The challenges characterizing Sierra Leone's artisanal diamond mining sector

and why the sector should be formalized



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Grassroots research on local diamond mining impact





KIMBERLEY PROCESS CIVIL SOCIETY COALITION

EDITORIAL

The challenges characterizing Sierra Leone's artisanal diamond mining sector – and why the sector should be formalized

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Cover photo: Men digging for gravel at an artisanal mining site in Kono District, Sierra Leone

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Network Movement for Justice and Development (NMJD) is a Sierra Leonean human rights-oriented civil society organization known for its long-term experience working with various stakeholders at all levels of society in Sierra Leone.

NMJD engages government, development partners and other civil society organizations, community actors, private sector and traditional leaders for social, economic, cultural and political transformation of the societies. NMJD focuses on empowering people by strengthening their capacities in the bid to build a free, just and democratic Sierra Leone where there is respect for human rights and sustainable development for the benefit of all.

Context: This report is part of a larger pan-African research project called *Grassroots research on local diamond mining impact* which was run in eight African countries by ten African member organization from the Kimberley Process Civil Society Coalition.

The eight country reports intend to study some of the impacts of artisanal and small-scale diamond mining in Cameroon, the Central African Republic, the Democratic Republic of Congo, Ivory-Coast, the Republic of Guinea, Sierra Leone and Zimbabwe and the impact of industrial diamond mining in Lesotho.

The full version of the reports can be read and downloaded on https://www.kpcivilsociety.org/ publications/publications-from-the-coalition/grassroots-research-on-local-diamond-mining-impact/

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This study was conducted with the guidance and technical support of the Kimberley Process Civil Society Coalition (KP CSC). The KP CSC is the umbrella organization that acts as an observer to the Kimberley Process (KP) on behalf of civil society. Most of the coalition's members are based in Africa, the world's largest diamond producing continent.

Representing communities affected by diamond mining and trade, members work to improve the governance of the diamond sector in their home countries. The coalition's local and regional expertise allows us to monitor responsible diamond sourcing on the ground and to articulate a citizen's perspective on the diamond sector in national, regional and international forums. The Coalition includes representatives from Cameroon, the Central African Republic, the Democratic Republic of Congo, the Republic of Guinea, Ivory-Coast, Liberia, Lesotho, Sierra Leone, Zimbabwe and Belgium.



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1 ABBREVIATIONS

AMP	Artisanal Mining Policy
COVID 19	Corona Virus Disease 2019
CSO	Civil Society Organization
DDI	Diamond Development Initiative
EITI	Extractive Industries Transparency Initiative
EPA	Environmental Protection Agency
FGD	Focus Group Discussion
GDP	Gross Domestic Product
GoSL	Government of Sierra Leone
HDI	Human Development Index
IPIS	International Peace Information Service
KP	Kimberley Process
KPCSC	Kimberley Process Civil Society Coalition
NGO	Non-Governmental Organization
NMA	National Minerals Agency
NMJD	Network Movement for Justice and Development
NPAA	National Protected Area Authority
ODK	Open Data Kit
ONS	Office of National Security
PPE	Personal Protective Equipment
SGBV	Sexual and Gender-based Violence

2 EXECUTIVE SUMMARY

Since 1930 when artisanal diamond mining started with the discovery of diamond in Kono district, it has been widely argued that little effort was made to formalize Sierra Leone's artisanal mining sector and tap its huge socioeconomic potential. The challenges due to insufficient documentation and formalization of the artisanal mining process - which has facilitated smuggling of precious minerals, tax dodging, violence, unsafe working conditions, continued poverty and other social issues on the mine sites as well as environmental degradation - continue to go on. Vulnerable groups in the mining communities like women, girls and youth are the most affected.

Marred by this context, this study was undertaken to establish a comprehensive understanding of Sierra Leone's diamond supply chain in order to have a baseline knowledge of the actors, actions and linkages, and to develop a concise database of artisanal diamond mining sites in an effort to contribute to improved governance of the artisanal diamond mining sector.

This study tried to answer the question of: what are the barriers and opportunities for the formalization of the artisanal diamond sector in Sierra Leone?

Enumerators visited and collected data on twenty-five artisanal diamond mining sites in Kono and Kenema districts, including the communities of *Number 6 and 7*, *Bakundu*, *Bondo B ush site*, *CPJ digging*, *Gbogboa 1*, *Gbogboa 2*, *Kainjama mining site*, *Kenja*, *Landoma*, *Lauma area*, *egbeyawi mining site*, *Maima Junction*, *Mamen on the rock site*, *Mapota mining site*, *Mottema Pala*, *Number 11*, *Nyekehun*. The data we collected tried to characterize the artisanal mining operations, conditions and production in order to identify the key challenges the sector is facing. The aim is to present a case for policy stakeholders to appreciate the socioeconomic contribution of artisanal diamond mining, and to support formalization as a fundamental prerequisite for the effective governance of the sector.

