

**FEMALES' ENGAGEMENT IN GALAMSEY AND ITS EFFECTS ON HOUSEHOLD LIVELIHOODS IN GHANA: A CASE OF MANSO AYIREBIKROM IN AMANSIE SOUTH DISTRICT**

ID: GJDS-UBIDS-052422

**Joseph Nti Mensah<sup>1</sup>**[ntimensahjoseph94@gmail.com](mailto:ntimensahjoseph94@gmail.com)[ntimensahj@outlook.com](mailto:ntimensahj@outlook.com)**Francis Issahaku Malongza Bukari<sup>2</sup>**[bfrancis@uds.edu.gh](mailto:bfrancis@uds.edu.gh)[bukarimalongza@yahoo.com](mailto:bukarimalongza@yahoo.com)Department of Natural Resource Conservation<sup>1</sup>  
Amansie South District AssemblyDepartment of Community Development Studies<sup>2</sup>  
University for Development Studies, Tamale*Doi//<https://dx.doi.org/10.4314/gjds.v21i1.4>***ABSTRACT**

Intensive measures to stop galamsey are still effective. However, these measures have not considered the livelihoods of those engaged, particularly females and are therefore questionable in mainstream literature. Hence, this study assessed the effects of females' engagement in galamsey on their household livelihoods. The study employed a mixed research approach. It included semi-structured interview questions, primary data from a sample of 50 females, and relevant literature. The study identified that females, to meet household needs but lack sufficient income resulting from a lack of productive employment and other factors, enter into galamsey, with their income, substantially contributing to household needs. However, the study further disclosed that galamsey is unstable and insecure as females hardly cope with ban enforcement, health and safety concerns, and gender marginalization, which challenge females' households. The study recommended that policymakers and development organizations, including the government, Ministry of Labour, Rural Development, Gender and Social Protection, and NGOs, create job opportunities, provide credit facilities and affordable loans to support female entrepreneurs, and diversify their income sources. Furthermore, the government is advised to empower females through education, gender awareness, leadership, and livelihood programmes to enable them to leverage several livelihood opportunities to improve their households.

**Keywords:** female in galamsey, household livelihood effects, ban enforcements, sustainable livelihoods

## INTRODUCTION

Galamsey is a term used in Ghana to describe the illegal or informal mining of gold, also known globally as artisanal and small-scale mining (ASM). It provides millions of people their livelihood and incomes, with estimates of over 44 million people worldwide working directly in the sector. Additionally, between 134 million and 269 million people are supported by associated businesses. Females are also actively involved in ASM, accounting for 30–50% of the workforce on average and sometimes even more (World Bank, 2020; 2019; UNDP, 2016). ASM is characterised by the exploitation of small mineral deposits that are not economically feasible for large mines, with no or low levels of mechanisation, occupational safety, social security, environmental considerations, and operating illegally (Hinton et al., 2003; Hentschel et al., 2002). The illegality of ASM is estimated at 80–90% globally and 70–80% in Ghana (World Bank, 2020; 2019).

The sub-Saharan African region has the largest number of artisanal and small-scale miners globally, with approximately 25 million people directly employed and another 60 million making a living from related activities. Females' engagement in ASM in this region ranges from 20% to 50%, generally the highest percentage of female artisanal miners in Africa. In some areas, the workforce is made up of 60% to 100% females. For instance, Guinea has an estimated 74% of small-scale miners who are females, and in Madagascar, Mali, and Zimbabwe, 50% of the ASM workforce are females (Hilson et al., 2021; World Bank, 2019; Eftimie et al., 2012; Hilson, 2002a). On the other hand, the proportion of female miners in Asia is generally less than 10%, while in Latin America, it tends to be higher, with approximately 10–20% of female miners (Amutabi and Lutta-Mukhebi, 2001; WMMF, 2000; ILO, 1999). The ASM sector in Ghana employs an estimated 1.1 million people directly and 4.4 million indirectly, with a significant percentage of up to 45-75% being female, with the majority coming from rural areas seeking employment in the sector (Hilson, 2002a; World Bank 2019). In galamsey, females can play direct and indirect roles as labourers and non-labourers, such as panners, load potters, and processors, as well as providers of goods and services, such as cooks and merchants (Yakovleva, 2007; Hinton et al., 2003).

