### **2.2.2 Livelihoods**

Any mining activity that directly or indirectly affects negatively the asset pentagon – human, social, natural, physical and financial capital of the individual deprives the individual of his/her livelihood.

Various studies in the Wassa West District in the Western Region of Ghana indicate that gold mining operations threaten the asset pentagon of the individual. Drillbits and Tailings (2000) write that most people in mining communities practice subsistence agriculture. Surface mining operations displace them from their lands on which they farm, leading to loss of livelihoods and breakdown of social ties. They further observed that most of these displaced subsistence farmers are women who cannot find jobs in the mining companies.

In Akabzaa’s (1999) “Boom and Dislocation” mining operations were observed to have a negative impact on the health of the people in mining communities manifesting in malaria, respiratory tract infections, skin diseases and diarrhoea. The report mentioned the Wassa West District as having the highest incidence of malaria in the entire Western region, causing the highest mortality among children in the district, and the highest annual incidence of malaria in the country. Medical experts say that there is a link between this phenomenon and the mining operations that take place in the area.

Again, Akabzaa and Ayitey have pointed out that the net effect of mining is negative looking at their environmental degradation and its effect on livelihoods. Secondly, minerals resources are non-renewable. Akabzaa (1999) has cautioned that while mining companies and central government reap the benefits of mining, if any, very little benefits go to the people in the mining communities. The people who mostly practice traditional subsistence agriculture are displaced from their lands on which they farm to allow mineral prospecting and exploitation in the forest reserves particularly surface mining. This means that we are removing the conducive or appropriate ecological and environmental conditions that are required to maintain optimal agriculture productivity.

Moreover, in order to achieve their aim and objective, mining companies rely on government and the military to intimidate the people and to carry on with their operations, as Drillbits and Tailing write “Political and military intimidation were not uncommon in these mining communities”. Perhaps, those in favour of mining exploitation say that any development effort produces some casualties. Some have termed it as “casualties of progress”. Even though both men and women become “casualties” in most gold mining communities, Drillbits and Tailings note that women suffer most. They write, “Most subsistence farmers are women who cannot find jobs in the mining companies” after they have been forced to give out their farms and land, on which their livelihood depends, for gold mining activities. It is true that they are compensated, often in monetary form, but these compensations have been reported to be inadequate which do not commensurate the loss and the negative effect of gold mining on livelihoods.

## **CHAPTER THREE METHODOLOGY**

### **3.0 Introduction**

The study determined the effects of gold mining activities on livelihoods with particular emphasis on the missing gender component. The study identified the livelihood areas affected by corporate gold mining activities and analysed the gender ratios in the affected livelihood areas. It also assessed the effect of mining on cultural significance, social capital and the extent to which mining activities deprive women of their livelihoods. Furthermore, the study identified the Alternative Livelihood Strategies adopted by the gold mining companies and its gender sensitivity as well as an analysis of the criteria for paying compensation.

### **3.1 Study Area**

The study area is the Wassa West District of the Western region of Ghana. The district was chosen because it is the habitat to a significant proportion of the country's vanishing tropical rainforests and it has the highest concentration of gold mines in a single district in Africa (Akabzaa, 2000). Most of these mines operate surface mining. The district has a population of 232,699 (Ghana, 2000) and covers an area of 2354km<sup>2</sup>. It has been reported that about 60% of the district is either being mined or given under mining concession (Lassey, 1999).

The interplay between increasing human population and the high proportion of lands given for mining or mining concessions will result in resource reallocation and relocation of livelihoods and this situation presents a model opportunity for assessing the effect of mining activities on livelihood areas paying particular attention to the missing gender component.

### **3.2 Sampling**

The Bogoso and the Prestea communities were purposively sampled for the study. In addition, other communities – Bondaye, Himan, Dumase and Kwame Niampa, were also included in the study. Bondaye was selected because the town was mineworkers' settlement with the workers living in the settlement becoming redundant after the closure of the Prestea Gold Mines Himan is close to Prestea, and Dumase was also sampled because of the recent cyanide spillage that was reported in the media.

The survey was conducted for two hundred and ninety (290) randomly selected households within the catchment areas of the mining companies. In addition, ten (10) households were also sampled from a resettled community – Kojokrom. Key informants were also interviewed and they include Officials of District Assemblies, Chiefs, Assembly Men, Opinion Leaders, Medical Doctors, Police Officers, Non-governmental Organizations, Identifiable Women's groups as well as gender activists. Permission was also sought from the Minerals Commission to use some of their reading materials and other useful literature. The gold mining companies, however, refused to grant the researcher interview.

Focus group discussions were organized for all the selected communities. The men were separated from the women so as to avoid any male influence and dominance on the discussion. The selection criteria for the sample were as follow:

1. Communities directly affected by mining – Prestea, Bogoso, Dumase, Himan, Bondaye.
2. A community not directly affected by Mining – Kwame Niampa.
3. A resettled community – Kojokrom

The distribution is as follows:

**Table 1.0-Sampled Communities**

| <b>Communities</b> | <b>Number</b> | <b>Percent</b> |
|--------------------|---------------|----------------|
| Prestea            | 92            | 31.7           |
| Bogoso             | 63            | 21.7           |
| Himan              | 46            | 15.9           |
| Bondaye            | 40            | 13.8           |
| Dumase             | 39            | 13.4           |
| Kwame Niampa       | 10            | 3.4            |
| <b>Total</b>       | <b>290</b>    | <b>100</b>     |

b. Ten households from Kojokrom, near Bogoso, a resettled community.

### **3.3 Profile of the Respondents**

Issues relating to respondents profile were structured around their sex, position in the community and household, marital status and highest educational level. The sampled size of 290 comprised 145 male and 145 females. One hundred and sixty three of them were heads of households while eighty-three were spouses, with thirty-four being a son, a daughter or a sibling of the head of household. About positions, respondents hold in the community, nine were women organizers, a chief farmer, a health worker, four assembly members and an executive member of an association were interviewed. The rest, 248, had no position in the community.

Regarding marital status of respondents, about 74% of them were married. The rest were single, divorced or widowed. Majority of them had been educated to the JSS or the middle school level. About 17% of them had no education with 16% having some secondary education. Just a few of them were educated up to the tertiary level.

### **3.4 Data Collection Methods**

Documents, annual reports and other relevant literature related to the study were reviewed and their contents analysed. Questionnaires were developed and administered to literate households to solicit their response to questions regarding specific conceptual themes on livelihoods, sustainable livelihoods, human rights, mining and sustainable development. The illiterate respondents had the questions administered to them in interviews. In addition, interview schedules were developed and administered to key informants to solicit their knowledge on the subject matter. Interview guides were also designed to guide the focus group discussions.

### **3.5 Data Analysis**

Most of the data collected from the field were qualitative and therefore were not subjected to rigorous statistical analysis. Responses from the key informant interviews and the focus group discussions were transcribed and discussed to bring out the core issues relevant for the study. The qualitative data from the questionnaires were coded and frequencies and cross tabulations obtained from the data. Descriptive statistics was used to analyse the quantitative aspects of the data.

### **3.6 Analytical Framework/Conceptual Framework**

Analysis of the data depended on the objectives and the research design chosen for the study. The focus and the kind of data obtained for the study, allowed a combination of both the quantitative and the qualitative approaches (Hooper, 1990).

The study adapted the Department for International Development's (DFID) definition for livelihoods. DFID admits that the concept 'livelihood' can be used in many different ways but

supports a broad definition of livelihoods to comprise the capabilities, assets (including both material and social resources) and activities required for a means of livelihood. It maintains that livelihood is sustainable when it can cope and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base. Livelihood assets, according to the sustainable livelihoods guidance sheets of the DFID comprise the following:

**3.6.1 Human capital**, which represents the skills, knowledge, ability to labour and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives.

**3.6.2 Social capital**, which means the social resources upon which people draw in pursuit of their livelihood objectives and these are developed through:

- i. Networks and connectedness either vertical or horizontal that increase people's trust and ability to work together and expand their access to wider institutions.
- ii. Membership of more formalized groups which often entails adherence to mutually – agreed or commonly accepted rules, norms and sanctions; and
- iii. Relationships of trust, reciprocity and exchanges that facilitates co-operation, reduce transaction costs and may provide the basis for informal safety nets amongst the poor

**3.6.3 Natural capital** is a term used for the natural resource stocks from which resources flows and services useful for livelihood are derived. There is a wide variation in the resources that make up natural capital, from intangible public goods such as the atmosphere and biodiversity to divisible assets used directly for production (trees, land etc).

**3.6.4 Physical capital** that comprises the basic infrastructure and producer goods needed to support livelihoods. Infrastructure consists of changes to the physical environment that help people to meet their basic needs and to be more productive. The components of infrastructure usually essential for sustainable livelihoods are:

- i. affordable transport
- ii. secure shelter and buildings
- iii. adequate water supply and sanitation
- iv. clean, affordable energy
- v. access to information (communication)

Producer tools on the other hand are the tools and equipment that people use to function productively.

**3.6.5 Financial Capital**, which denotes the financial resources that people use to achieve their livelihood objectives. The two main sources of financial capital are available stock and regular inflows of money.

### **3.7 Feminist theory**

In addition to the assets pentagon framework, the study also found it prudent to adopt liberal feminism in analysing the gender component. Liberal feminism is a school of thought that takes the human capacity to reason as the distinguishing traits. Liberals stress the moral aspect of reasoning and emphasize individual autonomy. Liberalism aims at achieving equity between man and woman in all social spheres. Liberal feminists argue that the most important issue in contention is equality of opportunities but not equality of results and if such is the case then deserving and hardworking individuals will succeed. They therefore argue that when the

constraints on women's participation are removed through public policies and intervention, women will succeed as men do.

