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Gender and labour force inequality in small-scale gold mining in Ghana

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Gender inequality is an inevitable concomitant of the innate poverty in humanity, a situation to which the Ghanaian society is no exception. This paper explores the underlying elements of gender inequality pertinent to women in the small-scale gold mining sector in Ghana drawing inference from a case study of the Tarkwa-Nsuaem municipal assembly area in the western Region. The contribution of women to the small-scale gold mining sector and through that poverty reduction is immense, notwithstanding a number of factors that alongside militate against their well being. The drawbacks have to do with the unregulated, dangerous and insecure conditions of the small-scale gold mining operators that for the most part, tend be discriminative against women. These are in areas of the health, income and capacity building package benefits to their labour force. The policy implication is the need for government to institute gender-sensitive workplace regulatory policies and programmes to be adhered to in the small-scale mining sector in the country. It should be the responsibility of the municipal and all the relevant regulatory authorities to ensure that the designated policies as well as the attendant rules and regulations are enforced.

Key words: Small-scale mining, gold miners, women, poverty.

INTRODUCTION

Small-scale gold mining in almost wherever it exist is characterized by a lack of long-term mine planning and use of rudimentary techniques (Hinton et al., 2003). People, inclusive of women, involved in the activity operate under dangerous, labour-intensive, highly disorganized and insecure conditions.

However, small-scale gold mining is of much development importance in many developing countries, particularly in regions where economic alternatives are critically limited. Globally, the number of small-scale gold miners currently stands around thirteen million in 55

countries, which is roughly equivalent to the workforce of large-scale mining (International Labour Organization (ILO), 1999). As such an estimated eighty to one hundred million people worldwide are directly and indirectly dependent on this activity for their livelihood.

Small-scale gold mining plays a very remarkable role towards poverty reduction in most countries especially on the African continent. The sector is prolific in the provision of employment for a large proportion of the unemployed populace. In this respect, participants driven by the allure of riches in small-scale gold mining, consider the sector as an opportunity to relieve the strains of poverty. Çagatay (2001) describes poverty to include lack of assets, dignity, autonomy and time in addition to income poverty. In most Ghanaian small scale gold mining communities, the mining activity has really

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broadened the choices of various individuals hence the resultant positive effects on the standard of living of the beneficiaries. With respect to the country's dream of achieving the millennium development goals, the first goal which hammers on the eradication of extreme hunger and poverty is of critical importance. There has, therefore, been the need for Ghana to appreciate the contribution of the sector to the livelihood of its citizenry.

Small-scale gold mining communities around the world are diverse, dynamic and distinct .They vary from culture to culture, region to region and mine to mine, and change over the course of time. The population of such communities is mostly affected by the activities of these miners as they tend to be associated with the gold mining ventures through direct employment as well as their environmental, social and economic impacts. The communities range in size from a city through towns to a village and hamlets.

The underlying rationale

The main thrust of this paper is to investigate the labour force operational situation in small-scale gold mining communities in Ghana. In furtherance it sought to identify possible ways of tapping the opportunities of artisanal mining sub-sector as a mechanism of reduce poverty targeting women as a vulnerable group.

The questions which this paper wants to answer include the following:

- 1. What are the roles of women in small-scale gold mining sector?
- 2. How are the skills and dexterity of these women improved and developed?
- 3. What are the prospects and challenges of women in small-scale mining sector?
- 4. What are some of the employment and production challenges of small-scale mining companies in the municipality? And
- 5. What is the relationship between small-scale mining sector and poverty reduction?

SMALL-SCALE GOLD MINING

Most small scale mining activities in Ghana are illegal because they are not registered and as such their operations are without the appropriate official regulation. In western region alone to which this paper refers has about 40,000 illegal gold miners. The activities are scattered all over the region with prominent areas like Prestea, Boaso, Wassa Akropong, Damang, Aboso, Bibiani, Juaboso, Adasikrom, Esuoso Nsuaem and between Wassa Akropong and Ayamfuri.

Popularly known as "galamsey," illegal gold miners

cause serious damage to the environment due to no checks and balances on their activities. This put a lot of environmental, social and economic threats to communities where they do operate as a result of the chemicals they use in the gold extraction. Despite the conscious efforts exerted by the state security operatives to flush them out, illegal gold mining is on the ascendancy in the western region.

