



Gendered division of labour and “sympathy” in artisanal and small-scale gold mining in Prestea-Huni Valley Municipality, Ghana

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ABSTRACT

Understanding the gender relations and dynamics in artisanal and small-scale mining (ASM) is crucial for formalization interventions and gender-sensitive on-site policies in sub-Saharan Africa. Yet, there is very little research on how gender influences women's economic opportunities and power relations at ASM sites in Ghana. Drawing from a qualitative research in the Prestea-Huni Valley Municipality, Ghana, this paper examines the local gender dynamics and division of labour in ASM. Findings show that while men were mainly engaged in the extraction – digging, shoveling and loading of women's head pans with mineral ore – and processing work at the colluvial mining sites, women were basically working as labourers for the men. The women were directly involved in three main activities – provision of water on mineralised sand, transportation of gold ore and forewomen role – where they received lower remuneration for their labour. In relation to women's access to “dig and wash” work and hard rock mining sites, there was an element of “gendered sympathy” which involved some power dimensions in ASM. In this paper, the empirical analysis of gendered division of labour in ASM provides the basis to understand the gendered organization of ASM and its management structure.

1. Introduction

Over the past 15–20 years, artisanal and small-scale mining (ASM) – use of labour-intensive and lowtechnology in mineral extraction and processing – has received scholarly and media attention in sub-Saharan Africa (SSA). According to the International Labour Organization (ILO) (1999), ASM as a poverty-reduction activity provides economic opportunities for both men and women in rural areas. Yet, empirical evidence has shown that gender norms and taboos affect women's roles and opportunities in ASM spaces (Bryceson et al., 2014; Fisher, 2007; Buss et al., 2017, 2019; Danielsen and Hinton, 2020; Ibrahim et al., 2020; Arthur-Holmes and Abrefa Busia, 2020a). In this regard, policies should rather tackle economic, socio-cultural and political factors that influence and determine livelihood opportunities of men and women in the ASM sector with an equal attention. In Ghana, mining legislation is gender blind. Women still find it difficult to access mining permits and obtain equal benefits relative to men in mining spaces.

Globally, ASM activities are mostly done informally. As Hentschel et al. (2003) noted, 80% of the small-scale mining activities in the world are illegal. In Ghana, for example, 85% of artisanal and small-scale miners do not have mining permits (Hilson and Potter, 2003).

According to estimates in 2017, 40.5 million people are engaged in ASM worldwide (Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF), 2017). However, women's direct engagement in ASM varies throughout the globe ranging 10%–50% (Eftimie et al., 2012; Hinton et al., 2003). The highest percentage is in Africa, which ranges between 40% and 50%. In Latin America, 10–20% of artisanal miners are women whereas Asia has the lowest women involved in ASM with less than 10% (Hinton et al., 2003). It is estimated that about 100,000 women are involved in ASM sector in Ghana, of which the majority are found in the illegal sector. Women account for 15% of the Ghanaian legal ASM work force and constitute about 50% of illegal small-scale mining population (Hilson, 2001).

There has been a growing body of research on gender and ASM in relation to women's work and factors that influence their participation, access to mining spaces and economic opportunities in SSA (see Dreschler, 2001; Amutabi and Lutta-Mukhebi, 2001; Kinabo, 2003; Hinton et al., 2003; Yakovleva, 2007; Werthmann, 2009; Lahiri-Dutt, 2012; Kelly et al., 2014; Ibrahim et al., 2020; Hilson et al., 2018; Bashwira et al., 2014; Buss et al., 2017; Buss et al., 2019). For instance, in the dominant mining literature, Buss et al. (2019, p. 1101) have discussed “how gender operates to organize women's ASM activities and

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its implication on formalization schemes" in the Democratic Republic of Congo (DRC), Rwanda and Uganda. Similarly, [Danielsen and Hinton \(2020\)](#) explained gender and ASM in the Great Lakes region of Africa along four dimensions of gender relations; gender division of labour, access to and control over resources, gender norms and decision-making. Rutherford and Buss have also described the gendered governance and economic differentiation among women artisanal and small-scale miners in Central and East Africa as well as gendering of women's livelihoods in ASM ([Buss and Rutherford, 2020](#); [Rutherford and Buss, 2019](#)).