There are two major strands to liberal feminist thought. These are classical liberalism that argues that the job of the state is to protect individual right and to provide equal opportunity and welfare liberalism that argues for economic justice and state intervention to ensure equal opportunity. However, the view of women in the mainstream of liberal thought is that because of inadequate socialization and unfair treatment, women are less rational than men are and it is in women's nature to be ruled. Although some liberals acknowledge that women's inferiority is likely due to their unequal opportunities. Liberal feminists appeal to ideas of fairness and justice in demanding equality for women. Their view is that men and women's biological differences are not legitimate bases for differential treatment.

For the purpose of this study, any gold mining activity that directly or indirectly affect negatively the asset pentagon - human capital, social capital, physical capital, natural and financial capital affect livelihood.

## CHAPTER FOUR MAIN FINDINGS

### 4.0 Livelihood areas mostly affected by mining and the gender ratios in these areas.

Livelihood areas identified to be affected by gold mining activities were human capital, social capital, and physical capital, natural and financial capital. Questions were posed to solicit information regarding the extent to which gold mining activities have deprived the communities of these sustainable livelihood assets. The summaries of the finds regarding livelihood areas affected by mining are as follows:

#### 4.1 Human Capital

Human capital represents the skills, knowledge, and ability to labour, food and health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives. Various issues under human capital are discussed below.

##### 4.1.1 Education

The study result indicated that more males were educated than females. Out of the forty-nine that had no education, forty were females. More females had been educated to the primary level than males. It was also observed that the ratio of males to females in access to formal education decreases as they progress on the educational ladder. Among the explanations given was that, as the income of parents dwindles, partly due to unemployment resulting from seizure of lands and farms, the female education had to be forgone and the limited resources used to educate the male child. The details of the highest educational level by sex are presented below.

**Table 2: Highest Educational Level by Sex**

| Sex/Level    | None      | Primary   | Middle/<br>JSS | Secondary | Tertiary | Total      |
|--------------|-----------|-----------|----------------|-----------|----------|------------|
| Male         | 9         | 5         | 92             | 33        | 6        | <b>145</b> |
| Female       | 40        | 20        | 70             | 12        | 3        | <b>145</b> |
| <b>Total</b> | <b>49</b> | <b>25</b> | <b>162</b>     | <b>45</b> | <b>9</b> | <b>290</b> |

Source: Fieldwork, 2005

##### 4.1.2 Health Issues

Good health is regarded as one of the major component of human capital because good health enables people pursue different livelihood strategies and achieve their livelihood objectives. Respondents were asked to give their views regarding gold mining operations and the incidence of diseases. Out of two hundred and ninety households, 250 said that gold mining operations have resulted in increased incidence of diseases; thirty-four had not seen enough diseases while only four said no. This is represented in the table below.

**Table 3: Gold Mining Operations and Increased Incidence of Diseases**

| Response                 | Frequency  | Percent    |
|--------------------------|------------|------------|
| Yes                      | 250        | 86.21      |
| No                       | 4          | 01.40      |
| Have not seen enough say | 34         | 11.70      |
| No-response              | 2          | 00.69      |
| <b>Total</b>             | <b>290</b> | <b>100</b> |

Source: Fieldwork, 2005

In addition to the above question regarding the increased incidence of diseases, respondents were asked to give details about the major diseases, illnesses and sicknesses prevalent in these communities. The most common diseases identified by respondents were tuberculosis, headaches, respiratory tract infections and malaria. The reasons attributed to these were that, surface gold mining generate a lot of dust and since some mining companies are operating in residential areas, people are forced to inhale any waste material generated into the atmosphere and according to the respondents this was responsible for most of the listed diseases. In addition, surface mining create stagnant waters, which serve as breeding grounds for mosquitoes resulting in high incidence of malaria in the communities.

It is important to state that, the increased incidences of diseases in these communities have rendered most of them poor since it reduces their labour hours thereby reducing their income. In addition, they spend a greater percentage of their income on healthcare than before the advent of surface gold mining.

Other diseases identified to be prevalent included stomach pains, diarrhoea, skin rashes and eye diseases. Reasons assigned for these were that all their drinking sources of water have been polluted and as a gesture of compensation, the gold mining companies have mounted water containers at vantage positions in these communities and water tankers fill these containers regularly. Though this has improved accessibility to water, residents have strong doubts about the quality of water they use. In Dumase, for example, it was reported that a dead frog was found in some of the containers.

In addition, the researcher gathered from the focus group discussions that the relocation of their god by the mining company has rendered the god ineffective in detecting and treating some of these diseases. Some of the waters also turn blue when it comes into contact with cassava or plantain. An experiment was carried out for the researcher's observation.

The survey result indicated that the health situation in the sampled communities was bad and this was attributed to the gold mining activities in the area. Tuberculosis was identified to be the most prevalent illness followed by respiratory tract infections notably coughing. The reason assigned was the dusty atmosphere apparently resulting from the gold mining activities. Residents in these communities inhale dusty air and this may be the reason behind the prevalence of these illnesses. Closely followed was malaria and headache. The reason attributed to the prevalence of malaria was that most gold mining companies operate surface mining and their activities leave stagnant waters, which serve as good breeding grounds for mosquitoes. Other illnesses identified, which according to respondents limit the capabilities of the citizens from realizing their livelihood, were skin rashes/irritation, stomach pains, cholera, bilharzias, and eye diseases among others. The medical doctor at Prestea Government hospital identified the major reported health cases to be malaria, lung and eye diseases. The major causes of death at the hospital were malaria, hypertension and heart related diseases. When the researcher asked him whether these diseases and causes of death are mine related, he declined to respond. The details of the identified diseases/illnesses are presented in the table below. There were multiple responses.

**Table 4: Illnesses/ Diseases Identified by Respondents in Mining Communities**

| Illness                      | Frequency | Percentage |
|------------------------------|-----------|------------|
| Respiratory tract infections | 115       | 18.5       |
| Headache                     | 114       | 18.3       |
| Malaria                      | 103       | 16.5       |
| Skin rashes/Irritation       | 62        | 10.0       |
| Stomach pains/Cholera        | 37        | 05.9       |
| Eye Disease                  | 28        | 04.5       |
| Asthma                       | 9         | 01.4       |
| Blood Pressure               | 9         | 01.4       |
| Blood Pleasure               | 9         | 01.4       |
| Cancer                       | 6         | 01.0       |
| Bilharzias                   | 5         | 00.8       |
| HIV/AIDS                     | 4         | 00.6       |
| CSM                          | 2         | 00.3       |
| Bruli Ulcer                  | 1         | 00.2       |
| Malnutrition                 | 1         | 00.2       |
|                              | 623       | 100        |

Source: Fieldwork, 2005

Figures from the above table is similar to the findings of Akabzaa that gold mining activities have a negative impact on the health of the people in mining communities manifesting in malaria, respiratory tract infections, skin diseases and diarrhoea. The report mentioned the Wassa West District as having the highest incidence of malaria in the entire Western region, causing the highest mortality among children in the district, and the highest annual incidence of malaria in the country. Medical experts say that there is a link between this phenomenon and the mining operations that take place.

#### 4.1.3 Ability to labour

Respondents were asked to indicate whether gold mining activities have improved or worsened their ability to labour and to make a good standard of living. The details of the responses are presented in the table below.

**Table 5: Has Mining Activities Improved or Worsened your Ability to Labour and Make a Living.**

| Response      | Frequency  | Percentage |
|---------------|------------|------------|
| Much Improved | 4          | 1.4        |
| Improved      | 20         | 6.9        |
| Same          | 40         | 13.8       |
| Worsened      | 89         | 30.7       |
| Much Worsened | 134        | 46.2       |
| Non Response  | 3          | 1.0        |
| <b>Total</b>  | <b>290</b> | <b>100</b> |

Source: Fieldwork, 2005

The above table represents the extent to which gold mining activities have worsened or improved the standard of living of communities. Majority of the respondents saw their standard

of living much worsened as a result of gold mining activities in their area. In addition, most of them admitted to the fact that mining has limited their ability to make a good living. Reasons assigned to this are presented below. These were, however, multiple responses.

**Table 6: Reasons for Respondents' Inability to Labour and to earn a Living**

| <b>Reason</b>                             | <b>Frequency</b> | <b>Percentage</b> |
|---|------------------|-------------------|
| Redundancy/Unemployment                   | 79               | 39.1              |
| Reduction in trading/economic activities  | 55               | 27.2              |
| Farms/lands taken over by mining company  | 25               | 12.4              |
| Affected by diseases/illness              | 11               | 5.4               |
| Reduction in galamsey activities          | 11               | 5.4               |
| Inadequate income and high cost of living | 6                | 3.0               |
| Fear to put up more buildings             | 4                | 2.0               |
| Land is chemically polluted               | 3                | 1.5               |
| Source of income destroyed                | 3                | 1.5               |
| Drink polluted water in their farms       | 3                | 1.5               |
| Intimidation by the military              | 2                | 1.0               |
| <b>Total</b>                              | <b>202</b>       | <b>100.0</b>      |

Source: Fieldwork, 2005

From the table it is evident that unemployment account for the major reason for peoples' inability to earn a livelihood followed by reduction in trading activities. The reason was that most people in the Prestea-Bogoso communities and its environs are farmers or depend on the land for their livelihood. Majority of them are indigenous farmers or migrant farmer. Others do illegal small-scale gold mining – galamsey, and since surface gold mining activities have taken a larger portion of their lands, most of them who were into farming and the trading of farm products find it difficult to earn a living. The gender ratios in the reasons for inability to labour and to earn a living are presented in the table below

**Table 7: Reasons for inability to labour & to earn a living**

|  | <b>SEX</b>  |               | <b>TOTAL</b> |
|--|-------------|---------------|--------------|
|  | <b>MALE</b> | <b>FEMALE</b> |              |
| Redundancy/Unemployment                  | 45          | 34            | 79           |
| Reduction in trading/economic activities | 14          | 41            | 55           |
| Lands/Farms taken over by mining company | 13          | 12            | 25           |
| Affected by diseases/illnesses           | 3           | 8             | 11           |
| Reduction in galamsey activities         | 7           | 4             | 11           |
| Inadequate income                        | 3           | 3             | 6            |
| High Cost of living                      | 3           | 1             | 4            |
| Fear to put up more buildings            | 4           | 0             | 4            |
| Land is chemically polluted              | 2           | 1             | 3            |
| Source of Income destroyed               | 2           | 1             | 3            |
| Drink polluted water in their farms      | 2           | 1             | 3            |
| Intimidation by the military             | 2           | 0             | 2            |
| <b>Total</b>                             | <b>100</b>  | <b>106</b>    | <b>206</b>   |

Source: Fieldwork, 2005

The table above indicates that most women in the study area are unable to meet their cost of living because of reduction in trading activities. The reason assigned was that mining companies have taken over lands that were being mined by gamamsey operators. This made many of the gamamsey workers migrate to other areas in search of greener pastures resulting in reduction in economic activities. Secondly, women in these areas used to sell cooked foods to the gamamsey workers and the underground mining workers and after the takeover by BGL, no woman is allowed to sell food to the BGL workers because the company has its own canteen. The rest of the responses did not differ significantly from the sexes.

