



Examining the effects of artisanal and small-scale mining on women and children in Kono and Bo Districts of Sierra Leone

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Abstract

Low-technology, labour-intensive mineral extraction and processing, of mostly gold and diamonds, commonly referred to as ASM (ASM) offers employment opportunities to so many families in Sierra Leone. ASM is a major non-farm, mostly off-season activity that is a vital source of income to people in the rural areas. This study, which was conducted in the Kono and Bo districts, sought to examine the effects of ASM on women and children as a group. It used a qualitative case study to collect primary data and conducted unstructured individual interviews and held focus group discussions with men, women and children of these communities, employing the purposive sampling approach. Women and children are often poorly paid, discriminated against, suffer sexual and gender-based violence and get injured or sick doing the activities but lack redress systems to support them. ASM is also a contributory cause to land degradation, pollution of water bodies and brings in its wake social problems. However, income from their participation in the ASM or ASM-related activities offer valuable sources of livelihoods for their families, significantly contributes to maintaining children in school, increases the dignity of women through their contribution to family expenditure and supports in meeting other needs. The study found that the factors working against women and children in ASM also result from cultural practices, traditional beliefs and gendered and generational norms that are reinforced by gendered institutions. ASM in Sierra Leone still operates mostly in the shadows and is often illegal and unregulated, the benefits of which go to the traditional rulers, landowners, financiers and some government officials. This study recommends reviewing and reforming the legal, policy, regulatory and institutional systems with a view to making ASM legal and regulated so as to 1) raise revenue from its operations through taxes 2) protect the rights of the workers involved in the ASM activities, 3) disrupt the informal arrangements that benefit only a privileged few and 4) contribute to meeting the SDG targets.

Keywords: ASM, women and children, unregulated, Sierra Leone

Introduction

Sierra Leone, a small country of about seven million and five hundred thousand people (Statistics Sierra Leone, 2018) and a former British colony which obtained independence in 1961, is situated in the west coast of Africa bordered by the Republics of Liberia to the south, Guinea to the north and east, and the Atlantic Ocean to the west.

Sierra Leone went through a brutal civil war from 1991 to 2002 during which thousands of its citizens were killed. In the findings of Marks (2019), the war was a result of accumulated ill-feeling by the masses of the population against the ruling elite due to the unequal distribution of wealth and power; and also, a conflict to gain control of the mineral wealth of the country, especially the diamonds found in the northern part of the country.

The country is endowed with a good climate, rich soils for agricultural activities and natural resources such as land, timber, gold, bauxite, rutile, diamonds, coal and iron ore (Jackson, 2016) ^[17]. In spite of such abundance of mineral wealth, the country measures only 0.477 and ranks 181 out of the 195 countries and territories surveyed in the 2021 UNDP Human Development Index (HDI), which puts the country in a low human development category (UNDP, 2021/2022) and also as one of the poorest countries in the world with 56.8% of its population rated as poor (Statistics Sierra Leone, 2018).

The extractive sector contributes the largest share to GDP and was 39% in 2013 (Koroma, Yujie & Koroma, 2016) ^[19], 80% of export income (Talbot, 2019) ^[34] and offers

employment to a large number of Sierra Leoneans, mostly as unskilled labour.

This research therefore looked into why and how women and children who are already adversely affected by unequal power relations, gendered norms and institutions, are further worsened by or benefit from their involvement in ASM activities.

Statement of the Problem

ASM has remained a controversial issue in Sierra Leone. There are debates as to whether the abundance of such wealth is a blessing or curse to the country and the communities in which they are found (Hilson & Maconachie, 2017) ^[12]. The current literature (Hilson, Hilson, Siwale & Maconachie, 2018; Hilson & Osei, 2014; Schwartz, Lee & Darrah, 2021) ^[10, 13, 30] indicates that children and women in communities where ASM takes place in Sierra Leone are adversely impacted by these activities. As vulnerable groups, they are affected economically, socially, culturally and politically Smith, Ali, Bofinger & Collins (2016) ^[32] have noted that ASM, much as it is a poverty reduction strategy for so many rural people including women and children, it is a notoriously dangerous activity for them and often has dire health and safety consequences for the miners, their families and communities, and these have not been fully addressed by scholarly literature and/or regulatory bodies.