In addition, Buss and her colleagues, particularly Katz-Lavigne, Aluoka and Alma in their studies in Kenya have described the gendered division of labour and the resistance in gender norms in ASM ([Buss et al., 2020](#)). Despite these studies on gendered division of labour and dynamics in ASM in SSA, very little is known about the local dynamics of gender and ASM in Ghana. [Yakovleva \(2007\)](#) in her study in the Birim North District of Ghana explored the reasons for female participation in ASM. Also, [Arthur-Holmes and Busia Abrefa \(2020a\)](#) examined the struggles of women in ASM in Ghana, particularly in the Prestea-Huni Valley Municipality of the Western Region in Ghana. In another paper by [Arthur-Holmes and Abrefa Busia \(2020b\)](#), they explained the household dynamics and the bargaining power of women in ASM in Ghana. However, this paper primarily examines the local gender dynamics and division of labour in Ghana using a case of Prestea-Bondaye mining area in the Prestea-Huni Valley Municipality. The key contribution of this paper is to provide gender analysis of ASM for policy-makers in Ghana to rethink about their formalization interventions and the struggles women face at the mining sites.

2. Methods

2.1. Study setting and design

This paper forms part of a wider research on "*Power Relations and Bargaining Power of Women in ASM*" conducted between July 3 and September 10, 2017 in the Prestea-Bondaye mining area (PBMA) in Ghana. The wider research used a case study approach with a qualitative research method to investigate the local gender dynamics and power relations of women in ASM in Ghana. Currently, two papers have been published from the wider study (see [Arthur-Holmes and Abrefa Busia, 2020a, 2020b](#)). PBMA is in the Prestea/Huni-Valley Municipality of the Western Region, and it is located in the Southwestern Ghana and covers about 50 km north of the coast of the Atlantic Ocean. For this research, mining owners or employers had not registered their activities; hence they did not have mining permits from the Minerals Commission to operate in the area. All the women and men recruited for the interviews were engaged in the informal (illegal) gold mining – locally called *galamsey*.

2.2. Sampling and participants

A multi-stage sampling was adopted for the broader study. They included purposive, snowball and convenience sampling techniques as well as social networks. Social networks and snowball sampling technique were employed in order to gain access to traditional leaders, members of the mining site committees and town council leaders in the study area. Purposive sampling was useful for choosing female miners and specific group of male miners at the mining sites because it usually aims at obtaining access to study subjects who are knowledgeable about the topic under investigation ([Kvale, 1996](#); [Denscombe 2007](#)). Convenience sampling technique helped to select women artisanal miners for the in-depth interviews due to the availability of women working at the mining sites visited, flexibility of recruitment and their willingness to partake in the study after their consent was sought.

2.3. Research instruments and data collection procedure

Qualitative interviews, focus group discussions and personal observations were employed to collect empirical data for the broader study. However, the empirical analysis of this paper focused on the interviews and the personal observations. In-depth interviews were used to obtain first-hand information on the local gender dynamics and power asymmetries in ASM. Five different semi-structured interview guides were used for the broader study. A pilot study was carried out between July 4 and 14, 2017 to check the appropriateness of the questions to be used before actual data collection started. In relation to this, eight (8) *galamsey* sites in Prestea and Bondaye communities were visited to obtain knowledge of the mining terrain of PBMA and where women artisanal miners were mostly located. Female and male miners were approached mostly after they had finished their work for the day. Those who agreed to participate in the study were interviewed in an open place without interference from the miners at the *galamsey* sites. Forty-nine (49) women artisanal miners were interviewed with 22 and 27 from Prestea and Bondaye respectively. I also interviewed some male miners at the mining sites although they were not the main units of my analysis. The interviews were conducted in Akan Language, particularly in Wassa and Fante. Where the interviewees did not understand and could not speak the language, two study participants with the same ethnic background of the interviewees were found to translate the questions and the responses. Afterwards, "the translated responses which were recorded were checked with some known migrant community members to ensure that certain meanings were not lost in translation" ([Arthur-Holmes and Abrefa Busia, 2020a](#), p. 3). Seven (7) committee members from three different *galamsey* sites; Kutukutu, Papa Amolley and Clinic sites, were interviewed. On average, each semi-structured interview took about 40 min.

