Increasing awareness of policy reforms on gender equality issues in artisanal and small-scale mining in eastern DRC:

Case study of the Numbi, Nzibira and Nyabibwe sites











EDITORIAL

Increasing awareness of policy reforms on gender equality issues in artisanal and small-scale mining in ASM in eastern DRC: Case study of the Numbi, Nzibira and Nyabibwe sites

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Front cover picture: Women involved in mining alluvial tourmaline in Numbi.

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ACRONYMS AND ABBREVIATIONS

3T Abbreviation commonly used to refer to the collective minerals of tin (cassiterite), tungsten

(wolframite) and tantalum (coltan)

ASM Artisanal and small-scale mining

AVEC Association Villageoise d'Epargne et de Crédit

CLS Comités Locaux de Suivi

DRC Democratic Republic of the Congo

FC Congolese Francs (Franc Congolais)

GESI Gender equality and social inclusion

ICGLR International Conference on the Great Lakes Region

ILO International Labour Organization

ILRG Integrated Land and Resource Governance project

IOM International Organization for Migration

IPIS International Peace Information Service

ITA International Tin Association's

ITSCI ITA's mineral traceability system

OECD Organisation for Economic Cooperation and Development

OGP Observatoire Gouvernance et Paix (OGP)

PAC Partnership Africa Canada (now IMPACT)

PDG Président Directeur Général, or the manager of the mine

PPE Personal Protective Equipment

SAEMAPE Assistance and support service for artisanal and small-scale mining (French: Service

d'Assistance et d'Encadrement des Mines artisanales et de Petit échelle)

SCLS Sous-Comités Locaux de Suivi

USAID United State Agency for International Development

WIAMO Rwanda Women In/And Mining Organization

SUMMARY

Mining of gold, cassiterite, coltan, wolframite and tourmaline are important sources of employment and livelihood in the South Kivu province in eastern Democratic Republic of Congo (DRC). Many artisanal mine workers, both men and women, are involved in this work to meet their daily needs, such as obtaining food and sending their children to school. Several studies have documented the socioeconomic situations of artisanal and small-scale mining (ASM) stakeholders and the working conditions in this sector. However, the dynamics of gender and social inclusion have so far only been analyzed in a limited number of research projects. In addition, while various policy reforms have been implemented over the last decade in ASM in eastern DRC, research has hardly addressed the impacts of these reforms on the socio-economic situation of women and other marginalized groups.

This study aims to fill this gap by analyzing gender and social inclusion issues and by assessing the potential impacts of responsible sourcing initiatives on the socio-economic situations of women involved in mining. This research will increase awareness among policymakers and other development stakeholders of gender equality and social inclusion (GESI) issues by providing them with the necessary empirical knowledge that can enable them to adapt ASM governance reforms to the situation and to the needs of the different categories of stakeholders. The study adopted a qualitative approach that involved semi-structured interviews and focus group discussions with ASM stakeholders (men and women) in the Numbi, Nzibira and Nyabibwe mineral supply chains of the Walungu and Kalehe territories in South Kivu province. In total, 105 individual interviews and 21 focus groups were organized at the three study sites: notably 36 individual interviews and 7 focus groups in Nzibira, 39 individual interviews and 6 focus groups in Numbi, and 30 individual interviews and 8 focus groups in Nyabibwe (See the breakdown of interviews and focus group participants by gender, in the methodology: Table 1 and Table 2 in section 3).

The results of the surveys show a strong involvement of women in ASM across the three sites studied (and especially at the Numbi area). Many are involved in the transportation and processing of minerals (manual crushing and washing of the minerals). A small number of women are also involved in the extraction of the minerals, either by overseeing the pits (as "PDG" (*Président Directeur Général*), which is the manager of the mine) or by collecting and processing mining waste. Others are involved in the sale of the minerals in collaboration with men. Despite this involvement of women in ASM, there are still barriers that reinforce gender inequalities in this sector, including gendered biases against women, a lack of sufficient resources for women, a lack of institutions for the advancement of women, and discrimination against women in ASM governance institutions. Finally, the report discusses the impacts (both positive and negative) of policy reforms on the socio-economic situation of women in the artisanal mining sector. For instance, responsible sourcing initiatives have been praised for decreasing the extortion of ASM stakeholders and reducing the involvement of armed groups in mining. On the other hand, formalization and responsible sourcing (and in particular traceability) have had a negative impact on women's involvement in mining and their income, as it has actually pushed them further into informality, which reinforces their marginalization and fragile position.

1. INTRODUCTION

This study was commissioned by the International Peace Information Service (IPIS) under the project "Investigating conflict financing, due diligence and socio-economic dynamics along artisanal mining supply chains in the Democratic Republic of Congo (DRC)," with financial support from the United States Agency for International Development (USAID) through the Integrated Land and Resource Governance (ILRG) program. It seeks to promote the integration of gender considerations through research on artisanal and small-scale mining (ASM), and on conflict and policy reform in the ASM sector. The aim of this research is to document the status of gender equality and diversity in the ASM sector in eastern DRC. It uses semi-structured interviews and focus group discussions to understand the dynamics of gender and social inclusion and the impact of responsible sourcing initiatives on women's socio-economic conditions in the ASM supply chains of Numbi, Nzibira, and Nyabibwe in South Kivu Province.

1.1. Context

From the time of mining liberalization in the 1980s, artisanal mining activities have become one of the main sources of income in eastern DRC (Geenen and Kamundala, 2009; Marysse and Reyntjens, 2005; Vlassenroot and Raeymaekers, 2004). The richness of the subsoil has also served as a resource for various foreign and local rebellions during the wars in the 1990s and 2000s in the Congo and has become known and subsequently stigmatized under the concept of "blood minerals" in 2001 (Ntalaja, 2004; Jackson, 2003; Mukasa and Buraya, 2009).

While mining involves the participation of a wide range of stakeholders including men and women, it is characterized by gender inequality (PAC, 2014) and inequality in decision-making across the supply chain (Kamundala, 2020). The underlying causes of these inequalities are rooted in the working conditions of the ASM sector and the security situation in many rural areas, as well as social norms and taboos surrounding the presence of certain groups of individuals at mining sites, such as women. To a large extent, these factors act as barriers for women to access strategic positions in mineral supply chains, and result in women tending to only work in low-paying jobs, such as transporting, washing, crushing, grinding, and sorting minerals (Hayes & Perks, 2012; Bashwira, 2017). Some women escape this difficult socio-economic position by becoming pit owners (although they often have to rely on a male manager to coordinate the teams of artisanal miners in the pit), owners of mineral processing units, and small traders or négociants, who sell or deal in minerals. In addition to the work directly related to the mine, many women also provide auxiliary services at the mines, such as catering, selling various products, providing accommodation, etc. It is apparent that there is a large category of women at the bottom of the mineral supply chain, some of whom have to engage in transactional sex to gain access to the mines. Bashwira (2017) also mentions that reform initiatives have mostly exacerbated the situation of women's marginalization by increasing administrative formalities while not recognizing or clarifying the presence of women in mining activities. As such, it surrenders women to the discretion of the administrative stakeholders at mining sites (Bashwira and Hilhorst, Forthcoming). This situation suggests an unequal inclusion of women in supply chains in eastern DRC (Kamundala, 2020).

On the other hand, the last 15 years have been characterized by the emergence of policy reforms in eastern DRC's artisanal mining sector and the modification of the DRC legal framework that regulates mining. At the international level, several frameworks (for example, the Organisation for Economic Cooperation and Development (OECD)¹ or the International Conference on the Great Lakes Region (ICGLR), for instance)² and legislation (such as Section 1502 of the Dodd-Frank Act in the United States of America, often referred

¹ The OECD has developed guidance for the implementation of due diligence in the mining sector, providing recommendations to help companies assess the risks along their mineral supply chains in conflict-affected and high-risk areas. (Source: OECD, OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, Third Edition, 2016).