The findings of this research indicate that artisanal mining operations remain socioeconomically important but still extremely informal, carried out on many sites without reliable data on production, investment/benefits or notable challenges for miners and surrounding communities. Women play a more passive role in diamond mining but a very active one in gold mining. Children are largely discouraged to be on the mine sites. Artisanal diamond production in Kono and Kenema districts is lowering, as surface layers in the region have been over-mined. Legislative limitations on the artisanal mining process prevent artisanal miners from accessing deeper un-depleted layers. The study furthermore sheds light on the characteristics and challenges of artisanal (diamond) mining, including financial arrangements, health and safety issues, environmental impacts and government oversight and regulation.

Key recommendations call for all actors in the artisanal mining sector to commit to responsible consumption of our national resources, as recommended in the Washington Declaration. The Government of Sierra Leone is especially recommended to undertake a well-planned formalization effort of the artisanal mining sector and effectively regulate the mineral supply chain to increase transparency, traceability and positive benefits for mining communities and the country as a whole.

3 THE CONTEXT OF SIERRA LEONE

Sierra Leone lies on the West Coast of Africa, bordered by Guinea and Liberia. It has a population estimated at 8,082,075 by the World Population Reviews in 2021, a total landmass of 71,620 km² and a water area of 120 km².

In 2018, the Government of Sierra Leone (GoSL) carried out a high quality National Airborne Geophysical Survey (NAGS), which resulted to the Geo-Data Management Policy of 2018. The Policy affirms that the geology of Sierra Leone hosts diverse mineral resources that include diamonds, iron ore, gold, titanium ore (rutile), aluminium ore (bauxite) and chromite. Regardless of this endowment, Sierra Leone has permanently stayed among the world's poorest with a Human Development Index (HDI) value for 2019 of 0.452. This positions the country at 182 out of 189 countries and territories, in the low human development category. The country had a Gross Domestic Product (GDP) of \$3.94 Billion in 2020 after a retrogressive decline from \$4.09Billion in 2018, to \$3.8 billion in 2019 (World Bank, 2020).

Sierra Leone has passed through a chain of catastrophes, including natural disasters, health crises and a decade long civil war that ended in 2001. The war was fueled by some of the country's natural resources that fell into the hands of the rebel forces who besieged the mining facilities of Kono and Tongo (eastern Sierra Leone). The war brought immense suffering upon the lives of the ordinary citizens, a total collapsing governance, destroyed the infrastructure, and claimed thousands of lives and leaving over a million homeless. Sierra Leone had a post-war civil election in 2002, restoring democratic governance. One of the challenging tasks was to govern the extractive sector of the country. Thus, in 2003, Sierra Leone had a Mining Policy which was transformed into the Mines and Minerals Act, 2009. The implementation of this law, however, didn't address various challenges that characterized the mining and extractive sector, thus calls remained for the government to tackle some critical issues, including contract transparency, tax and revenue calculation, beneficial ownership, transfer pricing, environmental and social issues affecting mining communities and other compliance issues. To address some of these issues, and generally to bring about transparency and accountability in the mining and extractive sector, Sierra Leone signed up to a number of international treaties including the Kimberley Process in 2003 and the Extractive Industries Transparency Initiative (EITI) in 2006.

In March 2018, Sierra Leone conducted its fourth general elections. The new government came with the political determination to make the country benefit meaningfully from its resource endowment. Within a few months after the government was inaugurated, the Minister of Finance brought for the ratification of Parliament the Extractive Industry Revenue Act 2018. The aim was to address the inadequacies of the fiscal laws governing the sector. Later in the same year, the government also formulated a comprehensive Mineral Development Policy and an Artisanal Mining Policy, 2018. Few months later in 2019, the government activated a review process of the Sierra Leone 2009 Mines and Minerals Act. The draft bill of what is now called the Sierra Leone Mines and Minerals Development Act, 2021, which was introduced in Parliament for first reading on the 16^{th of} November, 2021. The bill is expected to be approved and assent by the President before the end of 2021.

4 THE ARTISANAL MINING SECTOR OF SIERRA LEONE

The natural resource sector of Sierra Leone covers the extraction of solid minerals – diamonds, gold, rutile, bauxite, iron ore, zircon -, oil and marine resources, to the cultivation of agricultural products and, most recently, the export of exotic hard woods from the wild that are wanted as timber. There have been several ways these extractions have occurred, from large-scale operations using advanced levels of mechanization to small-scale and artisanal extraction, using rudimental tools.