2.4. Ethical considerations

All ethical issues concerning the research were addressed before and during the data collection. The research was approved by the Central University Research Ethics Committee (CUREC) through the Oxford Department of International Development, University of Oxford, United Kingdom, with reference number, CUREC 1A/ODID C1A 17-032. Informed consent was obtained from the study participants before the interviews commenced. In instances where study participants felt uncomfortable to sign written informed consent forms, oral consent was used. While the research was voluntary, study participants were free to opt out of the interview at any time. They were also assured of strict confidentiality of their responses. Permission was sought from the study participants before interviews and field notes were audio-recorded and taken respectively.

2.5. Data analysis

All audio-recorded interviews were listened, transcribed and written into English for content validity. Transcripts were read for general understanding and identification of predominant patterns. The main themes in the transcripts were written down and inductively analysed in addition to the field notes. Thematic analysis technique was therefore used to identify recurring themes and variations within the data.

3. Findings and discussion

3.1. Background analysis of study participants

The 49 women artisanal miners interviewed were within the 18-45 age range. Out of the 49, 30 were married and 19 were single/widow/divorced. Twenty-two (22) women artisanal miners were migrants from the Northern part of Ghana. The rest (27) of the women artisanal miners were Akans, of which most were natives of the area. About 25 women

artisanal miners had completed junior high school. The remaining 24 had never been to school. Women experienced diverse struggles in ASM. However, in my research sites, migrant female miners faced more discriminations than the local women. As Arthur-Holmes and Abrefa Busia (2020a) noted, women migrants from the northern Ghana faced discriminations from their employers who were Akans. As a result, women from the north depended on their ethnic affiliations for what they are entitled to at the mining sites.

3.2. Gender division of labour in ASM

In this section, I describe the work patterns and labour process in my studied mining sites. From the findings, there were gendered patterns of ASM activities where women and men performed different tasks in the extraction and processing stages. Women were directly involved in three main activities; provision of water on mineralised sand, transportation of gold ore and working as forewomen. In terms of indirect economic activity, some women worked as food vendors at the mining sites. However, for us to understand women's and men's work in ASM, I will briefly describe three methods of ASM employed by artisanal and small-scale gold miners in PBMA, particularly at the sites visited; hard rock mining, shallow alluvial mining (also called "dig and wash") and colluvial mining.

I used the term "colluvial mining" to explain a new mining technique I observed in PBMA during my research. It was derived from the word "colluvium". In this context, some informal miners dig mineralised sand accumulated in the abandoned pits of large-scale mining companies. The landscape of the abandoned pits looks like a mountain or hill with loose sand materials at its base. It is the base-like terrain in the pits where artisanal miners dig to get higher grade of gold, hence the term "colluvial mining".¹ For this mining method, gold ore or the mineralised sand is transported to the processing sites, where the water used for sluicing is pumped from the abandoned mining pits filled with water or a nearby stream. Unlike the shallow alluvial mining,² colluvial mining usually involves the extraction of mineralised rocks or sand in abandoned mining pits that exceeds 3 metres. Local miners call this type of mining method *Chang Fa* mining or operations because of the use of Chinese mill machines for smoothening mineralised sand and crushing gold ore into fine particles. The distinctive feature of colluvial mining technique is that the extraction activities are not conducted in water logged areas or streams.