² ICGLR Member States have created the Regional Initiative on Natural Resources. Through six different tools, this initiative aims to sever the link between armed conflict and the exploitation of natural resources in Central Africa. The best-known tool is the Regional Certification Mechanism, which certifies that mineral exports have met a set of minimum standards.

to as the "loi Obama" (Obama's Act) in DRC) have led to initiatives by international stakeholders, who work on due diligence, mineral traceability, export certification, that are aimed at cleaning up and formalizing the artisanal mining sector whose minerals were considered illegal (Geenen and Custers, 2010); the latter aims to ensure that the exported minerals are conflict-free and that their origin is known. At the national level, the re-opening of artisanal mining in March 2011 (after a six-month suspension by the government) was conditioned by the requirements³ to formalize the sector and its stakeholders, as well as to comply with the traceability systems put in place following the Dodd-Frank Act and the OECD's due diligence guidance. This broad range of initiatives is referred to as "responsible sourcing efforts."

Furthermore, although promoting responsible sourcing is a means of fostering peace and stability while providing livelihoods and contributing to rural development throughout the Great Lakes region, these reforms have, in many cases, neglected issues of gender equality and social inclusion (GESI) in artisanal mining. In addition to not taking gender considerations into account, responsible sourcing initiatives have consequences (e.g., see Vogel and Raeymaekers, 2016) that may be experienced differently by men and women. Some studies (e.g., Buss et al., 2021) have shown that negative side effects of policy reforms are likely to further weaken the position of women in the ASM sector. Buss (2018) argues also that marginalization of women in ASM activities is mainly due to the policy makers' lack of interest in, and awareness of, women's issues. The influence of gender on specific living and working conditions is abundantly clear in the context of ASM. Non-discrimination and gender equality are fundamental aspects of human rights and social justice and a prerequisite for improving the development process by bringing social concerns to the forefront of interventions.

1.2. Objectives

This study aims to support strategies that promote gender equality and social inclusion in mineral supply chains in eastern DRC by focusing on supply chains in Numbi, Nyabibwe and Nzibira, all located in South Kivu Province. (Map 1) This objective stems from evidence in the literature on the gender consequences of regulations in the gold ASM sector. Through a gendered and inclusive supply chain approach, the study analyzes the roles of gender and diversity, and the constraints and opportunities related to gender and diversity within ASM supply chains (Tallontire et al., 2005; Bolwig et al., 2010; ILO, 2010). The study explores the development of artisanal mineral mining activities in eastern DRC in the context of social and power relations, and also focuses on the capacities for action and the profits of supply chain actors (disaggregated by gender) resulting from their material and relational capabilities.

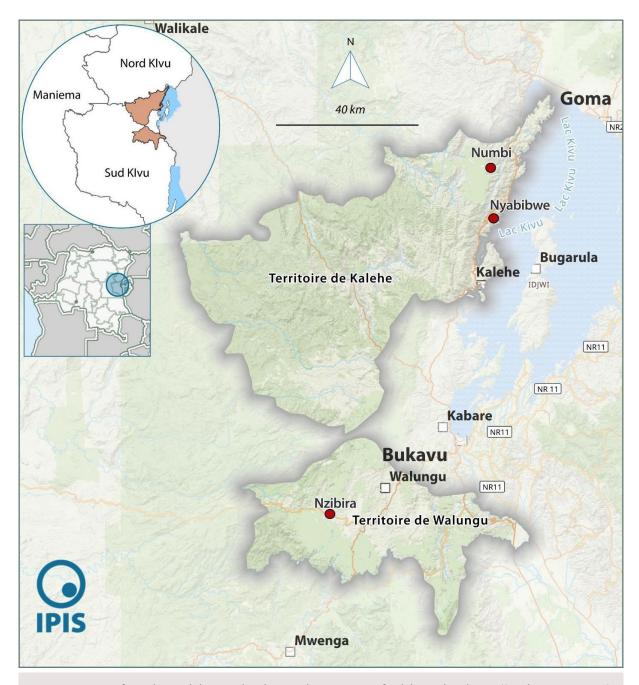






³ See Ministerial Order: 0034/CAB.MIN/MINES/01/2011 du 01 mars 2011 and 0706/CAB.MIN/MINES/01/2010 du 20 septembre 2010.

Specifically, this study aims to: (a) map participation of women and other marginalized groups in ASM supply chains in Numbi, Nzibira and Nyabibwe; (b) document gender and social inclusion barriers along ASM mineral supply chains; (c) analyze the risks and opportunities of policy reforms (including responsible sourcing initiatives) on the working conditions of women in the ASM sector; (d) provide concrete policy recommendations for ASM regulation initiatives, so that they are sensitive to gender-specific disparities in mineral mining activities in eastern DRC and to promote inclusive supply chains.



Map1: Location of Numbi, Nyabibwe and Nzibira, in the territories of Kalehe and Walungu (South Kivu province).

2. STUDY ENVIRONMENTS

This study was carried out in three mining areas located in two territories of South Kivu Province, notably Kalehe territory (Numbi and Nyabibwe mining areas), and Walungu territory (Nzibira mining area). These areas were selected because they have several 'validated mining sites," from which mineral batches can be certified as not-containing conflict minerals, as much as possible. From sites that are qualified as "green," minerals are allowed to be transported to mineral trading centers that can then export the minerals; the other sites are classified as either "yellow" or "red," with the latter not permitted to supply to trading centers, and their minerals are not suitable for export. However, these sites have the possibility of improving their status to qualify as "green" during a future validation mission.

2.1. Numbi mining area

The Numbi mining area is located in the Buzi grouping, the chiefdom of Buhavu in the Kalehe territory, about 145 km from the city of Bukavu (Map 2). It is not only an area with great mining potential due to its rich subsoil, but also with great potential for agriculture and livestock. It is located in the highlands at an altitude of 2,200 m and has many large farms and fields.

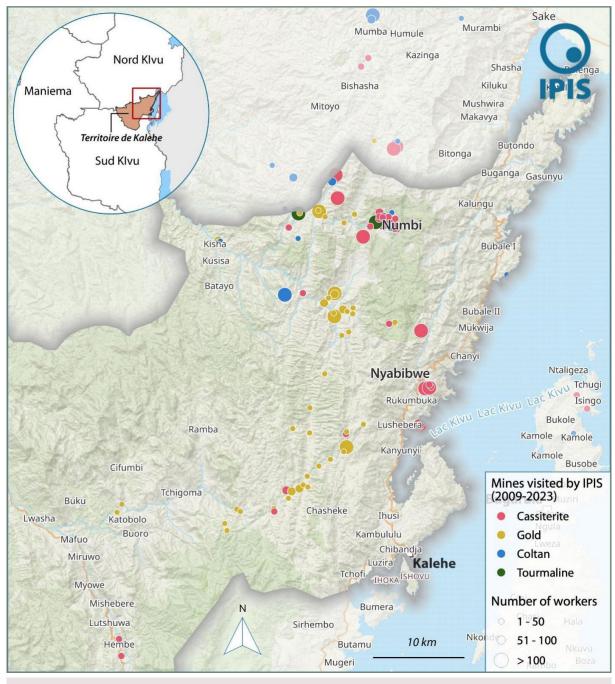
As a result of Numbi's rich subsoil, there is a lot of artisanal exploitation of cassiterite, coltan, manganese, gold and tourmaline that involves local actors, but also attracts people from other areas, including Bukavu, Bunyakiri, Kabare, Idjwi, Walungu, and North Kivu, especially Goma and Masisi. Additionally, many people have migrated to Numbi due to the insecurity in some neighboring localities. The population was estimated to be at least 23,500 in 2017, the majority of whom are Hutu and Tutsi, with other ethnic groups such as the Bashi, Batembo, and Bahavu.

The exploitation of 3T minerals - an abbreviation commonly used to refer to the collective minerals of tin (cassiterite), tungsten (wolframite), and tantalum (coltan) - in the Numbi area is covered by the International Tin Association's (ITA) traceability system, known as ITSCI, since 2010. The ITSCI program monitors the mineral supply chains in eastern DRC and implements traceability by providing Congolese government officials with tags so that they can seal and label 3T mineral production at the mining site and along the trade chain to verify the origin of minerals down the chain.