The Mines and Minerals Act, 2009 (under review since 2019) categorizes mining operations under 4 types: reconnaissance, artisanal, small-scale and large-scale mining. The Act defined artisanal mining as a mining operation that does not exceed a depth of ten meters and is conducted using rudimentary hand-held tools. The use of motorized machines, except water pumps, is not permitted in artisanal mining operations.¹

Artisanal diamond mining is the oldest and most popular form of artisanal mineral excavation in Sierra Leone. Diamonds have been discovered in eastern Sierra Leone's Kono district in the 1930s. Diamond-rich deposits are located in high and low terraces, hard rocks, watercourses and riverbeds. At present, near-surface alluvial diamond deposits are depleting, making it harder to mine them artisanally. Gold mining is just emerging and is only done in areas where both minerals could be found. Diamonds are more precious and expensive than gold. Therefore, in most cases, diamond is the main target of the miner and gold is the by-product for consolation when diamond is not found.

Sierra Leone's Artisanal Mining Policy (AMP) 2018 estimated that the artisanal mining sector has created self-employment for many young people and women and directly supports an estimated 300,000 Sierra Leoneans. About 10% of the population is impacted by artisanal diamond mining operations, which has been an important economic activity, especially for rural populations. However, there are several challenges characterizing the sector. The Minister of Mines analyzed them in the National Minerals Agency (NMA)'s five-year strategic plan as follows: "Extraction of our mineral resources has often been associated with corruption, violence, abuse of rights of communities and workers, especially young men and women in the artisanal mining sector. Ineffective revenue management practices have undermined efforts of successive Governments to transform mineral wealth in the ground to sustainable development above it. Decades of mining operations have continued without regard to the adverse effects on the environment and the lives of rural people. These harsh realities will continue to plague our country if we do not change course." (Timothy Kabba, Minister of Mines, NMA Strategic Plan, 2021, Page ix). The opinion expressed by the Minister of Mines is being supported by many civil society organisations (CSOs), social commentators and other analysts. They all call for the proper regulation of the sector in order to benefit the actors involved in the sector, the communities and the country as a whole.

¹ The Artisanal Mining Policy, 2018 policy recommended for this definition to be revisited as part of legal review.

5 GOVERNANCE AND REGULATORY FRAMEWORK OF THE MINING SECTOR

5.1 Mining legislature and governance

Sierra Leone's legal system only considers regulatory instruments that have been approved by Parliament and assented by the President. These documents are general called laws. Meanwhile, policies and regulatory frameworks have limitations as they cannot be referenced in court and are not usually enforceable by law.

Thus, Sierra Leone's **Mines and Minerals Act of 2009** is the main legislative instrument that governs the mining sector, including the artisanal mining sector. For other compliance purposes, there are other laws such as the Environmental Protection Agency Act of 2008, the Income tax Act of 2000 (reviewed), the Extractive Industry Revenue Act of 2018, the National Minerals Agency Act of 2012. The Mines and Minerals Act (2009) is currently being reviewed and revisions are proposed under what is now called the Mines and Minerals Development Act. In this newly proposed Act, no mineral right can be awarded without a land lease agreement. This is going to make the traditional leaders in the rural mining communities become significant regulators of the mining sector.

There are also several policies and other regulatory frameworks used by government to govern the sector. In 2018 alone, the government formulated three mining-related policies: The Sierra Leone Artisanal Mining Policy of 2018, the Geo-data Management Policy and the Sierra Leone Minerals Policy.

The administration of the mining sector of Sierra Leone is under several entities, with complementary roles. Mainly, there is the Ministry of Mines and Mineral Resources (MMMR) and the implementing agency, the National Minerals Agency (NMA). But other agencies like the Environmental Protection Agency (EPA) that regulates environmental issues, the National Revenue Authority which collects the mining royalties, the Ministry of Finance which determines the royalty though parliamentary finance acts, are involved as well. Other State authorities include the Ministry of Sierra Leone, which is promoting responsible business conduct and the protection of human rights on the mine sites, and the Parliament that passes all laws.

Internationally, Sierra Leone is a member of the **Extractive Industries Transparency Initiative (EITI)** and was certified as a compliant member country in 2014. The EITI is a global standard for the good governance of oil, gas and mineral resources. These standards are being progressively reviewed and countries have to meet minimum standards in the administration of their natural resources before they can be members. The EITI process is implemented through a tripartite arrangement of government, CSOs and investors that is usually called the Multi-stakeholder Group (MSG).

