A Case Study

planetGOLD Guyana

GENDER IN GUYANA'S ARTISANAL, SMALL-SCALE GOLD MINING (ASGM) SECTOR

2021

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Glossary

Abbreviation/ Acronym	Definition
ASM	Artisanal and Small-Scale Mining is formal or informal mining operations with predominantly simplified forms of exploration, extraction, processing, and transportation. ASM is normally low capital intensive and uses high labour-intensive technology.
ASGM	Artisanal and Small-Scale Gold Mining is conducted by individuals or small enterprises with limited capital investment and production. Mercury is often used in ASGM to extract gold from ore or sediments.
BACKDAM	Interior, rural, and/or undeveloped areas and locations where mining is conducted.
BATEL	Local term for a tool used to pan for gold.
GEF	Global Environment Facility
PORK-KNOCKER	Freelance prospectors who mine for diamonds and gold in the alluvial plains of the interior. Pork-knockers manually extract gold individually or in small groups using relatively large amounts of mercury.
PUNTER	Same definition as Pork-knocker, usually operating in an informal setting.
RETORT	A retort is a simple device used to capture invisible mercury vapours and turn them back into liquid mercury. This mercury can be reactivated and reused, or it can be safely stored or disposed of according to proper protocol.

INTRODUCTION AND OVERVIEW OF GLOBAL AND NATIONAL TRENDS

Mining is extensive and a valuable source of income to many people.

The World Bank estimates that Artisanal and Small-Scale Mining (ASM) occurs in 80 countries worldwide, practiced by upwards of 100 million people. This type of mining, which is largely informal and mostly un-mechanized, accounts for approximately 20% of global gold mining and provides an important livelihood and income source for poor families. The World Health Organization estimates that 15 million people, including 3 million women and children, participate in Artisanal and Small-Scale Gold Mining (ASGM) across 70 countries.

ASM is easily accessible and provides an important safety net.

The barriers to entry in ASM are relatively low. A miner can enter with simple equipment, little or no specific skills, and without significant capital investment. The nature of mining – where one can come and leave as they please - is conducive to seasonal or transitional activities (such as agriculture) and can be an important complementary livelihood activity. Beyond direct miners themselves, the sector provides employment for a wide range of people; for every person working directly in ASM, an additional 3-5 are supported indirectly through work in associated industries (e.g., drivers, mineral buyers, shops and bars, local markets, etc.) (ExtractivesHub, undated). Naturally, this sector can be a significant contributor to national economies and an important source of foreign exchange earnings.

ASGM is currently the largest contributor towards global anthropogenic mercury emissions, responsible for 37% of all such emissions and is the largest source of air and water mercury pollution (UNEP 2013). Much has been written about the negative health and environmental impacts of mercury. Recognizing the elevated risks of mercury, the UN adopted the Minamata Convention on Mercury which entered into force in 2017 and aims to control and reduce mercury across a range of products, processes, and industries where mercury is used, released, or emitted. In addition to mercury pollution, ASGM contributes to forest and biodiversity loss as mining operations expand into new areas.

For these reasons, small and medium-scale mining is an important sector to understand and work with to curb negative environmental and health impacts and improve livelihoods.

As with any other sector, gender and social dynamics are critical to understand when designing and implementing projects to engage and work with mining operations. While the image of a miner is most often a man, women play a key role in the mining workforce and value chain. Globally, there is a growing body of literature about women's roles in ASM and ASGM, but research is largely focused on African countries.

In this paper, we aim to contribute new information about women's roles in ASGM in Guyana, South America.

First, we give an overview of women in the global ASM and ASGM sector, followed by existing research and documented information focused on Guyana and including information about the PlanetGOLD project to reduce mercury use. Next, we explain the methodology used to gather information from women and men within the mining sector to understand women's current roles and responsibilities. This is followed by our findings and a discussion about how this information can be used to inform and influence the ASGM sector in Guyana to be more gender-responsive and environmentally and socially sustainable.

One of the key strategies of planetGOLD Guyana is to establish mercury-free mining processes.

Women in the ASM sector – Global Context and Trends

Globally, women make up about 30% of ASM workers, but there is large variation and documentation is sporadic and underreported (Weldegiorgis et al. 2018).

Fig 1: Globally 30% of ASM Workers are women.

Across Africa, where most of the research on this topic has focused, women have been found to make up at least 40-50% of workers (Scott 2014). Studies have shown that women tend to play a larger role in smaller mining operations and those that are less mechanized (ELI 2014). Furthermore, women engaged in the mining sector are very diverse, with differing socio-economic constraints and opportunities dictating their ability to engage, influence, and benefit from mining operations.

The roles and responsibilities that women have directly in and around these mining operations also varies widely including direct digging/extraction and across the entire processing stage from crushing and grinding, sieving, washing, panning and (in gold mining) amalgamation with mercury. Although less frequent, women may own mining concessions and work as operators. Farther down the value chain, women are both directly and indirectly involved in buying and selling. Importantly, women play a critical role in the services that support mining operations such as cooking and selling food, operating shops near mining areas, and working in the sex trade. Men's and women's roles in ASM are typically only in small part based on different physical capabilities; instead, the difference is largely determined by cultural or traditional factors, beliefs, and expectations (Eftimie et al. 2012). Overall, though, women's roles in mining are often less visible and undervalued.

There are several facets of ASM that may make it particularly attractive for women.

First, direct engagement in ASM can be intermittent when income is needed or when it fits into other responsibilities, can be especially useful to women who may find consistent employment impossible given other duties. In addition, the barriers to entry are relatively low: miners can be successful with limited and rudimentary tools, and there is no requirement for formal education. Finally, women are in a good position to take advantage of the support services required for mining (e.g., shop owners/managers), which can be much more lucrative than other similar job prospects.

Women are differently, and more negatively, impacted by their engagement in ASM mining and face myriad challenges.

Due to gender-based inequalities in mining communities, women often experience unequal ownership, rights and access over resources that are critical to successful mining operations. Legal and informal laws may limit women's ability to access finance and credit which inhibits their ability to invest in mining equipment and technology necessary to operate successful businesses. Formal and informal land tenure typically constrains women's ownership of and access to mining areas. Lower levels of education also create a barrier in accessing information about new technologies, availability of mining sites, or market dynamics. Furthermore, lack of education creates challenges in navigating complex business and technology processes. Women may also face additional challenges in acquiring mining licenses. Finally, patriarchal norms that consider mining a 'man's job' and uneven labour-intensive unpaid care work that takes time away from productive mining activities further undermine women's success in the sector. (Weldegiorgis et al. 2018, Scott 2014, ELI 2014).