The traceability of minerals has been much criticized. For instance, a recent Global Witness report exposed how traceability systems launder large quantities of 3T minerals in eastern DRC, including in Numbi.⁵

⁴ Mines are visited periodically by 'joint validation teams', which include representatives from the government, state agencies, and international partners working in the natural resources sector. These teams assess the security situation at the site and its surroundings, as well as socio-economic risks such as child labor, depth of pits, presence of pregnant women and environmental issues. They classify sites as red, yellow or green depending on their observations. (Matthysen K., Spittaels S. & Schouten P., Mapping artisanal mining areas and mineral supply chains in Eastern DR Congo: Impact of armed interference & responsible sourcing, IPIS, April 2019, p. 5).

⁵ Global Witness, The ITSCI laundromat: How a due diligence scheme appears to launder conflict minerals, April 2022, pp. 27-28.



Map 2: ASM sites around Numbi and Nyabibwe (Kalehe territory).

2.2. Nyabibwe mining area

The town of Nyabibwe is located 100 km from the city of Bukavu, on the Bukavu-Goma road, in the territory of Kalehe (Map 2). This town has grown due to the mining of cassiterite by the Société Minière de Goma, which was established in Kambulu and then in Nyabibwe around 1975. Today, Nyabibwe is a settlement of more than 22,387 inhabitants (Bureau de zone de santé Nyabibwe, 2016) including Hutu, Tembo, Tutsi, Havu, and Shi, consisting of diggers, cattle-breeders, farmers, and small traders. Nyabibwe has also become a pilot site for the 3T mineral traceability mechanism in eastern DRC.

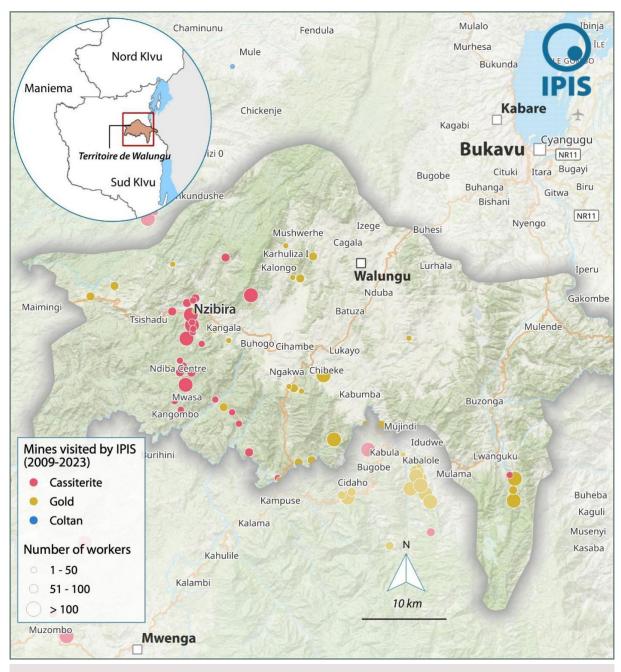
ITA announced in June 2010 that it had reached an agreement with the Congolese government to launch the ITSCI traceability pilot project at two mining sites, Bisie (North Kivu) and Nyabibwe. The implementation of the traceability project was promptly blocked due to government suspension of ASM that year. Traceability resumed in October 2012 with the launch of the Conflict-Free Tin Initiative, which also used ITSCI traceability⁶.

2.3. Nzibira mining area

Nzibira is located in the Wanlungu territory on the Bukavu-Shabunda road, about 80 km west of the city of Bukavu. It has become not only a mining area, but also an important commercial hub in Wanlungu territory given its strategic position on the Bukavu-Shabunda road. In 2017, the Nzibira area had more than 7,000 inhabitants, composed mostly of Bashi and Lega. This agglomeration has also hosted displaced populations fleeing insecurity in the surrounding villages, as well as those seeking opportunities offered by the mining sector. Artisanal exploitation of cassiterite and wolframite has occurred in the mines surrounding Nzibira since the departure of the state mining company.



⁶ Matthysen K. & Zaragoza Montejano A., 'Conflict Minerals' initiatives in DR Congo: Perceptions of local mining communities, IPIS, November 2013, pp. 17-21.



Map 3: ASM sites around Nzibira (Walungu territory).

3. METHODOLOGY

This study used qualitative approaches from the data collection to the data processing phase.

After reviewing the existing literature on gender and social inclusion in the artisanal mining sector in eastern DRC,⁷ we organized individual interviews, focus group discussions and observations among the actors directly involved in mineral mining activities (categorized into three groups: male miners, female miners (and women who work around mining sites), and other vulnerable (and marginalized) individuals. We also held discussions with representatives (leaders) of mining cooperatives, state mining service officials, and local authorities. In addition, we interacted with community leaders (pastors, priests, women leaders, youth representatives, etc.) in the three areas studied. Exchanges with our interlocutors (individually or in focus groups) were structured around questions from an interview guide and were adapted to the profiles of each category of interviewee and the research questions of this study.

Interviewees provided consent to be interviewed, and the confidentiality of information regarding their identities was guaranteed. They were identified partly on the basis of direct contact in the workplace, and partly on the basis of a key informant (guide), as well as by snowball sampling. An individual interview lasted on average 50 minutes, and a focus group an hour and a half. The respondents interviewed individually did not receive any financial payments. The focus group participants, on the other hand, were provided with a small fee for transport facilitation.

Through semi-structured interviews and focus groups, we were able to gather the views and perceptions of our respondents on gender equality and social inclusion, as well as on the impacts of sustainable supply initiatives on women's socio-economic situations. A total of 105 individual interviews and 21 focus groups were organized at the three study sites. The tables below provide details of the qualitative data, including gender breakdown.

Table 1. Distribution of individual interviews by target group and gender.

Target groups		Nzibira			Nyabibwe		Total
	M ⁸	W ⁹	M	W	M	W	
Community leaders	2	-	3	1	3	2	10
Men/women ¹⁰ miners (through different links of the mineral supply chains)	10	11	10	13	5	7	54
Mineral buyers (traders and managers)	4	-	5	1	-		10
Other vulnerable persons	2	1	-	-	4		7
Public services (SAEMAPE and the Mining Division) and local authorities	5	-	6	-	3	2	16
Representatives of mining cooperatives	1	-	2	-	4		7
Total	24	12	24	15	19	11	105

With the aim of identifying how existing studies have highlighted gender and equity in the mining sector, as well as the different challenges related to gender and social inclusion in different mineral supply chains in eastern DRC.

⁸ The abbreviation "M" refers to men.

⁹ The abbreviation "W" refers to women.

¹⁰ These are women who carry out various mining activities in the quarries (crushing, cleaning, transport, etc.)

Table 2. Distribution of the number of focus groups by target group¹¹

Target groups	Numbi	Nzibira	Nyabibwe	Total
Focus group with male miners	1	1	2	4
Focus group with female miners	2	2	2	6
Mixed focus groups	1	1	1	3
Focus groups with community leaders	2	-	1	3
Focus group with cooperative representatives	1	2	2	5
Focus groups with marginalized persons (owing to their small number in the study environments, vulnerable (and/or marginalized) stakeholders other than women were only interviewed individually)	-	-	-	-
Total	7	6	8	21

We used content analysis to process the collected data. Through this analysis, we synthesized the information collected. For each topic covered, we calculated the frequency of the answers to consider the answers and arguments repeated several times by several respondents as being strategic. Finally, we carried out a network analysis of the stakeholders to draw up a matrix of women and other vulnerable stakeholders involved in mineral mining activities and the economic activities around the mining sites.