Sierra Leone is also a member of the **Kimberley Process** (KP) since 2003. The KP is an international effort of state administrations, civil societies, and mining and mining-related industry to prevent the flow of conflict diamonds, i.e., 'rough diamonds used to finance wars against governments', onto the global market. Therefore, the Kimberley Process (KP) is a commitment to removing conflict diamonds from the global supply chain through the implementation of an import/export certification scheme (the Kimberley Process Certification Scheme) applicable to rough diamonds. KP member countries commit to satisfying minimum requirements, control of import/export, transparency and to certify diamond parcels as conflict-free (see also https://www.kimberleyprocess.com/en/what-kp).

In its regulatory framework, the government of Sierra Leone has implemented policy requirements that allow the implementation of the Kimberley Process Certification Scheme which aims to improve the traceability of diamonds and the transparency of revenue flows. Such policies are normally included in separate Parliamentary Agreements signed with diamond mining companies or have recently been elaborated in the Artisanal Mining Policy, 2018.

5.2 Non-state initiatives

Several programmes have been implemented to establish and mitigate the difficulties characterizing the artisanal mining sector and to advice on how to formalize the sector.

For instance, in 2005, USAID's **Integrated Diamond Management Programme (IDMP)** experimented with a diamond mining cooperative scheme in order to formalize and rationalise the artisanal sector and to increase local benefits. However, the scheme was considered a failure by the investors, USAID's programme evaluators, and development professionals at-large (Levin & Turay, 2008).

In 2008, the **Diamond Development Initiative (DDI)** undertook an effort to provide standard guidelines for Sierra Leone's artisanal diamond mining sector. However, whether its recommendations were followed or in any way contributed to addressing the numerous challenges defining the sector, remains unanswered.

In 2018, the Beers launched its **GemFair initiative**, which aims to offer a secure and transparent route to the global market for ethically-sourced artisanal diamonds from Sierra Leone. The Initiative has indicated in its 2021 annual report its commitment to support the formalization of the artisanal mining sector of Sierra Leone to include more artisanal mine sites, raise standards to protect workers and the environment and partner to scale its work to new regions and minerals. It hopes to achieve this within the next eight years as an overall next step.

Overall, a key conclusion is that Sierra Leone is still not able to govern its diamond mining industry very effectively and therefore, serious concerns about traceability and human rights remain. The informality of a significant part of the sector seems to be one of the key challenges.

6 STUDY GOAL AND OBJECTIVE

This study stems from NMJD's engagement, as a member of the KP Civil Society Coalition (KPCSC), to base advocacy on diamond mining on reliable, fact-based data and information. To help bridge the knowledge gap on the location, characteristics and social, economic and cultural impact of the artisanal diamond mining sector in Sierra Leone, NMJD – in collaboration with the International Peace Information Service (IPIS), a partner in the KPCSC – undertook a field-based mapping of the sector in the resource-rich districts of Kono and Kenema.

Through this study, we aim to answer the question of 'what are the barriers and opportunities for formalization of the artisanal diamond sector in Sierra Leone'?

The sub-questions include:

- What are the characteristics of artisanal diamond mining in Sierra Leone's Kono and Kenema Districts (operational and regulatory character, community and environmental impact)?
- What are the legislative, socio-economic and operational challenges faced by artisanal mining?

Overall, the goal of this report is to support advocacy for the formalization of the artisanal and small-scale mining sector of mineral-rich countries, so that the actors engaged in the sector can realize maximum benefit. Specifically, it is desired that information herein contained, will provide insights for government stakeholders and other actors, including CSOs and NGOs; and urge them to take concrete actions towards the regulation, organization and formalization of the artisanal mining sector in Sierra Leone.

7 METHODOLOGY

Between February and March 2021, twenty-one physical artisanal mining sites were sampled in Kono and Kenema districts (see Map 1). Sites were selected based on random selection sampling and confirmation by local authorities that active mining were being carried out on those sites.

We acknowledge that there are far more than twenty-one mining sites in Sierra Leone. However, we assume that the sample is a good representation of the other sites not visited and that the issues identified can be extrapolated to make more general conclusions about artisanal mining in Sierra Leone.