There is limited information and data on the number of women and children employed in the ASM sector in Sierra

Leone but the narratives in the published literature point to the fact that the participation of women and children form over 50% of the workforce in the sector (Ofosu, 2022) and the 'vulnerable employment rate' in Sierra Leone is greatest among women (Hilson, Hilson, Siwale & Maconachie, 2018) ^[10].

Women are often disproportionately employed in the informal sector including ASM, throughout the region, often taking on hazardous and laborious jobs.

The World Bank found out that the economies in sub-Saharan Africa have restrictions on women's employment comprising 43 percent, 51 percent and 9 percent, respectively, in 1) 'Jobs deemed hazardous, arduous or morally inappropriate', 2) particular industries and 3) night work (Iqbal, 2018).

Akiwumi & Hollist (2016) ^[11]; Bo, Bonthe & Leone (2018) ^[6]; Hilson, Hilson, Siwale & Maconachie (2018) ^[10]; Mabey, Li, Sundufu & Lashari (2020) ^[22] have carried out studies on the role and impact of ASM on communities. However, the purposes of the studies have been broad and general on its effects on whole communities or dealing with other problem statements and issues rather than specific on women and children collectively as a vulnerable group. The studies have acknowledged limitations on specific groups such as children, women and the aged (Akiwumi & Hollist, 2016) ^[11]; inclusive sampling of locations of study (Mabey, Li, Sundufu & Lashari, 2020) ^[22]; methodology for the studies which employed largely desk reviews, literature survey and key informant interviews without the benefit of in-depth collection of primary information and data (Bo, Bonthe & Leone, 2018; Hilson, Hilson, Siwale & Maconachie, 2018) ^[6, 10].

The paucity of specific in-depth studies focusing on children and women impacted by ASM to illuminate the experiences of the most vulnerable tend to be hidden from view in commercial activities and in research. Limited research on women and children together, who already suffer from unequal power relations pose problems in the provision of useful evidence to support regulation, policies and programmes directed at these groups. Further research on the interaction effects of these issues, and their influence on women and children would help to reduce the negative impacts on these groups, while optimizing and consolidating the positive impacts on them.

Objectives of the research

The objectives of this research are

1. To assess the extent to which ASM activities have contributed to marginalization, deprivation and poverty entrapment of women and children through their informal participation in low-technology, labour-intensive processes.
2. To evaluate the extent to which the dependence by women and children on income from ASM activities for the livelihoods of their families have increased their vulnerability.
3. To examine ways in which the realities of children and economic exploitation by the ASM sector affect their education and make it difficult to eliminate their involvement in child labour in mining activities, and
4. To assess the weaknesses in regulations that protect women and children, to find out what are the main financial leakages for education and health facilities from ASM activities.

Significance of the study

This study will generate information that directly feeds into the Sustainable Development Goals (SDGs) of 2015 on the importance of meeting Goal 1 (eradicating poverty), Goal 4 (quality education), Goal 5 (ending discrimination against women and girls), Goal 8 (decent work and economic growth) and Goal 10 (reduced inequalities).

This study will also generate information and data to influence policies, legislation and laws on ASM in Sierra Leone. Without such information and data, it is unlikely for policies, legislation and laws on ASM that support children and women to succeed in addressing their specific needs, concerns and aspirations, including other potential benefits for women and children with disabilities.

This study will highlight the specific needs of women and children together as a vulnerable group and therefore fill these gaps, contribute knowledge to the specific conditions of women and children in order to provide strong evidence to inform and influence government, district councils, members of parliament, advocacy and rights-based non-governmental organisations, women's activists, children's rights organisations and community leaders on issues related to ASM activities that focus on women and children. The study seeks to also benefit the women and children involved in ASM through reforms in policies, regulations and institutions that have oversight on the sector.

Literature Review

The literature review for this thesis adopted the funnel method, and considered SCOPUS since they are the first published accounts of specific sets of study findings, by starting with the broader contextual background on ASM globally and then gradually narrowing it down by looking at the topic in the context of sub-Saharan Africa, West Africa and ultimately to Sierra Leone. It identified the critical literature to support the study, and tightly aligning and interweaving the research problem, the purpose, the significance and the research questions so that the critical literature could serve as the basis for choosing the research design and analysis of the data.

The literature review was informed by three different critical literatures: 1) gender; 2) parental characteristics; and 3) the new sociology of childhood literature. These literatures provide an in-depth and structured means to study the complex and multi-faceted issues that women and children are confronted with in their participation in ASM activities and aided in capturing the social, economic, political, and environmental influences on the women and children in communities where ASM activities take place.