The Sustainable Livelihood Framework (DFID, 2000) with five components: vulnerability context, livelihood asset, transforming structures and processes, livelihood strategies, and livelihood outcomes conceptualized for this study highlights that people engage in diverse activities to make a living, especially for the poor, who rely on multiple economic activities for their livelihoods. The framework assesses how organizations, policies, institutions, and cultural norms shape livelihoods by determining who gains access to which assets and defining the range of livelihood strategies that are attractive to people (Carney, 1998; Chambers and Conway, 1992). In the context of this study, the illegality of ASM results from ineffective government and private sector policies, laws, and institutions (transforming structures and processes) governing the extraction of gold deposits as a livelihood asset (Hilson and Potter, 2003). Females' engagement in illegal gold mining as a livelihood strategy (economic activity) is greatly influenced by their vulnerability contexts, including poverty, unemployment, high fertility and dependence rates, migration of spouses, etc. (Dreschler, 2001), in pursuit of improving their living standard through higher income, reduced vulnerability, food security, and improved well-being as a livelihood outcome (Afrin et al., 2008; Dankelm, 1988).

Ghana has a vast body of literature on ASM, highlighting the negative impacts of the sector on the environment, farmlands, vegetation, water bodies, and even human lives through degradation, mercury contamination, and pollution (Gyamfi et al., 2021; Mantey et al., 2020; Mensah et al., 2015; Agyeman, 2012; Aryee et al., 2003; Amankwaah and Amin-Sackey, 2003). The centrality placed on the increasing destruction of ecosystems resulting from galamsey attracted a lot of concern across Ghana and beyond, with intense campaigns and demonstrations from the media, civil society organizations, and some government institutions for the activity to be banned. In response to the public outcry, the Ghanaian government quickly banned all varieties of ASM by adopting a military-police joint task force (Operation Vanguard) in 2017, previously used in 2013 and 2006 for the same purpose. Following several warnings to illegal miners to halt their operations, about 4,000 personnel from the task force were sent to all galamsey spots across the country, indicating that ASM is no longer tolerated. Ignorant miners were brought before the court for fines or imprisonment, and their machines were completely damaged (Osei et al., 2021; Hilson and Maconachie, 2020; 2017). Until today, Operation Vanguard's activity has evolved and continues in a decentralized form. Several questions emerge from such studies and government actions: What are gender perspectives? How have strategies to ban or control the effects of galamsey considered the livelihoods of those engaged, if any alternative, after their activities are terminated? What efforts have been made to ascertain the contributions of the sector to household livelihood with a gender lens? Questions such as the above need to be addressed in mainstream literature.

In 2016, the Global Monitoring Database reported that half of the 655 million poor people worldwide are females. Olayemi (1995) asserts that the poor have limited access to necessities of life like food, clothing, and acceptable shelter, are not able to fulfil social and financial responsibilities, and lack the necessary skills for productive employment. ASM provides opportunities to reduce poverty, create jobs, and generate income as an economic lifeline for millions of rural people in developing countries. Females' earnings in ASM tend to be higher than other non-farm sources, and their contribution to household finances is vital, especially since they often spend more of their income on family needs. Although ASM provides females with increased economic opportunities, they are often challenged by health and safety concerns and face marginalization related to lower-paying roles and land ownership. Females also face gender-based violence and a lack of basic amenities like sanitation and childcare at mining sites (World Bank, 2019; Hilson et al., 2018; Heemsker, 2003b; Hentschel et al., 2002a; WMMF, 2000). Given that galamsey is the dominant and one of the available livelihood strategies in Manso Ayirebikrom, and females engage in it, it was adopted as the case for this study. The main objective of the study was to assess the livelihood effects of females' engagement in galamsey on their households. Specific objectives, influencing and motive factors, roles, and challenges of females' engagement in galamsey were explored to influence effective policies to strengthen females' livelihood opportunities.

## **METHODS AND MATERIALS**

### **Study area**

The study area is Manso Ayirebikrom, located in the Amansie South District, carved out from the Amansie West District Ghana. The district has a population of 116,366 people and is geographically situated at 6°24' N and 1°56' W. It has a total land area of 773.5 km<sup>2</sup>. The soils in the district are classified based on the geological formation from which they developed. They include soils developed from granite rocks comprising the Nyanko-Tinkong Association, soils formed from birimian of the Bekwai-Oda compound, the Mim-Oda Compound Association, the Kobeda-Eschiem-Sobenso Oda Complex, and soils developed from alluvium of the Ahawan, Kukuom, and Chichiwere associations. The alluvial soils in the district, specifically the Ahawan, Kukuom, and Chichiwere associations, contain mineral deposits such as gold. The Bekwai-Oda compound soil is identified as the most fertile for agriculture and suitable for both food and cash crops. The climate of the study area is of the wet semi-equatorial type. It has a double maximum rainfall regime, with the major rainy season occurring between March and July and the minor rainfall season occurring between September and November. The mean annual rainfall ranges between 855mm and 1,500mm, and the average number of rainy days for the year is between 110 and 120. The months of December to March are usually dry and characterized by high temperatures and early morning moist and cold weather conditions. The temperature is generally high throughout the year, with a mean monthly temperature of about 27 °C. The vegetation in the district is mainly of rainforest type and exhibits moist, semi-deciduous characteristics. The Offin and Oda rivers, along with their tributaries, including the Jeni, Pumpin, and Emuna, are major drains of the district (Ghana Statistical Service, 2021; 2014). The major occupation in the district is mining and farming given the endowment of fertile land, mineral (gold) deposits and well-draining systems.