#### 4.2 Social Capital

Questions were posed to solicit respondents' views on the extent to which their social capital has been destroyed or limited by the gold mining activities. Questions posed centred on social networks and connectedness, membership of more formalized groups and relationships of trust, reciprocity and trust that facilitate co-operation, reduce transaction costs etc.

One hundred and two out of the 290 respondents said they belong to one group or the other. The dominant association was church fellowships, followed by social associations and job/work associations. These associations have some objectives and respondents were asked to state the main objective of their association. The details are presented below.

**Table 8: Main aim/objective of Associations**

| Major Objective          | Frequency | Percentage |
|--------------------------|-----------|------------|
| Welfare issues           | 54        | 51.9       |
| Preaching/evangelisation | 19        | 18.3       |
| Community service        | 14        | 13.5       |
| Pull resources           | 13        | 12.5       |
| Skill training           | 2         | 1.9        |
| Health                   | 2         | 1.9        |
| <b>Total</b>             |           | <b>100</b> |

Source: Fieldwork, 2005

From the above table, the dominant objective or goal of the association is to seek the welfare of members. About 18.3% of all the people belonging to church fellowships aim at preaching the good news of the Bible and winning souls for Christ. Less than 4% of the groups aim at skill training and good health.

However, being a member of an association or group mean the reaping of some benefits. Some of the benefits that accrue to members are presented below. There were multiple responses.

**Table 9: Benefit Provided by Groups/Associations**

| Benefits                             | Frequency  | Percentage |
|--------------------------------------|------------|------------|
| Co-operation                         | 87         | 23.3       |
| Happiness                            | 85         | 22.7       |
| Social Safety                        | 78         | 20.9       |
| Reduction in the cost of transaction | 50         | 13.4       |
| Social status                        | 38         | 10.2       |
| Economic safety                      | 36         | 9.6        |
| <b>Total</b>                         | <b>374</b> | <b>100</b> |

Source: Fieldwork, 2005

From the above table, co-operation and happiness appear to dominate benefits that respondents get from belonging to a group. Other benefits identified that were equally important were social safety, reduction in transaction cost among others.

In order to verify the extent to which gold mining activities have affected individual's social capital, a number of questions were posed and respondents were asked to indicate whether mining activities have affected or limited their ability to enjoy these assets. The details are presented below.

#### 4.2.1 Security and safety

Regarding security and safety, about 65% of the respondents said their security and safety had been affected. The reasons assigned are presented below.

**Table 10: Reasons assigned to inadequate security and safety**

| <b>Reasons</b>                            | <b>Frequency</b> | <b>Percentage</b> |
|---|------------------|-------------------|
| Frequent diseases/illnesses.              | 28               | 29.8              |
| Buildings weakened                        | 27               | 28.7              |
| Increase in theft cases                   | 14               | 14.9              |
| Military/Police presence is intimidating. | 5                | 5.3               |
| Pollution                                 | 4                | 4.3               |
| Fear of blasting                          | 4                | 4.3               |
| Unemployment                              | 4                | 4.3               |
| Foodstuffs poisoned                       | 2                | 2.1               |
| High cost of living                       | 2                | 2.1               |
| Land Seized                               | 1                | 1.1               |
| No health facility                        | 1                | 1.1               |
| Over speeding of mining vehicles in town  | 1                | 1.1               |
| Fear for the future                       | 1                | 1.1               |
| <b>Total</b>                              | <b>94</b>        | <b>100</b>        |

Source: Fieldwork, 2005

Many respondents who said their safety and security were affected did not give reasons for their response. However, the few that assigned reasons pointed out that there has been increased incidence of diseases. Others said they live in weakened buildings as a result of persistent blasting by the gold mining companies. About fourteen of the respondents admitted to increased incident of theft ostensibly resulting from the unemployment and the taking over of fertile lands, which has left many of them jobless. Other reasons given, pertained to intimidating military/police presence in the community, pollution, fear of blasting, and poisoned foodstuffs among others. The gender ratios are presented below.

**Table 11: Reasons assigned to inadequate security and safety by sex**

| Reasons                                   | Male      | Females   | Total     |
|---|-----------|-----------|-----------|
| Frequent diseases/illnesses.              | 15        | 13        | 28        |
| Buildings weakened                        | 11        | 16        | 27        |
| Increase in theft cases                   | 5         | 9         | 14        |
| Military/Police presence is intimidating. | 3         | 2         | 5         |
| Pollution                                 | 2         | 2         | 4         |
| Fear of blasting                          | 1         | 3         | 4         |
| Unemployment                              | 2         | 2         | 4         |
| Foodstuffs poisoned                       | 1         | 1         | 2         |
| High cost of living                       | 0         | 2         | 2         |
| Land Seized                               | 1         | 0         | 1         |
| No health facility                        | 1         | 0         | 1         |
| Over speeding of mining vehicles in town  | 1         | 0         | 1         |
| Fear for the future                       | 1         | 0         | 1         |
| <b>Total</b>                              | <b>44</b> | <b>50</b> | <b>94</b> |

Source: Fieldwork, 2005

#### 4.2.2 Ability to Co-operate with Others

Regarding respondents' ability to co-operate with others, only 22.5% said gold mining activities have limited their ability to cooperate with others. Among the explanation given was low self-esteem and dignity resulting from being redundant or unemployed, good friends leaving the community in search of jobs, destruction of recreational and social places as well as reduction in business or trading activities.

#### 4.2.3 Cost of transacting Business

Majority of the households interviewed said the cost of transacting business has been negatively affected because of the operations of the gold mining companies. One hundred and seventy four (174) said their cost of transacting business had been affected. Ninety said their cost of transacting business had not been affected. Out of those whose cost of transacting business had been affected, only eighty-six gave explanation for their response. The details of which are presented in the table below.

**Table 12: Reasons for Increased Cost of Transacting Business**

| Reasons                          | Frequency | Percentage |
|----------------------------------|-----------|------------|
| Reduction in business activities | 36        | 41.9       |
| High cost of living              | 30        | 34.9       |
| No money                         | 13        | 15.1       |
| Unemployment                     | 7         | 8.1        |
| <b>Total</b>                     | <b>86</b> | <b>100</b> |

Source: Fieldwork, 2005

Issues that emerged from the above table include reduction in business activities high cost of living, no income and unemployment affecting the cost of transacting business. Respondents said these factors are mine related. The gender ratios are presented below.

**Table 13: Reasons for Increased Cost of Transacting Business: By sex**

| Reasons                          | male      | Female    | Total     |
|----------------------------------|-----------|-----------|-----------|
| Reduction in business activities | 14        | 22        | 36        |
| High cost of living              | 12        | 18        | 30        |
| No money                         | 5         | 8         | 13        |
| Unemployment                     | 4         | 3         | 7         |
| <b>Total</b>                     | <b>35</b> | <b>51</b> | <b>86</b> |

Source: Fieldwork, 2005

#### 4.2.4 Ability to Make Friends

A hundred and ninety one representing 74% of those that responded to this question said gold mining activities had not limited their ability to make friends. Twenty-six percent (67) of them, however, said mining activities had negatively affected their ability to make friends. Among the explanation given are presented below

**Table 14: Inability of Households to Make Friends**

| Reasons                          | Frequency | Percentage |
|----------------------------------|-----------|------------|
| Migration of good friends        | 5         | 7.5        |
| Unemployment                     | 3         | 4.5        |
| Frequent diseases and illnesses  | 3         | 4.5        |
| High Cost of living              | 1         | 1.5        |
| Reduction in business activities | 1         | 1.5        |
| Non response                     | 54        | 80.5       |
| <b>Total</b>                     | <b>67</b> | <b>100</b> |

Source: Fieldwork, 2005

Issues that emerged from the above table are the movement of good friends out from the town in search of employment since most of them had been made redundant and secondly their farms and lands have been taken over by the gold mining companies. Other pertinent issues that emerged include unemployment, diseases, reduction in business activities and high cost of living, which have limited the capabilities of the individual from making goods friends. These issues, according to the respondents had emanated from the activities of the mining companies. The gender ratios are presented below.