1. Critical Review on Gender

It is understood that while the term gender is socially constructed and looks at roles, behaviours and expectations between men and women, the term sex is biologically ascribed and categorises a person as male or female (Schellenberg & Kaiser, 2018) ^[29]. Gender is a multi-dimensional structure of inequality, with forces cooperating and operating at the individual, interactional, and macro levels. This incorporates the lived experiences of women in ASM in particular.

The gender framework links favourably to the effects of ASM activities on women and children because in ASM activities in Africa, women play a significant role than in large scale mining. The lack of inclusiveness of the economic benefits from the ASM activities along gender

lines is a concern. However, available statistics in Sierra Leone portray a lower participation in the benefits to women from the ASM activities than for men which undermines women's economic empowerment at the household, community and national levels.

Benefits from ASM activities, even though contributes to aggregate economic growth, is not always equitable and inclusive, and women receive less financial benefit by virtue of the gendered roles they play, hence undermining their economic wellbeing. Having more women benefiting increased earnings will promote gender equity and raise household incomes and overall welfare of the people of Sierra Leone (Ibrahim, Rutherford & Buss, 2020).

The ownership and control of mining assets by men also imply that benefits from these assets accrue disproportionately to men as well. Therefore, understanding the gender framework offers an understanding of the differential effects and benefits of ASM activities on men and women and how this integrates into the development outcomes in these communities. The gender framework elaborates that in addition to the direct involvement in mining activities, women are also doing indirect labour related to mining such as provision of food and water at the mines, sale of small goods.

2. Critical Review of Parental Characteristics

The parental characteristics literature supports reasons for and effects of the involvement of children in ASM activities in Sierra Leone. This literature assumes that decisions on the allocation of resources belonging to the household are made by one parent, in our patriarchal and cultural setting in Sierra Leone, the father, and therefore the preferences of the parent contribute to the decision to send children to work. The literature also believes that poor parents are altruistic and act in the best interest of the child but if this is not the case, then there will be a prevalence of child labour as is happening in the artisanal small-scale gold and diamond mining activities in communities in Sierra Leone.

However, Erola, Jalonen & Lehti (2016) ^[8] argue that the poverty of parents does not always influence child labour and even wealthy parents may send their children to work if both the parents and child care about each other's benefits. In rural communities in Sierra Leone, including communities in which ASM activities take place, families, especially the poor ones, feel that there is an obligation for children to financially support their parents which is some form of repayment of money spent on children when they were young such as school fees, medical care and feeding and sometimes money from these children could be the only source of livelihoods for these families (Maconachie & Hilson, 2016) ^[23]. In this literature, it is considered that children are not making their own independent decisions on whether to be involved in ASM activities or not. It is rather assumed that parents control their children and the decision to work, go to school or work while in school is decided by parents as these children are considered minors.

In Sierra Leone, parents do not have the same bargaining power. Being a patriarchal society, the father always has a greater say than the mother of the children and hence may be the one to always take decisions around child labour.

3. The New Sociology of Childhood

The new sociology of childhood literature offers an understanding of childhood as a social construct rather than

a biological phase in the development of the person and therefore gives useful debate on child agency in children's participation in ASM activities. Views about what constitutes 'childhood' have changed over time and still changing and as James & Prout (2015) ^[18] put it, 'the immaturity of children is a biological fact of life but the ways in which this maturity is understood and made meaningful is a fact of culture'. In Sierra Leonean culture, a child and childhood are not understood to be a particular time in life with its own attributes or qualities. Such periodization and temporal boundaries depend on the social and historical setting and culture (James & Prout, 2015) ^[18]. Children may therefore be perceived in the cultural context and in relationships with other people and also recognising the intergenerational structures in which children live.

The participation of children in ASM activities is therefore very much rooted in the cultural expectations of such children. Studies conducted by Maconachie & Hilson (2016) ^[23] in the northern part of Sierra Leone reveal that involvement in ASM activities does not constitute child labour any more than children's involvement in subsistence agricultural activities which are considered as child work and child training because in both situations, the child follows the parents to the farm or mine, learns and supports in doing menial rather than hazardous tasks (O'Driscoll, 2017).

