

GIRLS IN MINING AND QUARRYING IN GHANA



**COMMISSIONED BY
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EXECUTIVE SUMMARY

Introduction

Many countries in Africa rely extensively on their rich natural resources to finance their economic development. In order to attract investments in the mining sector, many African countries have revised or developed mining codes deregulating the mining sector and providing generous incentive packages to investors in the sector. These changes have divested the state of its control and direct investment in the mining sector (TWN, 2001). This renewed boom in Africa has equally boosted the small-scale mining sector which is in direct competition with large scale multinational companies for prospective grounds. Consequently, many countries have enacted laws to legalise the activities of artisanal miners which remained largely outlawed in the 1980s.

In Ghana, mineral exports have a long history of importance in the economy and export trade. Small-scale miners were the only miners of gold and diamond in the traditional economy until 1933, when colonial authorities through legislation made their operations illegal. Over the last two decades the mining sector has been one of the key targets of policy reforms in the country. As a result of the reforms, the twenty years since 1986 have seen tremendous growth in corporate mining activity across Ghana especially in the gold sub-sector (TWN, 2005).

The Study Objectives

The expansion in mining activities has triggered the influx of all sorts of artisanal operators, including girl child labourers. This study is essentially aimed at generating new insights into girls in mining to inform policy and planning in the ILO/IPEC Time Bound programmes for the elimination of the worst forms of child labour.

Given the exploratory nature of the study, the case study approach was used to collect basic information about the situation of the respondents. Accidental sampling was initially used to identify operators following which a snowball technique was used in which the girls that were first located pointed out others to the research team. The results

are presented in this report, highlighting motivational factors pushing the girls into mining related work, and their general living conditions.

The sample was made up of young female residents of Akwatia (a diamond mining town in the Eastern Region of Ghana) and Tarkwa (where gold is the predominant mineral mined).

Findings

Girls work in a wide range of activities related to the whole production line of small scale mining and quarrying. They are involved in such basic tasks as cooking and cleaning as well as extraction of underground and surface ore. They also work in transporting the ore, its separation and subsequent metal production.

The ages of the respondents ranged from 10 years to 18 years. The findings show that respondents between the ages of 15 to 18 years, formed the highest proportion (74 %) of children interviewed both in Akwatia and Tarkwa.

A little over half (52.7%) of the respondents are still in school and about 38.2 % left school for various reasons. For the majority (62%) of those who left school before completion, the main reason is the need to earn a living. Other reasons for early exit include: lack of interest, (20%), start a business on their own (22%) and illness (6%). Accommodation for most of the girls was very basic. The majority of them (82.0%) lived in dilapidated mud houses, suggestive of high levels of poverty.

Whilst the reasons for working in the mines are diverse, prominent amongst them are the need to supplement family income and to become economically independent (Table 3.1). Poverty therefore seems to be a major driving factor. Most of the girls in mining are wage workers. Nearly two-thirds of them (64%) are temporary/ part time workers or “by day” workers; 15% are self-employed, 9% are unpaid family workers and only 7% are regular paid workers. The rest have no fixed pattern of work.

The study found that girls were not much involved in heavy duty work such as digging, soil cracking and grinding. Head portorage of mud and stones to the sieving sites was the most predominant activity of girls in the mining areas studied. Only small proportions were involved in panning, mixing and refining activities and the other activities

Working hours varied considerably among the girls. Several of them work long hours, barely having time to rest and play. Those who combined school with work in the mines indicated that the long hours adversely affect their school work. Quite a few of them (42%) worked 1-5 hours, followed by 35% who worked 6-10 hours and 18% working for above 10 hours a day. Nearly half of the girls (40%), worked six days in a week. It appears incomes from mining activities are very low. Almost 40% of the girls received 20,000 cedis or less per month whilst 18% received between 21,000 and 40,000 cedis. Only 3.6 % earned above 200,000 cedis whilst 13.3 % receive no cash payment for the work they do

Girls working in mining are exposed to various hazards and sicknesses related to their work (Table 3.10). The girls normally work under the direct sunshine and are thus exposed to high temperatures. Physical pains and exhaustion are the regular ailments suffered by girls at the end of each working day. Respondents rarely sought medical attention. Almost 57 % of girls avoided seeking medical attention due to the high cost of treatment. For those who seek medical help only 17 % pay for the services.

The findings show that harassment is not a common occurrence in the mining environment. Generally however, the abuses suffered lead to disruption in girls' educational advancement and to exploitative relations between the girls and their employers or even in some cases, their parents or guardians.

Recommendations

A long term intervention aimed at vigorous poverty reduction that would improve the earning capabilities of parents and guardians of girls who may be disposed to entering into mining. In the medium term, incentives that can help redeploy girls working in mining into other non-hazardous and exploitative work will need to be introduced.

Special incentives and support packages that will meet the direct and indirect costs of education will have to be provided for girls working under these conditions. Among the immediate needs of girls in mining are special medical services. Periodic medical examinations are recommended.

An expanded and continuous data collection system is required in order to get a better insight into the real health implications of this activity.

CHAPTER 1

INTRODUCTION

1.0 Background

The ILO has indicated that the prevalence of children in mining is growing. The Organisation's background document for the World Day Against Child Labour was on eliminating Child Labour in Mining and Quarrying (12th June 2005). The grounds for eliminating child labour in mining and quarrying includes:

- 1 Child labour in mining and quarrying is in virtually all cases a Worst Form of Child labour because of the extent and severity of the hazards and the risks of death, injury and disease. There is no justification -poverty included- for children to work in this sector. It is literally back breaking work. It is relatively straightforward, therefore for governments to legislate to include mining and quarrying activities on their legally-binding, national hazardous child labour lists thereby making them prohibited activities for children.
- 2 The estimated size of child labour population in mining and quarrying of 1 million is relatively small in global terms. This means it is an achievable goal.
- 3 There is ever strong government support for elimination of child labour in mining and quarrying. Some 13 governments will, for example, be directly pledging their support for WDACL
- 4 There is strong industry-wide support from both employers' organisations and trade unions in mining and quarrying for elimination of child labour in these sectors.
- 5 There is strong support from Communities and Small-Scale Mining (CASM) this body is already involved in improving social and economic conditions, and in eliminating child labour, in small-scale mining.
- 6 There is strong child and parental support for elimination. IPEC experience shows that where children are given viable options they wish to attend school and/or receive skills and training. Parents equally, given viable options, want their children to be properly educated and taught skills.

Child labour is now widely recognised as a regular feature of the mining sector. The extractive sector, including mining, is the mainstay of many African economies and has been prime target for reforms under these countries' structural adjustment programmes. Some countries in Africa, particularly Sub-Saharan Africa, rely on the primary extractive sector as a basis for economic development. This is because the continent is richly endowed with natural resources especially mineral resources. These include:

- 1 75% of global cobalt and platinum reserves
- 2 50% of diamond
- 3 47% of the world's phosphate reserves
- 4 45% of chromate
- 5 30% of the world's reserve of gold
- 6 26% of bauxite
- 7 14% of copper
- 8 12% of Uranium and manganese
- 9 6.8% iron-ore reserves

Targeting increased investments in the mining sector, many African countries have revised or developed mining codes deregulating the mining sector and providing generous incentive packages to investors in the sector. These changes have divested the state of its control and direct investment in the mining sector (TWN, 2001).