Their activities have even extended to the beds of the Pra, Ankobra, and Bonsa rivers, not to mention the riverlets on which the communities rely for their water supply. These mining activities have many consequences for the communities in which they operate as they have the operators themselves. It is the vulnerability of the women engaged in the small scale activities in the western region of Ghana that is considered in this submission.

Gender equality and women's empowerment are human rights that are gradually gaining the attention of most governments and development practitioners in recent times. This manifests when goals measures towards the achievement of the millennium development and improvement of overall status of women in the developing countries is under review. Within this sector, women strive to earn income to supplement that of their family as well as harnessing available opportunities to reduce poverty.

In Ghana, small-scale gold mining is considered as a very critical sector under the small scale gold mining law (PNDC) as it has the tendency of ensuring women empowerment. Small-scale gold mining is only one micro-industry; however, as Labonne (1996: 36) articulated:

"(small-scale) mining... may become a stepping stone towards economic fulfilment, contributing to a better future for women and men in many developing countries".

Approximately 30% of the world's small-scale gold miners are women who are involved in a number of activities ranging from labour-intensive mining methods (e.g. panning, ore carrying), to provision of goods and services (e.g. cooks, shopkeepers) and the processing aspect of artisanal small-scale mining (e.g. crushing, grinding, sieving, washing and panning, to amalgamation and amalgam decomposition) (ILO, 1999).

Women play a much larger role in artisanal mining than in the large small-scale gold mining sector (WMMF, 2000). Women's direct participation in artisanal small-scale gold mining varies throughout the world.

In Asia, generally less than 10% of miners are women, whereas in Latin America, the proportion tends to be higher, approximately 10 to 20%. The percentage of female small-scale gold miners is the highest in Africa, ranging between 40 and 50%. In some regions, the small-scale gold mining workforce comprises 60 to 100% women (ILO, 1999; Amutabi and Lutta-Mukhebi, 2001).

CONCEPTUAL CONSIDERATIONS

In a varied global economy, gender ideologies can support flexible modes of labour control and discipline because of their ability to neutralise arbitrary and constructed claims about whose labour is worth more or less and what kinds of bodies are best suited to particular tasks

At the same time, global transformations in production, mobility and livelihoods have definite effects in the lives of the gendered subjects, creating tensions and conflicts as well as newly imaginable possibilities.

The resulting struggles involve men and women, workers and employers, communities and states in contests that can at times reproduce existing relations of power. However, they can also lead to new and potentially transformative forms of action and identity. Continuing research into the intersections of gender and labour must engage all of these varied dimensions of gender discipline and roles performed.

Whereas, women's entry into new forms of employment has focused considerable attention on transformations in experiences and images of female workers in the global economy. Far less research has traced how discourses and experiences of their male counterparts are implicated in the shifting dynamics of a globalized labour force. Although scholars have begun to ask these and other related questions, new research must incorporate closer attention to the constructions of masculinity and femininity within labour force.

The structure of gender inequality in one type of employment or the other cannot be viewed in isolation. It is clear that the intersections of gender and labour extend well beyond the confines of the formal wage economy and conventional arenas of capitalist production.

Specifically, ethnographies from Bolivia (Gill, 1994) to Zambia (Hansen, 2000), Turkey (White, 1994) to Nicaragua (Babb, 2001) elucidate the gender and labour inequalities of international structural adjustment policies and related neo-liberal economic programmes.

These and other scholars draw attention to the ironies of a global economy in which transnational circuits of labour mobility stretch families and their functions across international boundaries at the same time that international policies of neo-liberal economic restructuring rely upon the resilience of those families to absorb social costs. Structural adjustment policies in developing countries since the 1980s require states to cut back or eliminate many social programmes and subsidies. The process has had a devastating effect on many communities often with sharply gendered implications.

Gendered contestation

Considering the wide range of settings and the diverse

labour practices to which they contribute, it is clear that women empowerment ideologies and related gender inequalities are significant and forms constitutive features of the global economy.

In a more complex and multifaceted ways, classification of gender groupings help to produce a well segmented and flexible global labour force. In fact, the forms of gendered inequality that people encounter in their own lives are often sources of conflict and contradiction as gendered ideologies clash with individuals' own lived desires and identities. The resulting disjuncture and inconsistencies can open the way to generate new meanings and practices.

Gender inequalities are thus not only sources of exploitation within a global labour force but also, and importantly, critical points of contestation and struggle. The forms these struggles take are as varied and complex as the structures they confront.