Enumerators visited those sites, conducted interviews and recorded responses to a specifically designed mining site questionnaire in a digital Open Data Kit (ODK) app. This web-based ODK questionnaire was developed in collaboration with IPIS. It facilitated data collection in six categories:

- **Section 1.** General information about the mining site in terms of name, geographical location, ownership and legal status.
- **Section 2.** Data on workers in mining sites, in terms of sex, age disaggregation, roles and condition of service including hygiene.
- **Section 3.** Production data, in terms of equipment in use, core activities, business arrangement with workers, outputs and sales for the previous year, channel of transaction etc.
- **Section 4.** State services present, in terms of services provided by the government, regulatory role of the State officials visiting the sites, presence of armed security.
- **Section 5.** Other actors present on the site, in terms of other interest groups, visits by non-State armed groups, violence and other illicit activities.
- **Section 6.** Environmental information, relating to the geophysical state of the mining site, its environmental condition and how the mining activity is impacting the environment.

The web-based ODK questions were targeting key informants in the artisanal and small-scale mining sector. These informants included village chiefs, financiers, buyers and gang leaders of artisanal mining groups.

In addition, thirteen focus group discussions (FGD) were facilitated in the closest town/village to the mining sites. The FDGs targeted community stakeholders and the key actors in the mining business including village chiefs, financiers, buyers and gang leaders on artisanal mining groups. The FDG questions primarily focused on collecting community perspectives about the mining operations in their area, especially with regards to social and economic impact of such activities. The discussions also attempted to gauge collective community views about regulating and formalizing the artisanal and small-scale mining sector.

In addition to data collected from the field, the assessment also covers desk review of relevant national documents, including the most recent 2018 Artisanal Mining Policy, the Mines and Minerals Act of 2009 and other reports.



Map 1: Location of artisanal and small-scale mining sites in Kono and Kenema districts, Sierra Leone, that are part of this study

8 FINDINGS AND ANALYSIS

8.1 Artisanal mine site characterization

8.1.1 General mine site characteristics

Map 1 shows the location of the 21 mining sites that were visited and surveyed during this study. Twenty of these sites are typical artisanal mining sites, with one site using earthmoving machines on a small scale, classifying it as a small-scale mining site.

In 18 out of the 21 surveyed sites, diamonds are predominantly mined, while in 3 sites gold is the major mineral. However, even in those 3 sites, miners are searching for diamonds. This is in line with the main trends that, in most cases, diamonds are the main target of miners, while gold mining is a "back up" when diamond is not found, as gold is easier to find but worth less than diamonds.

Ten of the sites are carrying out open-pit mining, seven are surface mining, 2 are diving sites while the last 2 are working on the bank of a river. In 9 out of 21 sites an average excavation depth of 5 metres was reached, while pits in 4 sites have reached or exceeded the government stipulated 10 metre maximum depth for artisanal mining.

A majority of the sites is not accessible by motorized vehicle (13 out of 21). On average, these sites can be reached after a 1h walk. Almost all sites (18 out of 21) are within mobile network coverage.

8.1.2 Artisanal mining operations



Figure 1: A typical artisanal diamond mining excavation at Yeigbehda, Kono District. © NMJD

Artisanal diamond mining operations involve the physical use of hand-held tools. These tools, depending on the site and soil type, may include shovels, pickaxes, shakers, bags and metal buckets. There are usually three spots where artisanal diamonds are mined – in swamps, on hills or hard surface and along riverbeds. The operations on hills and dry surface are normally called 'dry ground' mining. This involves digging and gathering and transporting a specific layer of the soil that contains rough stones to a river or any water spot (sometimes abandoned pits in the swamps) for washing. For this kind of 'dry-gron' mining (as typically called in Krio), the workers dig, gather and transport and wash the soil on a daily basis. If they are lucky to find any diamond, it is sold at once and the work continues the next day.

Artisanal mining in swamps can last for days, weeks or several months, also depending on the depth to meet the gravel. For this mining, the financier (usually called the Supporter) mobilizes a gang of about three to five men and assign them to dig a pit at the identified site where it is believed that no one has mined before (therefore there is hope to meet gravel). The digging (called tripping) can last for several days, passing though several layers of the soil profile before a layer of marbles and other foreign rocks, called the gravel, is met. The top of the gravel is carefully cleared, dug with pickaxe and transported to a specially prepared site off a riverbed. When the workers are satisfied that all the gravel has been removed over a couple of days, washing (using a shaker) begins and could as well last for days or weeks. The diamonds, unlike with dry-gron mining, are not sold daily. Here, the target is to gather the proceeds and sell after washing.

Another form of artisanal diamond mining is called 'over-kicking'. This is mostly done by a single person or a very small group of two or three people, especially in the rainy season. This involves daily toiling on the mine site to wash the topsoil or sand that was rejected by the previous miners. The targets are pieces of diamonds that may have escaped during gravel excavation, especially when machines were used.