Women were only involved in transporting gold ore to the processing sites with few women acting as forewomen (supervisors) for their work. The role of forewomen was usually reserved for relatives of the *Chang Fa* machine owners since they needed people they could trust. Sometimes, forewomen roles were given to girlfriends (fiancées) of the *Chang Fa* machine owners. In PBMA, a *Chang Fa* machine owner could employ about 50–60 women with 10–15 men as diggers and machine workers. At one large mining site called Papa Amolley site in Bondaye, some *Chang Fa* machine owners had about 80–100 women because they were using two or more *Chang Fa* machines in their operations. With this number of women, *Chang Fa* machine owners could employ between 20

¹ For easy understanding, you can call it "colluvial pit mining". I got the name for this new mining method when I was trying to have a name for the mining activities in the abandoned pits of the large-scale mining companies in the area. I was speaking to myself then I said it loud, it could be colluvial mining since it was somewhat different from alluvial mining in some aspects. Then I looked at the landscape of and within the pits. I became convinced that it was the right word for the description. I searched online to see if such name exist but I could not find it. Afterwards, I said to myself I could use this name in my writings on ASM in Prestea-Bondaye mining area

² Shallow alluvial mining is the extraction of alluvial deposits, that are usually found in a low-lying area or valley at a depth of not greater than three (3) metres is done (Aryee et al., 2003). Dig and wash work is mostly undertaken in waterlogged areas.

and 30 men to work with. Some male miners worked in groups as partners and as such, they employed few men to work with. At the Papa Amolley site, there were more than 500 women working with different *Chang Fa* machine owners. When the *Chang Fa* owners were involved in the mining activities in the abandoned pits, they were seen as colluvial miners.

At the colluvial mining sites, men were mainly engaged in the extraction – digging, shoveling and loading of women's head pans with mineral ore – and the processing work. The men performed different tasks based on their physical strength, mining experience and knowledge. Young men or boys were mainly found working around the *Chang Fa* machines whereas older men with stamina and strength were digging in the pits. In some cases, it was vice versa. From my observations, some women were digging on their own to get gold ore especially when the male diggers were slow to fill their head pans. Sometimes, these women were being shouted at for acting in such manner. The men explained that women could do the works around the machines, but they were not allowed to do so because they could sustain injuries and also concerns of women being unable to stand on their feet for longer hours or all day. As Buss et al. (2020) argued, gender norms influence women's livelihoods either by opening up economic opportunities or closing up possibilities for women at mining sites.

For shallow alluvial mining particularly, "dig and wash" method, women were involved as water providers from the ground. I observed only one woman working with men in all the sites visited. The men explained that they mostly did not need many women to work with since most aspects of their work involved digging.

Hard rock mining methods are employed to mine "gold bearing reefs" which are found near to the surface or the deep-seated rocks. Holes are sunk to intercept the reefs (bars of sand or rocks) after which they are worked along the strike (Aryee et al., 2003, p. 134). For hard rock mining, men worked in different capacities as 'lokko boys', chisel men, blastmen and crackers.³ Women were not allowed to enter underground pits and do any work associated with hard rock mining. Sometimes, some women were occasionally tasked to break mineralised rocks and allowed to transport mineral ore in sacks to a nearby roadside. Unlike other studies, I could not find any woman engaged in digging or panning to find gold ore to sell. The labour dynamics for women in my research sites were different from other mining regions in African countries. For example, in DRC, as Buss et al. (2019) noted, the majority of women in hard rock gold mining sites in Ituri worked as *bufute* connoting crushing and grinding stones left by diggers. My findings were in line with Yakovleva's (2007) study in Birim North District of the Eastern Region of Ghana except that she found some women washing sand. A possible explanation for the difference might be as a result of the time I conducted the study which coincided with the government's ban on ASM in 2017 due to destruction of water bodies and farmlands.