Some involve explicit oppositional protests, the obstacles to which are often formidable. In many cases however, new experiences of global labour give rise to contests that are less obviously confrontational. Nevertheless, these localized processes of what Ong has called "cultural struggle" (Ong, 1991) are critical to understanding the effects of globalizing labour practices.

As individuals and communities confront new modes of exploitation, they also rework experiences of gender and labour inequality in diverse and often erratic ways. On the whole, the global record of women's economic organizing reveals the enormous obstacles that their efforts face.

Around the world, the patriarchal assumptions of employers are often shared by labour organizers. Globally, labour union leadership remains predominantly male; when women do organize their efforts are often perceived as supplementary, subordinate, or constrained by prior domestic roles and responsibilities (Kim 1997, Stephen 1997, West 1997).

In an Indian example, male dominated unions in the Calcutta jute industry actively collaborated with employers to protect men's privileges as full-time skilled workers rather than seeking to extend protections to women employed as temporary and unskilled labourers in the same production process (Fernandes, 1997). The failure of labour institutions to overcome their own histories of gender inequality remains a critical source of weakness for labour solidarity and activism throughout the world.

POLICY AND SMALL SCALE MINING

The national development policy and planning framework in most countries currently tend to be consistent with the Millennium Development Goals considered as the worldwide development phenomena (http://www.undp. org, 2006).

Among the priorities running through the framework are poverty reduction, gender empowerment and environmental sustainability. It is with regard to poverty reduction via the mechanism of women empowerment in a typical working environment in the small-scale gold mining sector that this paper seeks to make a contribution.

To enhance the quality of their lives, women explore the existing opportunities in the sector towards the reduction of their poverty. There pertain certain unfavourable conditions in small-scale gold mining sites that undermine the roles and contributions of women within the sector. These factor inhibitors make the contributions offered by women in small-scale gold mining too marginal to help propel the growth of the national economy.

In Ghana, small-scale gold mining is currently inadequately regulated with respect to the national minimum wage, health, safety standards as well as environmental rehabilitation requirements. Although most artisanal small-scale gold mining operates under the small scale gold mining law (PNDC), national standards that promote good living among workers in the sector are minimally enforced.

Noetstaller (1994) explains that legalization, intervenetion and control are essential towards the elimination of illicit unacceptable work practices in the sector. The operators spend a lot of time at the work place but the yields are just a minimal output because of the rudimentary methods and technology employed.

Initiatives and development programmes directed at catalyzing the transformation of small-scale women miners are not given any special attention unlike that for their male counterparts whose contributions are considered highly enormous (Labonne, 1998).

The mines act of 1952 that protects women from being engaged in underground gold mining really contributes to safeguarding their health status. Nevertheless, there are other risks associated with the work they do. In some cases, women pound rocks and carry the ore and water for wages that are 60% lower than those of men involved in ore digging and washing (Akabzaa and Darimani, 2001).

These tasks are usually preferred by site owners to be executed by women at the expense of their male counterparts due to less energy and experience required in performing them. Women within the small-scale mining sector are highly susceptible to poverty as they tend to underpaid. There is a need to put in place pragmatic measures to adequately reward these women for their labour to promote decent living standards among them.

The mining industry in most communities is dominated by a male culture of systemic sexual harassment and bullying by men. Women feel that they work harder than their male colleagues in most small-scale gold communities in the world (The industry and the Federal Government, 2001). In Ghana, although women undertake the same labour as men in the gold industry, inequities exist in the pay. Some women resort to a sex trade for additional money or gold to ensure family survival (USAID, 2000). This exposes women to sexually transmitted infections which negatively affect their output at work (Wente, 2002). There is, therefore, the need to explore other healthier livelihood activities that can earn women enough income.

Small-scale gold mining in Ghana

The small-scale gold mining industry in Ghana is well over 2,000 years old. Vestiges of alluvial gold extraction and winning activities existed as far back as the sixth century. There is a wealth of evidence indicating that precious metals recovered from region's artisanal activities attracted Arab traders to certain areas of the country as early as the 7th and 8th centuries AD (Botchway, 1995).

It was the rich gold deposits of the Western Sahara that were largely responsible for the wealth and strength of the ancient Ghanaian nation states and cultures. By the 15th and 16th centuries, at the peak of European colonial exploration, Ghana was fittingly labelled the 'Gold Coast' (Appiah, 1998).