The arguments and analyses on the case study of the effects of ASM activities on women and children in Kono and Bo districts of the Republic of Sierra Leone will therefore be supported the literatures on gender, parental characteristics, and the new sociology of childhood in its data and information gathering, and analysis from the lived experiences of the women and children themselves.

Empirical Literature

1. Gendered Dimensions of ASM

Women have participated with equal efforts but are less appreciated and recognised than their male counterparts in ASM in Sierra Leone. The participation of women usually involves providing services in less profitable and labour-intensive work such as stone crushing, grinding and quarrying, with only few of them participating in the skilled labour activities which yield better financial returns.

Gendered stereotypes, women's lack of capital to start mining activities, and limited experience in mining activities have contributed to the low recognition of their participation in and minimal financial benefits from ASM activities. However, Bansah, Dumakor-Dupey & Sakyi-Addo (2017) argue that women often get involved in ASM activities because of the quest for survival and not as a profit-making business as most of their male counterparts do. In this regard, ASM activities often serve as a source of livelihood for many women who find themselves in abject poverty and looking for non-farm income to support their families. Livelihoods from ASM offer the potential for physical and economic security for the women where it may not be available elsewhere.

These challenges link with and draw their analysis from the gender literature which sees the differentiated roles and behaviours ascribed to men and women as culturally constructed as opposed to being biologically determined aspects of being a man or woman. Women therefore face difficult conditions and circumstances in their participation

in ASM activities in West Africa including Sierra Leone where this study was conducted.

2. Child Agency in ASM

A child, by United Nations Convention on the Rights of the Child (UNCRC), means “every human being below the age of 18 years unless under the law applicable to the child, majority is attained earlier” (Assembly, 1989, article I). This definition implies that the child is in some fundamental way not yet developed and needs parental or guardian attention and care. Culturally, a child may be conceived differently. Childhood is sometimes not based on an upper or lower age limit but the manner in which a person is developed, underdeveloped and understood within a certain culture and context, defined by society. In another sense, childhood may be seen as continuous with the adult domain as children move progressively to do the tasks of adults when opportunities occur, and their skills mature. With this view, the notion of work is typical to child development, and work and employment have an increasing role in the lives of children as they mature.

Children have been involved in ASM in Sierra Leone since its operations became widespread about two decades ago (Maconachie & Hilson, 2016) ^[23]. Two underlying factors influence children’s involvement in ASM. One is the decision by parents to involve children in ASM to support feed the family due to poverty (Kumar, Wata & Muthuraman, 2021). The other is children’s own perceived obligation to support or ‘pay back’ their parents for the care and wellbeing they received from them when they were younger and to contribute to the family upkeep and other obligations, a social norm or convention viewed positively by community members. These two factors, which conform to the parental characteristics and new sociology of childhood literature respectively are two of the three frameworks for this research.

While international bodies such as United Nations Children’s Fund (UNICEF), International Labour Organisation (ILO) and the United Nations (UN) generally see the involvement of children in ASM as dangerous child labour with regard to the type of activities carried out and the age bracket of the children involved, some academics have a different opinion on the participation of children in ASM activities (O’Driscoll, 2017). The international bodies perceive the participation of children in ASM from a Western lens as being exploitative, hazardous and denying children the right to education. On the other hand, academics, Non-Governmental Organisations (NGOs) and researchers find the issue of children’s involvement as being more complicated and argue that it actually enables such children to afford to pay their school fees in support of their families and this helps to keep them in school (Maconachie & Hilson, 2016; Schwartz, Lee & Darrah, 2021) ^[23, 30]. Scholars and institutions who suggest that children’s involvement in ASM is child labour tend to focus on the factual conditions and not the causal explanations.

In Sierra Leone, work of some kind is a normal part of children’s everyday lives and is the cultural norm, as may also be found in many parts of West Africa. Culturally, parents see their children’s involvement in work as socialization which is useful for their development and society. Therefore, sensitivity to the cultural and economic context is vital in understanding what is child labour in applying the provisions of the UNCRC. Lal & Bichu (2016)

^[21] argue that child labour does not lie in children’s involvement in work or tasks but whether children are abused while working. Child labour should be understood in that context. With these debates and contradictions, it is important to explore further what child labour is in the context of ASM.

Research Methodology

The research into the effects of ASM on women and children in Bo and Kono districts of the Republic of Sierra Leone employed the qualitative methodology. This approach embraced phenomena by analyzing behaviours, relations and experiences without the use of complex statistical methods or the processing of numerical data (Hennink, Hutter & Bailey, 2020) ^[9].