### **Methods**

A mixed research approach was adopted for the study. The study employed a semi-structured interview guide, a focused group discussion (FGD) guide in the local language (Twi), field observation, and text and document reviews for primary and secondary data collection. The semi-structured interview guide was used to collect primary data from a 50-female study sample. For quantitative and qualitative analysis, the semi-structured interview questions captured both closed-ended and open-ended questions objectively for the study and were administered through face-to-face interactions. Two focused group discussions were conducted with different groups of females engaged in galamsey. The first FGD was made up of nine (9) load potters and the second, seven (7) panners. The discussion guide focused on health and other challenges, their effects on households, coping strategies, and what females think can be done to improve their livelihoods. Field observation was used to provide a pictorial impression and in-depth understanding by cross-checking the collected data on the methods of galamsey operation, mode of engagement, and specific roles or activities of females, as well as the associated health challenges at the galamsey sites. The assessment of household livelihoods was based on females' income and expenditure patterns according to their age, level of education, household headship, and marital status.

For analysis, quantitative data were entered into Statistical Package and Service Solution (SPSS). Statistical techniques like frequency and percentages in graphs and tables were used to present data using Microsoft Word and Excel. Quotations and narrations were also used to analyze the data qualitatively by describing and explaining the relationships between

females' engagements in galamsey. The reasons females engage in galamsey, the activities or roles they play, and the effects on their household livelihoods were explored, described, ascertained, and underpinned by the Sustainable Livelihood Framework. Ethically, the research sought the consent of the respondents and briefed them about the scope, objectives, and significance of the study. Respondents had the choice to ignore items in the research instruments that were deemed personal. The data was kept confidential and anonymous for analysis.

### Sample size determination

Cochran's formula for calculating a representative sample size when a study population is infinite was adopted since the target population (females engaged in galamsey) in Manso Ayirebikrom is infinite. Cochran (1977) developed a formula ( $n_0 = z^2 p q e^2$ ) to calculate a representative sample for proportions. Where  $n_0$  is the sample size,  $z$  is the selected critical value of the desired confidence level (95% or 1.96),  $p$  is the estimated proportion of an attribute that is present in the population at 50% ( $p = 0.5$ ),  $q = (1 - p)$ , and  $e$  is the desired level of precision (10% or 0.1). This would yield a sample size of 96.

Table 1. Sample Size Calculated for Different Confidence Levels and Precision

Confidence level	Sample size ( $n_0$ )		
	$e = .03$	$e = .05$	$e = .1$
95	1067	384	96
99	1849	666	166

Source: (Cochran, 1977)

Since this study was focused on a homogeneous group (females in galamsey), a sample size of 96 was calculated. However, due to financial and other constraints, the sample size was reduced to 50.

### Sampling technique

Purposive non-probability sampling was used as the target population was females directly and indirectly engaged in galamsey. Convenience sampling was used to select respondents at the data collection disposal (galamsey sites). Snowball sampling was also employed to identify potential and willing respondents since some of the females who met at the galamsey sites did not show interest and were also constrained by time.

## RESULTS AND DISCUSSIONS

Table 2. Age distribution of respondents in the study sample

Age Groups	Frequency	Percentage (%)
0 – 23	12	24.0
24-29	17	34.0
30-34	6	12.0
35-39	4	8.0
40 +	11	22.0
Total	50	100.0

All the interviewees in the study sample are aged between 17 and 60 years old. Illustration from Table 2 shows that almost four out of five (78%) of the females sampled for the study are relatively young, between 15 and 39 years old. Therefore, as indicated by Hilson and Potter (2003), the majority of people working in the galamsey operations in Ghana are rural youth, including females. The remaining 22% of the sample who are 40 years of age and older are still engaged in the mining sector; however, they tend to play roles that are not labour-intensive and time-bound. Thus, for females engaged in galamsey, age influences their role, depending on the mining techniques used, the strength and experience required, and personal desire.