¹¹ For the two focus groups led with community leaders in Numbi, one was made up of 8 people, including 3 women and 5 men, and the second was made up of 5 people, including 3 women and 2 men. The focus group organized with community leaders in Nyabibwe consisted of 6 people, including 3 men and 3 women. Regarding the mixed focus groups, they were organized with 9 people in Numbi (including 3 women and 6 men), 7 people in Nzibira (including 4 women and 3 men) and 6 people in Nyabibwe (including 3 women and 3 men). 5 cooperative managers (all men) met in a focus group in Numbi. For the 2 focus groups organized with representatives of cooperatives in Nzibira, one was composed of 6 people (all men) and the other by 5 people (including 4 men and a woman who represented her cooperative). The two focus groups organized with representatives of mining cooperatives in Nyabibwe were all made up of 7 people. One of these focus groups was made up of 5 men and 2 women and the second was made up of 7 men.

4. POSITION OF WOMEN AND VULNERABLE PEOPLE IN MINING ACTIVITIES

In this section, we present the roles and responsibilities of women and other vulnerable (and/or marginalized) people in mineral mining activities around Numbi, Nzibira and Nyabibwe. We have analyzed the entire value chain in order to understand the tasks assigned to women in the various segments that are directly and indirectly related to the mineral supply chain, the income women earn from their interventions, as well as supply chain barriers and opportunities.

4.1. The position of women in mineral supply chains

Mining activities are a source of livelihood for both men and women worldwide (Hayes and Perks, 2012). In the DRC, several studies indicate a significant presence of women – between 40 percent and 50 percent of the workforce – who play multiple roles in artisanal mines (e.g., Hayes and Perks, 2012; Bashwira et al., 2014; Bashwira, 2019₃; Buss et al., 2017).

In ASM, however, these women tend to perform lower paid tasks and face several kinds of barriers and forms of discrimination (Bashwira et al., 2014; Bashwira, 2019_{a,b} Buss et al., 2017). Nevertheless, the roles that women play in ASM, and the earnings they can make from it, have long been ignored by policymakers, who encourage women to leave the artisanal mining sector, as it is perceived as a place of danger and exploitation for women (Lahiri-Dutt, 2012; Bashwira 2017).

In the past few years, policies have been implemented in recognition of women's ability to cope in complex and risky socio-economic environments such as mining sites. These policies were introduced following recommendations provided by a number of academic studies (e.g., Werthmann, 2009; Kelly et al., 2014). Several studies have investigated the complexity of the gendered organization (women-men, women-women and/or men-men relationships) of artisanal mining areas and the gendered contexts that inform policy interventions (Hinton et al., 2003; Bashwira et al., 2014; Cuvelier, 2016). Hinton et al. (2004) have described the presence and participation of women in the ASM sector. Bashwira et al. (2014) highlight some of the challenges that women in the ASM sector face, including weak positions in the sector, low pay, disruption to their school education, depravity of morals, prostitution, violence, etc. Hinton et al. (2004); Yakovleva (2007); Hayes and Perks (2012); Omeyaka and Kebongobongo, (2020) have each addressed the issues of discrimination against women in the ASM sector.

Based on the results of our interviews in Numbi, Nzibira, and Nyabibwe, we find women are engaged in various ways along the ASM supply chains and for a variety of reasons. They lack other sources of income (owing to a lack of resources¹²), and they are affected by the consequences of armed conflict (causing the death of husbands, parents, other family members, etc.). A local authority representative explained that "... many women are destitute, so they have no means, but have to go to the sites for their survival... There has been one war after another here, and many of the women you meet are widows: they have no one to help them." A woman miner testified: "It is because of our life of misery. When we have food at home, we can't come here (in the mines). We come to work here when we don't have enough to eat and the husband hasn't found anything either, so in this case, we all come looking for money." Some of the women interviewed are "heads of households", in the sense of providing for their households' income: for example widows, or women abandoned by their husbands, or women whose husbands have serious health problems that limit them from working, or who simply don't enjoy working. As a result, these women find themselves in a vulnerable position as the only ones their households can count on to survive. It also illustrates that in this precarious situation, the artisanal mining sector has become a safety net for women, allowing them

¹² The potential explanation for this situation is that involvement in mining activities does not necessarily imply an economic investment that weighs heavily on women (some tasks, such as transport and mineral processing, require little money as a "start-up fund"), unlike other potential activities such as trading and livestock breeding.

¹³ Interview with a local authority in Nzibira.

¹⁴ Interview with women miner in Numbi.

to meet the daily needs of their households, including schooling for their children, food, etc. Bashwira and Van der Haar (2020) mentioned, however, that women's motivation to go into mining depends either on necessity (poverty) or opportunity, which is more relevant to women at a slightly higher level of the supply chain. Among the characteristics that distinguish opportunistic female miners from women miners driven by necessity, the most significant are the lower level of poverty and economic vulnerability, access to financing, women's ability to create and maintain stakeholder networks, and experience in some cases (See for example Bashwira, 2016; Buss et al., 2021).

Most of the women surveyed depend solely on mining activities for their households' income. A small number of other women combine ASM with other non-mining activities (including agriculture and/ or small trade). With regard to the level of women's involvement in mining, Numbi is the area where the most women are involved in mining activities, compared to Nzibira and Nyabibwe. There seem to be two main reasons for this. First, Numbi has seen a major population influx (men and women) from various areas (for reasons of insecurity). Many of these women fleeing insecurity (wars, rebellions, etc.) are widows and have children to nurture. Second, non-mining activities (in this case, agriculture) are not very well developed in the area. As a result, mining remains the main occupation for the majority of the population, including women. A local authority representative explained that "...the main activity of almost every woman here in Numbi is mineral exploitation...here there are few fields ... there's no field to cultivate. That's why you'll find so many women on mining sites." 15

More specifically, most women in the Nzibira area are involved in the transport of mineral bags from the mines to the processing sites and in the processing of minerals through manual crushing¹⁶ and washing. There are also a small number of women who are involved in mineral extraction by overseeing pits (female "PDGs", which is the manager of the mine), and a considerable number of women who collect mineralized sand from tailings (mining waste). The latter then process the collected waste (through crushing and cleaning methods) and sell the resulting minerals. "...the women also recuperate the waste, which is then cleaned. They can find some materials in there that they will also sell." "The 'mamans' help to clean and crush the ore, and, when they finish, they are paid a small salary that will help them with their family." "If they have their own money, there are women who operate pits: they also create their own pit and pay the digger. There aren't many of them, there are only two I know of who do the job of 'PDG'." ²⁰



Women cleaning minerals in Nzibira.

- 15 Interview with a local authority in Numbi.
- 16 The women who are involved in manual grinding are called "Maman Twangeuse."
- 17 Interview with a male miner.
- 18 The term "maman" used here, refers to women.
- 19 Interview with a community leader in Nzibira.
- 20 Interview with a community leader in Nzibira.

We should point out, however, that these activities are not only carried out by women. Some of them are performed by both men and women, such as mining, while others are carried out more by women, such as crushing minerals and transporting mining packages. In addition to the extraction, transportation, and processing of minerals, some women who do have access to more resources are involved in the sale of minerals in Nzibira, acting as intermediaries between traders and miners. These women are called "women managers." These activities are mostly carried out by men, however, because they require large amounts of capital, to which most women do not have easy access.

Based on our observations at the three mining sites, we roughly estimated that over 90 percent of underground mining is carried out by men. In this form of mining, women are involved on the one hand (in a very small proportion) in helping men move packages from the pits, and on the other, in financing the expenses incurred in underground mining as the owner of the pit (Women PDG). As for alluvial mining, we estimate that the proportion of men and women involved is almost equal. Remarkably, over 90 percent of those involved in mineral transport are women. The manual crushing of ore is carried out by men only at Nyabibwe, while at Numbi and Nzibira, most of those who grind minerals manually are women. The purchase of minerals (formally in trading centers) is an activity mainly carried out by men. In Nyabibwe, we also noted four women mineral buyers. However, in all three mining sites studied, over 95 percent of mineral buyers are men, but as we explain below, a number of women act as intermediaries between miners and mineral buyers.