The renewed boom in Africa has equally boosted the small-scale mining sector which is in direct competition with large scale multinational companies for prospective grounds. Many countries have enacted laws to legalise the activities of artisanal miners which remained largely outlawed in the 1980s. However the sector continues to grow and contributes to a significant supply of specific minerals in some countries. In Zimbabwe the small-scale miners amount to some 200,000 and are believed to be responsible for the entire diamond production in the country and some 2% of the country's gold output. The sector similarly contributes to mineral supply in Tanzania, Sierra Leone, Burkina Faso, the Republic of Congo, the Democratic Republic of Congo etc. Small-scale mining is characterised by a lack of prospective grounds for their operations as more international large-scale mining companies enter the continent, giving rise to clashes between the two

in many countries. In addition, the environmentally unfriendly operations of some small-scale miners have led to a plethora of environmental degradation issues in many mining communities.

1.1 Rationale for study

The main purpose of the study was to address the following issues:

- 1 The forms of hazards girls in mining and quarrying are exposed to.
- 2 Whether girls in mining and quarrying are particularly vulnerable to sexual exploitation and are at a higher risk of contracting STIs, STDs and HIV/AIDS.
- 3 Whether international conventions that place injunctions of governments to halt all forms of child labour are operational in mining environments.
- 4 A better understanding of the problem based on empirical work is a pre-condition for identifying the best interventions to eliminate it.

1.2. Aims and Objectives of Study

The study is essentially aimed at generating new insights into girls in mining and further promotes the objectives of the time bound programmes for the elimination of the worst forms of child labour under ILO/IPEC. The specific objectives are:

- 1 To determine the socio-economic characteristics of girls in formal and informal systems of mining and quarrying.
- 2 To study the differential roles of girls in formal and informal systems of mining and quarrying.
- 3 To appraise the work environment in which children work.
- 4 To study how children are recruited and trained to work in mining and quarrying.
- 5 To study the perception and expectations of children in the sector concerning their present and future.
- 6 To find out why children, especially girls, work in mining and quarrying.
- 7 To ascertain the responses of duty-bearers to the phenomenon of girls in mining.

Mining in Ghana

In Ghana, mineral exports have a long history of importance in the economy and export trade. The main minerals include gold, diamond, manganese, bauxite and aluminium. Mining, particularly gold mining by indigenous people started around the 4th century. Large-scale mining started around the 15th century. Small-scale mining has traditionally played a significant role in the economy of the Ghana. Small-scale miners were the only miners of gold and diamond in the traditional economy until 1933, when colonial authorities through legislation made their operations illegal. Gold mining has since remained a significant economic activity in many parts of the country. Mining generates foreign exchange earnings, provides substantial government revenue, creates direct and indirect employment and also provides social and economic infrastructure such as roads, schools and clinics for community development. Data from the Minerals Commission (2002) suggests that over the last decade, the mining sector has been a significant contributor to both formal and informal employment in the country. Up to 1995, the sector accounted for 20 % of formal sector employment with large-scale mining companies employing about 20,000 people, and the small-scale artisanal mining sector accounting for more than three times that number.

Over the last two decades the mining sector has been one of the key targets of policy reforms in the country. As a result of the reforms, the twenty years since 1986 have seen tremendous growth in corporate mining activity across Ghana especially in the gold sub-sector (TWN, 2005). The gold sub-sector has correlatively attracted the bulk of the total foreign direct investment (FDI) inflows into the country since the reforms were instituted in 1983. This growth has been attributed largely to Ghana's adoption of one of the most liberal mining regulatory regimes in mineral endowed developing countries (TWN, 2005).

The most publicised benefits of the renewed mining boom include the following:

- 1 Mining is the leading earner of foreign exchange in the country
- 2 Provides substantial government revenue
- 3 Generates direct and indirect employment

- 4 Provides social infrastructure for community development in mining

From 1983 to date, various pieces of legislation have either been promulgated or revised in order to facilitate mining sector development. The most fundamental changes included:

- 1 Promulgation of the Minerals and Mining Law, 1986, PNDCL 153.
- 2 Establishment of the Minerals Commission, 1986, PNDCL 154.
- 3 The Minerals (Royalties) Regulations, L.I. 1349, 1987.
- 4 Additional Profit Tax Law PNDCL 122, 1987.
- 5 Promulgation of Small-Scale Mining Law in 1989, PDCL 218.
- 6 The Precious Marketing Corporation Law, 198.9 (PNDCL 219).
- 7 Establishment of Precious Minerals Marketing Corporation, 1989.
- 8 Establishment of Environmental Protection Agency in 1994.
- 9 Drawing up of mining environmental guidelines in 1994.
- 10 The Minerals and Mining (Amendment) Act 1994.
- 11 Review of mining environmental guidelines in 1999.
- 12 Divestiture of state-owned mines from 1992 to 1999.

Despite the many pieces of legislation, the absence of a national policy on mining does not provide a framework for a collective vision interlinked with other sectors in the overall national development effort. For example, efforts are growing around the world to better understand child labour and its effects on the welfare of children, with special focus on the peculiar case of girls.

Local communities at the fringes of mines have suffered and continue to suffer various degrees of adverse impact of mining operations. Some communities have suffered militaristic attacks, others have had their water sources polluted, their land destroyed, and many of them continue to suffer low and inadequate compensation packages. Concerns have also been expressed about inadequate housing, youth unemployment, family disorganisation, school dropouts, prostitution and drug abuse associated with the mining boom. In most cases these impacts affect people of different age groups and gender differently.

Due to the sub-sectors' remoteness, informal character and mobility, the number of children involved in mining and quarrying activities is difficult to measure. However, the ILO estimates that nearly 1 million children under the age of 5 to 17 years of age work in the mines and quarries.

Children in mining have become a focus of attention as its links to many of the worst forms of child labour on the African continent has become obvious. Children are in mining for several reasons – family disintegration through poverty or HIV/AIDS as well as war and conflict; traditional expectations of children as income earners; negligence and premature independence from parental control. IPEC-ILO has undertaken a number of quite detailed studies into child labour in Ghana, as part of multi-nation studies.

Simply child labour can be defined as any active work for money where the worker violates ILO Minimum Age Convention No. 138, 1973, which pegs the minimum working age at 15 years and above. The ILO Worst Forms of Child Labour Convention No. 182, 1999, is set to abolish WFCL under age 18 years. In addition, the ILO is strengthened by the UN Convention on the Rights of the Child (CRC) and the Optional Protocols to the CRC (2000).