Fox-pit mining called 'Damakuru' is also done by very skilled individuals in places where it is too difficult and costly to carry out large open-pit mining. The individual spends several weeks or months digging a tiny round well until he reaches the gravel. With the help of another person, the gravel is loaded into a bucket tied to a rope and drawn out to the surface. This type of mining operation is full of high risk and is generally considered illegal.

To extract minerals, 18 of the 21 sites use a medium degree of mechanization, while 2 sites are low in mechanization. This means that they operate by using rudimentary tools only, such as shovels, machetes, pans, sieves and pickaxes (see Table 1). One site (engaged in small-scale mining) is using high level of mechanization.

Tools	Number of mines	Percentage of mines
Shovel	21	100.0
Motor-pump	19	90.5
Machete	17	81.0
Stick	13	61.9
Pan	8	38.1
Sieve	6	28.6
Pickaxe	5	23.8
Machines	4	19.0
Carpet	2	9.5
Other	2	9.5
Chainsaw	1	4.8
Generator	1	4.8

Table 1: List of main tools and equipment used on the sites for mineral excavation and processing.

8.1.3 Workers in mining sites

A total of 374 miners carry out various direct or indirect mining activities on the 21 surveyed sites. These activities, include (as described above) digging with either shovel or pickaxe, transporting of gravel and washing. Most workers perform specific tasks and only a minority (20%) execute multiple tasks. Typically, between 3 and 75 workers are present on 1 mining site (18 on average). Newly discovered mining sites on virgin lands can attract an unprecedented number of miners over a very short period.

Compared to twelve months before this study, 13 of the mine sites (62%) have witnessed about 61.9% reduction in worker numbers. Five sites witnessed no change, while 3 have had a 14.3% increase in the number of workers. The flow of workers on a mine site is influenced by several factors, the probability of finding diamonds being the key one.

Of the total 374 workers on the 21 sites, only 55 are women (14.7%). They are observed in 4 sites only. At least 17 of the 55 women were performing maximum roles like the men. These roles include digging, transporting gravel and washing, and are directly linked to production. Other tasks performed by women (which are not directly link to production in the mining operations) include preparing food for workers (10) and transporting water (5) or other goods (1). The role of other women found on site was less clear (9), while at least 1 person was identified as commercial sex worker.

Overall, 22 children were found roaming around the mine sites. None of these children were executing work as a miner. They mostly seem to hang around there with members of their family or because the mine-sites are close to their village. One child was spotted transporting food to the workers. Some had fishing lines (locally made hook and thread), and were fishing from the abandoned ponds.

Of the 21 mine sites, 16 have their workers sleeping in the nearby villages (76%). In 4 sites, camps are built for workers only, while one site has the workers and their families all camped on the site.

None of the miners on the sites we visited were in a cooperative. They are in small gangs of three to five members, led by a gang-leader and financially supported by a certain businessman or foreign diamond dealer. It is noted that mobilization of artisanal miners into formal groups is a significant step towards formalization of the artisanal mining sector. This is important for data collection, coordination of the sector and in making the actual workers on the mines benefit.

8.1.4 Mineral production

Not all mine sites keep track of how much is produced on site. The mining groups on 9 of the 21 sites (43%) have absolutely no data on production, while in 6 sites production information is kept in a notebook. Only 6 other sites have the official government record on production. This lack of reliable data on mineral production has significant consequences for the governance of the sector (see more in Section 9).

It is generally noted that production is significantly unstable on all the sites and appears to follow an overall reducing trend. Superficially, in most sites, production seems limited and diamonds seem very scarce (Bakundu, Bondo-Bush, Legbeyawi mining site). Notably, these used to be very productive sites as they sit near the real spot of kimberlite pipe. They have however been over-mined, but miners still work there with the hope of seeing diamonds that could have escaped from previous mining operations. Only a few sites (Yeigbehda Site and kenja) indicated that production is encouraging. For more site-specific info, see Annex 1.

The miners disclosed rough figures about their production on a weekly basis. It shows that, in the week prior to the survey (second week in March 2021), a total of 29.5 carats of diamond were found in the 21 sites surveyed. The site that saw most diamonds had a maximum of 12 carats. In 12 out of 21 sites (57%) not a single stone was found in the previous week.

Total sites surveyed	Total carats of diamond seen last week	Number of sites with 0 carats	Maximum in 1 site (carats)	
21	29.5	12	12	

Table 2: Production Figures in the second week of March 2021.

In the year preceding this study, in the 21 sites visited, the maximum size of diamond discovered was 12 carats and the average size of diamond found for that period was 0.9 carats. Only in 6 out of 21 sites (29%) diamonds larger than 5 carats were found in the previous year. This indicates that in most sites only smaller diamonds are found. Artisanal miners are legally prohibited from digging beyond 10m. Therefore, the understanding is that they are finding alluvial or eroded diamonds on the surface. These diamonds are mostly found in smaller sizes and dispersed on the surface.

