Rapid Assessment of the Impact of COVID-19 on the Artisanal and Small-scale Gold Mining Sector in Sierra Leone
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Artisanal Gold Council

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The Artisanal Gold Council

The Artisanal Gold Council (AGC) is a not-for-profit NGO dedicated to improving the opportunities, environment, and health of the millions of people involved in artisanal and small-scale gold mining in the developing world. Based in Canada, the AGC, has worked in over 25 countries and hundreds of artisanal and small-scale mining communities around the world on topics including but not limited to: community development, poverty reduction, formalization, mining policy, markets and supply chains, public health, environmental management, mining engineering, and human rights.

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### Abbreviations

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<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGC</td>
<td>Artisanal Gold Council</td>
</tr>
<tr>
<td>AGM</td>
<td>Artisanal gold mining</td>
</tr>
<tr>
<td>ASGM</td>
<td>Artisanal and small-scale gold mining</td>
</tr>
<tr>
<td>COVID-19</td>
<td>Coronavirus disease variant 2019</td>
</tr>
<tr>
<td>ECOWAS</td>
<td>Economic Community of West African States</td>
</tr>
<tr>
<td>EnGAGE</td>
<td>Enabling and Growing Responsible Artisanal Gold Enterprises</td>
</tr>
<tr>
<td>EOC</td>
<td>Emergency Operations Center</td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
</tr>
<tr>
<td>GBV</td>
<td>Gender-based violence</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross domestic product</td>
</tr>
<tr>
<td>GNI</td>
<td>Gross national income</td>
</tr>
<tr>
<td>GoSL</td>
<td>Government of Sierra Leone</td>
</tr>
<tr>
<td>LBMA</td>
<td>London Bullion Market Association</td>
</tr>
<tr>
<td>LSM</td>
<td>Large-scale mining</td>
</tr>
<tr>
<td>MMMR</td>
<td>Ministry of Mines and Mineral Resources</td>
</tr>
<tr>
<td>MRU</td>
<td>Mano River Union</td>
</tr>
<tr>
<td>NaCOVERC</td>
<td>National Coronavirus Emergency Response Center</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-governmental organization</td>
</tr>
<tr>
<td>NMA</td>
<td>National Mineral Agency</td>
</tr>
<tr>
<td>TBD</td>
<td>To be determined</td>
</tr>
<tr>
<td>UAE</td>
<td>United Arab Emirates</td>
</tr>
<tr>
<td>USD</td>
<td>United States dollars</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
</tbody>
</table>
The artisanal and small-scale gold mining (ASGM) sector in Sierra Leone is increasingly recognized as a vital part of the country’s overall mineral development strategy and an essential livelihood activity for over 80,000 miners in the country. Further developing this, mostly informal subsector, while enhancing its positive contributions to the country and minimizing its social and environmental costs has been central to minerals policy as expressed by the updated Mines and Mineral Act, the Artisanal Mining Policy of 2018 and the National Action Plan for mercury reduction in ASGM. However, largely due to its informal nature, this sector is still poorly documented and ill-understood. This lack-of-awareness extends to an understanding of the impacts of the global COVID-19 pandemic on ASGM in Sierra Leone.

Since the COVID-19 index case for Sierra Leone was reported on March 30, 2020, the country has developed a public health response that, amongst other measures, has imposed national lockdowns, has restricted movement and trade of people and goods, has required the closure of land borders, and has restricted non-commercial international flights. All of these measures, while part of a strategy to keep Sierra Leoneans safe, have affected the ASGM sector which is highly mobile, and requires constant cash flow through domestic and international gold supply chains. Furthermore the population practicing ASGM is predominantly rural, predominantly poor, and generally has few realistic alternative livelihood opportunities. This population already faces multiple risk factors for morbidity and mortality. Therefore the impact of COVID-19 had the potential to be felt strongly by ASGM communities both through livelihood disruption as well as through direct health impacts.

This study, part of the Enabling and Growing Responsible Artisanal Gold Enterprises (EnGAGE) project, was undertaken to determine what the impact of COVID-19 on the ASGM sector in Sierra Leone has been. Surveys and key informant interviews were conducted with a variety of stakeholders in two artisanal gold mining chiefdoms throughout December 2020. The study was designed to help answer the following questions:

1. How have gold prices changed throughout the COVID-19 pandemic at the site, inter-district and export levels?
2. How have miner’s livelihoods and well-being been affected by the COVID-19 pandemic?
3. Have the impacts of the pandemic on male and female miners been different?

Results from this rapid assessment indicate that the economic and gender impacts that the COVID-19 pandemic had on the sector and ASGM communities were significant, but temporary. The sector has made a rapid recovery from disruptions to its supply chains and is now operating in a manner indistinguishable from pre-pandemic.
Amongst the impacts measured, gold prices paid to miners dropped by as much as 48% between February and March 2020. This occurred while the London Bullion Market Association (LBMA) spot price, which reflects the international trading price of gold remained steady or even climbed. This price drop occurred as international routes for gold to exit the country by air and over land borders were closed. At this point in time gold buyers became increasingly infrequent at ASGM sites and demand for artisanal gold dried up.

The virus itself does not appear to have affected the health of ASGM communities differentially from other communities in Sierra Leone, although it is hard to know since public health surveillance activities are infrequent in these communities. Miners tended to be reasonably aware of the virus, its symptoms and measures that could be taken to prevent its spread, meaning that public health messaging was effectively delivered to these communities. 85% of miners surveyed could list at least one symptom of COVID-19 infection and the same number could identify at least two personal measures they could take to limit its spread.

Miners reported that during the period of national lockdowns and restrictions on movement/trade, they experienced significant income loss and resorted to livelihood switching as travel to mine sites became difficult and local gold prices cratered. Meanwhile miners reported that the price of rice and other basic goods increased by as much as 35%, that they were unable to access essential health services like maternal and child care, and that the impacts of the virus and associated public health measures were felt differently by women and men. In particular, single mothers who had primary income generation responsibilities as well as the expectation to provide child and family care, felt the income loss and the additional family burdens more keenly than their male counterparts.