As confirmed by one respondent: *"I'm 55 years old, and the labour work (load pottering) requires a lot of energy, which I don't have. So, I go over mine pits and gather the residuals and pan."* [Married].

Table 3. Distribution of Respondents in Galamsey by Level of Education Attained

Educational level	Frequency	Percentage (%)
No primary	7	14.0
Primary	21	42.0
Junior High School	16	32.0
Senior High School	5	10.0
Tertiary	0	0.0
Others: Form 4	1	2.0
Total	50	100.0
Non-formal	11	22

Table 3 shows that only 10% of the female sample has attained senior high school as their highest level of education, indicating a lack of formal education necessary to secure employment in the formal sector among the majority (90%) of the females, hence being unfit for formal employment. As demonstrated in the study by Haddad (1991), the gap in living standards between males and females is directly related to the lower educational enrollment and attainment of females coupled with their greater time obligations. These factors, like in the case of Manso Ayirebikrom, place females in informal and disadvantaged occupations like galamsey. Non-formally, 22% of the female sample interrupted their education with apprenticeships, including hairdressing, dressmaking, and others, but were not employed by the training and skills they acquired.

Table 4. Marital and Household Head Statuses of Respondents

Status	Single	Married with Spouse		Divorced	Widow	Total
		Absent	Present			
Frequency	18	2	18	9	3	50
Percentage	36.0%	4.0%	36.0%	18.0%	6.0%	100.0%
Household Head	11	2	1	8	3	25
Headed by others	7	0	17	1	0	25

Table 5. Distribution of Household Sizes of Female Sample

Household size	Frequency	Percentage %	Av. household size
1	6	12.0	1
2-3	13	26.0	2
4-5	10	20.0	5
6-7	11	22.0	6
8 and above	10	20.0	10
Total	50	100.0	5

From Table 4, half (25) of the 50 female sample for the study are heads of households comprising dominantly single females, a few divorced, widowed, or married with spouses away from home. Generally, the average household size of the female sample, whether head or not of their household, is five people, as shown in Table 5. Therefore, emphasizing the breadwinner position in these households is the key responsibility of female heads engaged in galamsey. Although half of the female samples are not household heads, they play a significant role in meeting the basic needs of their families. This implies that ensuring the survival and living standard of household members hinges on the availability of employment opportunities for adult household members and their degree of income (Dankelm, 1988).

A respondent indicated: I am the head of my household with three dependents. So, including myself, we are four members of the household, and I am responsible for the household upkeep. My friend linked me here when my rent was due, and I had no hope of renewing it. I worked for only two weeks, and I was able to make a deposit to secure accommodation, so if not for Galamsey, I would be homeless. Also, I can send my children to school, pay my bills, and provide clothes, food, and other household essentials [divorced, age 48]. Another respondent also shared: "My husband is the household head and responsible for providing for the necessities of our household, but I support him a lot, especially when it comes to providing food and clothes for our children and other household assets such as utensils, with my earnings mainly from galamsey. It is my plan to reduce household responsibilities so that he can concentrate on building our own home and stop renting [married, age 29].

### Reasons: Influencing Factors and Motives of Females into Galamsey.

#### Influencing factors

Table 6. Distribution of Factors that Influence Females Sample studied into Galamsey.

Factors of influence	Frequency	Percentage (%)
Lack of employment	33	66
Outward migration of spouse	2	4
High dependency burden	28	56
Need for personal income	39	68
The poor condition of previous work	2	4
Others	10	20

As revealed by Table 6, the most common concern and influencing factor for females entering galamsey in Manso Ayirebikrom through the structured interview guide was the

need to earn personal income (68%). Therefore, eliminating poverty depends on ensuring income since it serves as a foundation for social and economic transformation. According to 66% of the study sample, a lack of employment opportunities (whether formal or informal) is a significant driver of females' engagement in galamsey. As a result, informal jobs like galamsey are the primary (86%) occupation for females (Heemskerk, 2003b; DFID, 2000). In contrast to their counterparts (52%), who are engaged in galamsey only, 48% of the study sample along galamsey are involved in other minimal livelihood activities, mostly subsistence farming, petty trading, and other microenterprises. A high dependency burden of 54% was noted, mostly among females who are widows, single, divorced, and heads of households with four to eight dependents or more. The poor condition of previous employment (4%) was the least influencing factor because there are no avenues for formal employment, and even if there are any, females are constrained by their low educational backgrounds, as shown in Table 3. Outward migration of spouses, as indicated by Dreschler (2001) as an influencing factor for females into artisanal mining, was confirmed by 4% of the respondents. Others, specifically hardship resulting from other factors such as the deaths of spouses, guardians, etc., were also cited by 20% of the study sample as a driving force behind their operation in galamsey.