In Ghana a formative study is necessary to provide decision makers, practitioners and activists with a sound basis for policies and programmes aimed at eliminating child labour in this sector, especially the multi-prong exploitation of girls. In addition, such an exercise will support consciousness-raising about the links between poverty, poor enforcement of laws and children labour. This study attempts to provide such responses.

1.3 Research Design

The study was conducted in two phases. Phase one was an exploratory study involving the research team undertaking informal interviews with girls involved directly in mining or in mining-related activities. The findings from this phase were used to design a more structured study using statistically drawn samples.

1.3.1 Sampling Techniques

Given the exploratory nature of the study, the case study approach was used to collect basic information about the situation of the respondents. Accidental sampling was initially used to identify operators following which a snowball technique was used in which the girls that were first located pointed out others to the research team. The results are presented in this report, highlighting motivational factors pushing the girls into mining related work, and their general living conditions.

The sample was made up of young female residents of Akwatia (a diamond mining town in the Eastern Region of Ghana) and Tarkwa (where gold is the predominant mineral mined).

1.3.2 Data Collection Instruments

Interviewer guide and semi-structured questionnaires were used in the study.

In order to discern some patterns in the case histories, some specific information was collected in the areas of:

- 1 Time use
- 2 Work risks
- 3 Environmental risks
- 4 In/out dynamics
- 5 Trends.

Conversations with respondents were recorded both in field notebooks and on tape. Diaries entries of events were made.

1.3.3 Data Analyses

Transcription of taped material was undertaken as a complement to written information and data were analysed using SPSS in order to identify trends or patterns in the variables under investigation.

1.3.4 Sample

The study identified young female residents of Akwatia (a diamond mining town in the Eastern Region of Ghana) and Tarkwa (where gold is the predominant mineral mined). Akwatia was selected on the basis of being one of the oldest mining towns in southern Ghana and for its proximity to Accra. A total of 165 girls involved in mining were interviewed. Of this, 73.3 % were from Tarkwa whilst 26.7 % were from Akwatia. The proportions reflect the relative size of mining activities in these two towns. Given the limitation of time, the team focused mainly on girls.

1.4 Sources of information

Interviews were held at the places of work and residence of girls. Our understanding is that the choice of young girls is based on the assumption that, age and gender to some extent, reflected life-cycle stages and would influence the kinds of information that people had to share about their livelihoods.

1.5 Limitations of Study

There was an initial resistance from respondent in providing information since their operations were considered as illegal. Another constraint on the study was the low budget made available for the study. Consequently, the study was unable to explore issues regarding girls in quarrying as was the initial design. In spite of these limitations the researchers were able to gather information from girls in mining.

CHAPTER 2

Research Findings

2.0 Introductions

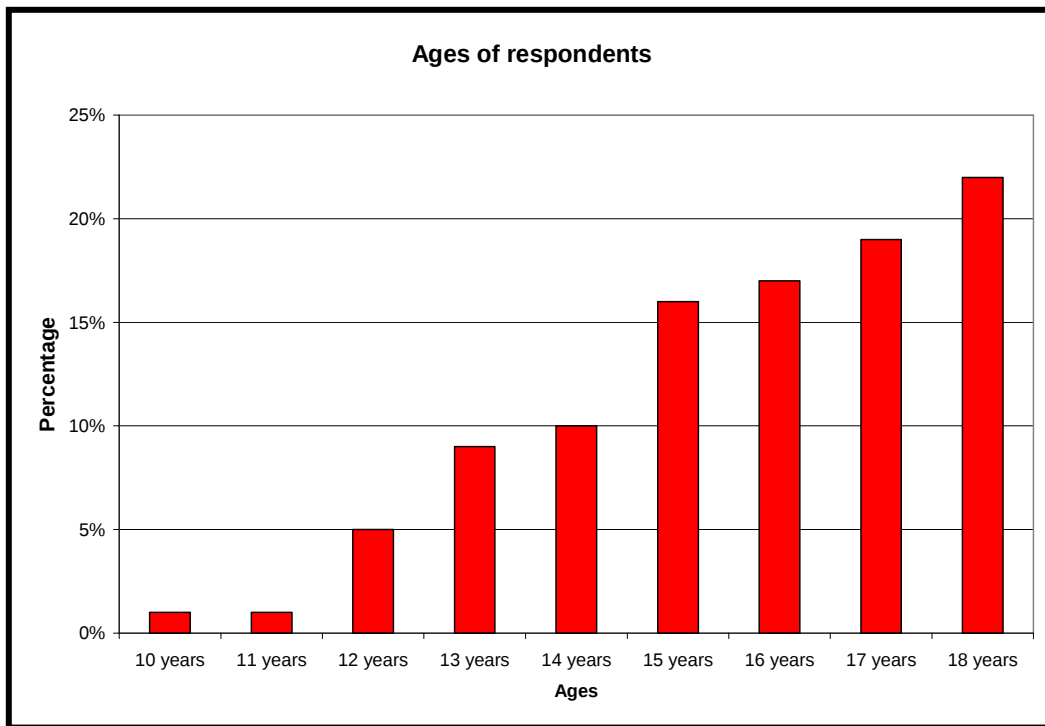
This chapter presents findings of the study on the socio-economic characteristics of girls in mining as observed in the study. It takes into account socio-economic variables such as the age of girls in mining, the educational status and other trainings received and housing and home conditions available to girls in mining. Subsequent discussions thus provide detailed information on the variables stated above.

2.1 Socio-Economic Characteristics of Girls in Mining

2.1.1 Age of Respondents

The age range of girls in mining who were involved in the study was between 10 years and 18 years. It implies that the youngest miner among the respondents was 10 years and the oldest was 18 years. Those children between the ages of 15 years and 18 years constituted the majority (74%) while those below 15 years constituted 26%. These statistics imply that there more children (74%) within 15 to 18 years bracket in mining and that mining is not that attractive to very young girls. That not withstanding, since there is the evidence that at least 26% of girls involved in mining were below 15 years, there is a clear evidence of the contravention of the 1998 Children's Act (560) which prohibits children below 15 years from employment. Given that mining in itself is not a light work, so that children who are 15 years could be employed, it is worth stating that those majority (74%) who are 15 years and above but involved in mining is a violation of Act 560 as well. By implication we can state that most young girls are involved in mining in the study areas and their proportion increases as they grow in age. Figure 1 presents pictorial information on the ages of respondents as observed in the study.

Figure 2. 1. Age of Respondents



2.1.2 Education and Training

The pattern of school attendance as noted from the study suggests that more than half (53%) of children were still in school at the time of the study where as about 5% have never attended school. About 38% of these children have left school for various reasons as discussed subsequently (Table 2.1). The implication of these is that most girls in mining combine school with work. There are consequences for combining school with work. The most obvious is the possibility of low academic output which also has implications for personal development. Table 1 below provides detailed information on school attendance status of girls involve in mining.