Photo: Female Miner from Region 8

Evidence indicates that women in ASM often work longer hours than men, but on average earn much less than male counterparts, a discrepancy which forces many women to look for additional work, increasing their time poverty and even resulting in women taking equally if not more dangerous work like prostitution (Hinton et al. 2003). Girls are often employed in small-scale mining as well, and evidence indicates that in some countries, girls are employed in the field more often than boys directly in surface mine workings, as well as peripherally, bringing food and drink to miners, or working in mine bars and restaurants (Eftimie et al. 2009).

Women…may still be exposed to mercury through food and water, cooking utensils that have been used in amalgamation, and air pollution. Importantly, women in mining areas are at risk of sexual violence.

Gold mining in particular exposes women to unique health impacts.
Women's role in mercury amalgamation varies greatly. In many countries across Africa, mercury amalgamation and amalgam decomposition are carried out by women who are confined to their home for religious reasons (ELI 2014). In other countries, while women may not be as directly involved with the amalgamation process, they may still be exposed to mercury through food and water, cooking utensils that have been used in amalgamation, and air pollution. Generally speaking, women face the greatest risks from carrying heavy materials, washing ore in contaminated water, and becoming exposed to chemicals when burning gold amalgam[1] . Importantly, women in mining areas are at risk of sexual violence. Violence against women in artisanal mining communities has been documented (Rustad et al. 2016), and their role in the sex trade poses an additional unique health risk.

[1] Kaiser, J., Gender Analysis of the GIZ Technical Cooperation Programme "Natural Resource Governance in the Fragile States of West Africa. Monrovia. (2011). [Short cite: —Kaiser, Gender Analysis]

Recognizing the different impacts and experiences of men and women highlight important considerations for addressing miners' unique needs within the ASGM sector, and points to important opportunities to improve the quality of miners' health and success and reduce negative environmental impacts. Given their position and roles in mining families and communities, women can play a key role in helping to change the sector to adopt more environmentally and health-friendly techniques. For example, women with some ownership and influence in mining operations are a key constituency for education about mercury-free mining in their operations. More generally, their unique role in preparing food can reduce consumption of mercury-contaminated foods, their role in spousal discussions and influence, and their education of children (future miners) about the health and environmental impacts of mercury can have long-term impacts on the sector.

Photo: School Children. Mining income goes into education for children

Supporting women miners is also important for more general gender equality and human wellbeing.

Mining income, controlled by women, can help them to support their households and increase women's social status within her household and community. Evidence shows that investing in women is good not only for women themselves, but also for their families and communities. Women typically take a higher percentage of earnings back to their families than men do, and play a critical role in supporting the health, education, and overall wellbeing of families. Women miner's associations have arisen in response to the particular challenges that women in mining face and play a vital role in informing policy and enabling government, donors, and companies to recognize the particular gendered impacts of mining (Weldegiorgis 2018).

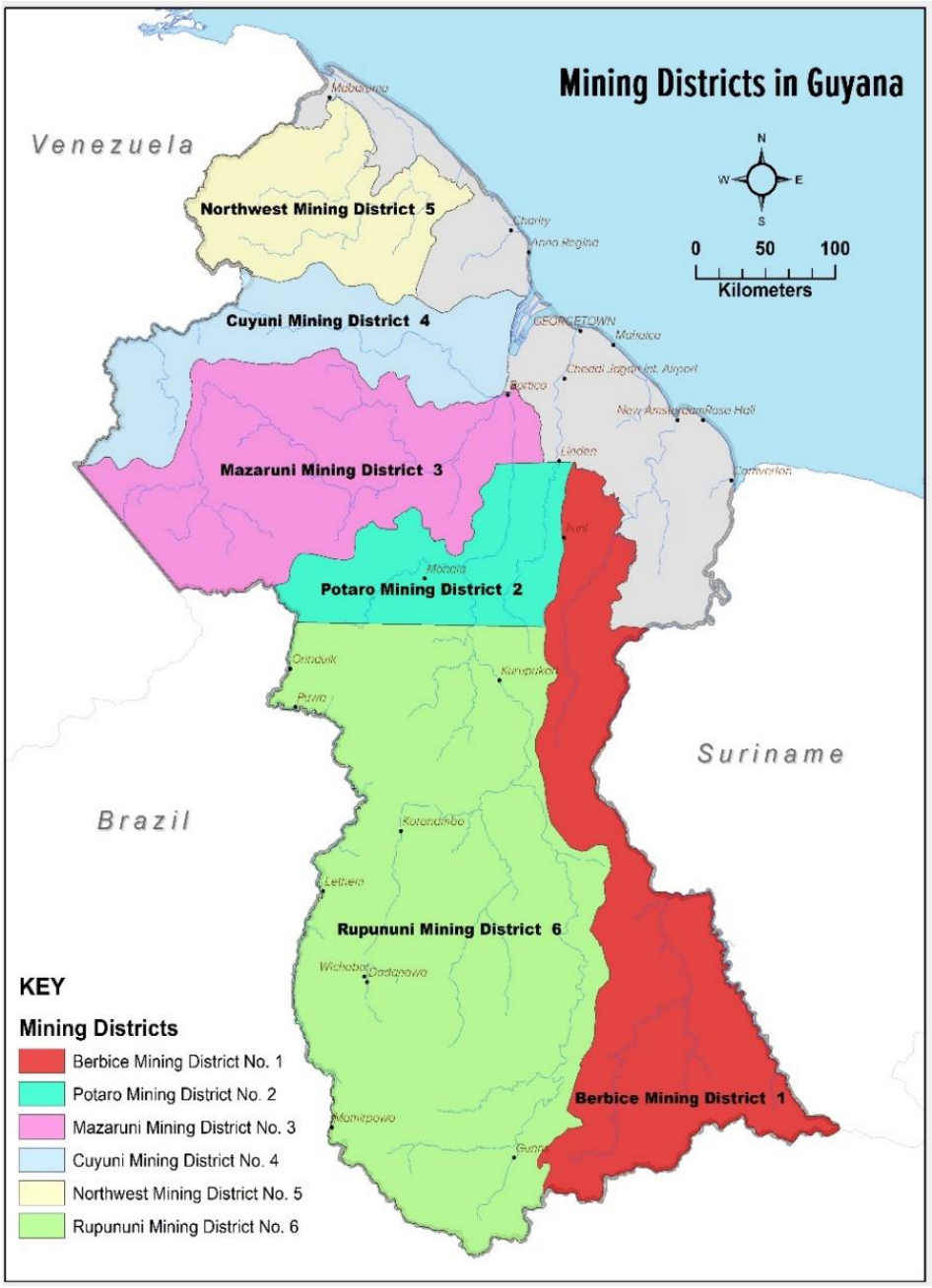
In the Guyana Shield, research has been done in neighbouring Suriname that provides some insight into gendered roles in the sector.