The qualitative approach was considered appropriate for this research topic because it seeks to delve into answering questions bordering on ‘how’, ‘why’, ‘when’, ‘what’ and ‘where’ ASM affect children and women. The qualitative methodology was also appropriate for this topic because it studied the social phenomena of ASM from the participants’ viewpoints (Hennink, Hutter & Bailey, 2020) ^[9] and provided advantages such as assisting to “understand the nature and complexity of the phenomenon being considered” (Basias & Pollalis, 2018, p. 94) ^[5] as well as supported the research into the effects of ASM on women and children in their natural environment.

The population in this research comprised the populations of Bo and Kono districts of the Republic of Sierra Leone which is 1,002,361 (Bo – 617,618 (286,440 male and 331,080 female; Kono 384,743 – 189,495 male and 195,248 female), according to Statistics Sierra Leone (2018) population survey. By approximation, the percentage of rural populations engaged in mining activities is 5.48% (Statistics Sierra Leone, 2018). This translates to about 34,000 people for Bo and 21,000 for Kono as the population of interest. Of the populations engaged in ASM activities in the two districts, there are 14,377 women, 11,851 men, 3,852 girls under 18 years and 3,920 boys under 18 years in Bo district and 8,447 women, 7,753 men, 2,379 girls under 18 years and 2,421 boys under 18 years in Kono district (Statistics Sierra Leone, 2018)

A nonprobability sampling technique, purposive sampling, was employed in recruiting the research participants. Purposive sampling was the most appropriate method as it is “a method of sampling in which the researcher selects subjects who have experience or knowledge of the issue/s being addressed in the research”, in the opinion of Oppong (2013, p.203) ^[27]. Using purposive sampling required the categorization of the research participants in line with ex ante classified criteria established around the research problem on the effects of ASM on women and children.

The sample size in this research on ASM was more of function of available resources, time constraints and objectives of the research. Tentatively, 120 individuals, comprising men, women and children, involved in ASM from two mining communities each in Bo and Kono districts were estimated to be the sample size for this research.

However, the sample size of this purposive sampling technique was outlined in line with theoretical saturation. This is usually used in purposive (nonprobability) samples in qualitative studies and is important as it gives an indication of data validity as a criterion to evaluate the quality of the research.

Ethical Assurances

The data collection process which involved human participants in interviews and focus group discussions, observed the ethical principles of confidentiality and anonymity in order to protect their privacy. Identifying personal information by name, address, date of birth and location were not included in the interview tools or focus group discussions forms, and this ensured that the information was both anonymous while also guaranteeing that the data and information that was finally written out from the note-taking was kept private except for the researcher and the research assistants. These two aspects of handling the data constitute the confidentiality condition.

Consent was of central importance in the data and information collected from the individual interviews and focus group discussions as this is the issue in which participants have the most vulnerability (Sim & Waterfield, 2019) [31] because they are persuaded to give out intimate views on the phenomenon of ASM being studied.

There was always debriefing with the individuals and focus groups after every discussion. This was a summary of the discussions and responses made to the open-ended questions which gave the participants the opportunity to react to the debrief as well as allow the participants to address any issues of concern to them (Sim & Waterfield, 2019) [31].

Results

Focus group discussions, individual interviews and direct observations were used to collect the primary data from the field in three communities in Bo and Kono districts.

All participants invited for the discussions and interviews turned up and therefore there was a 100% response rate. In all, the study interviewed 83 participants. The focus group discussions comprised of 3 male children’s groups of 4 each aged between 10 and 18 years, 2 female children’s groups of 4 each aged between 11 and 16 years, 6 adult male groups of 4 each aged between 24 and 68 years, and 6 adult female groups of 4 each aged between 22 and 60 years. For the individual interviews, 3 male children aged between 15 and 17 years were interviewed, 2 female children aged between 14 and 17 years, 4 adult females aged between 32 and 45 years and, 6 adult male aged between 28 and 68 years.

All the research participants were involved in artisanal and small-scale activities for at least a year and are residents of the research communities. The population of the research communities are generally subsistence farmers who complement their livelihoods with income from the artisanal and small-scale mining activities. Some of the women of these communities also undertake petty trade as an income-generating activity where possible and most of the children are in school. The population of the communities is made up of Christians, Muslims and traditional worshippers. Men of the traditional worshippers and Muslim religion sometimes marry more than one wife and often have a lot of children. The list and information on research participants is contained in table 4 on page 130. Table 1 below indicates the findings from the individual interviews and focus group discussions of participants impressions, views and reasons for being involved in ASM.