Although the sector has made a swift recovery with gold buying prices returning to all-time highs and employment and cost of living prices rebounding, the COVID-19 pandemic has revealed that the ASGM sector is highly vulnerable to future disruptions or shocks. Much of this vulnerability can be traced to the informality of its operators and supply chains. As it stands, these supply chains, which operate illicitly, cannot be reinforced or propped up by the state and its actors during times of crisis to protect the livelihoods of artisanal gold communities. A number of recommendations to reinforce the robustness of the sector and its communities against future disruptions are therefore made. These recommendations focus on enhanced awareness and recognition of the importance of the sector in emergency preparedness strategies, the diversification of gold supply chains, improving supports for formalization efforts, and planning for differential impacts on men and women.
Figure 1: Political Map of Sierra Leone showing its 16 Districts.
1.1 ASGM in Sierra Leone

Mining is a crucial industry in Sierra Leone that contributes enormously to the country’s economic progress and outlook. In 2018, prior to the COVID-19 pandemic, mined products accounted for 64% of the country’s total exports and thus made up a large percentage of the country’s balance of payments. Sierra Leone is best known for its rich rutile, bauxite, iron and diamond deposits, however increasing attention has been paid of late to the country’s gold sector. In 2019 it was estimated that over 125 million USD worth of gold was produced in the country which rivals or surpasses the market value of the country’s other mineral resources.

Unlike the other major resources mined in the country, gold is mined primarily at the small or artisanal scale. This kind of mining is characterized by its low capitalization, high labour input and overarching informality. As such the artisanal and small-scale gold mining sector is largely absent from the country’s GNI and GDP reporting, however the sub-sector is nonetheless critical to the nation’s economic and social development. It has recently been estimated that over 80,000 people derive their livelihood directly from the ASGM sector and that ASGM supports up to 2 times as many people through complimentary and downstream livelihood activities. Many of those employed in the sector are people otherwise underrepresented in labour statistics including young people, women and people living in rural areas. Income earned from gold mining allows many of these underemployed individuals to feed their families, pay their children’s school fees, purchase essential medicines and otherwise look after their basic needs.

Unlike most other mineral deposits, gold can be found and exploited at the artisanal level throughout many parts of the country. The activity is practiced extensively in Karefa, Kainadugu, Tonkolili, Bo, Kono, Kenema and Kailahun districts with sporadic occurrences documented in all other districts across the country except The Western Area and Bo. Table 1 and Figure 2 describes the location of the major ASGM zones in the country.

---

2 EPA (2019). The ASGM Overview of Sierra Leone.
3 During the pandemic, The country’s only industrial scale mine, the Dayu Gold Mine in Tonkolili district, suspended operations. In 2021 A mining license was granted to FG Gold, operating in Bo district, however FG Gold has yet to begin commercial-scale production. Wongor Mining Company now operates the large-scale gold deposit at Komahun in Nimikoro Chiefdom, Kono district.
4 EPA (2019). The ASGM Overview of Sierra Leone.
Table 1: Location of major ASGM zones in Sierra Leone

<table>
<thead>
<tr>
<th>Region</th>
<th>District</th>
<th>Major Mining Communities</th>
<th>Geological Group/ Greenstone Belt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>Karena</td>
<td>Laminaya, Campala, Fintonia</td>
<td>Loko Group</td>
</tr>
<tr>
<td>North</td>
<td>Koinadugu</td>
<td>Dalakuru, Lake Sonfo area, Makoni, Kamanro</td>
<td>Sula Mountains</td>
</tr>
<tr>
<td>North</td>
<td>Tonkolili</td>
<td>Kasafoni, Makong, Mansumbirie, Yele</td>
<td>Sula Mountains</td>
</tr>
<tr>
<td>East</td>
<td>Kono</td>
<td>Kumahun, Gbani, numer 9, Bumphe, Gandon</td>
<td>Nimi Hills</td>
</tr>
<tr>
<td>East</td>
<td>Kenema</td>
<td>Kambui Hill, Njebeh</td>
<td>Kambui Hills</td>
</tr>
<tr>
<td>East</td>
<td>Kailahun</td>
<td>Jama, Sengema, Grima, Salima, Saluwa</td>
<td>Gori Hills</td>
</tr>
<tr>
<td>South</td>
<td>Bo</td>
<td>Baomahun, Lablama, Gbetema, Kortihun</td>
<td>Kangari Hills</td>
</tr>
</tbody>
</table>

Figure 2: ASGM activity in Sierra Leone. Source: EPA (2019). Note that this figure does not depict gold panning and diving activities, nor does it depict gold processed as a by-product of diamond mining which occurs in Kono district.

A significant proportion of the mining population is young and mobile which suits a sector where minor gold deposits can be discovered and exhausted over the course of a few years. It is estimated that nearly half of all artisanal miners in the country are female, and that out of this population, the vast majority work independently or in small groups panning alluvial deposits in the dry season when agricultural production drops.
Most miners actually practice ASGM as a livelihood strategy that intentionally compliments the agricultural cycle in order to earn a continuous income stream year-round. As such, ASGM acts as a kind of safety net for the more than 50% of Sierra Leoneans who rely on farming as their main family livelihood.

Due to the geographically dispersed nature of the geological resource, the seasonal nature of the activity which can be practiced during unproductive agricultural months, and the low-barriers to entry, ASGM has quickly become an activity that underpins large swaths of the country’s economic and social stability. The effect of shocks to the sector, whether they be market driven, policy driven or driven by natural phenomena such as viral outbreaks, should thus be carefully managed in order to ensure minimal lasting adverse impacts on much of the country’s rural population.