Small-scale gold mining in Ghana, as in most developing countries, was for decades treated as part of the informal industrial sector, employing thousands of people but featuring largely rudimentary, unmonitored and uncontrolled practices.

Until the 1980s, small-scale gold mining activities in Ghana remained largely unregulated and received little, if any, support from governmental bodies. This, however, changed with the implementation of the Economic Recovery Programme (ERP) in Ghana, which following years of careful planning was finally launched in the mid-1980s, (Traore, 1997).

In a desperate move to revitalize a stagnating economy, the then Provincial National Defence Council (PNDC) government consulted the World Bank and International Monetary Fund (IMF) to provide assistance for drawing and implementing the Economic Recovery and subsequently the Structural Adjustment Programmes.

In Ghana, the Minerals and Mining Act, Act 703 of 2006, defines small-scale mining as mining operations "over an area of land in accordance with the number of blocks (concessions) prescribed." Legal and formal small-scale mining activities have greater positive impacts on the rural communities in which they operate than illegal operators.

It generates employment and income for the people in those localities and through that reduces the incidence of rural-urban migration. It also contributes to the reduction of crimes and social vices normally associated with persons with idle hands.

The gold that the sector produces earns foreign exchange for the nation. Notwithstanding these eminent

benefits, it exposes the people to mercury, cyanide and other chemical pollution consequent upon their rudimentary gold extraction technology and crude processing mechanisms. In addition to the noise they produce, they discharge off tailings and effluents into the water bodies causing siltation. Alongside comes the destruction of the landscape and an eventual deforestation since the small mining operators lack the technical as well as resource capacities necessary to undertake reclamation.

The political will is apparently weak to drastically deal with and halt illegal mining activities in the country. The legislative provisions which are inadequate are not being enforced. The licensing procedure is hardly known and poorly understood by the small mining operators. The relevant law enforcing agencies which include the minerals commission, the water management commission, the environmental protection agency, the Ghana police service and bureau of national investigation lack collaboration in terms of their functional activities relative to small scale mining.

The sector attracted attention at the intellectual and policy levels due to the realization of its dramatic expansion and immense but unrecorded contribution to the Ghanaian economy. According to Precious Minerals Marketing Corporation (PMMC, 2001), the Ghanaian small-scale mining sector has the following features:

- 1. Estimated 30,000 miners working on registered plots, 170,000+ illegal galamsey;
- 2.15% female participation in legal segment, 50% female participation in illegal segment;
- 3. 60% of the known Ghanaian mining labour force is employed at small-scale mines;
- 4. Approximately two-thirds of the Ghanaian small-scale mining industry is engaged in the extraction of gold, with most of the balance involved in diamond mining;
- 5. Over \$117 million in gold and \$98 million in diamond product has been obtained from small-scale mining operations since complete legalization of the industry in 1989; and
- 6. Gold production from the small-scale gold-mining industry has increased nearly tenfold since 1989, from 17,234 oz in 1990 to 107,093 oz in 1997.

Ideas put across in literature indicate that the small-scale gold mining sector in Ghana now has a regulatory framework towards the formalisation of small-scale gold mining their activities. Nevertheless, the sector still does experience certain challenges and constraints that inhibit its growth and enhanced contribution to national development. Regional employment assessment estimated shows that over 6,000 illegal and 117 registered at artisanal gold mines are found in Tarkwa alone (Agyapong, 1998).

The situation has necessitated the need for governments' concerted effort in the enforcement of the

regulatory framework guiding the small-scale mining sector. This done will help identify and combat challenges and constraints that results from the relaxed nature of the law such as mineral smuggling and land disputes.

Women in small-scale gold mining

An estimated 70% of the world's 1.3 billion poor are women and girls (UNIFEM, 2000). The feminization of poverty combined with other factors such as evolving cultural norms with respect to gender roles, lack of employment in other sectors, to mention but a few have led to the escalation of women's direct and indirect involvement in small-scale mining. Currently, approximately 30% of the world's small-scale miners are women, although they often occupy multiple roles in such communities.

This submission encompasses information on women's direct and indirect participation in small scale mining and the significant factors shaping gender roles in small scale gold mining. This is of much relevance to policy makers, artisanal and small-scale mining researchers, assistance programme officers, and all other actors concerned.