**Table 15: Inability of Households to Make Friends: By sex**

| Reasons                          | Male      | Female    | Total     |
|----------------------------------|-----------|-----------|-----------|
| Migration of good friends        | 4         | 1         | 5         |
| Unemployment                     | 2         | 1         | 3         |
| Frequent diseases and illnesses  | 0         | 3         | 3         |
| High Cost of living              | 1         | 0         | 1         |
| Reduction in business activities | 0         | 1         | 1         |
| Non response                     | 23        | 31        | 54        |
| <b>Total</b>                     | <b>30</b> | <b>37</b> | <b>67</b> |

Source: Fieldwork, 2005

#### 4.2.5 Social Status

The study results revealed that the social status of most of the people in the study communities had not been affected. Among the two hundred and fifty seven household that responded to this question, only seventy-one said mining activities have affected their social status. However, most of them failed to assign reasons why mining has affected their social status. Only six of

them gave reasons, which included unemployment issues, pressure from the community members and those in authority and inadequate income resulting from the taking over of arable land without adequate compensation. The gender ratios are presented below.

**Table 16: Reasons for poor social status: By sex**

| Reasons                     | Male     | Female   | Total    |
|-----------------------------|----------|----------|----------|
| Unemployment                | 1        | 1        | 2        |
| No Income                   | 2        | 1        | 3        |
| Pressure from the community | 0        | 1        | 1        |
| <b>Total</b>                | <b>3</b> | <b>3</b> | <b>6</b> |

Source: Fieldwork, 2005

#### 4.2.6 Happiness

Among the parameters of social capital, the one that most respondents valued was happiness. Two hundred and eleven out of the two hundred and sixty-three that responded to this question said mining activities have negatively affected their happiness. Only fifty-two said mining activities have not affected their happiness. Those that had their happiness affected by mining activities gave the following explanation for their response. These are presented below

**Table 17: Reasons for being Unhappy**

| Reasons  | Frequency  | Percentage |
|--|------------|------------|
| Unemployment   | 36         | 31.0       |
| Reduction in business activities                                 | 19         | 16.4       |
| Military presence being intimidating                             | 14         | 12.1       |
| Frequent diseases/illness  | 11         | 9.5        |
| High cost of living  | 10         | 8.6        |
| No income  | 9          | 7.8        |
| Land seized  | 3          | 2.6        |
| Fear of blasting   | 3          | 2.6        |
| Pollution  | 2          | 1.7        |
| Good friends migrating   | 2          | 1.7        |
| Buildings weakened   | 1          | 0.9        |
| Increase in theft cases  | 1          | 0.9        |
| Destruction of Social Places                                     | 1          | 0.9        |
| Pressure from members of the community                           | 1          | 0.9        |
| Fear for the future  | 1          | 0.9        |
| Rights violated  | 1          | 0.9        |
| Mining Companies are irresponsible to the needs of the community | 1          | 0.9        |
| <b>Total</b>   | <b>116</b> | <b>100</b> |

Source: Fieldwork, 2005

From the above table, it is evident that most people have their happiness affected by the operations of the gold mining companies. Many of them had been unemployed resulting from the closure of the underground mines and the taking over of fertile lands and farms. Others who have a great phobia for the military found their presence very intimidating. Nineteen of them said their happiness is affected due to reduction in business activities. These categories of respondents who were into trading of root crops said that following the announcement that cassava and plantain from the Bogoso – Prestea communities are poisonous, their business activities have reduced drastically. Other issues raised included high cost of living, frequent

diseases, inadequate income, fear of blasting, and seizure of lands among others. The gender ratios are presented below.

**Table 18: Reasons for being Unhappy: By sex**

| Reasons  | Male      | Female    | Total      |
|--|-----------|-----------|------------|
| Unemployment   | 21        | 15        | 36         |
| Reduction in business activities                                 | 8         | 11        | 19         |
| Military presence being intimidating                             | 5         | 9         | 14         |
| Frequent diseases/illness  | 6         | 5         | 11         |
| High cost of living  | 3         | 7         | 10         |
| No income  | 5         | 4         | 9          |
| Land seized  | 1         | 2         | 3          |
| Fear of blasting   | 0         | 3         | 3          |
| Pollution  | 1         | 1         | 2          |
| Good friends migrating   | 1         | 1         | 2          |
| Buildings weakened   | 0         | 1         | 1          |
| Increase in theft cases  | 0         | 1         | 1          |
| Destruction of Social Places                                     | 1         | 0         | 1          |
| Pressure from members of the community                           | 1         | 0         | 1          |
| Fear for the future  | 1         | 0         | 1          |
| Rights violated  | 1         | 0         | 1          |
| Mining Companies are irresponsible to the needs of the community | 1         | 0         | 1          |
| <b>Total</b>   | <b>56</b> | <b>58</b> | <b>116</b> |

Source: Fieldwork, 2005

#### 4.2.7 Cultural Significance

Many of the respondents interviewed admitted that they had not been restricted to any culturally significant sites. However, in Prestea, some respondents said that they had been restricted to culturally significant sites. Among the reasons given by the residents of Prestea are presented below

**Table 19: Reasons for Restriction to culturally Significant Sites**

| Response   | Frequency | Percentage |
|--|-----------|------------|
| Site taken over by mining company                | 21        | 70         |
| Restricted to use the major road to the hospital | 7         | 23.3       |
| Restricted to use the major road to the cemetery | 2         | 6.7        |
| <b>Total</b>                                     | <b>30</b> | <b>100</b> |

Source: Fieldwork, 2005

Other issues raised regarding the destruction of culturally significant sites included the destruction of landscapes, streams, vegetation, sceneries, gods and recreational centres. These issues are presented in details.

**Vegetation:** The issues from the study indicated that before the introduction of surface gold mining in the communities, trees that provided shade, fresh air and served as wind breaks had all been cut down by the surface gold mining. Other fruit trees had also been cut down.

**Gods:** The issue of gods was peculiar to Prestea and Dumase. In Dumase, opinion leaders revealed that the abode of the only god in the area had been changed and this has rendered the god ineffective. According to them, the god was able to detect any impending, diseases, or illnesses and recommended preventive measures to be put in place to avoid it. Since the mining company relocated the god, because the area is in their concession, the god has left the community resulting in the outbreak of diseases.

In Prestea, the researcher was told that the mining company had never visited the god of the land, Asuo Kofi, as the previous mine used to. In addition the ritual of slaughtering a bull each year for the gods of the land had also been stopped. Touching on the significance of the ritual to the success of the mine the Tufuhene of Himan said that when the practice was abandoned by the underground mining company, a monkey sat at the collar of the mine one day, and that particular day a cage full of workers had an accident underground and all its occupants perished. When the company realized the accident was the result of their neglect of the ritual, they re-instituted it until BGL came and abolished the practice.

**Streams, springs and Rivers:** Issues raised concerning water bodies were that before the advent of surface gold mining in the area, there were unpolluted rivers, springs and streams that served as sustainable water for domestic consumption as well as sources of irrigation for farmers who engage in vegetable production. According to them, the mining companies had covered natural source of water given to them by nature with debris and chemicals. As a form of compensation, the mining company had constructed wells and placed poly tanks at vantage points, which are filled with water as and when they get finished. One of the opinion leaders the researcher spoke to in Prestea lamented that the water brought from Bogoso in tankers had been declared unwholesome about five years ago when she was a health worker in Bogoso but today, that same water is what the mining companies fetch for them to drink. In almost all the study areas that the researcher visited, water supplied to the communities were said to be insufficient and women and children had to queue for hours in the scorching sun before one could get a bucket of water. Some of the women admitted that they at times go without bath for a couple of days and to avoid contracting diseases from the contaminated water supplied by the mining companies, people had to supplement the water with “sachet” and “Pure” or “Insu” water.

**Sceneries:** Issues concerning sceneries were peculiar to Prestea. From the information gathered, there was a bungalow in Prestea called Manager Scott Bungalow built by one of the English merchants, which provided conspicuous scenery. This bungalow had been razed to the ground – all in a bid to mine gold. According to them, the Manager Scott bungalow was a beautiful edifice with a very strong foundation. The Mining Company had destroyed many important social assets such as clubhouses, Police station and “filling station” in Prestea.

**Dressing:** It became evident from the study that the mainstream cultural trait of dressing had changed drastically in the mining communities. A key informant reported that the women in their attempt to entice workers of the mining companies had resorted to short skirts and bare-backs dressing popularly called “apuskeleke”

#### **4.3 Physical Capital**

According to the analytical framework, physical capital comprises the basic infrastructure essential for sustainable livelihood. These include affordable transport, secure shelter and buildings, clean and adequate water supply and sanitation, affordable energy and access to information. Respondents were asked to comment on the state of these resources before the

advent of mining operations and their current state. The details of the views are presented below:

#### 4.3.1 Infrastructure- Roads and schools

Majority of the respondents were of the view that the state of these resources had much worsened with only two admitting that there had been some improvement in these resources. The details are presented below state of Infrastructure.

**Table 20: State of Infrastructure**

| State         | Frequency  | Valid Percentage |
|---------------|------------|------------------|
| Much improved | 2          | 0.7              |
| Improved      | 18         | 6.2              |
| Same          | 65         | 22.4             |
| Worsened      | 100        | 34.5             |
| Much Worsened | 102        | 35.2             |
| Non Response  | 3          | 1.0              |
| <b>Total</b>  | <b>290</b> | <b>100</b>       |

Source: Fieldwork, 2005

From the above table, most of the respondents believe that there has been deterioration in the state of infrastructure in the communities. Complaints gathered from the Focus Group Discussions were that the gold mining companies had been banned from using the major road but this directive has been ignored resulting in the deteriorating nature of the roads. Regarding school buildings, some mining companies have put up some school buildings as part of their Social Responsibility with the communities. Other communities said that gold mining companies operating in their area have promised to put up school buildings but they had not honoured their promise.

#### 4.3.2 Affordable Transport

Generally, respondents said that it was difficult to afford transportation. Most of them attributed the problem to the bad nature of the roads caused by the heavy trucks of the gold mining companies that ply the major road. Others attributed the high transportation cost to the intermittent fuel increases by the Government of Ghana. A sizeable number of them had not witnessed any significant change regarding their ability to afford transportation. The rest of the responses are presented below.