Table 2.1: Educational Status

School Attendance	Frequency	% of total
Currently in school	87	52.7
Left School	63	38.2
Never Attended	9	5.4
No response	6	3.6
Total	165	100.0

In an attempt to ascertain the regularity of those girls who indicated that they were in school, it was evident that about half of them (54%) were able to attend school daily, the irregular ones stood at about 44%. In view of this we deduced that a sizable proportion (44%) of girls in mining schooled irregularly and this has implications for academic performance and advancement. Refer to Table 2 for details on frequency of school attendance of girl in mining.

Table 2.2: Frequency of School Attendance

Attendance	Frequency	% of total
Everyday	47	54.0
Four Times Per Week	20	22.9
Three Times Per Week	11	12.7
Twice per week	7	8.1
Non-response	2	2.3
Total	87	100.0

For the majority of those who left school before completion (62%), the main reason was the need to earn a living, thus they entered into mining to earn income. Other reasons for early exit include, lack of interest (20%); start a business on their own (22%); illness (6%). Asked whether they would prefer to return to school, majority (59%) cited school fees as a barrier to their return. Even though the capitation grant policy is in place to take

away fees as a barrier to education, it was realised that there was much to education than fees. In one of the focus group discussions it came up that for those who attend school, they pay other levies such as examination fees, development levy and even Wednesday worship collection. All these summed together (¢45,000) were far more than what the capitation grant provided (¢30,000). Some girls also complained about money for uniforms and books. Although they were earning money it could not be enough to support them in school and meet other living expenses. A further probe into the issue of education at the focus group discussion suggests that most of the girls do not have the interest in education. The lack of interest in education is observed to be the product of their involvement in mining and the lack of parental support.

2.1.3 Housing and Living Conditions

Housing conditions can be a measure of the quality of life of household members, including children. Hence the study explores the type of housing facilities that the household lived in. The result indicates that majority of the respondents (82%) lived in mud houses (Figure 2.3). Mud houses tell of the poverty situation of occupants. It is the extreme poor who live in poorly constructed mud houses. The fact that about four-fifths of respondents live in mud houses, suggests that most respondents have poor backgrounds. It is also known that mining towns in Ghana have very poor accommodation facilities. The majority of miners tend to be migrants and mining towns tend to tenement towns-providing just the basic facilities for mining employees.

Figure 2.2. Housing Types

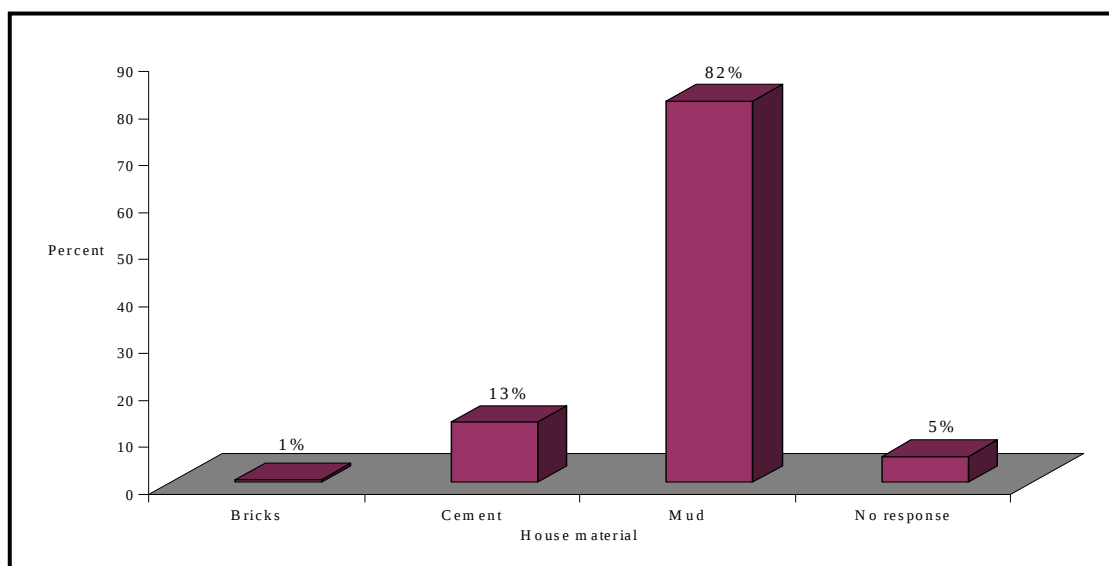


Table 2.5 indicates that majority of the girls (80%) lived with their relatives, many of whom owned the dwellings. The number of rooms available for each household varied from a single room to houses with more than five rooms (Table 2.6).

Table 2.3: Ownership of houses in which girls lived

Type of Ownership	Frequency	Percent
Privately Owned	133	80
Leased	24	15
Other	5	3
No response	3	2
Total	165	100

Table 2.4: Number of Rooms in houses in which girls lived

Number of Rooms	Frequency	% of total
One Room	34	21
Two Rooms	38	23
Three Rooms	30	18
Four rooms	21	13
Five rooms	13	8
More than five rooms	22	13
No response	7	4
Total	165	100.0

The study also showed that about 43.0% of the respondents had electricity and water supply in their homes (Table 2.7). There are some households who only had access to either water or electricity supply and they constitute about 25% and 12% respectively. Not every household had access to water and electricity. About 12% of the households do not have access to electricity and water supply.

Table 2.5: Household Facilities

	Frequency	% of total
Electricity And Water Supply	71	43.0
Water Supply	41	24.8
Electricity	19	11.5
None	19	11.5
Other	3	1.8
Electricity And Telephone	1	0.6
No response	11	6.7
Total	165	100.0

CHAPTER 3

3.0 Introduction

This chapter is an exposition on the work profile of girls who are involved in mining. It discusses their employment status and the motivation to enter into mining. The chapter further appraises the work environment of girls in mining. It unearths the future expectations of girls who are involved in mining.

3.1 Occupational profile

Small-scale mining is a major source of income for the people of Akwatia and Tarkwa. Men, women and children are involved in the different stages of extracting and processing. Most of the extracting and processing methods are unsafe and outdated. Some of the workers are full time small scale miners and others are casual workers. We found that 64% of the girls in our sample are temporary/part-time workers or “by day” workers; 15% are self-employed, 9% are unpaid family workers and only 7% are regular paid workers (Table 3.1). It means in essence that most of the girls in mining are actually working for others. Those who are self employed inherited pits from relations or bought them. These were girls who have been in mining for more than 5 years. They forfeited part of their earnings to owners of the pits over this period to acquire the over-mined pits.

Table 3.1: Status of Employment of Girls

Status	Frequency	% of total
Wage Employee-Casual/Temporary/Part-time	105	63.6
Self Employment/Pit Owner	25	15.2
Unpaid Family Worker	15	9.0
Wage Employee-Full Time/Regular Paid Worker	11	6.7
Non-response	3	1.8
Other	6	3.6
Total	165	100.0

Whilst the reasons for the decision to work in the mines are diverse, prominent amongst them are the need to supplement family income (55%) and to become economically independent (9%). See Table 3.3. Most girls appear to have been driven into mining by poverty arising from low family income.