Around Numbi, women are involved in the mining of alluvial deposits, by collecting stones and sand (mining waste). This indicates that they carry out open-pit mining, while men do both open-pit and underground mining. There are also female mine owners in Numbi, although there are only a few of them compared to men. Other women are involved in the transport and processing of minerals (manual crushing, cleaning, drying and separation of minerals). Some of the women are also involved in selling the minerals, acting as intermediaries between the diggers and the traders. In Nyabibwe, on the other hand, the most significant involvement of women is related to mineral transport (moving bags of cassiterites from to mine to the washing sites). Additionally, there are women managers and some women traders (less than five according to our respondents) who buy cassiterite. In and around the mines, women also engage in petty trade of food.

For their work (i.e. transport, washing and crushing of minerals), women depend on the diggers who produce the minerals in the pits (these diggers are locally known as "kalende" at Nzibira; and "bachimba" at Nyabibwe and Numbi). These activities are often carried out in poor conditions. People work in unclean environments and come into contact with dirty objects. This exposes them to the risk of infection from bacteria in dirty water and dust. In most cases, this situation exposes women to skin and/or vaginal infections due to contact with dirty water. Women "twangeuses" (notably women who are involved in manual grinding), for their part, are exposed to respiratory and lung diseases due to inhalation of dust from crushed stones.

In addition, artisanal miners, in general, lack protective equipment and receive almost no assistance from their mining cooperatives or state services such as the Assistance and Support Service for ASM (Service d'Assistance et d'Encadrement des Mines artisanales et de Petit echelle, SAEMAPE). For women, this exposes them to accidents while performing their activities, notably injuries during the crushing of minerals or during the transport of mining bags. Other health and safety risks associated with women's work are consistent with reproductive health issues. Indeed, women miners (in particular, women transporters) have reported that they face hip problems which sometimes affect the reproductive organs (and can lead to infertility): "For instance, female transporters end up having problems with their womb, which hurts because of excessive lifting of heavy loads." Some of these health risks apply to men as well as women (the risk of respiratory illnesses, for example).

Some efforts have been made to raise awareness of the risks associated with mining activities (particularly accidents and illnesses), mainly by SAEMAPE and certain mining cooperatives. However, these awareness-

²¹ Grinding by hand is the main role of the women at Nzibira.

²² Interview with a female miner in Nzibira.

raising efforts have very limited impact on artisanal miners (and in particular, women miners) because, in most cases, they are not accompanied by any additional support for miners. The latter, for the most part, do not have the means to pay for protective equipment and/or tools.

In general, women's (as well as men's) earnings from mineral mining activities are not fixed (but variable) and depend on the volume and level of mineral production at the sites. However, in most cases, the women earn very little from their activities compared to the men. The main reason for this is that women mostly only have access to less remunerative jobs compared to men.²³ This is the case for underground mining and mineral purchasing, which are the most lucrative activities and which are easier for men to access (for financial and/or cultural reasons, as mentioned later in this report). "We can't get the amount that men get, we come back from here with either 3000 Congolese Francs (Franc Congolais, FC) (1.5 US\$), 4000 FC (2 US\$), and the one who got the most is 5000 FC (2.5 US\$)."²⁴

This income only enables them to meet the basic needs of their households. This is the case of a *Twangeuse* woman from Nzibira, who stated the following: "Often we arrive here, and we only earn 1000 FC (0.5 US\$) ... We realize that we are wasting both our time and energy in this situation without finding anything..." and "Women have a mediocre income, which is 2000 FC (1 US\$) per day, and this, after having suffered too much. But men have more than women because they are also more flexible" The type of activities to which women have access also affects their productivity. For example, women who collect minerals at tailings only deal with mining waste abandoned by men. These women produce smaller quantities than the men, who produce upstream.

Around the mines, other women engage in small trade by running food into the mine or selling it around the mines. Other women also engage in transactional sex²⁶ and come from outside the study sites. At Numbi, there are also women who transport goods, such as bags of rice, sugar, drinks, etc., from Kalungu to Numbi on their backs.



Construction of a makeshift restaurant on a mine site, Numbi.

- 23 These jobs are paid less not because they are done by women, but rather because they are perceived as light and less demanding in terms of physical effort. This is one of the reasons why they are considered to be suitable for women. Below, we discuss that women are considered to be physically weak and unable to carry out a certain number of tasks (section 5.2.2 'Social and gender norms').
- 24 Interview with women miner in Numbi.
- 25 Interview with women miners in Nyabibwe.
- These women are designated by various local names. For example, "prostitutes" (or "Ngumba" and "Mbaraga") in Nyabibwe and Nzibira.

4.2. Position of vulnerable persons

Besides women, we identified some other categories of people who may be in a vulnerable position in the ASM sector. These include minority groups such as albinos, Tutsis (in Numbi and Nzibira), Pygmies (in Numbi and Nzibira), and people with disabilities (at all three mining sites). Very few of these people are involved in mining activities due to real or perceived limitations due to their physical and physiological conditions, and because of social and cultural biases and norms.

Based on our observations and discussions, mining sites studied seem to enjoy a certain social cohesion. Aside from gender barriers and some types of physical disability that may completely limit a person's ability to perform specific tasks, our interviews did not reveal a systematic exclusion of particular groups of vulnerable populations.

There are almost no albino people at the three mining areas studied. According to our interviews (in Numbi, Nyabibwe and Nzibira), there are very few albinos within the communities and because of this absence, they are not present in the mineral exploitation activities. With regard to people with disabilities, some are involved in mining. What they do depends on their physical condition, however. In Nyabibwe, for instance, some people with disabilities are involved in the purchase of minerals: "Yes, some disabled people only come to buy cassiterite." A few people with disabilities are involved in open-pit mining of coltan at Numbi. Access to the quarries is difficult (although not prohibited) for people with severe disabilities, however.

People from minority tribes, such as the Tutsi and Pygmies, are not usually involved in mineral mining activities, mainly because of their culture. In Numbi, the "Banyamulenge" group has been involved in cattle breeding for a very long time: "The Tutsi do not want to dig ... they say that they are cattle breeders," while at Nyabibwe, some Tutsi are involved in the extraction (underground as well as open-pit) of minerals, although their numbers remain relatively small.

Another important observation made in this study is that the sexual orientation of people in the sites studied is concealed and assumed (and/or believed) to be unique (heterosexuality). From our observation, it is difficult for people with other sexual orientations to come forward at the risk of suffering consequences linked to the fact of violating prevailing social and cultural norms.

Additionally, we have noted that certain cases of conflict are likely to exclude certain categories of actors from mineral exploitation activities, or impact their mining revenues. When people hold certain characteristics (ethnic, for example) that are perceived to be at the root of conflicts, they are vulnerable to exclusion. These conflicts also include land disputes related to land ownership, and conflicts between multiple mining cooperatives (which in some cases include ethnic conflicts). Those involved in these conflicts may (temporarily) not be able to access certain mining sites.

Beyond mining conflicts, influence peddling, power relations, and socio-economic inequality limit the participation of certain stakeholders in the mining business. These power relations and influence peddling prevent weaker actors from earning a return on their efforts and, in extreme cases, limit their access to mining sites. On this subject, a local authority interviewed in Numbi said: «There are big operators with means and influence, and next to them, there are small but hard-working diggers. Once they obtain minerals, they are hunted down and marginalized by these large-scale miners. ... even when it comes to sharing production, when there is production, it's the big guys who dictate the sharing rules»²⁹

²⁷ Interview with a female miner in Nyabibwe.

²⁸ Interview with a local authority in Numbi.

²⁹ Interview with a local authority and community leader in Numbi.

5. GENDER AND DIVERSITY BARRIERS IN ASM MINERAL SUPPLY CHAINS

5.1. Gender barriers in mineral mining activities

Our interviews indicate that women perform a number of tasks in the ASM sector. Although pregnant women and children are legally banned by the 2018 mining code from accessing sites,³⁰ all women are "potentially" given access to mining sites under DRC law. There are, however, a number of tasks they are not allowed to do for a variety of social and cultural reasons. At all three mining areas visited, underground mining remains a task exclusive to men: "There are places where women can't enter, such as inside the pits." The reasons for the limited involvement of women (or their low position) in mining activities are set out below.