Table 1: Findings from Participant Interviews

Theme	Count
Get money and acquire property	30
Men not allowing women, boys and girls to mine	14
Mining benefiting strangers	17
Injuries, drowning of children	28
Feed family and educate children	22
Money from mining helps children stay in school	29
School dropout if children don’t get money from mining	12
Poverty causing women and children to mine	11
Children support parents	9
Sexual abuse/harassment	34
Children combining school with mining	14
Early marriages/teenage pregnancy	21
Children drinking and smoking	17
Pains, sickness	27
Domestic violence/divorce	11
Women not allowed to mine directly	7
Children use money to buy their things	7
Children like company at the mines/skills	12
Exploitative/Children earn 25k-30k	16
Parents encourage children mining	8

1. Marginalization, Deprivation and Poverty Entrapment of Women and Children

The study found that women and children earn considerably less than men in the mining activities which contributes to exacerbating their vulnerability. The responses from both women and children indicate that they are the last to get work at the mines when there are not enough jobs to go round everybody and that only men are allowed to own land for mining activities and women and children can only work on these lands as casual labourers earning daily wages.

Rutherford & Buss (2019) [28] confirm these findings in the Democratic Republic of Congo, Rwanda and Uganda that organizing mining roles according to gender defined what women should do and placed disproportionate emphasis on women’s household and care work which in turn limited their participation and devalued their work at the mines and often denying them access to land and licenses for mining. This gender power relation, consistent with the gender literature, between men and women structure women’s involvement in ASM activities and are legitimised by

gendered institutions and norms that reproduce and are reinforced by the different abilities of men and women to control resources and make decisions.

In line with the literature on gender, society often sees women and children as vulnerable people who should be dependent and cared for by men and that it is the responsibility of men to work and earn money to take care of their families. From the findings of the study, women and children noted that the decision to participate in ASM activities is largely determined by their husbands and fathers and sometimes leads to divorce of the women. This state of affairs for women in ASM finds justification in the gender literature, and that of children situates itself in the parental characteristics literature which assumes that the preferences of a child's parents influence the decisions to allow children to work in the mines.

2. Dependence by Women and Children on Income from ASM for their Livelihoods

The interview findings from the children indicate that apart from money earned from mining activities keeping them in school, they are also able provide other essential needs for themselves such as clothes, bicycles and sandals. Some children even contribute money for the upkeep of their families and are therefore encouraged by their parents to continue with the mining activities despite the risks of being injured or even dying doing these activities. Maconachie & Hilson (2016) ^[23] observed that in Sierra Leone, children involved in ASM play an important role in poverty alleviation of their families, and going to school and working can symbiotically exist for children when the situation calls for it.

The women shared that involvement in ASM has greatly benefited them without which their livelihood situation would have been worse as there are no other livelihood options in their communities aside from ASM. ASM has earned them income to buy their cooking utensils, support take care of their families and raised their status with their husbands as they now contribute to family upkeep.

3. Realities of Children and Economic Exploitation by the Mining Sector

Involvement in ASM activities has both beneficial and adverse impacts for women and children. The impact on women and children is viewed differently by men on the one hand and women and children on the other. The focus group discussions and the individual interviews reveal that earnings from ASM help children to stay in school. It enables children, both boys and girls, to afford school user fees and lunch without which they would have dropped out of school, as was also noted by Monacochie and Hilson (2016) ^[23] when they interviewed children involved in ASM in Bandafayie community in Sierra Leone on how they spend their income from the mining activities. This finding is surprising and is also consistent with that found by De Haan, Dales & McQuilken (2020) ^[7] who established a positive link between ASM operations and contributions to school retention and indicate that "ASM revenues are often used to pay for education, whether by parents or by mining children and youth themselves. ASM provides opportunities for on-the-job-learning and skills-based training, which are also transferrable to other economic activities". This contribution to education and the achievement of SDG goal 4 is contrary to the widely held claims by certain

institutions, especially by the United Nations International Labour Organisation (ILO), the United Nations Children's Fund (UNICEF) and the international non-governmental that such involvement contributes to school dropout and that involvement in mining activities constitutes the worst form of child labour (ILO convention 182). Interviews with children in the mining communities also reveal that these children do not see their involvement in ASM any different or hazardous from their participation in agricultural activities which is normally considered as child work and child training.