About 71.4% of the diamonds found were pyramid shaped. The others were either round or cubeshaped (Figure 2(a)). In terms of colour, the survey discovered that, 13 sites noted mostly white diamonds (62% of sites), 6 sites saw more of tinted diamonds (29%) and in 2 sites mostly brown diamonds were found (9% of sites; Figure 2(b)). The value of a diamond is determined by the cut, carat, colour and clarity – what is generally referred to as "the 4Cs". A diamond has the most value when it has an octahedral shape, is colourless without inclusion and external blemishes, and when it is of high carats (i.e. high weight)²

² For more info on assessing the quality and value of diamonds, see e.g. the Gemological Institutie of America (GIA) https://4cs. gia.edu/en-us/diamond-buying-guide/



Figure2(a) Proportions of diamond shapes found (21 sites); (b) Proportions of colours of diamonds found (21 sites).

The enumerators also visited three sites that are exclusively engaged in artisanal gold mining. On these three sites, production was on average 5.8 grams in the week preceding the survey. This would be equivalent to 29 carats if it were diamonds, indicating that a higher amount of gold was found in 3 sites compared to 18 diamond sites. While miners are more certain of finding gold than diamonds, gold prices are far lower than diamond prices. Therefore, most times, local artisanal miners focus on mining gold for livelihood support, while diamonds are mined with the mind-set of becoming wealthy. More women are engaged in artisanal gold mining than men, given that gold mining usually requires less hard labour compared to diamond mining.

The level of purity determines the value of the gold and most times, it is the purification that becomes the challenge.



Figure 3: A typical artisanal gold mining site in Kumaro, Nimikoro chiefdom, Kono district district. This entire area has actually been given to a Chinese large-scale mining company called Wongo Mining Limited

8.1.5 Financial aspects of artisanal mining

On 16 of the 21 sites (76%), the miners themselves are financing their operations. This means that either one person among the miners is providing daily food for the miners and buying the tools, or individuals who take care of themselves are in a group called 'ghado'. Miners or groups that are self-funded are not obliged to sell their diamonds or gold to any specific buyer who pre-financed their operations. This has the advantage that they can bargain for the highest prices without coercion.

In this survey, we discovered that 12 of the 21 sites (57%) have formal buyers. These are government licensed buyers who either have a diamond buying office or sit at a particular spot usually called 'open-eye' where miners come to meet them with diamonds. Five sites have formal buyers who also finance the mining operations. This means that miners cannot sell their diamond to any other buyer except if they disagree on the price. Formal financiers are generally accused of being unfair to their miners. They are entitled to about 60% of the proceeds and they also generally own the mineral right (license), unless the land-owner does.

One site has a buyer who chips in intermittently to financially support miners, but he has no formal agreement with the miners. This arrangement is interesting for both the buyer and the miner as it is free of obligations but creates good relationships that can be used at the time of selling/buying diamonds. While in 12 sites formal buyers buy up the mineral production, in 9 sites (43%) miners themselves buy the products. Four sites have regular buyers (19%), but no formal arrangement exists between the miners and these buyers. We also visited one site where anyone can buy minerals.

A total of 44 buyers have been identified to regularly buy products from the miners we surveyed in this study. These are mostly popular buyers, known for paying higher prices for diamonds and buying diamonds from many miners. On average, 2 buyers are noted per site, although this number can increase up to 7 in some sites. As shown in Table 3, these buyers are predominantly from within Sierra Leone itself. It is important to note that the majority of these 'buyers' are not exporters. In fact, very few individuals own an exporter license and it is hard to find a Sierra Leonean who owns an exporter's license. Mostly, Lebanese and a few Gambians are in diamond exporting. They buy diamonds from "buyers".

Origin of buyer	Number of mines where buyer is present
Sierra Leone	15
Europe	1
Lebanon	1
Gambia	1
Guinea	1
Buyers don't come to this site	2

Table 3: Origin of the buyers in the 21 artisanal mining sites surveyed.

The general assessment is that local miners do not get fair prices for their diamonds. There are many stories about miners who were not able to bargain well for their diamonds and ended up regretting the transaction. Overall, buyers hold all the bargaining power, as the result of pre-financing arrangements, their place in the value chain or the miners' need for "quick income" and livelihood support.