5.1.1. Gendered biases about women miners

There are many discriminatory perceptions and biases concerning women miners that are related to attitudes around femininity and masculinity, which sometimes contribute to chastising women who are perceived as violating gender norms by wanting to work in the mine or already working there (Buss et al., 2017). At all three sites, men tend to attribute disrespectful labels to women miners, which could act as a disincentive to the involvement of other (non-mining) women in ASM activities. In Nzibira, for instance, women involved in mineral mining activities are referred to as prostitutes "we are greatly despised, people know we are destitute and we are despised, and others know that we come here for prostitution." The same situation was observed in Numbi where some members of the local community contend that women go to the mines only to look for men who can meet their subsistence needs. Other men consider women miners as women without husbands "the men who work in the mining site think that the women who stay in the mining sites lack husbands and they neglect them."

5.1.2. Social and gender norms

In general, we found that mining stakeholders at the three sites studied have made efforts to overcome certain harmful gender norms. This is likely due to the diversity of ethnicities at these sites and the lack of a set of established gender norms resulting from migration from various regions to the three sites. There is still evidence of several discriminatory beliefs and norms against women, however. For instance, traditional considerations at the Nzibira site prohibit menstruating women from accessing the site under the pretext that they make the minerals disappear. However, even though "...it is not acceptable for a menstruating woman to come and work at the quarry, but that is also difficult to establish that a woman is in her menstrual period."³⁴

Besides socio-cultural considerations, women are also deemed to lack the necessary strength to perform tasks such as underground mining. A trader interviewed at Nzibira said, "a woman can't go down the mine, use a hammer or trowel or spade to work, she can't because she is a woman."³⁵ Another noted, "the only work

- 30 Some pregnant women and children are still found at some mining sites in Numbi.
- 31 Interview with a community leader in Numbi.
- 32 Interview with a "Twangeuse" woman in Nzibira.
- 33 Interview with a state authority in Numbi.
- 34 Interview with a female miner at Nzibira.
- 35 Interview with a trader at Nzibira.

women are good for is the transport of minerals. They are no good for the other types of work, they are not strong enough for the other work."³⁶

The elements presented above demonstrate that social barriers prevent women from exercising certain ASM activities, resulting in economic exclusion. This confirms the evidence from several other studies, such as Bashwira (2014), Buss et al. (2017), Bashwira (2017). This also underlines the importance of interventions that can further facilitate women's access to mining activities.

5.1.3. Insufficient institutions for the promotion and protection of women's rights

Very few structures that bring together and support women miners exist in the geographic areas covered by this research. This situation increases the fragility of women in the artisanal mining sector. Similarly, there are very few organizations working to promote women's rights at the three sites discussed in this study, "There are no organizations that work to promote women's rights in this area. We only have women who are grouped in cooperatives."³⁷

However, at Nzibira some women have formed AVEC groups (Association Villageoise d'Epargne et de Crédit - a village savings and credit association) to help them with problems accessing small loans. However, these credits are not necessarily granted to finance mineral exploitation activities. Women use AVEC to meet a range of financial priorities, including those related to small businesses, to meet the urgent needs of their households (schooling for their children, medical care, food, etc.), etc. In the Numbi area, a few organizations are involved in gender issues, but their interventions in the mining sector have had no significant impact so far. One of these organizations has provided training and awareness-raising sessions on women's empowerment. "...we organize training sessions here in consortium with "femmes dans les mines" (women in the mines), raising women's awareness of the need to rely on themselves ... We are also asking women miners to form associations in order to work together on their daily problems in the ASM sector." 39.

We have also noticed that at all three sites (but more specifically at Numbi and Nzibira), women involved in the same mining activities form small committees or associations. Within these structures, certain women, known as "Mamans Chefs", are responsible only for their female counterparts grouped together in their associations (or "femmes broyeuses", "femmes twangeuses", etc.) and can only be consulted in specific cases.

In the same vein, very few initiatives have been specifically set up at the three areas to raise women's awareness on the risks associated with mining activities, or on preventive measures concerning their work. In terms of protecting women miners, the few (albeit very occasional) initiatives reported in exchanges with our interlocutors⁴⁰ included the provision of material subsidies in the form of overalls, boots, and other PPE (Personal Protective Equipment), which do not cover all female miners. Most of these reported initiatives have often been initiated privately by individuals, linked to interests such as election campaigns, for example. As such, the interventions carried out are not sufficient to address the problems of all women miners. Our results also show that the mechanism for distributing these subsidies was, in many cases, arbitrary and based on affinities between the people and/or institutions distributing them. This had the effect of excluding a large number of women among the beneficiaries of these grants⁴¹.

- 36 Interview with a male miner at Nyabibwe.
- 37 Interview with a SAEMAPE official at Nzibira.
- 38 "Femme dans les mines" is another organization that works for women at Numbi.
- 39 Interview with the head of a gender organization in Numbi.
- 40 Mining cooperatives are often used as channels through which those interventions are made both by state services and by private individuals and organizations.
- 41 Not only do women occupy weak positions in activities, but their bargaining power within the institutions of governance in the ASM sector is also weak.

5.1.4. Insufficient financial means

While the lack of financial means affects many mining actors, it has a bigger impact on women compared to men. Because of the low income from mineral exploitation, women cannot have guarantees that would enable them to benefit from financial services. This prevents women not only from engaging in several activities along the mineral supply chains but also from following the formalization process required by mining legislation and various policy reforms. Mining requires various investments depending on the exact activity within the supply chain, and in most cases, these expenses require financial support or access to credit, which are unfortunately not available to many of the women in the ASM sector.

5.1.5. Discrimination against women in the governance structures of the mining sector

Women are also excluded from the decision-making process in mining governance institutions. This has been noted at Nyabibwe and Nzibira, where women only hold non-strategic positions in mining cooperatives and state institutions. With regards to mining cooperatives, this is mainly because women work informally, as they do not have a digger's card and are therefore not officially recognized as mining players. And even if women have successfully gone through the formalization process, generally, they do not occupy strategic positions within the mining cooperatives. Within the state services, few women act as agents or authorities.

However, there are a few exceptions. In Nyabibwe, one mining cooperative is run by a woman. «... At COMILAK, the president is a woman, and we held elections... There is a women's structure in this cooperative. ... There are at least 30 women in our cooperative.» 42. Also, in Nzibira, the COMIYANGWE cooperative, even though it is not operational, is run by a woman who has the privilege of being the Mwamikazi (chief or queen) of Walungu.

5.1.6. Some cases of gender-based violence in mineral exploitation activities

Instances of gender-based violence were pervasive in artisanal mining in the past (Autesserre (2012); Rustad et al. (2016); Buss (2018)). At some sites (such as the three involved in this study), however, they have been declining more recently, partly due to an increase in responsible sourcing initiatives. Nevertheless, certain realities in the sector are likely to give rise to other forms of gender-based violence. First, some male mining actors use their positions of superiority to demand sexual favors from women before collaborating with them. Women's heavy dependence on male miners (and other stakeholders) for access to mining activities makes them more vulnerable to gender-based violence. "...there are diggers who give conditions to women to exploit behind them or to give them any kind of work. A digger may force a woman to be his friend before collaborating with him, and here they are already exposed to rape; the woman becomes in a way submissive to the man without her own consent in order to get those few francs."⁴³.

Second, other forms of violence against women include verbal abuse, harassment and sometimes physical violence committed by male diggers. "...We sometimes see cases of harassment of women, because we work with diggers who are not easy to deal with; there are those who are not sufficiently educated."⁴⁴ However, with the efforts made by mining cooperatives and state services (through the mining police or cooperative security), cases of physical and verbal violence against women are gradually diminishing. "There are channels for reporting physical and verbal violence against women in the mines. Here we have the mine police, who intervene in cases of this kind of violence."⁴⁵

⁴² Interview with a representative of a mining cooperative in Nyabibwe.

⁴³ Interview with a female community leader in Numbi.

⁴⁴ Interview with a local authority and community leader in Numbi.

⁴⁵ Interview with a female community leader in Numbi.