Although mining often regarded as a male activity, in small-scale gold mining, women have always played key roles in different stages of the operation. Women activities in small-scale gold mining on the international platform have been well outlined as follows:

- 1. Recovering the ore from outcrop or open exposure of the mineralization with a pick axe and a shovel;
- 2. Pulling water or gravel from the pits or wells;
- 3. Crushing gold bearing quartz with wooden leg;
- 4. Carrying the ore-bearing gravel in the nearby stream or river or designed washing area;
- 5. Panning through washing the ore in a circular container called calabashes in the case of gold; and
- 6. Cooking food as member of a mining team or as food sellers.

All these various roles played by women in the sector have contributed to the fast development and sustenance of the sector most especially in poverty-incapacitated areas. This has raised the alarm on the need for development interventions by government to be geared towards the betterment of gender-based discrimination policies in the small-scale mining sector such as safety, income level and training opportunities.

Determinant of women's situation

There are a number of factors that contribute towards the shaping the realities faced by women in small-scale mining communities. A consideration of these factors helps to appreciate the extent to which women within the small-scale mining outputs is directly and indirectly affected by these factors. It also allows for the impact exerted on them by the mining activities to be assessed from their experiences.

Heemskerk (2003) views these factors as those critical drivers that define gender role dimensions in small-scale gold mining communities. Again, it shows the effect of mining activities on the natural environment, health of individuals and the socio-economic conditions of communities. Figure 1 shows the various factors that help shape the realities of women in the small-scale gold mining communities.

The various factors impact on the individuals involved in activities carried out within the sector. These are critical, not only in terms of gender roles, but also with respect to the extent to which the artisanal small-scale gold mining influences and benefits the communities. An elaboration of the context with relevant instance reference is pertinent for a better appreciation and understanding of the content influences of the various factors on women.

Social context

Cultural beliefs and traditions strongly influence interactions between individuals and groups, the nature of community organization and societal rules or norms. For instance, in an assessment of women's participation in tin mining in the Jos region of Nigeria, Ogbe (2001) ascertained that the role of a married woman is largely determined by her husband unlike their single colleagues who take personal decision on their involvement in mining tasks - in this case, women predominantly conduct mining. In N'tulo, Mozambique, women are believed to attract bad spirits and are therefore banned from working in the mines (Dreschler, 2001).

Economic context

The economic factor component has really had impact on participation within the small-scale mining sector from time past in the world. For instance, studies on the Ndjuka Maroons in the forests of Suriname, Heemskerk, (2000) observed that the participation of women in gold mining in the Sella Creek region is primarily constrained by a lack of resources and limited mobility due to domestic and agricultural responsibilities.

Governance issues

Governance in the context of the model refers to "the process whereby elements in society wield power and

authority, influence, enact policies and decisions concerning public life, economic and social development" (Anon, 1993: 43). Thus, policies that restrict or deter women from obtaining concessions or land rights contributes to the feminization of poverty (World Bank, 2000). In Kenya, female miners have access to land but do not control land and mining activities as well (Amutabi and Lutta-Mukhebi, 2001). It is because men own the land; they also tend to dictate women's roles in production and turning over the profits.

Locational characteristics

The characteristics of the mining region such as location, mineral mined as well as the scale and stage of an operation do provide an insight into the gender roles in artisanal small-scale mining communities. For instance, in a review of gender issues in Ecuador (World Bank, 2000), one of the most interesting determinants of the roles and responsibilities of women involves the type of commodity mined.

In the extraction of high value products, such as gold, men take control of the mine site. Women tend to participate in greater numbers in the ones with low value commodities, as observed in Nigeria (salt), South Africa (kaolinite) and Brazil (sand and gravel). Again, women's participation in small-scale mining generally increases with the decreasing scale of the operation. This may also be related to disparities in education and training in small-scale mining techniques.

Typically, women's direct participation decreases with increased scale of operation and prevalence of mechanization. Nonetheless, the roles that women play in most sectors of the economy especially the small scale gold mining sub-sector cannot be overlooked.

As suggested by Noeleen Heyzer (1995) during the fourth world conference on women in Beijing that:

"In conditions of rapid change –including environmental deterioration, the outmigration of men, changing economic activities and aspirations, and government interventions – women play an even more crucial role in the maintenance of livelihoods, cultural continuity, and community cohesiveness".