**Table 21: Affordable Transport**

| Response      | Frequency  | Percentage |
|---------------|------------|------------|
| Much improved | 1          | .4         |
| Improved      | 5          | 1.8        |
| Same          | 86         | 30.3       |
| Worsened      | 124        | 43.7       |
| Much Worsened | 68         | 23.9       |
| <b>Total</b>  | <b>284</b> | <b>100</b> |

Source: Fieldwork, 2005

#### 4.3.3 Secure Shelter

All the respondents from Prestea and Himan agreed that the blasting from the mines had produced cracks in buildings in the area particularly in Aketewa and Krutown, suburbs of Prestea closer to the mines. Some of the respondents said their electrical gargets had been

damaged following persistence blasting from the mine. In addition, the blasting shakes and quakes buildings. Due to this, residents are afraid to put up new buildings. Moreover, because the mining company is slow in repairing the cracked buildings, residents are compelled to sleep in the cracked buildings. This has made some residents in Prestea to be afraid that their buildings would collapse on them.

Regarding security, respondents said the presence of the military was intimidating. They also reported that some of the residents were shot at by the military in one of their demonstrations. The medical and police officers in the district confirmed this. At Dumase, a man was shot in the arm when he attempted to collect some foodstuffs from his farm, which has been taken over by the gold mining companies. According to the victim, he went there to collect the foodstuffs because the Mining Company had not paid the compensation package at the time.

Another issue regarding security was the increased incidence of theft cases in the area, resulting from the redundancy of most of the youth and the taking over of galamsey sites, which had rendered the youth jobless. They, thus, resort to stealing to earn a living. The details are presented below.

**Table 22: Secure Shelter**

| <b>Response</b> | <b>Frequency</b> | <b>Valid Percentage</b> |
|-----------------|------------------|-------------------------|
| Much improved   | 1                | .4                      |
| Improved        | 12               | 4.2                     |
| Same            | 88               | 31.0                    |
| Worsened        | 60               | 21.1                    |
| Much Worsened   | 123              | 43.3                    |
| Non Response    | 6                |                         |
| <b>Total</b>    | <b>290</b>       | <b>100</b>              |

Source: Fieldwork, 2005

#### **4.3.4 Sustainable Water**

Respondents asserted that before the introduction of surface mining in their communities, they had no problem regarding sustainable water as streams, springs and rivers flowed throughout the year. However, with the introduction of surface mining the sources of most water bodies has been polluted with chemicals and filled with debris. In Bogoso, for example, a road has been constructed across a stream without the construction of a bridge and this has destroyed the water.

To help alleviate water shortages, mining companies operating in the various communities have mounted water containers at vantage places in the communities, which they fill with, water regularly. It was, however, observed that it was not sustainable and once the mining companies stop their operations in the area, the communities will have no source of water. Other issues concerning sustainability of water were that they did not know the sources of the water supplied by the companies and that some of the water they drink turns blue when it comes into contact with cassava and plantain. Experts say the metallic iron content in the water is high.

Some communities were lucky to have wells constructed for them and according to them, it has reduced the distance from home to waster source. The table below provides the views of respondents regarding the sustainability of water.

**Table 23: The State of Sustainability of Water**

| <b>Response</b> | <b>Frequency</b> | <b>Valid Percentage</b> |
|-----------------|------------------|-------------------------|
| Much improved   | 1                | .4                      |
| Improved        | 27               | 9.5                     |
| Same            | 37               | 13.0                    |
| Worsened        | 80               | 28.1                    |
| Much Worsened   | 140              | 49.1                    |
| Non Response    | 5                |                         |
| <b>Total</b>    | <b>285</b>       | <b>100</b>              |

Source: Fieldwork, 2005

#### **4.3.5 Women and Sustainable Water**

It was evident from the study that females were responsible for fetching water, and since the mining companies were irregular in having the water containers filled, women waste a lot of time queuing for water. According to them, the precious times wasted in search of water could have been used on other productive ventures. The researcher's camera captured some of the women struggling to get a pan of water at Prestea.

#### **4.4 Financial capital**

Financial capital, according to the analytical framework denotes the financial resources that people use to achieve their livelihood objective. The two main sources analysed were:

##### **4.4.1 Available Stock**

Respondents were asked to estimate the percentage of production consumed by the household. The study result indicated that on the average about 73.8% of stocks were consumed by the household with the remaining going into other livelihood activities. The maximum percentage of stock consumed was 100% with a minimum of 10%.

##### **4.4.2 Regular inflows of money**

Regarding regular inflows of money, respondents were asked to estimate their annual or monthly income where applicable. All incomes were reduced to monthly basis by dividing annual incomes by twelve. Respondents average monthly income from main or major occupation was ₵1, 061376. The maximum monthly income was ₵6,000.00, whilst the minimum monthly income was ₵20,000 from major occupation. However, respondents who had a second occupation were also asked to estimate their monthly income. The average was ₵644230 with a maximum of ₵3,000, 000 and a minimum of ₵100,000.

##### **4.4.3 Gender and Income**

Statistical test (non-directional) using independent samples and comparing means of income from main occupation, income from other occupations and percentage of income spent on food for both males and females at 0.05 significance level were done. The t-test yielded the results presented below.

**Table 25: Independent Sample t-test**

|                                    | T     | df  | Sig.(z-tailed) | Mean difference | Standard error difference | 95% Confidence Interval of the Difference |           |
|------------------------------------|-------|-----|----------------|-----------------|---------------------------|---|-----------|
|                                    |       |     |                |                 |                           | Lower                                     | Upper     |
| Income from Main occupation        | 1.951 | 105 | 0.054          | 523850.14       | 268561.87                 | -8652.43                                  | 1056364.7 |
| Income from other occupation       | -.444 | 37  | .965           | -8947.37        | 203637.00                 | -421556.1                                 | 403661.4  |
| Percentage of Income Spent on food | -.577 | 195 | .564           | -2.05           | 3.56                      | -9.06                                     | 4.96      |

The above test results indicate no statistically significant differences, at 5% significance level, between the incomes of males and females. Males earned an average of monthly income of 1,351,400 cedis as compared to 827,543 for females. The average monthly income from secondary occupation did not differ much from the sexes. From these incomes, males spent an average of 72.77% on food as against 74.82% spent by females on food. The details of the result are presented below.

**Table 26: Group Statistics on Income (in cedis)**

|  | Sex    | Mean        | Standard Deviation | Standard Error Mean |
|--|--------|-------------|--------------------|---------------------|
| Income from main occupation              | Male   | 1351,400.00 | 1559568.24         | 220556.26           |
|  | female | 827,543.86  | 1214017.87         | 160800.60           |
| Income from other occupation             | Male   | 645000.00   | 646,427.43         | 144545.57           |
|  | female | 653947.37   | 62                 | 143,171.36          |
| Percentage of Total Income spent on food | Male   | 72.77       | 25.21              | 2.55                |
|  | female | 74.82       | 24.69              | 2.48                |

Source: Fieldwork, 2005

#### **4. 5.0. The extent to which gold mining activities deprive women of their livelihoods**

Majority of the respondents said that women have been deprived of their livelihoods and that gold mining activities had limited the capabilities of women to earn a good living. The question that “has mining activities ever deprived women of their livelihood?” was posed. Two hundred and eighteen respondents said yes while forty-four said no. The reasons for their responses are detailed below.

**Table 27: Reasons for Depriving Women of their Livelihood**

| Reasons                                      | Frequency  | Valid Percentage |
|--|------------|------------------|
| Unemployment/Redundancy                      | 70         | 27.2             |
| Reduction in Economic/trading activities     | 59         | 23               |
| Husbands not working to support their wives. | 41         | 16               |
| Farm/Lands taken over                        | 23         | 8.9              |
| High Cost of Living.                         | 19         | 7.4              |
| Affected by diseases                         | 10         | 3.9              |
| Divorce                                      | 7          | 2.7              |
| Inadequate.                                  | 7          | 2.7              |
| Pollution.                                   | 6          | 2.3              |
| Farms/Work destroyed                         | 4          | 1.6              |
| Reduction in galamsey activities.            | 4          | 1.6              |
| Teenage pregnancy/prostitution               | 3          | 1.2              |
| Land is chemically polluted                  | 2          | 0.8              |
| Husband migrated                             | 1          | 0.4              |
| Delay in paying compensation                 | 1          | 0.4              |
| <b>Total</b>                                 | <b>257</b> | <b>100</b>       |

Source: Fieldwork, 2005

However, the general consensus among the respondents agreed that gold mining activities have made it difficult for women to realize their livelihoods.

#### 4. 5.1 Compensation Issues

The nature of compensation paid to the communities for depriving them of their life sustaining resources were in monetary form. In situations where gold mining activities had negatively affected public assets like source of water, hospital, schools, police stations etc, compensation was in kind to replace the destroyed public property. Regarding the replacement of water, all the women interviewed said that the distance from home to the source of water had been reduced. They were, however, not happy about the adequacy and quality of water they use. They were also not happy about carrying water from their homes to the farm, as they had been warned not to drink running waters in the area because of likely chemical pollution.

Most of the respondents were not happy with the level of compensation for cocoa, palm fruits etc. For instance in 1997, the compensation paid by the mining companies for a mature cocoa tree was ₦9,000.00. According to the people, the compensation was ridiculous in that it was not enough to ensure reinvestment by the recipients. In other words, the compensation rate was nowhere near the real market value of the assets lost to gold mining activities.