### Motives to be achieved by respondents

Furthermore, some secondary reasons were also considered important by the female sample as to why they had to take up employment in galamsey. The interview resulted in the following: to subsidize household income (66%), quick income (44%), ensuring survival (40%), working capital (28%), and (8%) for others such as construction. On a brighter note, it highlighted females' concern for ensuring basic household needs and survival as a significant rationale for engaging in galamsey considering that it's a quick source of income unlike alternative avenues, which are rarely available and open to females. The activity (galamsey) generally enables females to facilitate and supplement household income.

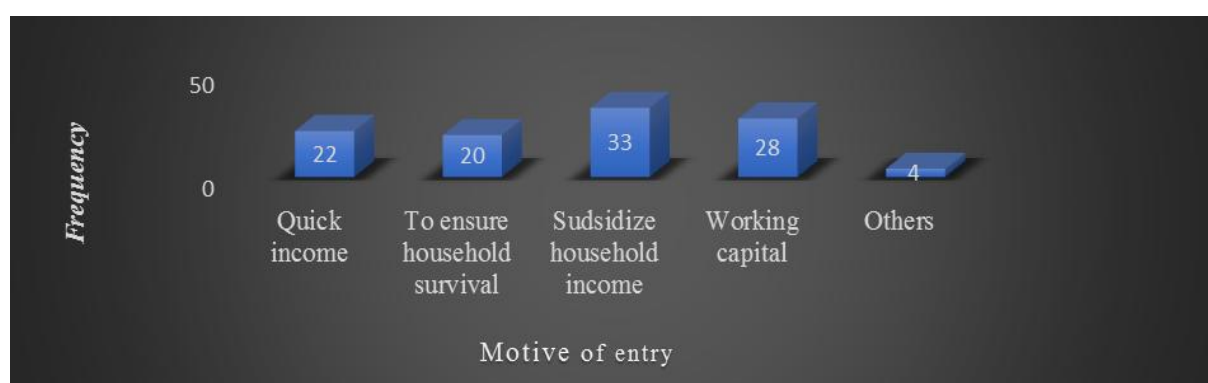


Figure 1: Distribution of motives of entry of the study sample

As working capital, the females see galamsey as an interim engagement and an opportunity to obtain quick income and diversify their economic activities. Therefore, it is suggestive to impute that the 22% of the respondents, as illustrated in Table 3, who have gained some skills and training through non-formal education (apprenticeship) are influenced into galamsey to set up their businesses, as are other females who want money to invest in commercial activities such as trading, food vending, etcetera but have not realized this because of their heavier household needs burden.



As highlighted by some respondents,

*"I dropped out of school because I had no one to cater for my educational needs. Thereafter, I went into apprenticeship as a hairdresser and still faced financial challenges, so I stopped and entered into galamsey since it is the only job avenue in this community and gives quick income to accumulate funds to further my dream [single, age 19].*

*Also, by another: "Before my husband's death, I used to trade, but the strike of his death left me with sole responsibilities, which I cannot bear with the only income I obtain from petty trading because I have about ten people to care for. Looking at galamsey as the dominant livelihood in the community, I also entered as a panner (residual gatherer) because, at my age, I cannot do the labour work" [widow, age 60].*

**Roles of Females in Galamsey**

Through field observation at various galamsey sites, four techniques employed as an open-pit method of gold mining in which females in Manso Ayirebikrom are engaged were revealed. The methods include semi-mechanised (Changfa), dig and wash, shanking, and self-residual gathering (i.e., panning, locally termed Domp-ase). It was also noted that the availability of paid jobs in galamsey is not consistent; hence, females usually switch from one site to another in search of work. Therefore, the female sample for the study engaged in one or more activities.

As illustrated in Figure 2a, the major mode of females' direct engagement in galamsey is 84% by labour and 36% by residual gathering, with none as pit owners or mine operators. Indirectly, 4% of females are engaged in related commercial activities.