It is in the light of this, that roles played by women in all spheres of the employment net needs to be safeguarded by government policies and programmes.

Small-scale gold mining in tarkwa-nsuaem

Contextually, the investigation on which the paper draws, was conducted in Tarkwa-Nsuaem municipality, where the operation of small-scale gold mining groups is very

IMPACTED DOMAIN

Sociocultural Cultural background context Beliefs and traditions POVERTY Social capital Land rights and titles Formalization Institutional values Governance Legal/Regulatory issues Issues SOCIAL JUSTICE HEALTH Non-mining activities Income distribution Flow of capital Economic Context Rural, urban/peri-urban Scale of operation Stage of operation ENVIRONMENT Mineral commodity Technical practices Mining area characteristics

Figure 1. Key factors shaping women's realities in small-scale mining communities. Source: UNIFEM (2000).

intense. It is located in the Western Region of Ghana. It is situated between Latitude 400'N and 500 40'N and North by Wassa Amenfi District, the south by Ahanta West Longitude 10 45'Wand 20 10'W. It is bounded to the District, the west by the Nzema East District and the east by Mpohor Wassa West District. The study area covers a total land area of 2354 sq.km (Figure 2).

KEY DETERMINANTS

RESEARCH METHODOLOGY

Through a documentary review of literature and fieldwork, the investigation captured elements in the existing regulatory frameworks on the small-scale sector, the various roles performed and contribution made by women, the prospects and challenges of women, the opportunities within the small-scale mining sector that can be tapped to reduce poverty.

The effort is to enhance the knowledge base and understanding of the activities in the small scale gold mining sector in Ghana as an input to policy to guide its conduct in serene political, social and economic environment.

Structured questionnaires were used in carrying out the research to obtain data on the various roles and contribution of women in the sector, challenges that face them and the prospects of the sector. The survey was carried out using the random sampling method to collect primary data.

The data collection mainly focused on the roles that women play in the Dakete small-scale gold mining company limited as well as on the contribution of the small-scale mining sector towards poverty reduction within the Tarkwa-Nsuaem municipality. 100% coverage of the women in the company was targeted but during the period of two weeks purposively targeted for the fieldwork; eighty-one (81) women were interviewed using structured questionnaires.

In addition to the data collection, the head of mineral commission department, the managers of Dakete small-scale gold mining company limited as well as the small scale mining department were interviewed to evaluate their views on the extent to which the poverty level within the municipality has been reduced with the help of small-scale mining sector. It is in the light of this that the analysis of both the qualitative and quantitative data helped in answering the various research questions.



Figure 2. Ghana map showing Western region and Tarkwa-Nsuaem. Source: www.ghanadistricts.com

Table 1. Age group of respondents.

Age Group	Frequency	%
-<19	12	14.8
20-29	37	45.7
30-39	13	16.0
40-49	13	16.0
50+	6	7.4
Total	81	100.0

Source: Authors' field survey, January, 2010.

Respondents' demographic features

Age of respondents

Women within the ages of 20 to 29 represented 45% out of the total sample of 81 interviewed. Women within the old age group (50+) recorded 7.4%. This attest to the fact that women within the virile labour force (77.7%) which is within the ages of 20 to 49 are involved in small-scale mining to supplement the income of their families to better their living standards.

Women within the old age group record the lowest mark of 7.4% since activities within the company require workers with more

strength. This implies that though small-scale sector contribute to the creation of employment avenues for people in their old age, its' proportion is quiet small. The sector provides ready job for some teenagers who need some income to begin their living and hence recording 14.8% of the sample size.

Observation made from the field revealed that the age patterns among the female workers did not deviate much from that of their male counterparts as most of their proportion were within the ages of 20 to 39 with the old age group constituting just a small section of the male labour force. Table 1 depicts the distribution of the women interviewed by age group.

Educational status

In terms of education, 33.3% of the women interviewed had no formal education meaning they could neither read nor write. Such women are deprived of being involved in other mining activities that are more profitable but require higher level of skills.

The literacy dichotomy between men and women result in women receiving less income than their male counterparts in most small-scale mining companies (Akabzaa and Darimani, 2001). The remaining 66.7% of the women have had some formal education. They comprise 85.1% of them with elementary education and 14.9% out of group Junior high school education. The reason given by most of the women for non-completion of any stage of their educational life was basically financial.

Table 2. Activities of women.