Children are known to have acquired habits while working at the mines that are likely to affect their healthy growth and positive psychological development. A result from their involvement in the mining activities is the acquisition of bad habits at an early age such as alcohol abuse, smoking cigarettes and other substances such as 'kush'.

4. Weaknesses in Regulations to Protect Women and Children

Results from the interviews reveal that similar to teenage pregnancies, many girls in ASM communities are compelled to marry at an early age, contrary to the laws and policies prohibiting early marriages by the government. This is consistent with the findings of Ibrahim, Rutherford & Buss (2020) in the Tonkolili district of Sierra Leone. Weak implementation of laws and policies that protect girls largely contributes to this situation.

Due to lack of regulation and the informal nature of the operations of ASM, divorce was often mentioned as a consequence of living in communities where ASM takes place.

Sexual harassment and violence at the mines were a common finding from the study, especially for the young girls and women. Often, the mine owners would ask for sexual favours to give out daily jobs to the women and girls. This harassment occurred because the women and girls had no alternative livelihood options than to get involved in the mining activities to earn income to support themselves and their families, and are therefore exposed to these abuses due to weak or lack of enforcement of laws and policies that protect the vulnerable girls.

Another result from this study due to the unregulated and often illegal and informal nature of ASM in Sierra Leone is the frequent injuries encountered by children involved in ASM activities. Most children, both boys and girls, said injuries to, at and from the mines were their greatest challenge. Injuries often occurred when the bucket they handle to collect the sand accidentally falls on their feet incurring deep cuts on their legs and feet and thereby confining them at home and away from school for weeks and also requiring hefty amounts of money to treat the wounds. A surprising result was that many of the children would not stop going to the mines because of these risks as there were no alternative options to earn income to pay their school fees and often their parents were too poor to shoulder that responsibility.

Conclusion

While ASM activities in the research communities in Kono and Bo districts of Sierra Leone have contributed to environmental, social and health challenges faced by women and children who are involved in these activities to a large extent, the women and children are also realizing

enormous benefits from ASM. These include earning income to support the livelihoods of their families and to stay in school, increased dignity of women who contribute to family expenditure, start-up of small family businesses with income earned from ASM by women and meeting personal needs such as clothes by both women and children. However, due to ASM in Sierra Leone still operating mostly in the shadows and is often illegal and unregulated, the benefits of which go to the traditional rulers, landowners, financiers and some government officials, there is need to review and reform the legal, policy, regulatory and institutional systems with a view to making ASM legal and regulated so as to raise revenue from its operations through taxes, protect the rights of the workers involved in the ASM activities, disrupt the informal arrangements that benefit only a privileged few if ASM is to contribute to meeting the SDG targets.

Recommendations

Study is limited to only two districts, the study findings may not be generalisable for other jurisdictions that encounter a different geographical, political or social setting. Future research studies, therefore, should be conducted in other different regions of the country.

Future research studies need to also be conducted to comprehend the perceptions of all the related stakeholders like government officials, police officers, policymakers, and NGOs, to understand the challenges in implementing the formalisation of artisanal and small-scale mining sector.

Further research is also needed to understand more completely the underlying factors causing the huge wage differentials between men on the one hand and women and children on the other beyond the mere explanation in the differences in the physical strength of the two groups of workers.

Social norms, traditional beliefs and cultural practices play an important role in the participation of and benefits to women and children in artisanal and small-scale mining. A look into why these practices are quite pronounced in the mining activities would give indication as to how they would be tackled to increase benefits and access to land and other resources for them to participate on equal basis with their adult male counterparts.

Findings of the current study suggest participation in mining activities rather supports maintain children in school as they are able to pay for education-related costs that their poor parents are unable to meet. An indepth study into the factors contributing to this finding could help government rethink their position on being against children's involvement in mining and other.

There is an apparent contradiction between parents and teachers in perceptions about children's involvement in artisanal and small-scale mining activities. The different standpoints of parents and teachers need further looking into to find out the reasons and to see how both standpoints may be reconciled in the best interest of the child in continuing to stay in school.