According to Kasanga (1997) cocoa is as important as gold and could last between 40 and 50 years. A critical analysis shows that a cocoa tree is capable of yielding half a bag of cocoa, beans. Farmers as at 1997 were paid ₦112,500 per bag of (62.5kg). In effect, those farmers who were offered ₦9,000.00 for lost cocoa tree could obtain ₦55,250 from that tree for just one season. The returns from a cocoa tree could last for 40 – 50 years. This according to the respondents, constitute the reason for the dissatisfaction with the compensation paid by the mining companies. About the issue of monetary compensation, most of the people who had had access to the money were either family heads or men alone. Out of the two hundred and ninety households interviewed only sixty-four had received compensation and those who received the money/cheques are presented below

**Table 28: Recipients of Compensation**

| Recipients of Compensation      | Frequency | Percentage |
|---------------------------------|-----------|------------|
| Head of family/households -male | 29        | 45.3       |
| Husband alone                   | 23        | 35.9       |
| Both husband and wife           | 3         | 4.7        |
| Wife alone                      | 2         | 3.1        |
| Family member                   | 2         | 3.1        |
| Chiefs                          | 1         | 1.6        |
| Others                          | 4         | 6.3        |
| <b>Total</b>                    | <b>64</b> | <b>100</b> |

Source: Fieldwork, 2005

#### **4. 5.2 Women and Compensation**

From the table above, it is evident that over 80% of monetary compensation paid to households goes to men. Women only received compensation when the property they lost was inherited from their matrilineal family. Men were the recipients of compensation for properties jointly owned by husband and wife.

#### **4. 5.3 Other Effects of Gold Mining on Women Gathered from the Focus Group Discussions**

##### **4. 5.3.1 Marriage**

Marital relationship had been strained because most of the men are unemployed resulting from redundancy, taking over of galamsey sites, farms and farmlands. As a result, their husbands are unable to support their families leaving the women solely responsible for the up keep of the home. This has resulted in increase in separation and divorce. Some of the husbands have also migrated to the cities in search of jobs. Children had to stop schooling because female parents could not afford their fees and when parents had to choose between the education of male and female children the choice is always in favour of males. This has resulted in dropouts of females from school most importantly at the secondary level.

##### **4.5.3.2 Trading and other Economic Activities**

It became evident, especially in Prestea that trading and other economic activities had reduced as compared to when the underground mine was operating. Some women used to sell food to the underground mine workers but now they are not allowed to sell at BGL. In addition, trading in root crops had gone down because of a radio announcement that root crops in the Bogoso-Prestea communities are contaminated. More so, most people are unemployed so they do not have the means to patronize goods and services.

##### **4.5.3.3. Employment**

In terms of formal employment, the informants put the ratio at about 7:3 in favour of men. They said most of the women who had been employed are on casual basis. Most women also used to carry sand for the galamsey men and now that lands for galamsey have been taken over, most women are without jobs. It was also evident that about 65% of women in the study area are into agriculture and the taking over of lands from them had rendered most of them jobless.

#### **4.5.3.4. Decision Making**

Generally, women are not part of decision-making processes, particularly with issues relating to the mines. However, in Himan, the Tufuhene said that their community engages in consultations and in some cases, women are included in decision-making. It was, however, learnt that after the decision had been taken, it is disseminated to all, including women and all put their hands on deck to fight for their right. Women participated actively in the recent demonstration in Prestea.

#### **4.6 Gold mining and the resettlement of communities: The Kojokrom case**

Kojokrom is a resettled community about three kilometres from Bogoso on the Bogoso – Bawdie road. The people were resettled from “Compound”, a village near Bogoso by the BGL. There were, however, settlers on the land before they joined them. The people were mainly farmers before they were resettled. Some of them had cocoa, citrus, plantain, cassava, and coconut farms among others.

#### **4.6.1 Assessment of their New Environment**

They reported that they were not happy at all with their resettlement. They complained that they had been resettled on a “strange” land and do not even have a cemetery. At the time of the discussion, somebody had died in the community. The group informed the researcher that the corpse would be conveyed to another village for burial. They claimed they were coerced to settle on that land and did not know how the Mining Company came by that land.

##### **4.6.1.1 Health**

Among the diseases prevalent in the community are eye diseases, ear disease, diarrhoea, and stomach pains cough with blood, toothache and black teeth’s. Most of them attributed the cause of these diseases to the water they drink in their new environment and the effect of contaminated food they ate at their previous settlement.

Regarding sustainability of water they drink, the people said that the mining company had provided them with pipe-borne water but the quality of water was bad. It was at Dumase that an experiment was conducted on how the water they drink turns blue or purple when it comes into contact with cassava or plantain. Again, they claimed that the regularity of the water they use depends on power and anytime the power supply goes off, the taps do not flow.

##### **4.6.1.2 Social and Personal Assets**

The people complained that access to infrastructure – roads, schools, hospitals; affordable transport, secure shelter, adequate water and sanitation, electricity and information had been much worsened, resulting in low standard of living. They bitterly complained of the absence of school and electricity in the resettled community. Among the personal assets that they had in their previous settlement were cocoa farms, oil palm farms, coconut farms, citrus farms, cassava, cocoyam etc. Others had houses and stores. All the property, they claimed, were destroyed by the mining company. They were, however, compensated for the loss of the property, but they admitted that the compensation was inadequate and they are not satisfied with the deal. Some of them had taken legal action but for so many years, the case is still pending in the law court.

##### **4.6.1.3 Culture and Other Social Significance**

The resettled people used to have a cemetery and churches in their former community. They were neither compensated for the loss of the cemetery nor a new one built for them in their new settlement. Hence, they bury their dead in another village. Regarding churches, there were two churches in the resettled community – “Nakaba” that is Twelve Apostles’ church and the Church of Pentecost. Most of them claimed to be Catholics and Methodists. They said that some of the

churches they were attending in their previous community are not in the resettled community. They claimed no compensation was paid to them regarding the loss of cultural and other social assets.

They also claimed that, the following items were in their previous community but not in the resettled community: forest, non-timber forest products like snails, mushrooms etc, streams, rivers, schools and markets. All these assets are missing in the resettled community. Children travel a total of six kilometres a day to the nearest government school at Bogoso.

#### **4.6.1.4 Compensation Issues**

According to the respondents, they did not receive compensation for all the social and culturally significant assets they host. The mining company only put up buildings to accommodate them. In addition to the buildings put up for them, which they claimed were poorly constructed and inadequate, they also received compensation for their destroyed farms. However, head of families, most of them males and husbands received most of the compensation. One woman said it was her “husband that collected the compensation from the company”. Her husband only told her that it was not enough. She said she did not contest because it was the husband who fed the family.

#### **4.6.1.5 Farming Arrangements**

They said that because there is no land in the resettled community, they are forced to go into “abunu” (a tenancy agreement where farm produce are shared equally) tenancy agreement with the landowners. Men dominate in farming activities. They lamented that women who are not married are worse off because they had nobody to clear the land for them and they also do not have money to hire labour.

#### **4.6.2 Other Relevant Issues of Concern**

The following were suggested by the respondents to be provided for the community in general and women in particular

- i. Credit or loans for women
- ii. Employment for both men and women
- iii. Skill training or vocation for women
- iv. Alternative projects for women
- v. Good drinking water
- vi. Schools
- vii. Electricity
- viii. More houses
- ix. Market

**Table 29: Comparison of the Two Communities**

| <b>Compound (Previous Community)</b>                                     | <b>Kojokrom (Resettled Community)</b>  |
|--|--|
| 1. Cassava, Coconut, cocoa, Plantain, Oil palm farms                     | 1. No farm   |
| 2. One woman had Television set  | 2. She still owns it but she does not Use it because there is no electric power. |
| 3. Non-timber forest Products –snails, mushrooms, bush meat, fruits etc. | 3. No non-timber forest products.  |
| 4. One big stream with fish  | 4. No stream but borehole.   |
| 5. Cemetery  | 5. There is no cemetery.   |
| 6. No market   | 6. No market   |
| 7. No school   | 7. No school   |
| 8. Effective transportation system                                       | 8. Not very effective transportation system.                                     |
| 9. Many Churches   | 9. Only two churches   |
| 10. Average annual income was ₺2,252,000.00                              | 10. Average annual income is ₺400,000.00   |

Source: Fieldwork, 2005

#### **4.7.0 Alternative Livelihoods Strategies/Projects**

All the mining companies the researcher wanted to interview failed to grant him interview. The researcher wrote a couple of letters to them but they did not respond. As a result, the analysis on alternative livelihoods projects or strategies adopted by the mining companies and the social responsibility agreement were based on information provided by the respondents.

Some of the alternative livelihood projects identified by the respondents were:

- i. Oil palm projects
- ii. Oil palm mill
- iii. Flour mills for bread making

**Oil Palm Projects:** It became evident from the study that oil palm projects were the most dominant of all alternative livelihoods projects of the mining companies. The respondents did not know the criteria for selecting people to be part of this project. In Brakwaline, a village close to the residence of the manager of BGL, some farmers were interviewed by BGL and fifteen of them were selected to take part in the project. Each of the fifteen farmers was given ₺600,000.00 to improve upon their farms. In addition, each of them was supplied with one hundred and twenty oil palm seedlings, Wellington boots and insecticides. They said there was no specific procedure for selection but they all met the BGL managers and fifteen farmers made up of eight men and seven women were selected. According to the group interviewed, another fifteen would have their turn after three years. The project was found to be gender insensitive-knowing very well, that women hardly own land in most Ghanaian communities. According to the seven women who benefited in Brakwaline, the oil palm seedlings were given to their husbands because they do not own any land. They also maintained that they had a share of the ₺600,000.00 given to them to improve their farm.

#### **4.7.1 Sustainability Issues**

Respondents could not tell whether the project would be sustainable or not. Another issue raised was the number of farmers who benefit from the project. A key informant of Bogoso said, “The alternative livelihood project is done on whom you know basis” At Bogoso, only fifteen farmers out of the fifteen thousand farmers had been offered that opportunity.