1.2 COVID-19 in Sierra Leone

One such recent shock to the global economy has been the COVID-19 pandemic and the various national responses to the virus. The index case for COVID-19 infection in Sierra Leone was recorded March 30th 2020 in Freetown. At the time of authorship of this report, three distinct infection “waves” have been observed, the first peaking in early-June 2020 and then declining until a second wave was recorded mid-December 2020 to mid-February, 2021. The most recent wave began in early June 2021 and lasted until mid-August of the same year. Reported infection rates have been low compared to the rest of the world. As of September 30, 2021, 6,394 cases had been recorded in the country, for an infection rate of approximately 780 people per million. This is amongst the lowest in the world although it is widely recognized that due to poor public health surveillance and testing, the actual number of cases are likely much higher than what has been reported. Recent work analyzing antibodies to SARS-CoV-2 also indicates that greater than half of the population of Sierra Leone has already experience at least one COVID infection, despite low reporting.5

![Graph showing daily new confirmed COVID-19 cases in Sierra Leone]

Figure 3: Daily new confirmed COVID-19 cases. Source: Our World in Data; John Hopkins University CSSE COVID-19 Data.

5 Eg: (Barrie, 2021)
Figure 4: Cumulative confirmed COVID-19 cases per million people. Source: Our World in Data; John Hopkins University CSSE COVID-19 Data. Note that only 16 countries in the world have a lower reported infection rate per million people than Sierra Leone.

As of September 30, 2021, only 121 deaths due to COVID-19 infection had been reported, meaning that Sierra Leone had an official case fatality rate of 1.89% which skews slightly lower than the global case fatality rate of 2.03%.

The Public Health Response

Sierra Leone responded promptly to the COVID-19 pandemic, particularly in comparison to many other African Union countries. As early as January, 2020 the Government of Sierra Leone (GoSL), activated its public health national Emergency Operations Centre (EOC), which was initially established to coordinate the response to public health emergencies after the 2014-2015 Ebola virus disease outbreak. This action was taken shortly after the World Health Organization (WHO) confirmed that a novel coronavirus was the cause of a cluster of respiratory illnesses documented in Wuhan, China but prior to the declaration of a global pandemic which did not occur until March 11, 2020.

The public health response in the country has included a number of measures to improve surveillance, manage cases, increase laboratory and hospital capacity, communicate risk and interrupt virus transmission vectors. The government declared a state of emergency in March 2020 and when a second case was confirmed on April 29, 2020, a three-day lock down was immediately declared. Since then, a broad number of measures have been taken to limit infection rates and deaths. These measures are summarized in table 2.
Table 2: Public health measures introduced to limit the spread of COVID-19 in Sierra Leone.

<table>
<thead>
<tr>
<th>Public Health COVID-19 Response Measures</th>
<th>Time frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarantine of positive cases and of new arrivals to the country</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Contact tracing</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
| National and localized lockdowns including the pause of all non-essential business activities | April 5-7, 2020  
| | May 3-5, 2020 |
| Restrictions of movement and trade between districts | April 11 to June 23, 2020 |
| A national public curfew | Ongoing with variable times |
| Closure of schools, entertainment centers and religious institutions | Closures lasted April 2020 to July 2020. Measures to limit the duration of gatherings at certain institutions are still in place |
| Closure of the Lungi International Airport | March 16, 2020 to July 22, 2020 |
| Closure of land borders with Liberia and Guinea to passenger transit | March 16, 2020 to July 22, 2020 |
| Closure of sea borders to passenger transit | March 16, 2020 to July 22, 2020 |
| Mandatory wearing of facemasks on public transportation and in public spaces | Ongoing |
| Public outreach campaigns to teach handwashing, social distancing and other preventative measures | Ongoing |
| Testing of travelers | Ongoing |
| Initiation of a vaccination readiness and deployment program (COVAX) | Initiated January, 2021. Ongoing |

Unlike many other countries, Sierra Leone did not impose an extended lockdown that lasted for many weeks or months. This was due to an overriding practical and political concern over the negative economic consequences of overly restrictive limitations on the movement of goods and people. Instead, two 3-day lockdowns, policies of social distancing and a temporary ban on inter-district travel have been implemented, although voluntary compliance rates are often low. The National Corona Virus Emergency Response Center (NaCOVERC) has disseminated information on prevention and treatment of COVID-19 and has encouraged citizens to continue to seek medical care for non-COVID-19 related diseases. Research, information dissemination and health delivery initiatives responding to the pandemic have also been undertaken by a wide range of national and internationally-based non-governmental organizations (NGOs).

Figure 5: COVID-19 prevention campaign roll-out. Trocaire, 2020
This study was carried out in support of the Enabling and Growing Responsible Artisanal Gold Enterprises (EnGAGE) project in Sierra Leone, a project whose goal is to develop a model for responsible artisanal gold production and sale in Sierra Leone. The EnGAGE project began in August, 2020, a time when many countries were in the midst of their first COVID-19 infection waves and when uncertainty about the virus and its impacts were still unclear. Legitimate concerns existed that ASGM communities might be at an increased risk of COVID-19 related morbidity and mortality due to underlying conditions related to occupational health risks including silicosis and mercury induced organ damage. In poverty-driven ASGM communities, livelihood-related risk factors such as malnutrition, lack of hygiene and related communicable diseases, might also increase the severity of COVID-19, causing a higher mortality rate.

At the same time the overarching informality of the ASGM sector in Sierra Leone meant that the markets and supply chains that keep money flowing from international gold consumers to small ASGM communities were fragile and could be easily disrupted. This could in-turn cause the income of miners to be affected or completely eliminated with no public safety nets in place to provide income supports. This, in fact, had been observed in many African countries who had begun to see their local gold markets collapse due to the disruption of global air transportation networks which are the backbone for large parts of their ASGM gold trade.

Decreased demand for gold, or an impaired ability to supply gold could affect ASGM miners in many ways. For example, it could create labour mobility forcing miners to move towards mineral rich areas with fewer restrictions. It could also inflate the ASGM work force as people, impoverished due to other livelihood disruptions, turn towards the ASGM sector to fill COVID-19 created income voids. Impacts may also be felt differently across genders. For instance, women may be forced into increasingly marginalized ASGM roles as an influx of new, predominantly male workers enters an ASGM area. Finally, the entire supply chain which relies on moving gold to other west African countries where it can be hand-carried by air to gold buying centers like Dubai could be disrupted. This might have the effect of creating new gold buying and selling networks as the informal supply chains adapt to conditions which do not allow gold to move within the country or across borders.