Recommendations for Application

Based on the findings of this study, artisanal and small-scale mining will continue to be carried out in many parts of

Sierra Leone into the future. This is obvious as it immensely contributes to the livelihoods of many families despite some negative consequences that it poses especially to the environment, health and safety of the people who participate in its activities, including vulnerable women and children, and entire communities. It is not feasible to stop it and the only viable option is to have the Government of Sierra Leone and its agencies recognize, regulate, legalise and formalize its operation as well implement the needed regulatory, policy and institutional reforms to make any formalization work. This will not be an easy way forward as it will demand the disengagement and dismantling of 'rent seeking' structures and interests that are benefiting from the current illegal and informal operations in the artisanal and small-scale mining activities. Below is a schematic presentation of a suggested phased approach to recognizing and reforming the sector in Sierra Leone.

There have been various discourses regarding the rich mineral wealth of the Republic of Sierra Leone. While such mineral wealth could have propelled the country out of poverty this does not seem to be the situation. Artisanal and small-scale mining activities are a vital source of livelihoods to many rural communities often providing the needed employment and income to many families and often complementing farming activities (Ankenbrand, Welter & Engwicht, 2021; Hilson & Maconachie, 2020; Huntington & Marple-Cantrell, 2022; Omotehinse & Ogunlade, 2022) ^[11]. Despite such importance to the economy of Sierra Leone, the artisanal and small-scale mining sector is still largely unregulated and illegal, and befuddled with environmental, governance and social problems confronting the communities, especially women and children, where the activities take place and the country in general (Hirons, 2020; Ofosu, Dittmann, Sarpong & Botchie, 2020).

Based the results obtained from the individual interviews and focus group discussions of the current study and the frame for the study, the following recommendations are being proposed:

Additional support to children's education beyond the Government Free Quality Education Programme.

Recognising, legalizing and formalizing artisanal and small-scale mining with the needed policy and institutional reforms, including recognising children's participation in artisanal and small-scale mining.

Disengaging and dismantling networks, institutions and individuals who benefit from the informality of ASM.

Easing procedures and cost of obtaining licenses for mining to involve women.

Tackling environmental degradation that affect the livelihoods of women and children.

Addressing the social norms, traditional beliefs and cultural practices that marginalise women and children.

Enacting and enforcing laws on minimum wages at the mines.

Enforcing laws on injuries and offences related to teenage pregnancies and early marriages.

Alternative employment programmes and skills acquisition for women in rural areas.

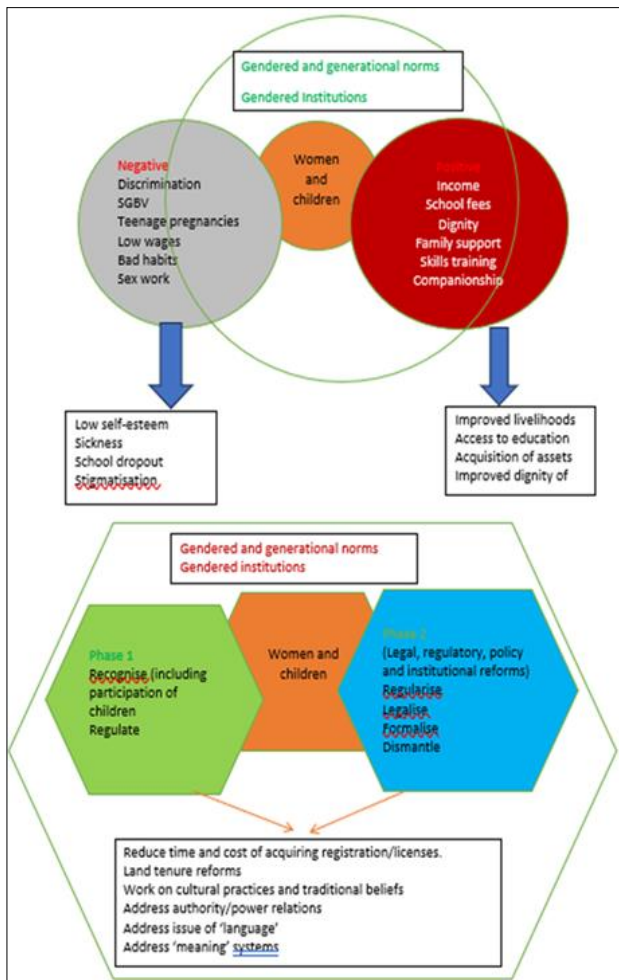


Fig 1: Model on Implementation of ASM Reforms in Sierra Leone

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