Table 3.3: Main Reasons for Working

Reasons for Working	Frequency	% of total
Supplement Family Income	90	55
To Be Economically Independent	15	9
Supplement Family Income, No Other Job Opportunities And Earn Money To Establish Own Business	13	8
Supplement Family Income/To Establish Own Business	9	5
There Is No Other Job Opportunity	8	5
To Be With Friends Who Are Also Working	7	4
Earn Money To Establish Own Business	7	4
Help Pay Family Debts	3	2
Supplement Family Income And To Pay School Fees	1	1
Other	12	7.
Total	165	100.0

The pit is mostly (75%) owned by landowners. It is only in less than 25% cases that a pit is owned by the family or a member of the extended family. Girl miners do not usually have any direct contact with the pit owners. A general sharing arrangement is that 50% of the proceeds go to the land owner, 40 percent to the men who do the actual excavation of the ore and 10 percent for those who headload to a wash site and pan. Majority of girls in our sample are involved in headloading and fetching water for panning. Table 3.4 describes pit ownership patterns

Table 3.4: Ownership of Land/Mine/Pit

Type of Ownership	Frequency	% of total
Landowner	124	75.1
Family-Owned (Parents)	10	6.1
Relatives	9	5.4
Other	12	7.3
Non-response	10	6.1
Total	165	100.0

The study examines the length of time the girl child in mining has work in the industry. Contrary to expectation, it was found out that most (60%) of the children have been in the mining business for over a year or between 6-12 months representing 36% or 24% respectively. See Table 3.5. The remaining 33% have worked in the industry for less than 6 months. These statistics give the impression that the children do stay in mining for too long. The findings further affirmed the various short term reasons for which the children engage in the mining business.

Table 3.5 Length of Time at Work

Time on Task	Frequency	% of total
Under 6 months	54	32.7
6-12 months	39	23.6
Over 1 year	60	36.4
Non-response	12	7.3
Total	165	100.0

3.2 Appraisal of work Environment

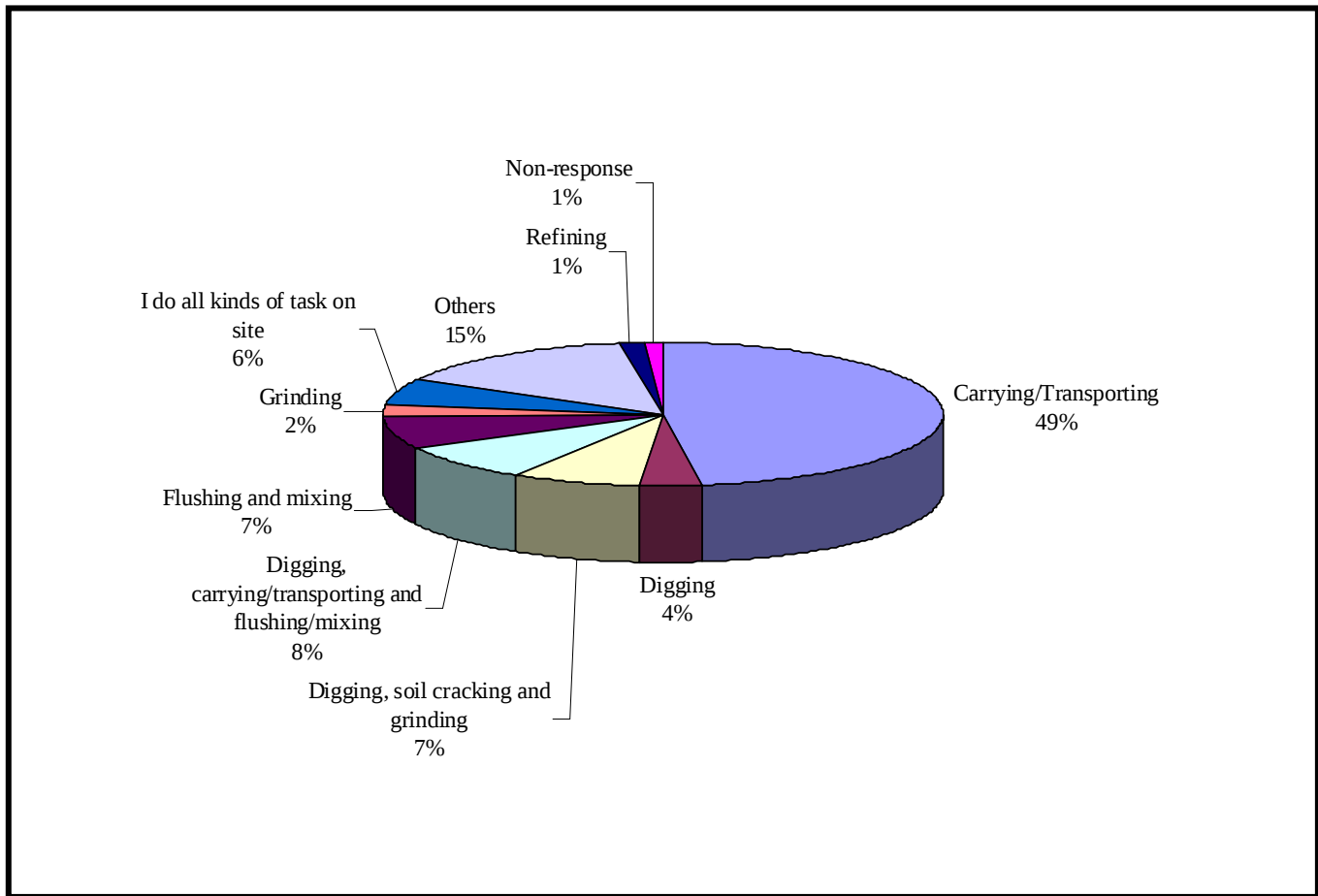
3.2.1 Nature and Conditions of Work

At both study areas we found girls involved in the following mining activities:

- 1 Digging
- 2 Carrying and transporting mud and stones on their heads to washing and sieving sites.
- 3 Soil cracking and grinding,
- 4 Flushing/panning
- 5 Mixing
- 6 Refining.

The study found that girls were not much involved in enervating work such as digging, soil cracking and grinding. Head portorage of mud and stones to the sieving sites was the most predominant activity of girls in the mining areas studied. Only small proportions were involved in panning, mixing and refining activities and the other activities as shown in Figure 3.1.

Figure 3.1. Tasks performed by respondents



Other girls carried “pure water” for sale to adult workers in the mines. Some girls did a combination of works. Most did the same type of work as adults although their loads were comparatively lighter. The highest percentage (41.8%) worked 1-5 hours, followed by 34.5 percent who worked 6-10 hours with 18.2 % working for above 10 hours.

Table 3.6: Working Hours per Day

Working Hours	Frequency	% of total
1hr - 5hrs	69	41.8
6hr - 10hrs	57	34.5
Above 10hrs	30	18.2
Non-response	9	5.4
Total	165	100.0

The number of days they worked also varied. The highest proportion of girls (40%), worked six days in a week. Most of the girls work under varying physical and climatic conditions. They also work long hours, barely having time to rest and play. For those still attending school, they claim the long hours exert adverse effects on their school work.