The ability of the EnGAGE project to model responsible artisanal gold production under the influence of these COVID-19 effects was unclear and therefore a better understanding of how the COVID-19 pandemic was affecting ASGM communities in Sierra Leone was required. One of the goals of this study was therefore
to better understand COVID-19 as a variable that had created unusual baseline conditions under which to measure the impact of the project.

In addition, the EnGAGE project recognized that major disruptions to the ASGM sector, which supports hundreds of thousands of Sierra Leoneans, were not limited to this pandemic. For example, the Ebola outbreak of 2014-2016 forced an even more restrictive public health response, although little to no information was collected to document how the Ebola crisis impacted ASGM communities\(^7\). A second goal was therefore to document impacts to the national ASGM sector with the goal of providing guidance on how the sector might be reformed in order to mitigate the impacts of any number of future market, policy, or natural phenomena-driven shocks to the sector.

\(^7\) More attention was paid to the effect of ebola on artisanal diamond mining (Eg: (Hilson, 2016) (USGS, 2014)) and certain generalizations from these case studies and analyses may be applicable to the gold sector.
3.1 General Objective

The objective of this study was to survey the nature of the impacts, if any, of COVID-19 on artisanal gold miners and their communities in Sierra Leone. This study seeks to understand in a broad sense the type, severity and duration of these impacts, and by doing so, direct further investigations into COVID-19 impacts on ASGM and generate lessons learned that are applicable to future disruptions to the ASGM sector and ASGM communities.

3.2 Key Questions

The study was designed to help answer the following question:

1. How have gold prices changed throughout the COVID-19 pandemic at the site, inter-district and export levels?
2. How have miner’s livelihoods and well-being been affected by the COVID-19 pandemic?
3. Have the impacts of the pandemic on women and men miners been different?

These questions are fundamental to understanding the ways that COVID-19 has affected the sector and the individuals who make up the sector. The price of gold is used as an indicator for disruptions to gold supply as the price of gold at the site, intermediate, trade and export level generally has a consistent relationship to the international spot price of gold as traded at the LBMA. Changes to the price of gold relative to the international spot price therefore means that gold demand downstream, or supply upstream has been compromised. Based on known COVID effects in other countries, it was hypothesized that gold prices would drop drastically in Sierra Leone’s ASGM communities due to lack of cash flow from upstream buyers who could not move their gold across international borders.8

It was also suspected that due to the drop in gold prices, miners would earn less money for their gold production or labour output. At the same time, the price of basic goods was expected to rise, compounding the impact of decreased miner profits and creating an availability and affordability crisis for essential goods such as rice, fuel and medicine.

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8 Examples of this were documented in the AGC COVID-19 blog: https://www.artisanalgold.org/2020/03/possibleimpacts-of-covid-19-on-asgm-communities/
Finally, differential impacts on men and women have been reported in other countries that have had to impose strong public health restrictions on ASGM communities. These were expected to be observed in Sierra Leone as well.

Whether these impacts would be temporary or would have enduring effects in these communities was one of the central questions of the study.

### 3.3 Research Tools and Methods

As the intention of this study was to rapidly survey the impacts of COVID-19 on Sierra Leone’s ASGM sector, this study focused on two areas known to have significant ASGM activity and to represent different parts of the ASGM spectrum in the country. The first area was Penguia Chiefdom in Kailahun district which has a highly dispersed ASGM population living very close to the borders with Guinea and Liberia, and which is highly connected to gold trade in these countries. ASGM activities in this area are relatively newly established\(^9\). Surveys in Penguia were conducted in the communities of Grima, Jama, Saluwa and Konobendu. The second area studied was the community of Baomahun in Valunia Chiefdom, Bo District, which hosts one of Sierra Leone’s oldest and most ensconced ASGM population with well-established gold trade networks. Although this study is most concerned with impacts at the site level, the gold trading center of Kenema was visited to obtain information on the mid-stream gold trade.

\(^9\) (Environmental Protection Agency, 2019)
Surveys were conducted with miners and gold traders, and interviews were conducted with a variety of stakeholders to gain an understanding of differential impacts between and within these two areas. The participants in these studies were as follows:

- Individual miners (men and women)
- Gang (artisanal mining group) leaders
- Community leaders
- Local Ministry of Mines and Mineral Resources (MMMR) inspectors
- Site level gold traders (site or local community)
- Regional gold traders (hub towns)
- Licensed gold exporters (Freetown)

The majority of field data was collected between 8th and 22nd December, 2020. With additional data collected on gold prices during site visits in March, June and August of 2021.

**Table 3: Interviews conducted in the two gold mining districts surveyed**

<table>
<thead>
<tr>
<th>Chiefdom</th>
<th>Community</th>
<th>Community interviews</th>
<th>Mine site interviews</th>
<th>Gold trader interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penguia</td>
<td>Grima Village</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Penguia</td>
<td>Jama Village</td>
<td>1</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Penguia</td>
<td>Saluwa Village</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Penguia</td>
<td>Konobendu Village</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Penguia</td>
<td>Komabobu Village</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Valunia</td>
<td>Baomahun</td>
<td>1</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>5</strong></td>
<td><strong>35</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>
Impacts of COVID-19 on the ASGM sector

4.1 Gold Supply Chains

Gold Supply Chains Pre-COVID-19

Gold buying in the country is dominated by informal buyers sometimes referred to as ‘jullas’. These gold buyers tend to operate in and around mine sites across the country. Jullas and their employers usually do not have gold selling licenses and therefore work outside of the formal gold trade. This had been the case pre-COVID, remained the case throughout the pandemic and continues at present. Miners generally sell their gold to jullas that they have relationships with within their own communities, although a small number of miners and supporters save their gold and sell it directly to gold aggregators in nearby towns (presumably for a higher price). Some miners do not sell their gold but instead use their gold as currency to buy goods. Dependencies on jullas is largely the result of the remoteness of many gold mining communities and a lack of formal gold buying channels or facilities. This creates a market-niche for nimble buyers who can navigate poor road networks and can bring the gold trade directly to the miners.