Among the Ndjuka Maroon population, few women participate in mining due to their limited access to critical resources, lack of independent mobility and deeply engrained gender norms; the women who do engage in this sector are often poor single mothers and tend to be merchants and traders. Elsewhere in Suriname, where ASGM workers are primarily foreign miners from Brazil, researchers note that the number of women has increased over the years and are also typically migrants. They tend to take on auxiliary roles such as saleswomen, shop owners, hairdressers and beauticians, hotel, bar, restaurant and brothel operators, cooks, and sex workers. Some women may be equipment owners or managers. All told, the researchers estimate women make up 15-20% of the ASGM population. (Heemskerk 2000, Heemskerk et al. 2016).

Small and Medium-Scale Mining in Guyana

Guyana's ASGM sector has been in existence for more than one hundred years, and unlike most other countries, the sector has legal status in Guyana.

Mining in Guyana is carried out in 6 mining districts: Berbice, Potaro, Mazaruni, Cuyuni, North-West, and Rupununi; of those, Mazaruni, Potaro, Cuyuni and North-West Mining Districts have the most mining activity (Bynoe, 2016).



Map of Guyana displaying the six (6) Mining Districts

The ASGM sector provides an important source of income at the individual and national level.

Like elsewhere, the mining sector is attractive because of its low barriers to entry and potential for profits. Many miners in Guyana can successfully provide and support their family at a higher level than if they were in other labour markets including government work. This can be particularly attractive to those without higher levels of education.

Mining is regulated and managed by the Ministry of Natural Resources (MNR) with primary management through the Guyana Geology and Mines Commission (GGMC) and the Guyana Gold Board (GGB).

The GGMC regulates mining activities, and its functions include operation of a national repository for geological and mineral information and administrating mineral properties and mining activities. The GGB is the national trader of gold and licenses private gold traders. Activities in the sector are primarily regulated via the Mining Act (1989), with the scale of mining (small, medium, or large) dependent on land size, size of the dredging equipment, and technology used. In addition, artisanal miners are considered to be legal under the Mining Act once they have registered and paid for mining claims.

The ASGM sector accounts for 70 percent of the country's gold production. In order to mine, persons must first apply for a prospecting permit. The permit describes where the miner is allowed to carry out prospecting and whether it is done at a medium or small scale (Mining Act 1989). When the miner finds gold, s/he should then apply for a mining permit (for medium scale) or claim license (small scale). In Guyana, many miners will renew their prospecting permit instead of applying for a mining permit.

Like elsewhere, ASGM in Guyana is a major contributor to mercury pollution and has become a major driver of deforestation which leads to additional release of soil-bound mercury.

Guyana ratified the Minamata convention in 2014 and is currently developing its National Action Plan. In an effort to fulfil commitments of the Minamata Convention, the Guyana government aims to gradually phase-out the use of mercury by and implement a mercury-free ASGM supply chain by 2025 (MIA 2016). Policy actions have already happened, including that miners are legally required to use a retort for their operations; a national cap has been placed on mercury importation which in turn now regulates how much an individual is permitted to bring into the country, and there are also stricter requirements for the possession of mercury now being implemented.

Miners currently organize into three main associations, the Guyana Gold and Diamond Miners Association (GGDMA), Guyana Women Miners Organization (GWMO) and the National Mining Syndicate (NMS). The GGDMA is the oldest of the 3 organizations and reports a current member base of 174 members, 17 of which are women (approx. 10%). They have established varying partnerships,

The Mining Process

Usually, in the small and medium-scale mining, only limited prospecting is done (no detailed exploration) before digging the ground. The hole formed by digging is called a 'pit' and water at high pressure is used to 'wash down' the sides of the pit. The slurry that is accumulated is then sucked into a pump and based on the size of the material, either goes to a crusher (bigger material) or directly to the sluice box. The sluice box has mats which are used to trap the gold. These mats are then washed out to retrieve the gold. Mercury is then used to combine the gold into an 'amalgam' which is then burned off using a retort (legally required), torch, or open flame. The refined gold is then sold to a nearby gold shop or directly to the Gold Board. The waste from the sluice box goes into a tailings pond.

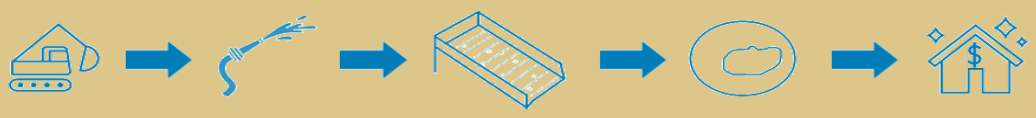


Diagram 1: Mining process starting at digging the ground, washing down the pit, passing the slurry into the sluice box, using mercury to amalgam the gold retrieved from the sluice box mats and after the gold is burned, selling the gold to a gold shop or the Gold Board.

including with the GGMC, and are very vocal in the media on the interests of the gold and diamond miners. The association has some interest in pursuing responsible mining practices and is actively engaged in pursuing improvements. The GWMO reports a member base of approximately 476 members, including men, but it is not clear how many. The organization deals mainly with the interest of women in the industry and are very engaged in social protection issues such as human trafficking, gender-based violence and child abuse. The National Mining Syndicate (NMS) is the most recent mining organization in Guyana. They report more than 500 members (both men and women, but not disaggregated) and are an umbrella body of all mining syndicates in Guyana. The mining syndicates was a government initiative to address the challenge of available mining lands. Syndicates have been set up in the different mining districts. Some informants report inequalities in the influence of ASGM Organisations led by men versus those led by women where the inputs and contributions of women are not as valued as those of men.

The PlanetGOLD Mining Process

As part of the PlanetGOLD Guyana project, mining sites will be set up to demonstrate responsible mining with mercury free equipment. The process begins with prospecting and after identifying where has the most viable deposits of gold, the area is dug, and the soil is put aside as a stockpile. Soil from the stockpile is combined with a water source and the slurry is fed directly to the sluice box. The slurry is then deposited into a small pit where it is pumped to a crusher and trommel, and then goes to the mercury-free equipment. The mercury-free equipment consists of a concentrator, gold cube, shaking table and blue bowl. Like the general process, the refined gold will be sold to a nearby gold shop or directly to the Gold Board and the waste will go into a tailings pond.

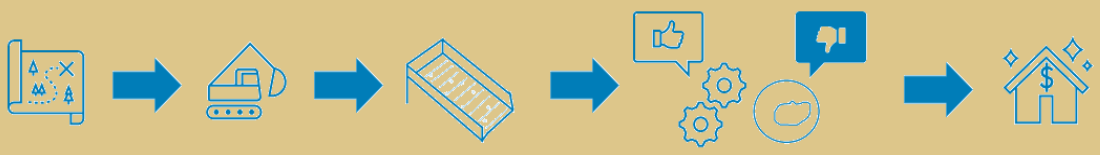


Diagram 2: PlanetGOLD Mining process starting at prospecting, digging the ground, and placing the soil into stockpiles, mixing the slurry and passing it through the sluice box, using mercury free technology to retrieve the gold and then selling the gold to a gold shop or the Gold Board.