A critical examination of the oil palm project as an alternative livelihood project revealed the following:

- i. The premise on which the project depends is wrong since gold mining companies operating in the communities have taken most of their arable lands for surface gold mining activities. In addition to the above is the fact that, the very few people who have benefited from the alternative livelihood project might not even have access to land. There is the likelihood that these beneficiaries could sell the oil palm seedlings to other farmers outside the community who have land.
- ii. The project should have been introduced before the taking over of farmlands in order to make sure that the people do not suffer after their farmlands have been taken over.
- iii. The project also uses the top down approach instead of the bottom up approach. The respondents said they were not asked to identify the farming areas they would like to go into and that the project was the idea of the mining companies. The beneficiaries said the project should have started with need identification.
- iv. There is no monitoring and evaluation of the alternative livelihood projects. Once the mining company gives the money and the items, beneficiaries were left on their own and whether they start the project or not was none of the business of the mining company.
- v. Respondents were not happy about the number of beneficiaries. “If fifteen people benefit in every three years then some farmers would die before it gets to their turn”, one respondent said. The council chairperson of Bogoso said the name “alternative livelihoods project” should be changed because a project that benefit only fifteen farmers out of fifteen thousand farmers could not be termed an alternative livelihood project.

#### **4.7.2 Oil palm mill**

Some of the respondents interviewed also said that an oil palm mill had been provided by the mining company operating in their area to help reduce the drudgery associated with milling palm fruits. This project was, however, seen to be gender sensitive since most of the people who are into oil palm mills are women.

Bakers in some of the communities interviewed had also benefited from flourmills. Before the introduction of the mills, they used to carry their flour to a mill outside the communities. The project was also gender sensitive.

#### **4.7.3 Social Responsibility**

Mining companies are required to fulfil some social responsibility with the communities within which they operate. It became evident from the study that the opinion leaders – chiefs, Assembly members, unit committee members etc, decided on what projects to be embarked on, and the mining companies foot the cost of the projects. The mining companies did not have any say regarding specific projects as part of their social responsibility. Majority of the respondents interviewed said that mining companies operating in their area had no social responsibility agreement with the communities. With the exception of Prestea where a generator had been bought by Sankofa mines for the hospital and Dumase where a recreational centre and a school block had been built as part of their social responsibility, respondents claimed that nothing had been done regarding social responsibility.

There was also a misconception about the beneficiaries of the social responsibility agreement funds as many of the respondents were of the opinion that chiefs and elders of the town benefit from social responsibility funds.

#### **4.7.4 Gender and Social Responsibility**

It became evident in most communities that those who take decisions regarding the use of the social responsibility funds are men – most often chiefs, and other opinion leaders. Their decision was then communicated to all the members of the community. In deciding the usage of social responsibility funds, those who take decisions did not take the needs of women into consideration. According to them most pressing needs of the community was what they consider irrespective of sex since the projects they opt for benefit the whole community. They also maintained that when the need arise for women to be consulted regarding the use of social responsibility funds then women opinion leaders and Assembly women are consulted but ordinary women were not consulted.

#### **4.8.0 Compensation Issues – The legal framework**

The ownership of property involves rights that the owner exercises over the property or uses to control the property. However, mining in general and surface mining in particular, deprive landowners of some of their rights. Section 18, sub-section 5 of PNDC law 153 of 1986, contradicts the 1992 Constitution and the State Lands Amendments Act (586) of 2000 by transferring the rights to land to the holders of mineral rights. Section 18, Sub section 5 of PNDCL 1986 states that a mineral right granted by the secretary under this section shall be deemed as requisite and sufficient authority own the card in respect of which the right is granted.

In order to ensure that land owners do not suffer loss unduly because of mining activities the PNDC Law 153 section 71 (1) gives room for the owner or occupier of any land subject to a mineral right to apply to the holder of the right for compensation for any disturbance of the rights of such owner. Compensation should also cover any damage done to the surface of the land, buildings, works, or improvements or to livestock, crops or trees in the area of such mineral operation. Again, the State Lands Amendments Act 586 of 2000 strengthens the rights of the landowner and all people with interest in a particular property. The law talks about compensation to be adequate, fair and should cover other commodities that the interest group benefited from the land before compulsory acquisition at the market or replacement value of the land.

Compensation in this context is defined as any amount required, as far as money can do so, to put a claimant disposed of his interest or rights by a compulsory acquisition in the same position as if his property had not been acquired. In order works, the claimant should not be worse off through the acquisition and after compensations. The core idea here is that the claimant should be financially compensated adequately for the loss suffered. The compensation and valuation should be on the principle of equivalent reinstatement that would put the owner as far as possible, in the same position as he was before the acquisition. In this respect, the compensation is based on the agreement between the parties concerned and it is the only means through which adequate compensation schemes can be arrived at.

## CHAPTER FIVE

### SUMMARY, LIMITATIONS, CONCLUSIONS, RECOMMENDATIONS AND FUTURE DIRECTION OF RESEARCH

The study set out to investigate the effect of gold mining on livelihoods with emphasis on the gender component. The following objectives were to be achieved:

- To identify the livelihood areas affected by corporate gold mining activities and analyse the gender ratios in the affected livelihood areas.
- To assess the effect of gold mining on cultural significance, social capital and natural environment or natural capital.
- To analyse the extent to which gold mining activities deprive women of their livelihoods.
- To identify the Alternative Livelihood Strategies (ALS) adopted by the gold mining companies and analyse its gender sensitivity.
- Identify the legal basis of compensation and analyze respondents' satisfaction.
- Discuss peculiar problems of resettled communities.
- Make appropriate policy recommendation to Gold Mining Companies and the Government.

#### Summary

In order to accomplish the set objectives, a number of research questions were posed and the summary of the conclusions derived from the major findings is presented below.

#### **1. Livelihood areas affected by corporate gold mining activities and an analysis of the gender ratios in the affected livelihood areas.**

The major livelihood areas that gold mining activities affect are human, social, natural, physical and financial capital.

#### **Human Capital**

- i. Education: The study result indicated that more males were educated than females. The main reason was that as the income of parents dwindles, partly due to unemployment resulting from seizure of lands, farms, and farmlands without adequate compensation, the female education is sacrificed for the male education.
- ii. Health: It became evident that gold mining operations have resulted in increased incidence of diseases in the mining communities. The most common diseases identified by respondents are tuberculosis, headaches, respiratory tract infections and malaria. Medical experts say there is a link between this phenomenon and the mining operations that take place. There was no significant difference in the sexes and the prevalent diseases. However, it became evident that the increased incidence of diseases in these gold mining communities has rendered them inactive and poor since it has reduced their labour hours thereby reducing their income.
- iii. Ability to labour: Most of the respondents said their ability to labour and to make a good living have much worsened. The major reasons they gave include high unemployment, reduction in economic activities, and increased incidence of diseases. The big blow is that their farms and farmlands have been taken over. While majority of the males complain of unemployment, most women find the reduction in economic activities as the major factor that limits their ability to labour and make a good standard of living.

## **Social Capital**

- i. **Groups and Associations:** Out of the 290 respondents, 102 said they belong to an association or group. The major objectives of the groups are welfare, evangelism, community services and the pulling of resources. Among the benefits members enjoy from the associations are co-operation, happiness, social safety, and reduction in the cost of transacting business, social status and economic safety.
- ii. **Security and safety:** Majority of the respondents said their safety and security is affected. The major reasons given are increased incidence of diseases and the weakened buildings. Other reasons include increased incidence of theft, intimidating police and military presence, pollution of the environment, fear of blasting, unemployment, poisoned foodstuffs, and high cost of living among others. Most of the women were afraid of the weakened buildings and theft. There was no significant difference in the responses between male and females.
- iii. **Ability to co-operate with others:** Only 22.5% of the respondents said gold mining activities have limited their ability to co-operate with others. Among the explanation given is low self-esteem and dignity resulting from unemployed, resulting from the seizure of lands, good friends migrating to other towns and cities, destruction of recreational and other social places as well as reduction in trading activities. There were no significant differences in the responses between male and females.
- iv. **Cost of transacting business:** Majority of the households interviewed said the cost of transacting business has been negatively affected as a result of the operations of the gold mining companies. According to most of the women, the cost of living is high and that most of their businesses have collapsed. Most men also share this view.
- v. **Ability to make friends:** Majority of the respondents said that gold mining has nothing to do with their ability to make friends. A few of them said that their friends have left the community.
- vi. **Social Status:** The study results revealed that the social status of most of the people in the study communities has not been affected. Some of the reasons given by those whose social status have been affected include unemployment issues, pressure from the community member and those in authority and inadequate income resulting from the taking over of arable land without adequate compensation. The gender ratios are presented below. The responses from the sexes did not differ significantly.
- vii. **Happiness:** Among the parameters of social capital, the one that most respondents' value is happiness. Two hundred and eleven respondents said gold mining activities have negatively affected their happiness. The major explanation given includes high rate of unemployment, intimidating military presence, high cost of living increased incidence of diseases, reduction in business activities and inadequate income. Most men complain of unemployment while most women complain of reduction in business activities.

## **Cultural Significance**

Many of the respondents interviewed admitted that they had not been restricted to any culturally significant sites. However, in Prestea, some respondents said that they had been restricted to culturally significant sites. The gold mining company has restricted them from using the major road to the hospital and the cemetery. In some communities, the abodes of their gods have been taken over and this has rendered the gods powerless. Other issues that emerged regarding the destruction of culture and culturally significant sites include the destruction of landscapes, streams, vegetation, sceneries, gods, and recreational centres.