Most jullas work for regional gold buyers or aggregators stationed in the provincial headquarters towns such as Bo, Kenema, Makeni, Kono, Kabala, Magburaka and Freetown, although some jullas may in fact work for gold buyers in the neighbouring countries of Guinea or Liberia. In nearly all cases, regional gold buyers/aggregators arrange for their gold to be smuggled into Guinea or Liberia where export taxes are lower than in Sierra Leone. In fact, there are no records of legal gold exports from Sierra Leone for the years 2020 or 2019.

Nearly all of the gold produced by the ASGM sector in Sierra Leone is thought to end up in refineries in the United Arab Emirates (UAE) regardless of whether the gold is exported legally or illegally.

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10 This is particularly the case in Penguia, as many miners have familial and other connections on the Guinean side of the border, and therefore use the porous border to buy goods in Guinea to sell or trade in Sierra Leone.
11 (Comtrade, 2021)
12 This has been confirmed through conversations with both licensed and unlicensed gold buyers in Bo City as well as with NMA officials.
Figure 6: Characterization of gold flows from the two study sites to neighbouring countries.

The price at which gold was bought and sold prior to the COVID-19 pandemic depended on where the seller sat in the ASGM value chain. As reported in the Levin Sources 2018 ASGM financial flows report\textsuperscript{13}, typically, miners earned around 85% of the daily international spot price as set by the LBMA, although reported prices ranged as high as 106%.

\textsuperscript{13} (Hunter & Smith, 2017)
Table 4: Division of value between actors in the Sierra Leone artisanal gold supply chain prior to the COVID-19 pandemic. From (Hunter & Smith, 2017)

<table>
<thead>
<tr>
<th>Value Chain Level</th>
<th>% of LBMA spot price (typical)</th>
<th>% of LBMA spot price (low)</th>
<th>% of LBMA spot price (high)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miners/Labourers</td>
<td>85%</td>
<td>85%</td>
<td>106%</td>
</tr>
<tr>
<td>Regional Gold Buyers</td>
<td>95%</td>
<td>95%</td>
<td>106%</td>
</tr>
<tr>
<td>Exporters / Foreign Buyers</td>
<td>106%</td>
<td>95%</td>
<td>127%</td>
</tr>
</tbody>
</table>

This value distribution along the ASGM supply chain is typical of Sierra Leone and has been confirmed by field studies carried out during the development of Sierra Leone’s Minamata National Action Plan\(^\text{14}\) as well as through data collected by the EnGAGE project\(^\text{15}\). Notably it demonstrates that miners often receive over 85% of the international market value of the gold, however it also demonstrates that gold at the point of export may be valued higher than it could be purchased on the London Bullion Market. This incongruity is puzzling but might be explained in that gold moving through informal channels allows trade that avoids custom duties, facilitates money laundering, enables tax avoidance and provides other illicit services that mean exporters are willing to sell gold into the formal international market at a loss. It may also be possible that gold sold at a price higher than its international value in local currency represents a lack in confidence in the Leone. In other words, gold sellers may value gold as a currency that holds its value better than Leones. Finally, it may be a data bias error as gold traders can be prone to self-reporting higher profit margins than are truly earned.

**Gold Supply Chains During the COVID-19 Crisis**

During the early stages of the COVID-19 pandemic, the gold supply chain both in Greater West Africa and in Sierra Leone appears to have been severely impacted. This is most easily seen through the lens of gold prices at the site level. These prices cratered between March and April, 2020 - the period in which the most drastic public health measures limiting movement of people and goods were put into place. Whereas in the months prior to the pandemic reaching Sierra Leone, miners were being offered between 46 – 63 USD/24k g Au (80 – 109% of the international spot price), in the two mining areas surveyed, during the period of initial COVID response, this price dropped to an average of 35 USD/24k g (61% of international spot price). In other words, there was a loss of 19% – 48% of the gold value at the site level between early February 2020 and end of March, 2020\(^\text{16}\).

This drop in value was not due to an accompanying drop in the price of gold on international markets. During the same period from early February to early May 2020, the London spot price actually climbed from 50.63 USD/g to 54.29 USD/g driven by safe-haven buying and international gold production cuts from large-scale mines (LSM). Assuming that ASGM production either stayed steady or diminished, the drop in price of gold at the site level therefore represents a constraint on the demand side of the gold supply chain within the country.

Indeed, during this period passenger flights in and out of several West African nations involved in the regional gold trade were temporarily suspended as detailed in table 5.

\(^{14}\) (EPA - SL, 2019)
\(^{15}\) (AGC, 2020)
\(^{16}\) It should be noted that similar drops in field buying prices for diamonds, the other major artisanal mining industry in Sierra Leone, were also reported. For instance, in Koakoyima community, Kono district diamonds that were bought at around SLL 5,000,000 per carat (USD 515) before the pandemic are now purchased for only SLL 2,500,000 (KPCSC, 2020)
**Table 5: Countries involved in the West African gold trade and dates of measures that restricted the international movement of gold**

<table>
<thead>
<tr>
<th>Country</th>
<th>Role in international gold trade</th>
<th>Date of airport closure to international passenger flights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sierra Leone</td>
<td>Producer/Exporter</td>
<td>March 22, 2020</td>
</tr>
<tr>
<td>Guinea</td>
<td>Producer/Exporter</td>
<td>March 23, 2020</td>
</tr>
<tr>
<td>Liberia</td>
<td>Producer/Exporter</td>
<td>March 21, 2020</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>Producer/Exporter</td>
<td>March 20, 2020</td>
</tr>
<tr>
<td>Mali</td>
<td>Producer/Exporter</td>
<td>March 19, 2020</td>
</tr>
<tr>
<td>UAE</td>
<td>Purchaser/Refiner</td>
<td>March 25, 2022</td>
</tr>
<tr>
<td>India</td>
<td>Importer/Seller</td>
<td>Beginning March 15</td>
</tr>
<tr>
<td>China</td>
<td>Importer/Seller</td>
<td></td>
</tr>
</tbody>
</table>