Table 3.7: Working Days per Week

Days	Frequency	% of total
One Day	18	10.9
Two Days	29	17.6
Three Days	4	2.4
Four Days	6	3.6
Five Days	21	12.7
Six Days	66	40.0
Seven Days	5	3.0
Non-response	16	9.7
Total	165	100.0

3.2.2 Pay/Remuneration

There are varied modes of payment. Payments came from the owner(s) of the land they were mining, the buyers of the diamonds or gold, or the other adult workers. Majority of the payments were by daily wages (38%) or weekly wages (29%). Other modes of payments were observed and illustrated in the Figure 3.2 below.

The assessment of the remunerations received for work done by the girls showed high a level of exploitative wage rate. Almost 40 % of girls received 20,000 cedis or less per week whilst 18.2 % got between 21,000 and 40,000 cedis. Only 3.6 % earned above 200,000 cedis whilst 13.3 % receive no cash payment for the work they do (Table 3.8). For this group payment was made in the form of food and daily allowances. They work with their parents or relatives. It is important to note that, the amount earned/remunerations are far below the minimum wage and do not compensate for the opportunity cost which is the schooling opportunity lost to the children.

Figure 3.2 Modes of Payment for Children

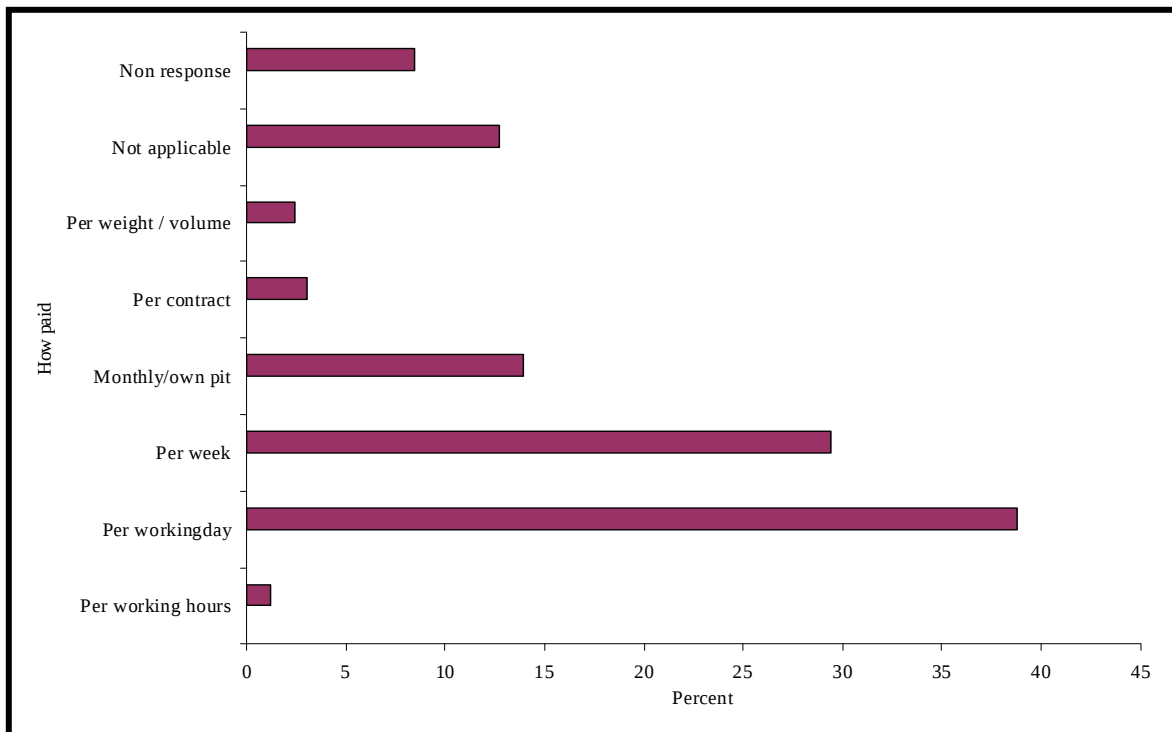


Table 3.8: Amount Earned per Week (in Cedis)

Amount	Frequency	% of total
20,000 or less	64	38.8
Between 21,000-40,000	30	18.2
Between 41,000-60,000	3	1.8
Between 81,000-100,000	2	1.2
Between 101,000-120,000	2	1.2
Above 200,000	6	3.6
Non Payment	22	13.3
Non-response	36	21.8
Total	165	100.0

Table 3.9 shows how monies earned are spent. The responses show that a little over a quarter (27 %) of respondents save their earnings and 20.0 % of girls give all the monies they earn to their parents as a contribution to the family income.

Table 3.9: Income Disbursement

Disbursement of Income	Frequency	Percent
Save	45	27.3
Pay For School Fees, Materials And Save Rest	22	13.3
Kept by Landowner/Guardian	20	12.1
Give It All To Parents	17	10.3
Give Part Of It To Parents	10	6.1
Give Part Of It To Parents And Save	4	2.4
Give Part Of It To Parents, Pay For School Fees/ Materials	5	3.0
Leisure	2	1.2
Other	32	19.5
Non-response	8	4.8
Total	165	100.0

The rest either use the money to meet their educational and leisure needs or use the money for other purposes. In general, the income disbursement is consistent with the reasons stated by the children early for engaging in mining activities.

3.2.3 Occupational Hazard and sickness whilst working

Many of the injuries and mining-related health problems can result in permanent disability. Girls are exposed to risks of accidents or of contracting serious diseases. Girls working in mining are exposed to various hazards and sicknesses related to their work (Table 3.10). The girls normally work under the direct sunshine and are thus exposed to high temperatures. Physical pains and exhaustion are the regular ailments suffered by girls at the end of each working day. Over 50% per get very tired after a day's work and close to 32% complain about bodily pains. Other work related illnesses and injury include abdominal pains, cuts, general body pains and cough. Only a negligible proportion of girls claimed they suffered no ailments.

Table 3.10: Work-related Ailments

Nature of Ailment	Frequency	%of total
Tiredness	84	50.9
General Body Pains	52	31.5
Tiredness And General Body Pains	9	5.4
Coughs	11	6.7
No ailment	9	5.5
Total	165	100.0

Picture 1: Sieves for separating diamonds-containing stones from ordinary stones



The experiences of the respondents differed in Akwatia and Tarkwa because in gold mining, children are exposed to mercury often used in an indiscriminate way in the amalgamation process to separate the gold from the ore. Extracting both minerals however involves various physical processes, creating noise and dust. Since there was no medical assessment, it was impossible to assess the impact of mercury on the health of the girls. This however, does not discount the fact that exposure to mercury does have adverse effects on girls. Similar studies done in Niger, Peru and Philippines found that acute poisoning occurs from mercury inhalation in poorly ventilated areas in burning off mercury from the amalgam. The measurement of total dust concentrations and noise levels were also beyond the scope of the study. But anecdotal evidence collected from the girls interviewed suggests that pneumonia and other respiratory tract infections are common in Tarkwa. Girls admit visiting the hospital frequently for treatment of chest problems. Other work related hazards are harassment from security personnel and cuts from implements Table 3.11.