Women in Small and Medium-sized Gold Mining in Guyana

The Ministry of Natural Resources estimates that approximately 20% of miners are women in Guyana[2].

Like elsewhere, the sector provides important income and livelihoods sources for women. The lower barriers to entry for direct mining (no formal education needed, rudimentary tools) along with the ability to enter and leave, can be especially helpful for women who tend to have fewer assets, lower education, and many other responsibilities that would keep them from full-time work. Women play a key role in the supporting market as well, such as those who work in or own shops that cater to miners. Prices in the backdam can be extraordinarily high, making this a lucrative place to do business.

Experiences of Guyanese Women Miners

It was late afternoon when we met her. We were geared from head to toe for the biting red dust that infiltrated our clothes while she was clad in casual clothes, slippers, a backpack and her batel. She was approaching 50 and had to walk long distances every day, 12 months a year, to mine in leftover tailings ponds in the hope of finding gold. The terrain is not a forgiving one – she must endure the clinging red dust and ruthless sun rays in the dry season and the sting of heavy raindrops and slippery waterlogged roads in the wet season. She is drawn to mining because has no formal schooling which makes it almost impossible to get a job. Gold mining does not require any education and if she finds gold, she can buy food for her and her 5 children. She is their sole provider. In her efforts to provide for them, she must also leave them with a family member, or by themselves, unsure of their safety while she is gone. Some days, she will get lucky and readily find enough gold to sell to the gold shops and have money for food; other days, she is not as lucky and must travel even further in search of gold.

Compared to African countries, women's role in ASGM in Guyana is highly under researched and undocumented.

For example, a World Bank ASM guide (Eftimie 2012) estimates the number of miners (and % of women) in 26 mining countries: Guyana is not listed. In the few Guyana-specific case studies or research papers we found on ASM or ASGM, gender roles are not mentioned in detail. For example, a recent World Bank case study on ASM in Guyana simply lists women's participation in ASM as 'unknown' (World Bank, 2019). National census data, while disaggregating labour force by sex, does not specify labour in the ASGM sector. The GGMC has redesigned all mining-related license applications to include indication of the applicant's

[2] Statement made by Ms. Mariscia Charles from Ministry of Natural Resources at the UNEP Global Mercury Partnership webinar "Integrating Gender in National Action Plans for Artisanal and Small-Scale Gold Mining" held on 17th June, 2021.

gender. This move provides much-needed data to begin tracking and understanding the formal participation of both men and women in the sector. The licenses cover many facets of the sector, including dredge and machinery operation, trading, goldsmithing, and mining. Sources at GGMC were able to provide disaggregated data for this report: from 2017 to date, GGMC has recorded 492 medium scale prospecting permits: 155 of them being women (32%). For medium scale mining permits, GGMC recorded a total of 199 applicants, 46 of them being women (23%).

Guyana's Minamata Initial Assessment Report (2016) does contain a high-level assessment of gender related to the management of mercury, indicating that male miners are more likely to be involved in medium and small-scale mining and work average of 5 days a week, while in many indigenous communities, female members tend to work as punters on average 3 days a week, or when they are available from household tasks and childbearing. Female miners from the coast migrate with their partners to work in mining, usually at small-scale operations. (MIA 2016)

The National Action Plan, currently being developed, includes a socio-economic and gender assessment using primary information gathered in focus groups and interviews with nearly 400 miners in three mining regions (2, 3 and 4). Preliminary results demonstrate a strong gendered division of labour, with men constituting nearly 70% of

Experiences of Guyanese Women Miners

A young woman barely out of her thirties; well-educated and confident, she has been mining for over 5 years. Her interest in mining started as a child, listening to the stories from her father, a worker in a large-scale mining company. She knew from that young age that she wanted to get into mining. Years later, she planned to work with GGMC, the government's regulatory body for mining. While it was only indirectly related to mining, it would allow her to travel to the interior and engage with miners. When an opportunity to work with a well-known miner was offered, she quickly accepted. She now has experience in prospecting, using mercury free technology and has gained the respect of her workers and males in the mining industry. This is quite an achievement since women are often dismissed in mining due to perceptions of women's 'fragile' nature. She attributes her success to being quick to adapt. She is familiar with backdam conditions and can function with poor washrooms, different foods, and limited drinking water sources. Along with the joys of finding gold, she has also experienced the lows of working hard and spending money but finding no gold. In this regard, she encourages anyone interested in pursuing mining as an occupation to have another income stream.

miners. The need for income generation and the fact that education is not needed, were cited as primary reasons for entry. The study further finds that women face gender stereotyping that limits their expectations or interests of becoming more engaged, as well as challenges related to balancing mining with domestic and caregiving responsibilities. Like men, women reported the necessity of income as the driving force for engaging in mining. This assessment fills a critical gap in documented knowledge, which will be useful for effective and equitable shifts to mercury-free mining in Guyana (Bailey, unpublished).

Health impacts on women are still largely under documented in Guyana but follow similar patterns to other studies.

Women in indigenous villages near mining areas were found to have hair mercury content higher than the recommended WHO levels (10 ug* g-1). These elevated levels (on average 26.58 ug*g-1) were explained by regular consumption of contaminated carnivorous fish due to mercury being dumped into water sources (Watson and Chin 2018; Watson et al, 2020). There have also been cases of female miners dying due to collapsed mining pits.

Guyana PlanetGOLD Project

Since 2018, Conservation International-Guyana has been implementing a Global Environment Facility Funded project to reduce and eliminate where feasible the use of mercury in Guyana's ASGM sector.

The project aims to create market incentives for private sector actors in the sector to adopt mercury-free practices[3] . The project operates in 3 administrative regions (see map) which overlap with key mining districts.

Map of Guyana displaying the three (3) regions where the project will be implementing its activities.