Additionally, I did not find women acting as mining/group sponsors and concession holders as Hilson (2001) noted in his research. In terms of these discrepancies, some women and men explained why women have stopped investing their financial resources in ASM activities in PBMA and other mining areas. They attributed it to women's inability to obtain profit due to low gold production and lack of trust from their male partners. What is compelling is that mining activities in my research area are conducted through informal (illegal) means which make it difficult for women to play key roles such as license holders and underground pits sponsors. In PBMA, women did not have access to the abandoned pits of the mining companies. The men believed that the women did not

³ 'Lokko boys' are those who bring forth the mineral ore or rocks in sacks from the pit to the surface. They usually pass on the gold ore (in sacks) to one another until it reaches the surface. Blastmen are those who prepare blasting activities to take place in the underground pits. Chisellers are those who work on mineral rocks and chisel or crack them in an underground pit. Crackers are those who are engaged in crushing mineral rocks in fragments.

have the requisite mining knowledge to work on their own and handle the “hit and run” nature of informal mining activities. As a result, the men usually stopped them from working in the mining pits in the area. The men accessed these mining pits or concessions of the mining companies without their permission and shared among themselves.

3.3. Gendered remuneration and labour organisation in ASM

In PBMA, men and women were paid unequally. At the colluvial mining sites, the men who worked around the *Chang Fa* machines spent longer hours than men digging in the pits. But the male diggers who joined those working around the *Chang Fa* machines after their work received higher remuneration than those performing a particular task. In spite of work differences, women were paid lowest for their labour (Danielsen and Hinton, 2020; Buss et al., 2019, 2020). Where women’s work was carried out within a family unit, it was mostly unpaid (Amutabi and Lutta-Mukhebi, 2001). In the colluvial mining sites visited, women were paid GH¢ 20.00 (US\$ 4.56)⁴ for 25 rounds of transporting mineralised sand with a standardized head pan to the processing sites whilst the men received GH¢ 50.00 (US\$ 11.40) or more depending on their task. As some scholars pointed out, transporting ore from either tunnels or open pits to processing sites does not pay much compared to digging or panning (Buss et al., 2019; Buss et al., 2020; Muheki and Geenen, 2018). Women usually spent fewer hours than the men at the mining sites. This observation was similar in some other African countries, for example in DRC, Uganda and Rwanda (Stewart et al., 2020). Although Stewart et al. (2020, p. 47) found that “both men and women in Uganda work more hours per day at the mine sites”, they realised that there were still significant differences in the hours worked between the two groups. In PBMA, some women spent extra hours at the mining sites to earn more money. More importantly, many women desired to work for longer hours to obtain higher earnings. Yet, they were constrained by family obligations and domestic chores (Buss et al., 2019; Arthur-Holmes and Abrefa Busia, 2020a, 2020b).

In hard rock mining, men’s earnings were based on the amount of ore production and it was shared according to their roles. The *lokko* boys received the lowest share of the ore production. Likewise in “dig and wash” work, both men’s and women’s remuneration were based on the amount of gold production and their task. The men shared the profits equally if they were working as partners or a team. But if the leader of the “dig and wash” was the one who hired the other men, their remuneration was based on their task. Some women in “dig and wash” lamented that even when the gold production was high, they received the lowest remuneration. It was sad to hear from some “dig and wash” women that they were only interested in the monetary aspect of the work but not to be seen as partners. For example, one “dig and wash” woman mentioned that;

For me I don’t think about whether the grade of the gold ore is low or high. I only want my money after I am done with the work. I know they will lie to me because they don’t want to give me more money. I don’t have any say or power in this kind of work. I am just helping them in order to get money. So I am just a labourer and can be replaced. I just need to think about my own welfare and shut my mouth. I still want to continue working with the group because I get money to buy meals and other things.

From this quote, it clearly shows how some women had accepted their position in ASM as labourers and did not want to challenge the hegemonic work order and masculinity in ASM. In support of this, Arthur-Holmes and Abrefa Busia (2020a) argued that “women had no place in decision making and consultation committees but only mattered

as labourers”. They further argued that “women were generally treated as easily replaceable workers and as a result, often underpaid, had remunerations delayed or in extreme cases unpaid”.

3.4. Gendered sympathy and power dimensions in ASM

In this section, I introduce a concept called “gendered sympathy” in ASM from how women gained access to “dig and wash” work and hard rock mining sites. For every four or five “dig and wash” men, there was one woman among them. The men worked in groups and had a leader. In some cases, friends came together to form the group. Under such circumstances, they shared the income they earned equally.