Activities performed by women	Frequency	%
Crushing and grinding	3	3.7
Sieving and washing	4	4.9
Underground mining	0	0.0
Carrying of the ore	74	91.4
Total	81	100.0

Source: Field survey, January, 2010.

Women in employment

It was revealed from the field survey that about 95% of the women employed by this company were tenent workers and as a result is not full time employees of the company. On the other hand, majority of its' permanent workers were men and tend to benefit from the policies of the company. From the survey, most of the women (91.4%) were involved in carrying the ore for processing. Those involved in crushing and grinding accounted for 3.7% whilst those sieving and washing constituted 4.9% (Table 2).

The low number of women in the processing stage of the company's activities such as sieving, washing, crushing and grinding gives an indication that the processing stage is populated by men. Again, it was observed that the processing activities of the company was handled by its' permanent workers who were considered to have higher education status and experience.

Safety measures

The protection of workers in risk prone areas such as mining should be a priority of concession owners. Pre-requisite materials to safeguard the health and well being of the workers need to be catered for by concession owners before the operation. In the case of Dakete small-scale gold mining company ltd, the provision of such safety materials is biased against the women.

A total of 75.3% of the workers had these materials for self protection at work. Of those served, 68.7% was for men as compared to the remaining for women (31.3%). This implies that the company's policies concerning safety issues voluntarily or involuntarily do favour men. The following shares the experience of a woman on how unfair distribution of safety materials does affect their output and well being:

Adwoa Mansa, a worker in Dakete Company Ltd - a small-scale gold mining company in the area, shared her experience on how far women have been left out in most packages that aim to be safeguarding the well being of workers within the company.

"These issues of unfair treatment of women in the company in terms of provision of materials that can help us carry out our activities without any problem of injuries or long term diseases have been in existence from the beginning of the company's establishment. I think it is high time things started to change for the betterment of all within the company".

Mansa made it clear that, several efforts have been made regarding the issue. To her, there has been some level of improvement in the situation as compared to that of five years ago due to some petitions presented to the head of the company by the group. "I like most of the policies of the company but to safeguard its' fast growth, the issue of gender inequality within the company needs to be buried now". Source: Interview with Adwoa Mansa, a worker of

Dakete Company Ltd. January, 2010.

Income level

The Income levels were highly dependent on the category that each worker finds him or herself. The categories of female workers identified were the sand carrying group, the grind and washing group. Those in the sand carrying group form 90.1% of the respondents and received a salary of GH¢5.00 (US\$ 3.3) for a working day.

The other group which forms only 9.9% received salary ranging from GH¢7.00 to GH¢ 8.00. The discrepancy in income levels between the sand carrying group, the grind and washing group is based on the literacy levels of its members, as those with higher levels of both formal and informal education were assumed to be better in service than others with very low educational background. Comparatively, it was realised after the survey that their male counterparts were much involved in tasks that required some level of higher education and experience such as the processing of the ore.

In effect, they tend to earn a daily salary ranging from GH¢12.00 to GH¢ 15.00 (US\$ 8 to US\$ 10), an indication that payment categories have direct relations with a workers educational status and experience.

PROBLEMS CONFRONTING FEMALE MINERS

Insecurity

The dominant problems faced by the women are those of injuries and body pains. These injuries are in the form of cuts, sprains and fractures from falling.

The women sometimes use their bare hands to fetch sand and as a result suffer cuts from sharp and other materials buried in the accumulated sand. The use of bare foot or sometimes bathroom slippers by the women at the processing site are not conducive for movement at the site and these makes them fall most of the time and get injured.

Inhalation of poisonous chemicals

Workers at the processing stage are faced with the problem of being exposed to toxic chemicals as well as mechanical accidents from the grinding equipments. The women indicated this issue arises from lack of safety clothing, wellington boots, nose caps and hand-gloves to protect them whilst at work.

Low Income

The men in the small scale mining activities are better endowed than their female counterparts in terms of literacy level and physical strength.

The daily average income of the women in the small scale mining activity is GH¢4.00 which can hardly support them in satisfying their basic needs of which food forms

the major component. This tends to have negative effects on the outputs of such women at the site. They resort to other income generating activities such as petty trading to supplement.

Benefits

It was realised that small-scale gold mining enterprises within the municipality are contributing to the reduction of poverty among the inhabitants of Tarkwa-Nsuaem Municipality. Discussed subsequently, are some additional benefits that the people within the municipality had enjoyed from the operation of the small-scale mining sector apart from employment opportunities.