5.2. Barriers to other vulnerable people in the artisanal mining sector

As mentioned above, in this study, we did not find any cases of discrimination based on age, ethnicity, skin color (albinism or not), etc. People such as albinos (even though there are very few in the area), the elderly, and people from minority ethnic groups are not subject to any bans in relation to mining activities. "People like albinos or disabled people are allowed, in fact, we have a disabled person [sic] who buys here, there is also protection for these people, often we don't make them pay taxes, except that we don't have any albinos here, but they shouldn't be discriminated against because they are people like any others."⁴⁴⁶

However, this non-exclusion probably results from the fact that many vulnerable people do not engage in mining activities of their own free will. In their absence, this makes it difficult to assess the real attitude of the less vulnerable towards the vulnerable. This indicates that it would only be possible to properly assess their inclusion in mineral mining activities if they were motivated to become involved in ASM activities. On the other hand, vulnerable people lack the financial means to participate or to become effectively involved in mining: "...actually, there aren't many marginalized people. There are just people who may want to buy pits but don't have the means."⁴⁷



Mining of alluvial coltan deposits by a man with disabilities in Numbi.

⁴⁶ Interview with a SAEMAPE official at Nzibira.

⁴⁷ Interview with a state authority in Numbi.

6. IMPACTS OF RESPONSIBLE SOURCING INITIATIVES ON THE SOCIO-ECONOMIC CONDITIONS OF WOMEN AT ASM SITES

The ASM sector has long been described as being characterized by several disadvantages (Buss and Rutherford, 2017), including environmental degradation, use of circumventors, abuse, and exploitation such as forced labor and violence, etc. Mining activities are perceived as being conducted in dangerous environments because of the trade and common consumption of alcohol and narcotics and because of the spread of infectious diseases often associated with prostitution. Artisanal mining has also been associated with the ongoing conflict in eastern DRC (Seay, 2012; Cuvelier et al., 2014).

To improve mining governance in DRC, several legislative initiatives have been undertaken since the late 1990s (Perks, 2013; Cuvelier et al., 2014). These policy reforms have been criticized, however, for their interest in attracting and regulating international mining companies (Hilson, 2009). This can lead to uncertainty in ASM policies and laws. These regulatory initiatives have also been criticized for being inappropriate and poorly enforced and have not enabled the majority of artisanal miners to work legally (Hilson and McQuiklen, 2014).

The study by Buss et al. (2021) shows that regulation of the ASM sector can have negative gender consequences and that men and women can be disproportionately impacted by ASM policy reforms. A case study in Ghana and Mozambique demonstrates that (especially in Mozambique) policy efforts to protect river sedimentation have led to the closure of alluvial mining sites where many women worked and who were economically dependent on these activities (processing soil, mining waste, etc.). This regulation has had negative economic consequences for women, notably the loss of employment and sources of income (due to the cessation of processing residues or mining work in the rivers and the lack of access to processing sites (river)).

6.1. Impact of formalisation measures on women's socio-economic conditions

The formalization measures implemented at Numbi, Nzibira, and Nyabibwe aim to bring all stakeholders involved in the mineral supply chains within the formal sector. These measures do not consider women's economic and financial situations, however. The women artisanal miners in the three areas studied are poorer than male miners⁴⁸, and the income they earn from their mining activities is insufficient to even meet their basic household needs. As a result, owing to their inability to pay for the administrative documents required by the state authorities, they cannot access the mining sites during the periods of legal document verification⁴⁹. The presence of women is only made possible through strategies to circumvent ASM regulatory systems.

The portrait of most women working in the mining sector suggests that they have families but few of them depend on their husbands. These women are: (a) either widows with children to look after, (b) either abandoned by their husbands because of polygamy or the fact that they have moved to distant places in search of work, (c) or women whose husbands have serious health problems that limit their ability to work, or who have no taste for work at all. Beyond this responsibility, social norms at the three mining sites studied assign women the duty of looking after household chores and raising children. This leads many women to devote less time to artisanal mining activities (compared to male miners) and to earn less income than men as a result.

⁴⁹ Lack of financial means is a significant factor preventing women to formalize in all 3 sites studied. However, on top of that, ignorance of mining legislation, ignorance of ASM sector (policy reform) initiatives, and ignorance of the importance of formalization also disincentivizes women to formalize.

6.1.1. Illegal/Informal mining of minerals

Our results indicate that due to their lack of documentation and their difficulties in joining mining cooperatives, many women who work at mining sites do so illegally with the risk of being expelled by state officials. This situation is not the result of a deliberate choice by women, but rather of their initial economic situation. There are, therefore, many women throughout the supply chains (particularly in the selling, transport and/or mineral processing stages) who operate illegally (informally) because they lack the means to obtain documents. The direct impact of this is increased vulnerability to gender-based violence and harassment, including having to engage in transactional sex⁵⁰ in exchange for information or access, etc.

The failure to formalize women's activities also means that they cannot sell their products at the official mineral trading houses, given the informal nature of their activities. Consequently, women are obliged to sell through the 'lottery' mechanism, where the price is not based on the actual purity but rather fixed at a flat rate. In most cases, this form of mineral transaction is unfavorable to women, as they have no control over the price and, by extension, their income.

6.1.2. Cooperation between women without documents and formalized stakeholders

This strategy was observed among women miners at Nzibira and Numbi, who collaborate with formalized stakeholders (mostly men) in order to carry out their mining activities. This collaboration allows them to have coverage (like an umbrella) from the people who have the documents and who appear as owners of the activities carried out by the women. At Numbi, for example, women found it difficult to collaborate with an "umbrella" and preferred to have an intermediary role between the miners (managers) for cleaning, crushing, grinding, and mineral transport. They thereby buy the minerals from the operators but on behalf of the traders who are supposed to have the legal documents. Specifically, women miners who work mainly for their own account are women PDG, women négociants (mineral traders), and women who carry out small-scale trade around the mines. According to our observations, over 70 percent of the women who crush, clean, and transport ore are employed by other (mainly male) miners. However, the number of female PDGs and négociants is limited at the three sites studied (notably, less than five female négociants and PDGs at Nzibira and Nyabibwe, according to our interlocutors).

⁵⁰ When we refer to "transactional sex" here, it includes both prostitution (practiced by sex workers) and the exchange of sexual favors for access or other socioeconomic advantage in mining activities. Thus, for socio-economic reasons (access to mining activities, for example) in the ASM sector, non-prostituted women are likely to grant sexual favors to men (not necessarily of their own free will, but mainly because the men set this as a condition).

A number of women, however, work as employees in restaurants, refreshment stands, bistros, etc.

6.2. Impact of the traceability system

The three sites studied are covered by the ITSCI traceability system implemented by ITA in collaboration with the international organization PACT⁵², some civil society organizations, and state services. This system covers 3T sites. With regard to gold, which is only produced at a few mine sites in this study area, notably Nyamugengula (in Nzibira), and Fungamwaka, Philon 1 and Philon 2 (in Numbi), traceability is not yet in place. The ITSCI system tags mineral bags at mine sites (mine tag) and at trading centers (trader tag). The labels should be affixed to the packages at the sites by the state agents of SAEMAPE, after the minerals extracted from the pits are processed and packaged in sacks by the artisanal miners. Traders' labels are affixed by the mining department (Division of Mines) in trading centers after verification of the packages and final processing. This procedure is mandatory for all stakeholders; any minerals that have not gone through this procedure are considered fraudulent, "a law has already been implemented that says that the material can't leave the site without the mine tag. After processing, you go to the trading center where you also get the trader tag, and this is what authorizes you to then go and sell. You can't sell to the 'comptoirs' (the export companies) without having both tags, because you will be dealing with a state official at their place."⁵³

The traceability system has had varying impacts on supply chain stakeholders, but women have suffered several setbacks (Bashwira, 2017). On the positive side, these initiatives have reduced a certain number of extortions, increased the security at mining sites, and reduced the extent of mining controlled by armed groups⁵⁴, as minerals fraudulently produced by rebels are not accepted by trading centers and/ or smelters. "Since the introduction of the traceability system, we are no longer hassled if we have all the administrative documents,...but before that, despite being in order with all the documents, other illegal taxes were demanded from you, with a lot of trouble and many were seriously intimidated and lost out." "It's true that the labelling system has helped the state maximize revenue, and it has even reduced the armed groups' presence, because they know that even if they mine, unlabeled minerals won't go anywhere."