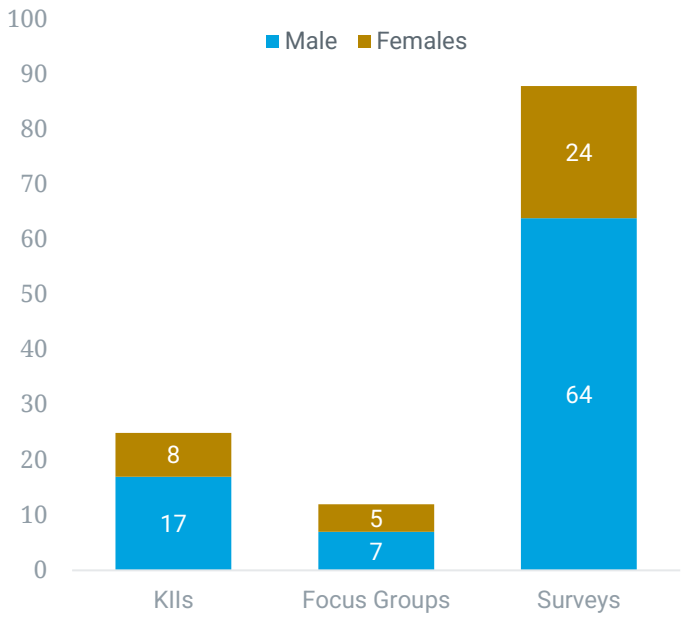
Gender equity is a cornerstone of this project.

Recognizing the unique roles that both men and women play in this sector, and the varied challenges that they face in engaging and benefiting from this type of project, there is a focused and proactive approach within this project to understand and respond to gender dynamics within the Guyana ASGM sector. At the time of project design, there was no comprehensive data about gender in the ASGM mining sector in Guyana and it was incumbent upon the project to produce this. This involved an in-depth gender analysis within the project context and the development and implementation of a gender action plan.

[3] https://www.thegef.org/project/gef-gold-supply-chain-approach-eliminating-mercury-guyana-s-asgm-sector-el-dorado-gold

Methodology

Information, both qualitative and quantitative, has been collected in various ways since the start of the GEF GOLD project. The primary body of research was a gender and social analysis carried out from January to February 2020 across the project's three administrative regions and the capital city, Georgetown. This research has been supplemented with additional individual interviews with women miners, observational data collection from other project sites, and discussions with other mining stakeholders.



Graph: Breakdown from the Gender and Social Analysis Report of Data Collection Type and Participants' Gender

The gender and social analysis employed included desk review of secondary information, and key informant interviews (17 men/8 women), focus groups (7 men/5 women) and surveys (64 men/24 women) with gold mining practitioners and ASM stakeholders. A total of 128 people were interviewed: 86 men and 42 women[4] . Of those, 18% of women indicated that they were involved in the business of mining with an average 18±8.40 years of experience in ASGM. 81% of men reported being directly involved in mining with an average of 18.42 ±12.94 years of experience mostly working in the field in various roles, directly involved in mining.

The project also conducted a mining assessment that provided additional gender-related information. The study was conducted from May to September 2019 in Regions 1, 7 and 8, employing a desk review of secondary literature and a survey of gold mining camp workers. A total of 98 people were interviewed: 88 men and 10 women. Of those, 70% of women were directly involved in mining operations

[4] Detailed methodology can be provided by CI upon request.

with an average of 19 years' experience in the ASGM field. Of the 10 women, 8 were the main breadwinners for their families, and half of these women supplement their earnings from mining in other areas.

This robust collection of data has been supplemented by additional interviews and site-based/observational research. When in the field, the project team would always engage any woman they saw around the mining camps. These would often be spouses/significant others of miners, shop owners and/or keepers and cooks. Based on observation, cooking is the expected role of a female if she is part of the camp.

As an activity of the project, interviews with women miners who have experience or are interested in responsible mining are conducted and video recorded. Information is collected about the reason/s the miner started gold mining, reasons for changing to responsible mining, concerns about changing from previous mining methods to responsible mining methods, and specific experiences with mercury free and/or responsible mining technology or techniques.

Findings: Key Gender Issues within the ASGM sector in Guyana

Women's Roles in the ASGM Value chain in Guyana

There is great variety in how Guyanese women are engaged in the ASGM sector and found consistently along the value chain.

Women largely tend to be in auxiliary roles (e.g., operating shops, providing domestic labour, commercial sex work, supporting their partners by procuring and sending supplies such as ration, fuel, personal care items, etc.). Women are also engaged, although to a lesser extent, directly in mining. Women (particularly single women) are increasingly working as unregistered 'pork-knockers'; these roles tend to be the least renumerated livelihoods within the value chain. Our interviews revealed that more women (81%) than men (44%) reported not knowing about or not being able to access technical training. However, this may be changing in some places, particularly those closer to mining operations; for example, at a recent GGMC training for general managers of small and medium scale mining operations, nearly 70% of attendees were women and this was attributed in part to the trainings being located in mining areas, not in the capital.

Women are mostly not involved in mercury use and processing of gold.

Photo: Gold Shop Owner about to burn gold.
It is rare to find women working in gold shops in Guyana.

In the interviews with women in direct mining positions, about a quarter reported handling mercury, but that they are more than 20 ft. away from the fumes when burning. Most women (75%) interviewed expressed not to be in direct contact with mercury. Miners described mercury use as the most effective and cheapest way of obtaining gold that could be used in several ways during the process - thrown in the excavator, sprinkled in pits and buckets, mixed in the batel without the use of gloves, thrown in the sluice box. Men reported using an average of 3-5 ounces to as much as 1lb of mercury

to obtain 10 ounces of gold. Of the 48 men who were directly involved in mining, 46 men reported handling mercury, of which 37% (16 persons) did not have skin contact and stood an average 16ft away (65% of the 46 men). Only 35% of the men used PPE and 30% used a retort. Otherwise, Mercury is burned in a tin or pan either on a stove or with a torch outdoors. While a few persons said they did not know about retorts, most persons were aware of its efficiency in trapping mercury but said that it is costly and more suited for larger scale mining operations. The interviews further indicate that 89% of women and 66% of men were not aware of any potential alternative that can replace mercury to extract gold.

"Women need to forge ahead and take risks; brave the inequalities until it becomes the norm and prove to themselves and everyone else that they deserve to be there."
(Key Informant)

It is difficult to discern the level of participation of women at the retail end of the value chain.

For instance, most of the interviews with gold dealers indicated that they purchase gold from small and medium scale miners, who are often from within their mining district, and who are usually men. Gold buyers estimated that approximately 2 out of 10 persons that enter their premises to conduct business are women. Women who come to their shops specifically to sell gold, indicated that they are doing business on behalf of their husbands/partners. Only one of the gold dealers reported that he frequently purchases gold from a female miner.

There are examples of women who hold greater power in the sector, as landowners, mining operators, and as mining decision-makers within the mining sector.

Specifically, some agencies, ministry departments, and organizations are either headed by women or have women in executive positions. There is a perception that women are better suited to office roles rather than at (mining) operation levels, as it is believed that women are better administrators and managers. For example, GGMC shared that their Director of Administration and CFO are women, the head of the National Working Group for the implementation of the Minamata Convention is a woman, Head of the Department of Environment is a woman, and two senior Directors at the GGB are women. GGMC now has more female field officers, whose roles place more women in an environment where they can ascend the ladder to become leaders within this field.