From the findings, many women got access to “dig and wash” work out of sympathy from the group members. Most often it was the (male) leader who decided whether they should allow a woman to work with them or not. Some women pleaded with the men to partake in their activities in order to get money to meet their basic needs. However, the women began their access through a conversation with the leader during which they expressed their desire to work in the “dig and wash”. In some cases, the women involved were relatives of some of the “dig and wash” miners. The process of women’s access usually made it difficult for them to raise concerns about their remuneration and demand for an increase after being considered. This element of “gendered sympathy” portrays the gendered relations and contestations in ASM spaces as well as the power dimensions involved.

The hard rock miners explained that if not because of empathy towards some women, they would have carried their own gold ore to the roadside for transportation. During one of my visits to a hard rock mining site at Bondaye called clinic site, some of the hard rock miners were carrying their gold ore. However, they mentioned that the roadside was not far from their site, hence there was no need to pay women to carry it. At another site, women were carrying the gold ore to the nearby roadside. Here, the hard rock miners felt the need to provide an avenue for some women to get some money. Unlike colluvial mining which depends on women, hard rock mining does not necessarily need women to carry the gold ore.

Another element of “gendered sympathy” was the medium through which some women were permitted to come to the hard rock mining sites and tidy the place. These women usually visited the sites on breaking days⁵. They were not paid for their service. At the clinic site, women who tidied the place were given dirty sacks to wash. This was done because the hard rock miners wanted to provide some women with an opportunity to retrieve small particles of gold ore trapped in the sacs while at the same time they would get back their sacks clean. The women washed the sacks in a metal container filled with water. This process was done repeatedly on breaking days or any other day the women got the sacks. The small particles of gold ore in a container with water are called “moyasi”.⁶ When the “moyasi” became plenty, the women processed it. Thus, any amount of money they got from the processing the “moyasi” became a compensation for tidying the site. Sometimes, some women got the sacks to wash without necessarily working as cleaners. These women had relations with some of the hard rock miners. Thus, the processes through which women obtained “moyasi” were complex and demonstrated how some women needed sympathy from male miners in order to work at the “dig and wash” and hard rock mining sites.

4. Conclusion

In this paper, I have unpacked the local gender dynamics and

⁴ Based on the exchange rate as of the time of the research, 14th July 2017 (1 US\$ = 4.3875 Ghana Cedis).

⁵ Breaking day refers to a day that is locally instituted for miners to rest and not to work at the site. This is usually on Thursdays.

⁶ Moyasi could mean different things in other methods of ASM. But it has a common meaning that is ‘leftovers’ of anything.

division of labour in ASM in Ghana, particularly in the PBMA. Despite the increasing participation of women in ASM, women still occupied the lowest position at ASM sites and received lower remunerations for their labour. Unlike the men, women had to work for extra hours in order to receive higher remuneration. In relation to women's access to "dig and wash" work and hard rock mining sites, there was an element of "gendered sympathy" which involved some power dimensions in ASM. While men were mainly engaged in the extraction – digging, shoveling and loading of women's head pans with gold ore – and the sluicing or processing work at the colluvial mining sites, women were basically acting as labourers for them. That notwithstanding, the men performed different tasks due to their physical strength, mining experience and knowledge. These local gender dynamics and division of labour in ASM provide the basis to think about the gendered organisation of ASM and its management structure at mining sites in Ghana. It also provides key stakeholders with knowledge to promote gender-sensitive on-site policies.

Ethical approval

Since the research involved human participants, ethical approval was provided by the Central University Research Ethics Committee (CUREC), Oxford Department of International Development with reference number, CUREC 1A/ODID C1A 17–032.

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Author's contributions

The author is responsible for the draft and its review.

Declaration of competing interest

The author declares that he has no competing interests.

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List of Abbreviations

ASM	Artisanal and Small-scale Mining
DRC	Democratic Republic of Congo
ILO	International Labour Organization
PBMA	Prestea-Bondaye Mining Area
SSA	sub-Saharan Africa
CUREC	Central University Research Ethics Committee

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