As it is presumed that most artisanal and small-scale gold leaving West Africa is undeclared, and that much of this gold is hand-carried on commercial flights to gold importing countries in the Middle-East and Asia, the grounding of these flights is likely to have eliminated the primary channel for gold to move down the supply chain, also freezing the movement of hard currency back up the supply chain to mine sites. Simply put, gold buyers were stuck with a product that they could not move and thus did not have enough liquidity to continue financing regional and local buyers who transacted directly in mining communities. This situation may have been compounded by the intermittent disruptions in mineral demand from the major West-African raw gold consumers: refineries in Dubai and (via Dubai) Switzerland.

Adding to the constraints on the movement of gold in Sierra Leone were domestic travel restrictions. In Penguia district and other territories in the eastern province, isolation increased as the provincial’s capital Kenema and other big towns were on lockdown because of the increasing number of Covid-19 infections. Interviewees reported that the lockdown immediately translated into lower mineral prices on the ground.

In the Southern part of the country, at Baomahun there were many local gold traders operating around sites within Baomahun before the crisis, but the number decreased as restrictions were put in place by the Government. However, an interviewee explained that the few traders who remained on site regularly ran out of cash, and were no longer able to buy the same quantity of gold as they used to. The gold trade is usually characterized by instant transactions, and near-limitless demand as cash to buy gold is readily available and easily mobilized.

At the same time, artisanal mining activities were paused in some but not all mining areas. Those who affirmed the pause stated the period was roughly between March-August/September which also happens to correspond with the onset of the wet season and the transition of many artisanal gold miners from mining-based livelihoods to farming based livelihoods. However, the reason given for the pause in mining activities by respondents in Grima, Jama, Saluwa and Konobendu was local military enforcement of mine site closures owing to public health restrictions. In Baomahun, however, a community that is much more dependent on and defined by gold mining activities, artisanal miners were simply encouraged to practice social distancing whilst engaging in their various mining activities.

This lack of liquidity in the gold market may have resulted in commercial opportunities for the few mid-stream gold buyers who were able to continue to operate. These buyers had the opportunity to buy gold from mine
sites at substantial discounts which could then be stocked and eventually sold to exporters or the international market at high margins. There is some evidence of this occurring via interviews conducted with gold traders in Saluwa and Baomahun. Whereas these traders confirmed that buying prices at the site level had dropped substantially by April, 2020 when the most stringent public health orders had been put in place, the prices they report selling the gold downstream for did not decrease by the same margins. Figure 7 indicates that gold trader margins in Baomahun may have increased from 17% to 51% as a result of the crash in prices at the site level while in Saluwa, margins may have increased from 3% to 25%.

**Figure 7:** Gold trader margins in the communities of Baomahun and Saluwa prior to and during the COVID pandemic

Similar supply chain conditions may have contributed to the struggles of the formal gold market in Sierra Leone. For instance, Chinese-owned Dayu Mining, which operated the country’s largest gold mine suspended and then closed its operations in May 2020. Many factors may have contributed to the shutdown of the Dayu Gold Mine; however, the necessity to move from air shipments of gold concentrate to shipments by sea as well as disruptions to supply chains for essential mining equipment and parts were noted by the company.\(^\text{17}\)

**Recovery of Gold Supply Chains**

Survey data from the two study areas indicates that the gold trade gradually recovered when the inter-district lockdown and international flights restrictions in Freetown, Conakry and Monrovia were lifted. At the time of data collection, roughly nine months after flight restrictions were introduced and five months after they were relaxed, prices had recovered and were tracking international prices at roughly the same level as pre-pandemic. For example, in Penguia the site price for 24k gold averaged 42.6 USD/g, or 82% of LBMA spot price while in Baomahun, the buying price for 24k gold averaged 57.02 USD/g per gram or 95% of the LBMA spot price.

\(^{17}\) (Inveen, 2020)
Health and Well-being

Health Impacts

It is important to keep in mind that COVID-19, like Ebola and other highly contagious viral outbreaks, is first and foremost a health emergency and an analysis of the impacts through a health lens is therefore imperative. Throughout the COVID crisis, there has been limited public reporting of COVID-19 cases and outbreaks by region in Sierra Leone. This has been compounded by limited resources available to monitor and test for COVID-19 positive cases throughout the country. It has therefore been difficult to assess the impact of the infection itself on the morbidity and mortality in specific mining communities. It is safe to assume, however that if there have been undocumented outbreaks in mining communities throughout the country, that the typical at-risk populations are most likely to have suffered – the elderly, immuno-compromised individuals and those with multiple underlying health conditions.

18 Note that depending on the specific mining style and activities practiced, ASGM employment can sometimes be associated with medical conditions such as chronic kidney disease, chronic liver disease, chronic lung disease, neurological conditions, and heart conditions.
It is evident, however, that, aided by lessons learned and investment in Ebola preparedness, information about COVID-19 and public health measures to restrict its spread were successful in reaching mining communities. All 35 interviewees reported being aware of the COVID-19 virus and 85% were able to list one or more common symptom of COVID-19 infection. The same number (85%) were able to describe at least two measures that they could take to limit COVID-19 spread. Answers given by respondents as to how to limit COVID-19 spread included:

- Social distancing of approximately 2 meters
- Facemask use
- Avoidance of shaking hands
- Frequent handwashing
- Limiting social contacts

Despite a general awareness of the measures promoted to maintain personal health and arrest the spread of COVID-19, most miners were not observed to be practicing social distancing, wearing masks, or engaging in frequent handwashing. This could be due to many reasons such as the difficulty of maintaining social distance while operating mining equipment, the burden of wearing a mask in hot weather while engaged in physical activity, or simply the cost and availability of masks, or handwashing stations for mine site use.