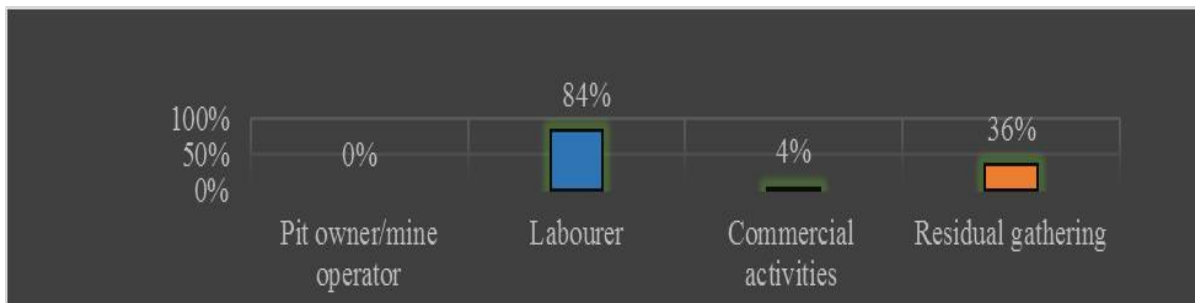


Figure 2a: Distribution of mode or method of engagement in galamsey of female sample

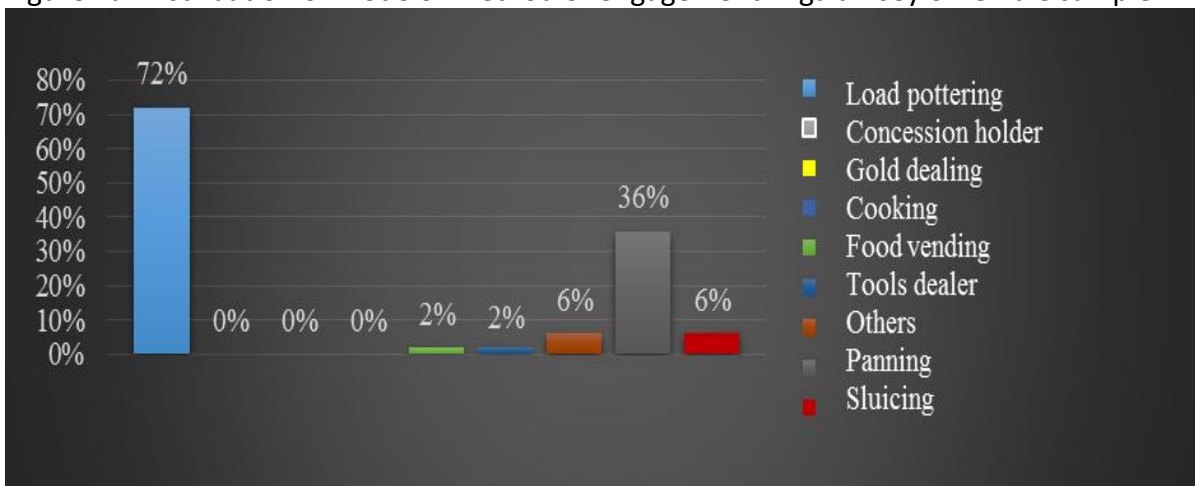


Figure 2b: Distribution of specific roles of female's engagement in galamsey

On the one hand, as shown in Figure 2b, load pottering, locally termed *Asoasoa* in the semi-mechanised method (*changfa*), is the dominant role (72%) of females' engagement in *galamsey*, followed by another set of roles including sluicing (*Nnsubor*), 6% and others; load fetching (*Ntengusor*); and stone removals (*Aboryie*), summing up to 6% of the respondents in the dig and wash as well as the shanking method of *galamsey*, which all take the form of direct labour, and it is mostly the youth who are engaged. On the other hand, the second major role directly engaged by 36% of the females is panning; however, it is not labour. Females who were engaged as panners adopted the self-residual gathering method of gold mining and were commonly among females above young ages and were less energetic for labour work. With their method, they go over pits most often in the evening and at dawn to gather ore remains and wash them by panning them with a locally crafted wooden structure called *Krowo*. With other direct and indirect engagements that could take the form of ownership, such as holding concessions, dealing gold (merchants), and cooking, none of the sample interviewed is engaged. Cooking is usually done by one of the female workers, which comes with little or no addition to their income. As studied by Yakovleva (2007) and Hinton et al. (2003), the roles or activities of females' engagement in *galamsey* for this study are not different. A correlation was established between load pottering and other direct labour roles due to the introduction of the semi-machanised method of operation, which employed more females (72%), and has led to a substantial decline (12%) of females' engagement in the dig and wash as well as the shanking method, which previously employed more females.