Provision of social amenities

In terms of the provision of certain social amenities, the small scale mining firms collaborate with one another in the improvement of the surface condition of the road network leading to Teberebe and Bankyim, and other settlements within the municipality.

This project contribution was started in 2009 and still on-going to help reduce the rate of respiratory diseases which are possibly due to the dusty road. This safeguards the health of the inhabitants since ill-health is a major symptom of poverty as the individual would not be able to work to earn income. The improvement in the road condition enhances accessibility to basic services in the municipality such as hospitals, schools, markets, police and banking services.

Public education

In 2007, the various small-scale mining firms within the municipality conducted a joint educational campaign in collaboration with plan parenthood association of Ghana on the fight against HIV/AIDS. As stated by Mikkelsen (2005), ignorance and deprivation are major elements of poverty and as such there is the need to fight against them in any geographical area.

The effort to promote public awareness on HIV/AIDS by the small scale mining enterprise is a good mechanism towards the eradication of the epidemic. The following shows the experience of one female worker on how far small-scale mining has helped reduce poverty in the municipality (Contribution of sector towards poverty reduction).

"With me, though the money I get is not sufficient, it has really helped me as a person for the past four years. The income obtained helps me to meet the basic needs of my family and myself although things are not perfect now".

The absence of such companies within the municipality

would have resulted in high unemployment rate among the youth and hence would have resorted to armed robbery and other social vices. The youth now have jobs which fetches them their daily bread. The worker strongly thinks that small-scale mining companies are contributing to the reduction of poverty among the inhabitants of the municipality though the process is quite slow. Source: Interview with Patience Ackah, a worker of Dakete Company Ltd. January, 2010.

RECOMMENDATIONS FOR POLICY ACTION

The target of these recommendations is to provide a general sense of direction for public strategy concerning the welfare of women within the small-scale mining sector relative to their work, welfare and the benefits they derive.

The concern is to make the small-scale mining sector more resourceful and attractive in terms of employment creation for both men and women towards securing a subsequent poverty reduction in the areas they operate and the nation as a whole.

- 1. Small-scale gold mining sector should embark on the use of contemporary mining methods and techniques that can help increase their level of production as well as promoting the safety of its operators. In addition, most modern mining techniques have inbuilt packages that cater for all environmental issues relating to the activities being embarked on by the miners. If these activities are done, they can put the small-scale mining sector in an equal position as the large-scale mining sector in terms of environmental sustainability.
- 2. Implementation of programmes to train women in various aspects of mining, more especially in marketing, management and bookkeeping. This will assist in upgrading the skills of women in the sector as they are usually considered the most appropriate labour in terms of marketing and bookkeeping at the expense of their male counterparts.
- 3. Promotion of micro-credit and other programmes that provide financing for women to engage in other economic activities. This will contribute to the minimization of the over indulgence of women in sex trade to supplement income which has numerous health implications.
- 4. The procedure by which an individual or a group of people obtains a small-scale mining licence is tedious, requiring the completion of several forms, and final approval from governmental authorities. This therefore does discourage these operators from being registered and in effect continue to operate illegally, easily evading governmental authority. Efforts should be made by government to reduce the stress involved in the Registration process of these cooperatives under the Small-scale Gold Mining Law (PNDCL 218) to attract most of

these artisanal operators to get registered. This will contribute to the reduction of the high incidence of mineral smuggle by these illegal operators to other neighbouring countries which is to the detriment of the country's development.

5. Formal incorporation of gender issues and the adoption of holistic approaches to small-scale mining through technical assistance and community development programmes.

Conclusion

Women within the small-scale mining sector contribute towards combating poverty through the income they earn and spend within their areas of operation. This is of the fact that, most of the preliminary activities required to be done before the processing of the ore are all carried out by women within the sector.

The sector provides various forms of jobs to the inhabitants of the municipality which has contributed to poverty reduction among the people since employment has inverse relation with the incidence of poverty. Despite all these opportunities offered by the sector, it is confronted with certain problems which make it unattractive as compared to the large scale mining sector. It is in this light that the management of the sector appeals to government, non-governmental organisations and private entities to come to their aid to help build a more prolific and safer small-scale gold mining sector in the Ghanaian economy.

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