From a gender perspective, however, traceability has destabilized women's activities at mining sites. Many women have not adapted to the system, not only because of their difficulties to formalize (resulting in the development of fraudulent strategies), but also to avoid the loss of income due to contributions (or taxes) to state services and mining cooperatives. This situation also affects male miners, but to a lesser extent than women, as men generally have a higher income in mining. The ITSCI traceability system and the mining law (2018) require that each stakeholder working at a mining site must have administrative documents before they can produce minerals, otherwise their production can be confiscated. It prevents them once again, in addition to their low income and their lack of financial means, from carrying out productive activities at the mining sites, thereby creating more intermediaries and undermining the situation of the women. As a result, this situation further reinforces the inequalities between men and women in terms of involvement and earnings.

^{52 &}quot;Pact is an international nonprofit that works in nearly 40 countries building solutions for human development that are evidence-based, data-driven and owned by the communities we serve": https://www.pactworld.org/our-promise.

⁵³ Interview with a trader at Nzibira.

⁵⁴ PRG, IPIS, SFR and Ulula, Evaluating due diligence programs for conflict minerals: A matched analysis of 3T mines in Eastern Congo, Los Angeles/Antwerp, November 2020.

⁵⁵ Interview with a trader at Nzibira.

⁵⁶ Interview with a local authority at Numbi.

6.3. Impact of due diligence initiatives and mining site certification

A number of projects and initiatives (ITSCI, MADINI⁵⁷, etc.) that promote due diligence were found in the study environments. These projects are implemented by civil society organizations (e.g., OGP) in collaboration with community structures (e.g., CSL and SCLS)⁵⁸ with the aim of supporting good mining governance and combating insecurity in and around mining sites (caused by armed stakeholders), illegal taxation, and production of blood minerals. These organizations are also involved in the analysis and management of risks and incidents along mineral supply chains.

The presence of these initiatives has had a positive impact on the security situation and illegal taxation at the mining sites studied. They have helped to reduce illegal trade and human rights violations, including cases of torture, forced labor, sexual violence (or any other form of violence against women), and other forms of abuse. ⁵⁹ In Numbi, for example, an official working within the framework of due diligence stated: "There were elements of the Nyatura armed group, and the demobilization process had begun, but it wasn't finished. They went home during the COVID-19 period, and they are now behaving as artisans. ⁶⁰ The eradication of armed groups at mining sites is thereby a very important achievement in the fight against gender-based violence and the over-taxation of women, who have few resources from the outset.



Due diligence initiatives have an indirect impact on women. By intervening against the presence of armed persons, illegal taxation, and all other incidents in the supply chains, women are protected against many forms of gender-based violence that once characterized the ASM sector. From the implementation of the due diligence initiatives in the three study areas, cases of gender-based violence have decreased due to an increase in perpetrators being arrested.

⁵⁷ Madini kwa Amani na Maendeleo is a consortium of the organizations International Alert, EurAC, OGP, Justice Plus and IPIS, which aims to improve security, social cohesion and human rights in a few mineral-rich, conflict-ridden regions of eastern DRC.

⁵⁸ Local Monitoring Committees (Comités locaux de Suivi, CLS) and Sub-Committees (Sous-CLS, SCLS) are structures set up to monitor the mining sector, including the impact of mining reform. They are multi-stakeholder monitoring committees, from the provincial to the local level. At provincial level, there are provincial monitoring committees in the provinces of Kivu and Ituri.

⁵⁹ These comments come from interviews conducted with ITSCI representatives and miners at the mining sites studied.

⁶⁰ Interview with an official of an organization that implements a due diligence project at Numbi.

CONCLUSION AND RECOMMENDATIONS TO DECISION-MAKERS

This study investigated the dynamics of gender and social inclusion in mineral mining activities in three mining areas: Numbi, Nzibira and Nyabibwe. In addition to analyzing the contexts and positions of women and other vulnerable persons in ASM activities, and the obstacles faced by women and other vulnerable persons, this study examined the potential impacts of ASM regulatory initiatives on the socio-economic status of women involved in mining activities. We found that there is a high level of involvement of women in ASM, who perform various tasks in different mineral supply chains, mainly open-pit mining (alluvial mining and collection of mining waste), transportation, processing and selling of minerals.

A number of gender biases were noted, particularly perceptions regarding women mineral workers based on gender biases and harmful social and gender norms. Economic (lack of resources) and institutional barriers also reinforce gender inequalities in the ASM sector. We then noted the impacts (positive and negative) of policy reforms on the socio-economic situation of women in the artisanal mining sector. For instance, responsible sourcing initiatives have been praised for decreasing extortion of ASM stakeholders and the involvement of armed groups in mining. On the other hand, formalization and responsible sourcing (and in particular traceability) have had a negative impact on women's involvement in mining and their income, as it actually pushed them further into informality, which reinforces their fragile position.

In order to address the challenges around gender inequality and to promote GESI, the authors have listed a set of recommendations:

1. Carry out gender assessments prior to the implementation of regulatory mining reforms

To date, initiatives to regulate the ASM sector have largely ignored the socio-economic situation of women engaged directly and indirectly in the sector. This finding not only emerged in this study but also in several other scientific works across the African continent (e.g., Buss et al., 2021). We believe that prior studies (assessments) on the socio-economic situation of women should help develop strategies that drive ASM regulatory initiatives so that these do not act as a hindrance to women's involvement but rather as factors that promote their activities. The methods to implement the initiatives, the formalization costs, and the taxes to be imposed should be established based on women's income, their living conditions, their attitudes toward ASM regulations, etc.

2. Financial support for women miners

Development programs can intervene in two ways. Firstly, they can make small funds available to mining cooperatives to support women's mining activities (e.g., to finance small-scale mineral trading by women). Secondly, development actors should create partnerships between mining cooperatives and credit providers with the aim of facilitating access to credit at reduced terms for women belonging to mining cooperatives.

3. Support collective action by women miners

Women's associations should act as frameworks allowing several gender issues in ASM to be addressed. These structures could also be equipped with contextual information about women at mining sites. Thus, collaboration with these (existing) structures can allow policy reforms to be flexible according to the gender realities of mining sites in the DRC.

4. Develop measures to enhance women's capacity to go through the formalization process

These measures could consist of tax breaks or cost reductions for women when applying for official documents. They could also establish terms of payment for documents or fees that are favorable to the situation of women artisanal miners. One approach could be to divide the price of the materials into small increments to enable the poorest women to afford them. The authorities could also grant administrative documents to women on credit (for periods of a few months to a year).

5. Raise women's awareness of regulatory reforms in the mining sector

Women's non-compliance with mining regulations is partly a result of their lack of knowledge about the regulations and their importance. For most women, the ASM regulatory reforms represent a nuisance imposed on them by state services. Many women also do not understand the various political reforms already implemented in the DRC. We recommend that regular awareness seminars on political reforms be organized for women to bring their understanding of these reforms up to date.

6. Involve women artisanal miners in the development of ASM regulatory policies

In most cases, women artisanal miners are not involved in the development of ASM regulatory policies in the DRC. They simply follow policies set by men or people from outside of the local context of ASM. We therefore recommend developing mechanisms to facilitate women's participation in discussions on the development of policy reforms in the DRC. To this end, the government, and international partners, could facilitate the participation of women leaders who correctly understand the context of artisanal mining in the DRC, at major international summits on the governance of artisanal mining in order to give a voice to the Congolese female miners. At national level, political decision-makers could create consultation frameworks (conferences, summits, etc.) with representatives of women miners' structures to discuss ASM policy strategies. A similar recommendation was also made in one of WIAMO's reports, which suggested that public stakeholders should ensure that women artisanal miners are an integral part of any policy development and reform on artisanal mining and the supply chain and that steps should be taken to ensure that policies reflect and represent the voices of women artisanal miners.

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