Figure 3. Panning (residual gathering method) and Load pottering (Semi-mechanised method –Chang-fa method) of females' engagement in *galamsey*

#### Hours worked by a female in *Galamsey*

On the one hand, the hours spent performing *galamsey* activities are relative, depending on the techniques employed, the mode of engagement, and the specific roles undertaken by females. In the semi-mechanised method (*Changfa*), females typically work for a predetermined duration of six hours, excluding a one-hour break as load potters. For the dig and wash, as well as the shanking technique, females work for five or six hours a day. Hence,

when they start determines when to close. On the other hand, the residual gathering method is not restricted by time, as females engaged are self-miners. They work at any time they want, usually at dawn, during the daytime, and in the evening. Confirmed by some respondents:

*"I wake up as early as 4:00 am, go to the site, and return at 11:00 am to perform home chores and return to the site". For another, "I from close the farm at 3:00 pm to go to the site and return home at 6:00 pm, sometimes 7:00 pm or 8:00 pm". Others also spend all day panning at the site. Another respondent said, "Sometimes, I go to the site around 6:00 am and return around 6:00 pm [Panner, age 56]"*.

### **Income from galamsey and mode of payment**

The data collected and analysed revealed that, unlike the amount to be paid, which is fixed at around USD 4.5 per day (six hours), the mode of payment of the female sample, who are employed as potters, typically depends on the agreement established between them and the employer and is often carried out weekly. In comparison to load pottering, other direct labourer roles, including sluicing, stone removal, and fetching of loads, pay somewhat higher (USD 9) a day for five or six hours, and payment is made mostly daily, some days or weekly. Another direct engagement, but not labour, is panning. Female panners can earn huge sums of income because they work for themselves, which also depends on how regularly and long they work and keep their gold for sale. It is also accompanied by luck to obtain a high amount of money by picking up a gold stone (nugget) in just a day, as witnessed by one respondent:

*"I once picked up a nugget of about twenty blades. That is what enabled me to build my two rooms"*.

Whether the payment is made on a daily, some days, or weekly basis, 92% of the respondents, who are usually labourers, receive between USD 4.5-44. The females that made comparatively high earnings of around USD 4.5–89 are panners. Comparatively, galamsey pays higher than other non-farm sources of income for females' livelihood (World Bank, 2019). Therefore, based on the context of livelihood issues, the incidence of income is the most significant factor to consider.

### Contributing to Household Livelihoods: *Females' income from galamsey expenditure patterns*

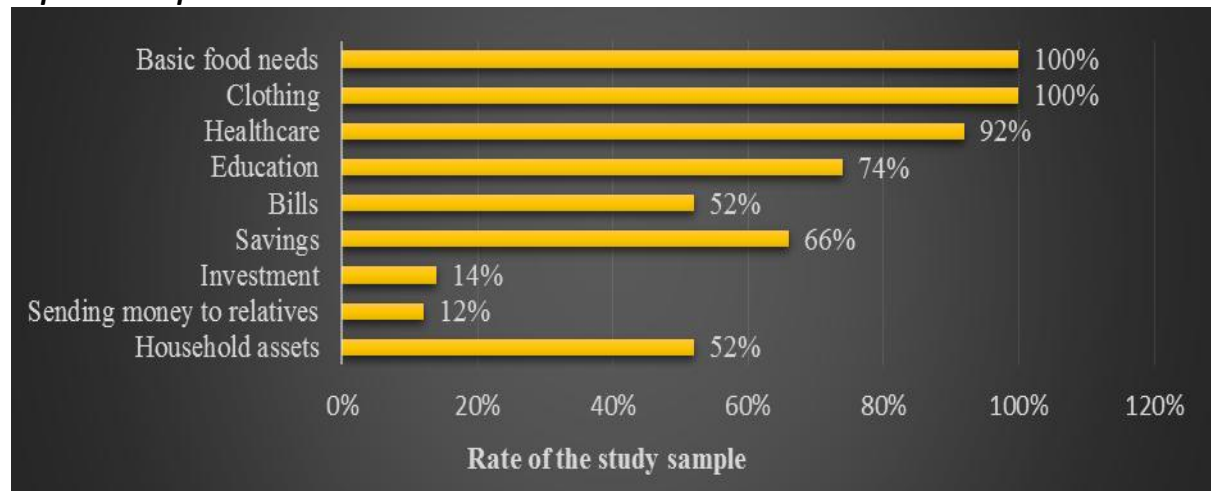


Figure 4: Distribution of females' income expenditure patterns in households

As shown in Figure 4a, all the females (100%) in the study sample indicated they spend a portion (the largest) of their income on purchasing food and clothes for the family, with a substantial 92% of them contributing to the health development of household members, the very necessities of life (UNDP, 1999). Additionally, data from the sample highlights the basic and important contribution that females make to the development of human capital through education. As shown in Figure 4, 74% of the respondents also invest a portion of their income from galamsey into meeting the educational needs (fees, uniforms, books, and pens) of household members. The rest (52%, 66%, 14%, 12%, and 52% of the respondents) reported using some of their income for paying bills, saving, investing, sending money to relatives, and buying household assets, respectively. In relation to the responses, females engaged in galamsey, it has helped to sustain household survival (World Bank, 2019; Ullah and Routray, 2007).