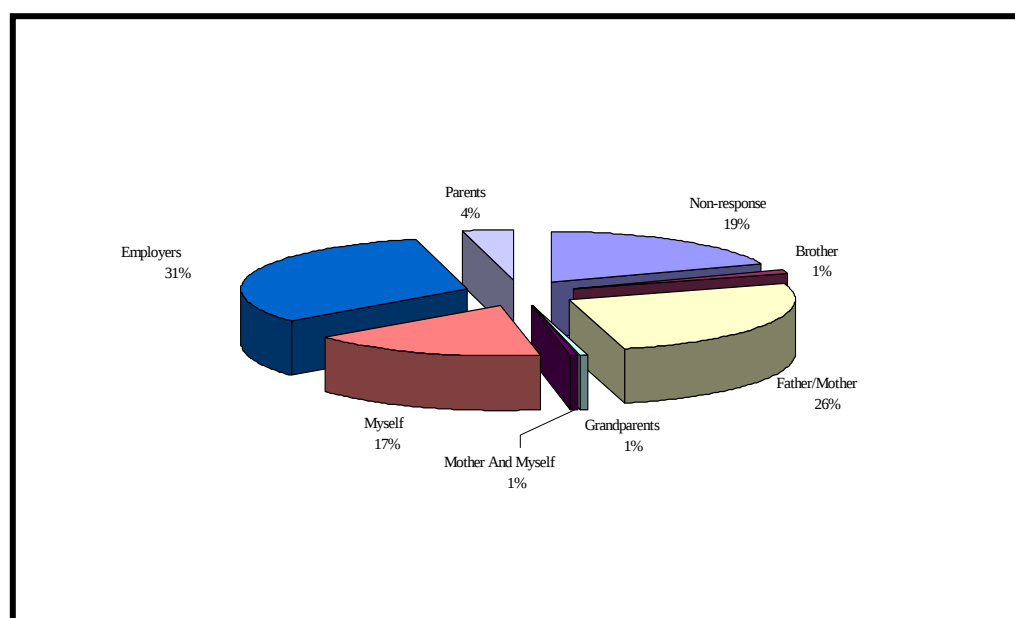
Table 3.11: Work Related Hazards

	Frequency	Percent
Being Chased By Security	1	0.61
Cuts From Implements etc	15	9.09
None	105	63.64
Other Accidents	23	13.94
Non-response	21	12.73
Total	165	100.

3. 2. 4 Medical Check Up and Knowledge of Health Dangers

Respondents rarely sought medical attention. Almost 57 % of girls avoided seeking medical attention due to the high cost of treatment. For those who seek medical help only 17 % pay for the services. Only 31 % of employers pick up the medical bills of sick girls. The rest depend on relations to foot their medical bills.

Figure 3.3 Persons Paying for Medical Expenses



3.2.5 Abuses Suffered

The findings show that harassment is not a common occurrence in the mining environment. Only about a fifth suffers one form of abuse or the other. Less than 10 % suffer sexual harassment and only 7 % are either beaten or insulted.

Table 3.15: Types of Harassment Encountered by Girls

Types of Abuse	Frequency	% of total
Not Abused	134	81.2
Sexual Harassment	16	9.7
Beatings	7	4.2
Insults	4	2.4
Non-response	4	2.4
Total	165	100.0

The study reveals that discrimination on the basis of gender is not a common practice in artisanal mining in Ghana. Generally however, the abuses suffered lead to disruption in girls' educational advancement and to exploitative relations between the girls and their employers or even in some cases, their parents or guardians. Working in inclement weather conditions and working long hours pose health hazards to the girls. Even though it was not established conclusively that girls are exposed to chemical hazards, working with chemicals such as mercury is bound to put girls at serious long-term health risks. Working in dusty environment and using dirty and poisoned ground or flowing water to treat ores also puts the girls at risk. A number of suggestions are made in the next section about how to help the girls in the mining setting.

3.3 Recruitment of Girls into Mining

Recruitment process of girls into mining is diverse. The process to enter into mining begins mostly from the girls themselves. As much as about 62% of the girls took their own decision to work. Hence they approached pit owners on their own volition. However, about a quarter (25.4%) were influenced by their parents or guardian to enter into mining. Some of these worked for their own parents or guardian. In some cases friends, other relatives and pit owners recruit girls into mining. Table 3.2 provides details on the recruitment of girls in mining.

Although girls would have preferred schooling to mining, the large number of girls (62%) who enter mining by themselves is indicative of the economic hardships of parents and guardians in the study area. It also affirms the failure of parents regarding education of their children.

Table 3.2: Source of Influence on Girls' Decision to Work

Source of Influence	Frequency	% of total
Self	102	61.8
Parents/Guardians	42	25.4
Friends	9	5.4
Relatives	6	3.6
Employer	2	1.2
Other e.g. mentors	1	0.6
Non-response	3	1.8
Total	165	100.0

3.4 Future Expectations of Girl in Mining

Girls in mining have varied expectations for the future. While 59% wish to continue with education, 32% preferred learning some skills such as seamstressing, hairdressing and catering. It was revealed that 5% of girls in mining wish to continue with mining for the rest of their lives. A further probe into this indicated that the 5% were those girls whose parents own the pits where they worked and hoped to be in charge of the pit in the future.

CHAPTER 4

CONCLUSION AND RECOMMENDATIONS

4.1 SUMMARY

This is an exploratory study into the activities of girls in mining. It was conducted in two mining communities namely Tarkwa and Akwetia. Given the exploratory nature of the study, the case study approach was used to collect basic information about the situation of the respondents. Accidental sampling was initially used to identify operators following which a snowball technique was used in which the girls that were first located pointed out others to the research team. The sample was made up of young female residents of Akwatia (a diamond mining town in the Eastern Region of Ghana) and Tarkwa (where gold is the predominant mineral mined).

The study found out that girls work in a wide range of activities related to the whole production line of small scale mining and quarrying. They are involved in such basic tasks as cooking and cleaning as well as extraction of underground and surface ore. They also work in transporting the ore, its separation and subsequent metal production. The ages of the respondents ranged from 10 years to 18 years. The findings show that respondents between the ages of 15 to 18 years formed the highest proportion (74 %) of children interviewed both in Akwatia and Tarkwa.

A little over half (52.7%) of the respondents are still in school and about 38.2 % left school for various reasons. For the majority (62%) of those who left school before completion, the main reason is the need to earn a living. Other reasons for early exit include: lack of interest, (20%), start a business on their own (22%) and illness (6%). Accommodation for most of the girls was very basic. The majority of them (82.0%) lived in dilapidated mud houses, suggestive of high levels of poverty. Whilst the reasons for working in the mines are diverse, prominent amongst them are the need to supplement family income and to become economically independent. Poverty therefore seems to be a major driving factor. Most of the girls in mining are wage workers. Nearly two-thirds of them (64%) are temporary/ part time workers or “by day” workers; 15% are self-

employed, 9% are unpaid family workers and only 7% are regular paid workers. The rest have no fixed pattern of work.