## **Physical Capital**

- i. Infrastructure- Roads schools etc: Majority of the respondents were of the view that the state of these resources has much worsened. Complaints gathered from the Focus Group Discussions are that the gold mining companies had been banned from using the major road but this directive has been ignored resulting in the deteriorating nature of the roads. Regarding school buildings, some mining companies have put up some school buildings as part of their social responsibility with the communities.
- ii. Affordable Transport: Generally, respondents said that it is difficult to afford transportation. Most of them attribute the problem to the bad nature of the roads caused by the heavy trucks of the gold mining companies that ply the major road.
- iii. Secure Shelter: Respondents from Prestea and Himan agree that the blasting from the mines had produced cracks in buildings in the area particularly in Aketewa and Krutown, suburbs of Prestea closer to the mines. Some of the respondents said their electrical gadgets had been damaged following persistent blasting from the mine. In addition, the blasting shakes and quakes buildings. Due to this, residents fear to put up new buildings. Moreover, because the mining company is slow in repairing the cracked buildings, residents sleep in cracked buildings. This they say has generated a lot of fear anytime they put down their heads to sleep.
- iv. Security: Regarding security, respondents say the presence of the military is intimidating. Some of the residents have suffered military brutalities resulting in serious injuries. There is also increased incidence of theft cases in the mining communities.
- v. Sustainable water: Respondents assert that before the introduction of surface mining in their communities, they had no problem regarding sustainable water as streams, springs and rivers flowed throughout the year. Nevertheless, with the introduction of surface gold mining the sources of most water bodies have been polluted with chemicals and debris. The gold mining companies have provided alternatives but they are not sustainable and the water quality is poor.
- vi. Women and sustainable water: It was evident from the study that females are responsible for fetching water, and since the water supply is irregular, women waste a lot of time queuing for water. According to them, the precious times wasted in search of water could have been used on other productive ventures.

## **Financial Capital**

- i. Available stock: The study result indicates that on the average about 73.8% of stocks are consumed by the household with the remaining going into other livelihood activities. The maximum percentage of stock consumed was 100% with a minimum of 10%.
- ii. Regular inflow of money: Respondents' average monthly income from main or major occupation was ₵1, 061376. The maximum monthly income is ₵6,000.000. Others earn as low as ₵20,000 a month.
- iii. Statistical test (non-directional) using independent samples and comparing means of income from main occupation, income from other occupations and percentage of income spent on food for both males and females at 0.05 significance level were done. There are no statistically significant differences between the incomes of males and females.

### **The extent to which gold mining activities deprive women of their livelihoods**

Majority of the respondents said that women have been deprived of their livelihoods and that gold mining activities have limited the capabilities of women from earning a good living. Among the major reasons they gave are that there is high unemployment among men and

women, reduction in trading activities, husbands not working to support their wives, husbands migrating and leaving their wives behind, the taking over of farms and farmlands, high cost of living and the increased incidence of diseases. The summary of other effects of gold mining is presented below.

- i. Women and compensation: it became evident that most of the compensation money goes to men and women hardly benefit from compensation money. Most of the women, however, do not contest because it is the responsibility of the men to feed the family. Women only receive compensation when the property lost was inherited from matrilineal family.
- ii. Marriage: Marital relationships have been strained because most of the men are unemployed resulting from redundancy, taking over of galamsey sites, farms and farmlands. As a result, their husbands are unable to support their families leaving the women solely responsible for the up keep of the home. This has resulted in separation and divorce. Some of their husbands have also migrated to the cities in search of jobs. Children have stop schooling because female parents are unable to afford their fees and when parents had to choose between the education of the male and female children the choice is always in favour of males. This has resulted in increase in dropouts of females from school most importantly at the secondary level.
- iii. Trading and other economic activities: It became evident that trading and other economic activities have reduced. In addition, trading in root crops has gone down because of a research that found root crops in the Bogoso-Prestea communities to be contaminated. More so, most people are unemployed so they do not have the means to patronize goods and services.
- iv. Employment: In terms of formal employment, the respondents put the ratio at about 7:3 in favour of men. They said most of the women who had been employed are on casual basis. Most women also used to carry sand for the galamsey men and now that lands for galamsey have been taken over, most women are without jobs. It was also evident that about 65% of women in the study area are into agriculture and the taking over of lands from them had rendered most of them jobless.
- v. Decision-making: Generally, women are excluded from the decision making process, particularly with issues relating to mining.

### **Gold mining and the resettlement of communities: the Kojokrom case**

They reported that they were not happy at all with their resettlement. They complained that they had been resettled on a “strange” land and do not even have a cemetery. Some of the reasons given are as follows

- i. Health: Among the diseases prevalent in the community are eye diseases, ear disease, diarrhoea, and stomach pains cough with blood, toothache and black teeth’s. Most of them attribute the cause of these diseases to the water they drink in their new environment and the effect of contaminated food they ate at their previous settlement.
- ii. Quality and sustainable water: The people said that the quality of water they drink is bad.
- iii. Social and personal assets: The people are not happy about the state of infrastructure – roads, schools, hospitals: affordable transport, secure shelter, adequate water and sanitation, electricity and information, in their new environment. Among the personal assets that they had in their previous settlement were cocoa farms, oil palm farms, coconut farms, citrus farms, cassava, cocoyam etc. Others had houses and stores. All the property, they claimed, were destroyed by the mining company. They were, however, compensated for the loss of the property, but they

admitted that the compensation was inadequate and they are not satisfied with the deal. Some of them had taken legal action but for so many years, the case is still pending in the law court.

- iv. Compensation Issues: It became evident that the people did not receive compensation for all the social and culturally significant assets they lost. The mining company only put up buildings to accommodate them, which they claim, is inadequate and poorly constructed. They also received compensation for their destroyed farms. However, head of families, most of them males and husbands received most of the compensation. They admitted that the compensation was inadequate and they were not satisfied.
- v. Farming arrangements: They said that because they do not own land in the resettled community, they are forced to go into “abunu” (a tenancy agreement where farm produce are shared equally) tenancy agreement with the landowners.
- vi. Other relevant issues of concern: The following were suggested by the respondents to be provided for the community in general and women in particular: Credit or loans for women, employment for men and women, skill training or vocation for women, alternative projects for women, good drinking water, schools, electricity, more houses and a market.

### **Alternative Livelihoods Strategies/Projects**

Some of the alternative livelihoods projects identified by the respondents were:

#### **Oil palm projects and flourmills**

Respondents said the premise on which the palm projects depend is wrong since gold mining companies operating in the communities have taken most of their arable lands for surface gold mining activities. They also said that the project should have been introduced before the taking over of farmlands in order to make sure that the people do not suffer after their farmlands have been taken over. The respondents were not happy about the criteria for selecting the number of beneficiaries and the sustainability of the project.

#### **Social Responsibility**

It became evident that most gold mining companies do not honour their social responsibility agreement with the communities. A few of them have, however, put up school buildings, recreational centres and police station for the communities in which they operate.

#### **Gender and Social Responsibility**

It became evident in most communities that those who take decisions on how social responsibility funds should be used are men – most often chiefs, and other opinion leaders. Their decision is then communicated to all the members of the community. In deciding the usage of social responsibility funds, those who take the decision do not take the needs of women into consideration. According to them, most pressing needs of the community are what they consider irrespective of sex since the projects they opt for benefit the whole community.

#### **Compensation Issues – The legal framework**

It became evident from the study that the legal framework for property right, especially land right is weak. The property lost does not commensurate with the compensation given to the owners of the property. Respondents were neither happy nor satisfied with the compensation.

#### **Limitations of the study**

The major limitation of the study was the refusal of gold mining companies to share information with the researcher. The Minerals Commission also delayed in releasing information on the

criteria for paying compensation. The researcher visited the commission on countless occasions but could not get the information.

## **Recommendations**

### **1. To Government and Its Agencies**

- a. The government should strengthen its laws on corporate mining to make it more relevant to current trends
- b. The government should make human rights part of the mining laws.
- c. The government and its enforcement bodies must set strict environmental regulations and standards for the mining companies
- d. Government institutions mandated to monitor the activities of the mining companies should be given all the necessary logistics to carry out their mandate.
- e. Government should make sure that part of the revenues that accrue in the form of taxes paid by mining companies are channelled into the development and poverty alleviation programmes in the mining communities.
- f. Government should as a matter of urgency review its laws on compensation.
- g. Government should make sure that compensation paid for the loss of property is commensurate with the property lost. In addition, part of the monetary compensation should be given to women.

### **To Gold Mining Companies**

- a. Gold mining companies operating in Ghana should give a human face to their operations by ensuring strict adherence to the protection of the rights of the people in the communities
- b. Mining companies should adopt more humane methods of dealing with community conflicts rather than the use of police and military threats and brutalities.
- c. Companies with mining concessions should abide by the mining regulations in the country with respect to environmental pollution.
- d. Firms doing mining in Ghana should endeavour to replace community assets destroyed by mining operations.
- e. Alternative livelihood projects should be introduced before farms and farmlands are taken over. The projects should also be gender sensitive
- f. Where there is evidence that the activities of mining companies have caused environmental pollution and degradation like cyanide spillage, they should be honest enough to accept and deal with the problems with the communities concerned and other regulatory bodies like the EPA
- g. The situation whereby a whole community is resettled on a strange land should be given a second look. People should be given the choice to decide where they would like to live.

### **To Mining Communities**

- a. Communities affected by mining should always ensure that in negotiating for compensation, they would seek the services of people who are knowledgeable in legal matters. Where possible they should seek counsel from people in academia, civil societies and other interested groups.
- b. Communities affected by mining should always be educated on the merits and demerits of surface gold mining to their environment, health, and posterity so that they would be more forward looking in dealing with compensation issues and not to think about immediate returns to their present generation.

**To Civil Society Organisations**

- a. Civil society and other interested groups should continue to educate communities affected by mining on their rights and responsibilities under the law.
- b. They should continue to bring to the fore the negative effects of surface gold mining on mining communities and continue their advocacy and put pressure on the mining companies to conform to local and international standards.

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