A respondent said, *"It has helped me. That is what I use to take care of my children's educational needs and buy food and clothes for them and for myself" [a widow, age 32]. For another, "I cannot imagine how miserable life would have been for me without galamsey as a single parent; maybe I would be wretchedly poor and homeless because there is no job available that could help me like galamsey". For some, a general improvement in living standards is observed as a result of earnings in galamsey. As highlighted by a respondent, "My family's living standard is better than before; now I can provide food regularly, buy clothes, and care for my children's educational and medical expenses. I have also invested in trading and drugs with some of my income from galamsey, which also supplements other household needs such as soaps and utensils" [divorced, age 45].*

Therefore, closing the widening income gap for rural females is essential to ending widespread poverty and enhancing livelihoods. This is because income generated by females is more likely to be used to enhance the quality of life in the home (Fakir,

2008; Hentschel et al., 2002). This holds true for females who engage in galamsey in Manso Ayirebikrom since earning an income outside of farming in Ghana may provide females with more negotiating power at home (Newman and Canagarajah, 2000).

### **Challenges of females' engagement in galamsey**

The female sample disclosed that government ban enforcements such as Galamstop and Operation Vanguard, launched and deployed over hundreds of military men to galamsey areas, were a challenge to their income, which affected their contribution to household expenditure because the consistent spying of the military men in the galamsey sites rendered them somewhat jobless. The females revealed that there were no productive and alternative means of livelihood that they could turn to amidst the ban's enforcement. As a result, the females smuggled themselves and engaged in the activity, which made it more insecure as they were sometimes chased by military men, and some ran into pits and got injured. Health and safety challenges, as well as income and gender marginalization, were also identified by the females as key challenges to their engagement in the sector. The females complained about common problems associated with lifting and carrying loads for long hours, including aches; head, waist, ear, eye, neck, and back pains; and minor injuries such as cuts, bruises, and snake bites (Hilson and Maconachie, 2020; Hentschel et al., 2002; WMMF; 2000 ILO, 1999). Again, the role of females was perceived as not difficult and came with a comparatively low income, which their male counterparts received (World Bank, 2019; Hinton et al., 2003). Based on the perspective of females engaged in galamsey, the availability of paid work cannot always be relied upon, particularly during periods of heavy rainfall, extended drought, and other factors that impact their income and household. For instance, the use of excavators hired by mine owners to remove ore instead of the traditional or manual technique prevents females from being employed. These challenges were expressed throughout focused group discussions with the female sample.

As indicated by some respondents:

*"Our work is too difficult, and we should be paid more than this." For another, "Some of the employers don't even pay us well; at the end of the week, they will be telling you stories that the work is not good". As I sit here right now, some employers owe me about GHS 1200 (USD 222.22 equivalent)." Interrupted by another respondent, she said, "Even if I can secure a job that will pay me USD 40–50 monthly, I will quit galamsey because we are not safe at all. There is too much pressure, frustration, and disrespect! Why!" Also by another: "We walk barefooted in the mud, so we are prone to thorns, cuts by sharp stones, and also the pans if not well given by a colleague". Another female also narrated an incident involving the drowning of a 4-year-old boy whose mother took him to the site.*

Despite the significant contributions that galamsey brings to the females' households, they are dissatisfied with the continued operation in the sector considering the associated challenges outlined and are therefore open to livelihood opportunities that are sustainable to enhance the capacity of their households to sustainably

manage their assets and resources and create opportunities for income generation and improve well-being. The goal of sustainable livelihoods is not just to alleviate poverty in the short-term but to promote long-term sustainability and resilience in the face of environmental, social and economic challenges (DFID, 2000; Kollmair et al., 2002).

## CONCLUSION

Galamsey provides easy entry for females and pays comparatively high wages, providing an important source of income that substantially contributes to household basic expenses, but it does not prove to be a sustainable, decent, and safe means of livelihood due to its nature of insecurity amidst ban enforcements, inconsistency, marginalization, as well as health and safety challenges, and therefore contradicts the sustainable livelihood framework underpinned for the study. There is merit in emphasizing and developing sustainable livelihood programmes more than gender mainstreaming in illegal ASM that target females, specifically within ASM communities who are willing to position themselves financially sound and contribute to improving the living standards of their households. Otherwise, the global aim of promoting decent work and economic growth, reducing poverty and hunger, ensuring quality education, improving health and well-being, and among other indicators of the sustainable development agenda would have a long way to go.

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