The study found that girls were not much involved in heavy duty work such as digging, soil cracking and grinding. Head portering of mud and stones to the sieving sites was the most predominant activity of girls in the mining areas studied. Only small proportions were involved in panning, mixing and refining activities and the other activities

Working hours varied considerably among the girls. Several of them work long hours, barely having time to rest and play. Those who combined school with work in the mines indicated that the long hours adversely affect their school work. Quite a few of them (42%) worked 1-5 hours, followed by 35% who worked 6-10 hours and 18% working for above 10 hours a day. Nearly half of the girls (40%), worked six days in a week. It appears incomes from mining activities are very low. Almost 40% of the girls received 20,000 cedis or less per month whilst 18% received between 21,000 and 40,000 cedis. Only 3.6 % earned above 200,000 cedis whilst 13.3 % receive no cash payment for the work they do

Girls working in mining are exposed to various hazards and sicknesses related to their work (Table 3.10). The girls normally work under the direct sunshine and are thus exposed to high temperatures. Physical pains and exhaustion are the regular ailments suffered by girls at the end of each working day. Respondents rarely sought medical attention. Almost 57 % of girls avoided seeking medical attention due to the high cost of treatment. For those who seek medical help only 17 % pay for the services.

The findings show that harassment is not a common occurrence in the mining environment. Generally however, the abuses suffered lead to disruption in girls' educational advancement and to exploitative relations between the girls and their employers or even in some cases, their parents or guardians.

4.2 CONCLUSION

There are clear evidences that girls work in mining in the study areas and for that matter in Ghana. Poverty, lack of parental responsibility, and lack of appropriate regulatory frameworks have been noted as some of the drivers of girls into mining. The nature and conditions of work of girls in mining is hazardous and exploitative. It is unacceptable for girls as young as 10 years to be engaged in mining. They need to be protected at all cost and the protection is now.

4.3 RECOMMENDATIONS

4.3.1 Support Systems for Girls in Mining

Ideally, children, especially girls, should not be involved in any mining-related activities. But preventing children from engaging in mining activities is a huge policy challenge given that most of them have been driven into mining by extreme poverty. A long term intervention involves pursuing vigorous poverty reduction programmes that would improve the earning capabilities of parents and guardians of girls who may be disposed to entering into mining. In the medium term, incentives that can help redeploy girls working in mining into other non-hazardous and exploitative work will need to be introduced. Special incentives and support packages that will meet the direct and indirect costs of education will have to be provided for girls working under these conditions.

Among the immediate needs of girls in mining are special medical services. Periodic medical examinations are recommended. This will help in the early detection of excessive exposure to mercury and determine early signs of poisoning. It is also proposed that urine analyses are carried out on a regular basis, with special attention to individual levels of mercury contamination and to trends in the larger population.

This study associates with earlier suggestions made for a similar study in Philippines that the poor work environment adds to the already heavy load that children bear - the high prevalence of respiratory and gastro-intestinal illnesses, frequent muscle and joint pain, enlarged lymph glands, restrictive lung function and elevated liver function test results – and which point to children’s vulnerability to a range of illnesses, including tuberculosis.

The law prohibits children from engaging in mining activities and therefore no provision has been made for systematic reporting of accidents and illnesses. Since children are not usually covered by existing health services, communities have to explore ways of providing primary care to such children.

4.3.2 Legal Framework and Policies and to Protect Girls in Mining

Existing legislation and a number of child protection policies provide the context for regulating the extent to which children, particularly girls can participate in such hazardous work such as mining and quarrying. The Constitution, the Children's Act and the country's criminal laws are key components of the legal framework. These are discussed in turn.

The 1992 Constitution

The Constitution essentially contains the provisions that guarantee fundamental human rights and basic freedoms to all individuals and are enforceable in the courts of law. Like every individual, the girl child is entitled to the right to personal liberty, the right to respect for human dignity, the right to protection from slavery and force labour the right to equality and freedom from discrimination: the right to education and other socio-cultural rights as contained in Chapter 5 and Article 28 of the Constitution. Article 28 is consistent with the principles of the UN Convention on the Rights of the Child that deal specifically with the rights and freedoms of children. The challenge remains the degree to which these provisions can be enforced.

The Children's Act 1998

The Children's Act 1998 (Act 560) provides sufficient legislative cover for the types of work permissible for children and those that are proscribed. It contains provisions that reflect the extension of welfare services, the responsibilities of parents, children's right to education, social activity, freedom from exploitative labour, protection from torture, inhuman and degrading treatment and non-discrimination.

Any economic activity in which children are engaged and which essentially denies children the returns on their work and which compromises children's education health and development is proscribed by the children's act. In this regard, the Act sets the minimum age for admission to employment at 15 years for general employment, 13 years for lightwork and 18 years for hazardous work (which include sea going, mining and quarrying, portering of heavy loads and work in places where there is risk of exposure to immoral behaviour).

The enactment process of the Children Act triggered the amendment of the 1960 Criminal Code (Criminal Code (Amendment) Act, 1998, Act 554 to cover issues related to child labour. Beyond this the government has also passed the Human Trafficking Act 2002 (Act) to halt child trafficking and exposure of trafficked children to the worst forms of child labour.

Child Rights Regulations, 2002

The Child Rights Regulations, 2002 provide guidelines to the District Labour officers and the Social Services Committee of the District Assemblies on how to conduct enquiries into child labour and provides sanctions for failure to comply with summons by them. The Regulations also supplement and regulate the conduct of apprenticeship relationships. The Regulations have shortcomings in terms of the nature of inspection it allows.

There are other relevant pieces of legislation such as the Labour Act of 2002 and the country's penal laws especially the Criminal Code 1960 (Act 29) which is the main statute defining penal offences. Efforts have been made to bring these pieces of legislation in line with international codes and standards.

Preventing girls from engaging in hazardous work such as mining or applying the law to protect those already involved, is a huge challenge because law enforcement is a huge problem in Ghana. Advocacy is essential but a decisive commitment by government to end the worst forms of child labour is an imperative.

4.3.3 Advocacy and Law Enforcement

A range of options are open to stakeholders to either reduce or eliminate the participation of children especially girls, in the worst forms of child labour. These include sustained advocacy on the hazards that the girls are exposed to and the long term effect on their physical, psychological moral and social development. Apart from the pressures of poverty a large amount of ignorance on the negative effects accounts for the exposure of the girls to dangerous chemicals and immoral activities in mining community. These dangers need to be explained to the communities ex ante, through mass education programmes.

Given the discussion on an enabling legislative environment, it stands to reason that efforts to promote law enforcement must be intensified. The appropriate institutional arrangements must be introduced as well.

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