Several interviewees reported that national lockdowns limited their ability to access health clinics for basic health concerns like maternal care, chronic and acute infection or disease, injuries and other critical care needs. Although Baomahun did have a local health post that maintained operations throughout the COVID-19 crisis, the communities of Jama, Grima, Saluwa and Komabobu were reliant on a health center in Sandaru, the chiefdom headquarter town which was several kilometers away and inaccessible during the most severe limits on movement.
General Welfare

The well-being of mining communities was assessed by speaking to community leaders about the price of staple goods, non-mining income opportunities and other changes observed in the community during the pandemic.

In all communities surveyed, stakeholders informed that at the height of COVID-related restrictions on the movement of people and goods, inflation in the price of basic consumables was a major affordability challenge. For example, a 50Kg bag of rice, a common staple product, cost on average Le 230,000 prior to the pandemic and Le 310,000 during the height of the pandemic. This inflation has largely been ascribed to the difficulty of transporting goods into and out of rural locations as military personnel were posted on many transportation arteries to enforce travel restrictions. Furthermore, the period May – August is often considered the “lean season” in Sierra Leone as it is characterized by low local food production due to end-of-the-dry-season climatic conditions. Finally access to other basic home commodities such as cooking oil and soap also became a problem for many households.

![Figure 11: Price of a 50Kg bag of rice prior to and during the height of the COVID-19 pandemic](image)

This affordability crisis was not simply a function of price increases, but also, of income loss. Mining incomes declined or were completely suspended and many miners therefore had to resort to alternate sources of income. All except one of the 35 interviewees reported having to resort to another livelihood activity during the period of mining shut-down. Over half of these took up farming, likely on family plots worked by other family members or relatives, however the results were varied. Importantly, alternative livelihood activities were temporary as they were not seen to be as profitable as mining.
In addition to inflation and loss of income, food scarcity was reported in the mining communities of Jama, Grim and Komabobu, Penguia district which are particularly dependent on foodstuffs being transported in to their community. The degree to which food insecurity may have increased during this time was not measured, and therefore cannot be compared to other rural communities or urban centers, however it is reasonable to conclude based on both measures of food affordability as well as anecdotal evidence shared during this study, that food insecurity increased by a meaningful margin. This is the conclusion reached by the Food and Agriculture Organization (FAO) monitoring report of May 2021 which stated that during the height of the COVID-19 public health responses, 73% of all agricultural Sierra Leone households suffered from hunger; up from previous years, although this figure is difficult to separate from a broader 3-year trend of increasing food insecurity in the country\textsuperscript{19}. Researchers from the London School of Economics maintained that during this period, mean incomes across the country dropped for 57% of households while food prices rose by up to 16% and that by April, 87% of rural households in Sierra Leone were forced to miss meals, reduce portion sizes, or consume less preferred food to cope with the crisis\textsuperscript{20}.

\textbf{Figure 12:} Livelihood activities taken up by miners during periods of COVID-19 induced mining shut-downs

\begin{itemize}
  \item Farming: 18
  \item Trading: 10
  \item Motorcycle transportation: 2
  \item Community cleaning: 1
  \item Hair dressing: 1
  \item Carpentry: 1
  \item Tailoring: 1
  \item Nothing: 1
\end{itemize}

\textsuperscript{19} (FAO, 2021)
\textsuperscript{20} (Solis, 2020)
4.3 Gender

Nation and region-wide, it has been understood and accepted that the impacts of COVID-19 have been felt differently by men and women. For example, during the COVID crisis female-headed households in low-income countries were less likely to be well informed about the disease, as a result of greater degrees of social isolation and weaker social networks. During the crisis, women also experienced elevated rates of food insecurity compared with households headed by men\textsuperscript{21}.

Globally, gender disparities common in the ASGM sector tend to be seen via: unequal access to mineral resources, unequal ownership of the means of gold production, disparate levels of formalization between genders and the unbalanced burden of unpaid domestic work. These disparities seem to have deepened globally during the COVID-19 crisis as documented by leading organizations in the ASGM space including: the Artisanal Gold Council\textsuperscript{22}, the Alliance for Responsible Mining\textsuperscript{23}, the Intergovernmental Forum on Mining, Mineral, Metals and Sustainable Development\textsuperscript{24}, DELVE\textsuperscript{25} and others.

Within the areas of Sierra Leone that were involved in this study, it seems that some of these global sector dynamics have held true. 70\%\textsuperscript{26} of those interviewed believed that the impact of COVID-19 in their mining communities had been different for women as compared to men. Although there is no evidence that public health restrictions on mining activity directly affected women disproportionately as compared to men, the inability to engage in gold mining did create additional burdens on women. For instance, gold panning is a common income earning activity for single mothers who can structure their gold panning around other childcare and family obligations. The loss of mining revenues in these single income families is likely to have had a disproportionately large effect in these single parent households as in many cases there was no other adult earning income within the family, and thus less of a buffer against slippage into extreme poverty conditions.

\textsuperscript{21} (Levine, 2020)
\textsuperscript{22} (AGC, 2020)
\textsuperscript{23} (ARM, 2020)
\textsuperscript{24} (Lyster, 2022)
\textsuperscript{25} (Delve, 2020)
\textsuperscript{26} Of the 35 interviewees, 25 were male and 10 were female.
Instead of describing situations in which women were less likely to be able to access ores, or were forced into less well-paying or secure ASGM roles, most participants described additional family burdens, health burdens and secondary income burdens as the main ways that the gender gap for COVID-19 impacts were observed. For instance, a miner in Saluwa described how pre-COVID, there were mobile clinics for pregnant women and children but due to inter-district travel restrictions most of these facilities became effectively non-functional which resulted in many pregnant women, mothers and their sick children having to walk for miles to neighboring communities or chiefdom headquarter towns to access health care, and losing productive working days to do so.