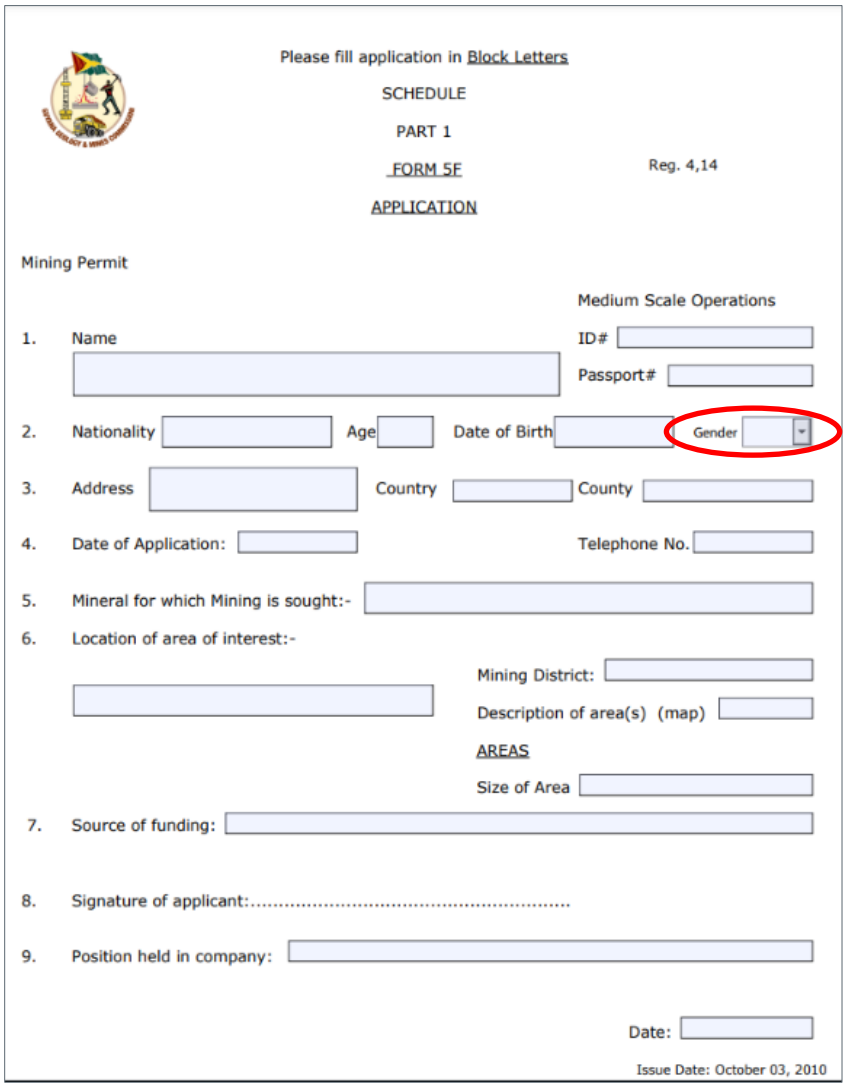
Challenges Specific to Women in the ASGM Sector in Guyana

KIIs and KAP interviews suggest that women are more likely to experience a lack of access to land, licenses, and credit. In many cases, traditions, and cultural norms prevent women from exercising their rights to fair wages and from being relegated to ancillary and service-oriented work (e.g., cooks, cleaners, shop keepers, sex workers, etc.), and their work is often disregarded and unrecognized.

Policies and regulations are largely gender blind.

- **Despite gender policies, change is slow in the mining sector.**

From the perspective of Government KIIs, according to law, policies, and regulations that govern the system, there is no distinction between genders within the sector (it is gender-blind). There is a standard criterion, and once this is met anyone or everyone can access resources and services offered. In 2018 the Guyana Ministry of Social Protection released a National Gender and Social Inclusion Policy which aims to mainstream gender



Please fill application in Block Letters

SCHEDULE

PART 1

FORM 5F Reg. 4,14

APPLICATION

Mining Permit

Medium Scale Operations

1. Name ID#

Passport#

2. Nationality Age Date of Birth Gender

3. Address Country County

4. Date of Application: Telephone No.

5. Mineral for which Mining is sought:-

6. Location of area of interest:-

Mining District:

Description of area(s) (map)

AREAS

Size of Area

7. Source of funding:

8. Signature of applicant:.....

9. Position held in company:

Date:

Issue Date: October 03, 2010

GGMC Application Form for a Mining Permit. A space to indicate gender is present.

issues across all sectors. While there is some movement in this direction across government agencies, the GGMC does not yet have a strategy that is inclusive of gender and operates from a gender blind or gender-neutral position. As an example of a step in the right direction, the GWMO has successfully advocated to the GGMC Board to develop mining claim application forms that record the gender of applicants.

Financial barriers

- **Financial barriers are high for miners, and especially so for women.**

Generally, small and medium scale miners are considered high-risk by banks leaving most to pursue informal and unregulated private loan systems (or 'gentlemen agreements') where men have more access. Women often do not have the same level of financial independence as men, and while a few are able to access funds through the established system for their start-ups, many (or most) work their way up, starting with small investments in providing service and slowly building towards purchasing a small operation (dredge). Women are held to much higher standards than men, for example they are more likely to have to prove some form of success – e.g., already own a small operation - in mining to be taken seriously for financing.

While women can and have been able to access funding through these sources, it is understood that most of the lending sources prefer to have these arrangements with men, so it is not that there is no access to finance for women miners, it is just more difficult compared to male miners.

"Women often do not have the same level of financial independence as men…"

Limited access to, use and control over resources.

- **Land allocation for mining concessions is a challenge for women miners.**

The process of government land allocation is open to all and is meant to treat everyone equally, however challenges often arise when there is conflict over tenure where those with more connections and resources prevail. Having access to sites and lands to work is a significant challenge for small and medium-scale miners as most of the available sites are owned by individuals who issue informal (non-binding) contracts to the smaller miners (or are unreachable due to their location)."Landlordism" is common and is also unfavourable to women. Both men and women expressed that, male landowners are often hesitant in permitting women miners to prospect and mine their land. Moreover, in scenarios where a landlord moves to re-possess land after gold is found, women miners are more vulnerable to being evicted than men.

► **Indigenous women, in particular, do not have access to or ownership of land.**

Indigenous communities share ownership of their village lands; therefore, no individual member (male or female) can use the land as collateral for financial loans. These communities shared examples of some cases where villages have used their lands as collateral to invest in mining. However, it was noted that this approach can be flawed in terms of overall leadership and management, and that those villages are not seeing the benefits (in terms of their overall development) and are currently experiencing extremely high levels of social issues such as teenage pregnancies, drugs and alcohol abuse, domestic violence, etc., which are issues often linked to mining communities. Indigenous leaders pointed to a lack of coordination among agencies in charge of the extractive industry, the allocation of concessions on 'sacred' village lands without proper consultation and the impact on indigenous women in particular who do not have access to or ownership of land.