Additionally, it was reported that women involved in farming, a common fall-back activity when mining is not possible, were unable to move their harvested crops to “luma” (a weekly/occasional local markets) due to the travel restrictions. Although these restrictions affected both men and women, approximately 70% of the agricultural workforce in Sierra Leone is female\(^\text{27}\), and miners who are likely to self-report simultaneously practicing mining and farming during the same time period are overwhelmingly female.

There are other ways in which gender impacts may have been felt unequally between women and men in these ASGM communities. For instance, the levels of gender-based violence (GBV) experienced by women was not assessed, however it is reasonable to question if whether marital stressors such as income loss, or the additional time spent at home due to lockdowns, combined with increasing family burdens, may have put women at an increased risk of GBV during this time.

Furthermore, the degree to which COVID-19 may have disrupted other labour markets in the country, and acted as a push factor forcing those unemployed in other industries (eg: tourism) into mining has not been assessed. This kind of dynamic may affect women as they may be displaced from working in areas where an influx of new male workers are present. There is, however, no evidence that this has taken place in the communities visited as part of this study.

\(^{27}\) (FAO, 2018)
COVID-19 Recovery and Recommendations for Resilient ASGM Communities

COVID-19 does not appear to have had as devastating of an impact on the national ASGM sector, nor on ASGM communities as was initially feared at the beginning of the crisis. Nevertheless, it has revealed important details about health structures and services in ASGM communities, about the effect of national lockdowns on affordability and well-being, and about the frailty of a sector whose supply chains are dependent on the unrestricted international movement of people and goods. These characteristics of gold supply chains and ASGM communities make them vulnerable to future crises, whether they be more virulent and deadly versions of the coronavirus, epidemics or pandemics of other communicable diseases, war, natural disasters or other emergencies.

Enabling these communities to become more resilient would reduce the social, public health and financial stress that they would face in these moments of crisis. A number of measures to increase this community and sector resilience are proposed below:

1. **Ensure ASGM is recognized as a critical sector in national emergency preparedness and response strategies**

   Over the last 30 years Sierra Leone has experienced a number of national crises including a civil war and an Ebola outbreak which have devastated communities and crippled the national economy. National strategies to prepare for, mitigate and recover from such crises have been developed, however with the growing recognition that ASGM is a critically important livelihood activity for hundreds of thousands of citizens, these plans may need to become ASGM-aware. Specific activities may include the following:

   - Sensitizing members of the Directorate of Environmental Health, Office of National Security, the Public Health National Emergency Operations Center, NaCOVERC, and other emergency preparedness institutions to the realities and importance of the ASGM sector
   - Reviewing the National Disaster Preparedness and Emergency Response Plan and considering how national resources can be mobilized to safeguard ASGM livelihoods and communities and keep trade routes open
   - Ensuring that the National Action Plan for Health and Security has measures in place to communicate health information and provide essential health services to remote ASGM communities
   - Reviewing Ebola preparedness measures ensuring that resources are in place to vaccinate, monitor and assist with the recovery of remote gold mining communities
2. Develop national or regional mining associations that can communicate and effectively represent artisanal gold miners’ needs in times of crisis

There are currently no national, provincial or district mining associations that act to represent artisanal gold miners within national policy and decision-making circles nor to communicate the needs of the hundreds of thousands of people employed directly and indirectly in the sector to the body public. These associations form a critical line of communication between isolated gold mining communities and crises response structures. They can also serve to channel aid and other resources to mining communities in times of need. Activities to support the formation and strengthening of these associations might include:

- Training of miners on organizing into associations, cooperatives or other business structures
- Encouraging and providing material and organizational support for the establishment of a national ASGM federation of miners

3. Ensure that emergency response measures in ASGM communities react to the needs of both women and men

It is well understood that crises such as the COVID-19 pandemic have the ability to affect women and men differently. These differential impacts can be mitigated if:

- More women are encouraged and enabled to obtain artisanal and small-scale mining licenses in the various ASGM communities through the support of chiefdom mining committees and national ASGM formalization structures such as the National Minerals Agency (NMA)
- Income assistance programs, such as they are, identify and prioritize single parent families in response to emergency driven labour shocks
- Aid and humanitarian assistance programs consider the material and social service support needs of women during periods of crisis response and recovery

4. Diversify Gold Supply Chains

Artisanal gold mining communities in Sierra Leone are dependent on gold supply chains which are international in scope. Any disruptions along points of these chains, even if they are outside of Sierra Leone’s borders are felt at the community level. However global experience throughout the COVID-19 crisis has shown that where there are national entities involved in buying artisanal gold (eg: Colombia, Mongolia, Ethiopia), supply chains are less dependent on international trade and have fared better. The more avenues there are to market legally produced gold, the more these supply chains can adapt to keep liquidity and enable the continuation of this livelihood. To diversify its gold supply chains, Sierra Leone can:

- Encourage greater formalization of the sector by following through on the formalization strategy outlined in Sierra Leone’s National Action Plan for the ASGM sector and in the 2018 Artisanal Mining Policy
- Discourage the smuggling of gold through the harmonization of taxes and other fees associated with exporting gold with other ECOWAS countries
- Encourage the formalization of gold traders and exporters into registered associations or businesses
- Build the national capacity to buy and market gold competitively through, for example, the piloting of gold buying programs under the Bank of Sierra Leone
- Improve national laboratory capacity to assay gold
- Increase the marketability of artisanal and small-scale gold through the gradual build-up of traceability infrastructure and OECD responsible minerals compliant gold certification schemes.


Environmental Protection Agency. (2019). The ASGM overview of Sierra Leone. Freetown: EPA.


Hilson, G. M. (2016). Opening the door to formalisation? Small-scale diamond mining and rural economic development in post-Ebola Sierra Leone. IGC.


USGS. (2014). The ebola virus disease outbreak and the mineral sectors of Guinea, Liberia and Sierra Leone. USGS.