Photo: Indigenous women walking. Indigenous women cannot use land as collateral for financial loans.

Exploitation and safety

- **Women miners and those in auxiliary jobs are at risk of exploitation and safety.**

The main concern is that women are more likely to be subject to exploitation (e.g., bullied, trafficked) as compared to men. In the case of youth (below 25 years old), participation in the sector exists; this is mostly either employed by a dredge owner or working in the family business. There is no information on how they are remunerated. It was also highlighted that younger people (minors) - particularly boys who drop out of school to work and support their families - are working in mining. While there are no records compiled either at the levels of the ministry or GGMC, there is anecdotal evidence to indicate that this is an ongoing issue for both boys and girls.

- **Gender-based violence was an issue raised consistently in the interviews.**

This includes battery and assault of women by their male partners or employers, sexual violence and exploitation, abuse. It is important to note that this is happening in an environment where there is no accountability or control since reports - particularly of gender-based violence against women - to the police within mining communities usually conclude by them determining that it is a 'private matter'. GGMC asserts that those (social) matters are not within their purview, and the Ministry of Labour in their response for an interview at the time indicated that they do not currently have a mandate to oversee matters within the ASGM Sector. Meanwhile, KIIs indicated that these institutional gaps exist within an environment where there are frequent reports of women miners being brutally abused and robbed by their partners; women who go to work in the "back dam" and are not paid; and often young people are trafficked and made to work. It was also highlighted that in mining there is the high prevalence of drugs and alcohol, generally used by the majority of dwellers in the back dam and seen as a norm. These are seen as significant contributing factors to the violent nature of the mining environment.

- **Infrastructure in mining areas provides additional challenges and safety concerns for women.**

Mining camps are often make-shift, offering the bare minimum in terms of healthcare services. Safe housing is limited, and bathroom facilities have little to no privacy. There are frequent reports of women miners who are brutally abused and robbed by their partners, women who go to work in the backdam and are not paid, and often young people who are trafficked and made to work. It was also highlighted that in mining there is the high prevalence of drugs and alcohol abuse. Substance use and abuse is somewhat seen as a norm and is a contributing factor to the violence in mining areas.

Photo: Mining area in Region 7.

- **Indigenous communities are at high risk of exploitation.**

Indigenous community leaders voiced social issues as an area of high concern for their communities, including concerns about school dropouts, high levels of exploitation, low levels of literacy, low social morale, teenage pregnancies, and influences of drugs and alcohol. Indigenous women are also much more vulnerable to acts of violence, sexual exploitation and/or forced sex work. Indigenous communities are also often the "hunting grounds" for Trafficking in Persons (TIP) victims.

Traditional beliefs and perceptions inhibit women.

- **Contributing to physical and economic barriers, the complex and long-standing beliefs, and perceptions about women in mining create a significant barrier.**

Nearly ¾ of the women interviewed agreed that local culture and traditional values determine their access and participation in various occupations along the value chain. In contrast, less than half of men declared a similar level of agreement of the relevance of local culture and traditional values precluding women from participating in any occupation along the value chain. Women especially believe that their work does not get the same value as men. Even when performing similar roles, men get more respect and get paid more for the same type of work.

- **Women are still very much held to traditional standards within the mining sector, and consequently at all levels of the value chain.**

It is a common belief that mining work is more suited to men, and points to the "delicate nature" of women not being able to perform the physically difficult tasks of working at mining operations. Many people also believe that the role of women is to fulfil their family commitment by providing stability and nurturing for their immediate and sometimes extended family. There are also negative stereotypes of what 'women are doing in the backdam'. The perception is that women only work in mining as sex workers. This perception puts a lot of women at risk of gender-based violence and contributes to a hostile mining environment where their safety is often threatened. Interviews with male gold miners revealed the common perception that women are not suited for the mining sector as the work is too strenuous. They are seen mainly fulfilling ancillary roles and/or in domestic capacities - taking care of the family. Additionally, women who go into the back-dams to work are often assumed to be engaged in sex work, whether or not that is the fact.

- **Traditional gender roles can restrict women's ability to fully engage in ASGM.**

Like in most societies, women in Guyana hold primary responsibility for childcare and household duties. This limits their available time to engage and benefit from this lucrative livelihood.

Enabling conditions

- **When women organize, their voice and influence is greater.**

Women miners who were interviewed stated that being in an association that is recognized within the system is helpful in navigating the complex and cumbersome processes. Guyana Women's Mining Organization was identified as one of these associations which has been key to brining a voice to women in mining.

- **When being associated with respected male miners helps to convey respect.**

It was reported by at least one female miner that her association with her father and mining partner, both of whom are also in mining and well respected, has helped her to be more accepted. She speculates that if she was not linked to these men that she would have had a harder time as a woman miner and a possible subject of disrespect.

- **Connecting with other women may provide some support.**

While it was not specifically reported in any interviews, it is possible that having other women in the mining camps – especially others who are also mining – could be an enabling factor for women miners. The project team has heard of a group of women, including punters and cooks, in one area who possibly came together as an informal support system for each other.

Summary of Challenges Specific to Women in the ASGM sector in Guyana

Gender Blind Policies and Regulations may not cater to specific difficulties encountered by women.

Financial Barriers can be particularly high for women miners

Women Miners and those in auxiliary jobs are at risk of exploitation and safety

Access to information is uneven.

- **Knowledge about the health impacts of mercury was consistently higher in men than women across a series of questions related to exposure routes, side effects and safer practices.**

In the interviews, it was clear that men had higher awareness of the health effects of mercury (65% of men vs. 48% of women), possibly in part because they have more direct exposure to the substance, but also likely because of access to information of this kind is directed towards men more often than women. Interestingly, men's risk perception of mercury was lower than that of women, reporting that they felt least likely to be affected and felt protected either because of religious beliefs or use of protections (e.g., against evil spirits or for good luck). These findings are consistent with studies done in indigenous communities in the South Rupununi (Watson et al., 2020) where the nonchalance and disbelief in the risks were high and translated to higher risk-taking when interacting with mercury. Only 35% of the men used personal protective equipment and 30% used a retort. Otherwise, Mercury was burned in a tin or pan either on a stove or with a torch outdoors.

- **Awareness about alternatives to mercury is low, more so among women.**

The interviews highlighted that the majority of men (66%) and women (89%) were not aware of any potential alternatives to mercury for extracting gold.

Summary of Challenges Specific to Women in the ASGM sector in Guyana Cont'd

Traditional gender roles and perceptions inhibit women in the ASGM sector.

Women may need to connect with other women, organization or respected males in the sector to move forward in mining.

Access to information about mercury and alternatives to mercury may be more geared to men.

Conclusion

This research complements and closely aligns with the limited body of literature documenting women's and men's roles in ASGM in Guyana.

The National Action Plan's socioeconomic and gender assessment (Bailey, unpublished) was not available when the PlanetGOLD Guyana project began, and it was therefore necessary to collect and analyse this information. The research presented here closely aligns with the findings of the NAP's assessment, including the roles of women and men in the sector, the push and pull factors bringing them to gold mining, and the challenges and barriers unique to women. Together, these two studies provide a solid baseline overview of the gendered aspects of ASGM in Guyana.

There are clear opportunities for making the Guyanese ASGM sector more gender responsive, which can support more efficient and environmentally friendly mining.

Photo: Miners at the Second Finance Roundtable (2021)

Considering the number of challenges that women face as a participant along the value chain of the ASGM, women have managed to remain active, performing and contributing in different ways. These roles include those that were perceived as being done uniquely and successfully by men: work in the pits, as managers, and/or as concession owners. By providing women equal opportunities and enabling their full participation in various activities along the value chain within the Guyanese ASGM, it seems more likely that women's contribution can facilitate the adoption of more responsible mining

operations which also provide more sustainable livelihoods. There is still much to document about the various channels that may occur from pit to the consumer and understanding how barriers can be removed to allow access, should women want to occupy more roles along the value chain.

The PlanetGOLD project is using this information to inform and influence its efforts to effectively engage both men and women in responsible mining practices.

Following information gathering, the project designed a gender action plan which lays out key areas of potential risk and opportunities to enhance benefits of the project to women and men. For example, the plan includes:

- Document women miners' stories so that their experiences may be better understood, including a Women in Responsible Mining video series.
- Providing suitable conditions (such as transportation, provision of snacks and childcare services) to support women's participation at workshops/trainings on mercury-free technologies.
- Ensuring gender is integrated into all relevant project consultancies.
- Sensitizing and building capacity of the Project Steering Committee, project team and sub-grantees on the project's gender analysis and action plan.
- Providing tailored information for male and female pork-knockers on safe practices and appropriate solutions for reducing mercury use.

Recommendations For Further actions to Make Guyana ASGM Gender Responsive.

By providing women equal opportunities and enabling their full participation in various activities along the value chain within the ASGM sector, it seems more likely that women's contribution can facilitate the adoption of more responsible mining operations. The adoption of these responsible mining operations will also ensure more sustainable livelihoods. It is also important to note that it was expressed in several KIIs, that women miners are more willing to transition to mercury-free operations. They are more understanding of the challenges (and care more about the consequences and negative impacts) and are therefore more likely to adapt.

Photo: Small Miner using a batel to get gold.

At a minimum, ensure that the shift to mercury-free technology does not disproportionately impact vulnerable women.

There is a perception, shared in several KIIs, that new technology will reduce the number of basic laborers needed at mining operations and instead rely on more skilled workers, which would have direct impacts on livelihoods. The technology that the GEF GOLD project is promoting is mainly for the amalgamation process and will not affect the number of workers needed for the gold to get to the amalgamation stage. Another facet of increased technology is that, with a switch to more effective methods of extracting gold, there is no gold left in the tailings pond in the mining camp areas; this means that pork-knockers, who usually go into the mined-out areas, have no means of finding gold in these places anymore. As we indicated above, women are increasingly engaging as pork-knockers, so this does pose some possible livelihood implications.

Design financing mechanisms that are accessible equally to male and female miners.

Recognizing the various formal and informal barriers to financing for miners, and particularly women miners, education, and outreach about how to access loans and easing the process can be helpful. There is a need for understanding loans and what is entailed in the processes of borrowing, accounting, and reporting that may be more difficult for miners without formal education. Perhaps even consider mechanisms for state-managed loans especially for women or financing from both the public and private sector to make their operations profitable and commercially viable. If barriers to formal financing are not reduced, women may continue to turn to informal financing which can put them at risk of indebtedness. The government should consider establishing state-managed loans, and/or simplifying credit mechanisms, especially for women. The government could also provide support for the aggressive mainstreaming of gender in the banking sector, with the help of development organizations that could increase knowledge and awareness for financial services providers.

Ensure that training, access to new technologies, and information is equally accessible and tailored to women and men.

This includes ensuring adequate infrastructure and facilities for women and men at demonstration sites, and training that is accessible at regional levels, closer to where miners operate and live, rather than the capital. It should also include training women in technical know-how in the sector, marketing, management, bookkeeping, and other aspects of artisanal gold mining can also empower them to benefit more from their involvement in ASGM and help address gender inequities.

Tailor communication approaches to different groups of men and women.

This research showed there is a belief among GWMO and GGB that women miners are more forthcoming in engaging in the transition to mercury-free because they are more understanding of the challenges (and care more about the consequences and negative impacts) and are therefore more likely to adapt. This is an opportunity

that should be seized upon if correct.

Design and enforce gender-sensitive policies and legislation relevant to the ASGM sector.

Despite claiming to be gender neutral, policies and programs affect women and men differently, and can serve to exacerbate gender inequalities. Legislation, programs, and projects must be designed to consider gender-differentiated needs with the objective of transforming gender relations and redressing inequities in power, access, and control (Eftimie et al. 2012). There is a need for respective regulatory bodies within Guyana to make sure that current gender-specific policies and legislation are enforced. This will allow both men and women to have equal access to land and licenses. A possible change could be that, instead of the first-come, first-served basis for processing applications, a set number of licenses could be reserved for women.

Support and encourage women's mining cooperatives/groups.

Currently, the GWMO is widely considered the leading authority on gender within the ASGM sub-sector. Being an organization that comprises of women in mining, it continues to be a strong advocate for issues affecting women in the sector and its efforts to influence policymaking, are widely recognized. To complement GWMO's efforts, more support is needed to strengthen effective women's mining groups at the district or community levels.

Encourage the market to be more aware.

Gender inclusivity still needs to be made more visible in the responsibly mined gold market. World Gold Council's Responsible Gold Mining Principles (a new framework that sets out clear expectations for consumers, investors, and the downstream gold supply chain as to what constitutes responsible gold mining) does include a nod to increasing diversity and women within the sector. The principle commits to identifying and resolving barriers to advancement and fair treatment of women in mining workplaces and aims to contribute to the

socio-economic empowerment of women in communities. While these principles are a good starting place, their implementation will be challenging.

Continue building research and evidence

Further gender analysis studies and assessment of the situation as it relates to the allocation of land with quantified mineral resources/reserves in the ASGM sector should be conducted.

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Photo: Project staff conducting surveys with miners in Region 8

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