As an alternative to the classic buyers, De Beers Group have established a GemFair³ office in Koidu city, Kono district, to buy diamonds from artisanal and small-scale miners at the best prices and in line with their standards. However, most miners consider the GemFair conditions regarding

³ GemFair https://gemfair.com/

registration fee, certification and licensing, too rigid and difficult to comply with. But the initiative is widely acclaimed for offering the best prices to artisanal and small-scale miners.

8.2 Working conditions and safety at mining sites

8.2.1 Health and safety issues on mining sites

From our observations we conclude that **safety issues** on the mine sites are largely neglected. The mining activities are carried out under little to no personal safety rules. Workers on 17 of the 21 sites (81%) use no personal protective equipment (PPE), such as gloves, safety boots and hard- hats. Therefore, minor injuries are very common. Workers on 4 sites had gloves and in 3 of those 4 sites, workers also had safety boots.

Mining accidents are very common. The findings from the assessment indicated that several factors are responsible, including bad mining layout (which usually leads to a collapse of the wall of the pits), flooding (which can result in drowning), machine accidents while using the water pumps or earthmoving machines. The findings of this study show that at least 17 accidents took place on 6 of the mining sites in the previous year. Two workers reportedly died on two separate sites from those accidents.

We discovered that **hygiene** is very poor on all the mining sites. 19 out of 21 sites (90%) have absolutely no latrine, and workers practice open defecation. Only two sites have makeshift latrines built on the site. However, none of the two latrines have separate room for women. The overall poor hygienic conditions lead to frequent health issues and people are getting sick frequently. Moreover, most mining activities are manual and labour-intensive. Most of the miners complain of severe bodily pain. Housing facilities are also of very poor quality on the mine sites. This worsens the health situation. Miners are exposed to cold and mosquito bites, making malaria and common cold common in the mining communities.

Name of mine site	Common illness
Number 6 and 7	Headache, pain, and cold
Bakundu	Pain and Cold
Bondo Bush site	Hyena, pain, common cold, malaria, skin disease
CPJ digging	Malaria
Gbogboa 1	Body pain
Gbogboa 2	Pain, cold, malaria, diarrhoea
Landoma	Malaria
Lauma area	Malaria, cold, pain and headache.
Maima Junction	Cold, pain, malaria
Mapota mining site Gawama, Simbaru Chiefdom	Malaria, diarrhoea
Mottema Pala	Pain and serious cold
Number 11	Headache, pain and cold
Seovama	Cold, pain and headache
Water Junction	Only pain from the pickaxe and shovels that we use here on a daily basis.
Yeigbeh Site	Malaria, pain, and diarrhoea

Table 4: Information on common illnesses reported on the mine sites.

With regards to **COVID 19**, we found that COVID 19 cases are rare on the mining sites. The data from our assessment indicate that no confirmed cases were reported on any of the mine sites, and very few in the mining communities. This could however be as a result of very low testing capacity of the government which is more focused in cities and the urban communities. Overall, so far most COVID 19 cases have been reported from Freetown, and only few are reported from the rural communities, including the communities visited during this survey. As of the 30th of November, 2021, 6,402 cases of COVID 19 were being confirmed in Sierra Leone with 121 official deaths on record.

8.2.2 Violence and conflict

Over the last twelve months, there were no reports of conflicts that resulted to violence, fight or hostility on 20 of the 21 surveyed sites. Conflicts are thereby taken to mean a confrontation between two or more workers, or groups on the mine sites that leads to a fight. Usually, these fights are full of violence, physical attacks with sticks and mining instruments. Only on one site there is a reported disagreement over land borders with authorities of the mine site. This was a minor disagreement, without any violence, that was quickly addressed through the prompt intervention of the government authority in charge of surveying and issuing mining licenses.⁴ Hence, no violence was reported on the 21 sites in the twelve months preceding our research.

We have also studied the occurrence of sexual and gender-based violence (SGBV) on artisanal mining sites. Many critics have argued that SGBV is more prevalent in rural mining communities than in other more socially-informed communities. There are many reasons, including the fact that mining communities are largely acculturated with a mix of people from varying backgrounds and culture. Another key argument is that mining societies are male dominated, with few women around. In search of sexual partners, most miners have had sexual affairs with women who frequently visit the mining sites. This is particularly problematic when it concerns school-going and other vulnerable girls⁵ and can lead to increased teenage pregnancy and domestic violence. In our assessment, we discovered that no SGBV offences were conducted on the mine sites.

Focus group discussions held with community stakeholders in nearby villages, indicated that cases of SGBV were, however, on the increase. Several cases had occurred in all the communities surveyed. There was at least one case of a woman abusing her husband on the mine site, after she accused him of infidelity.

This situation is however gradually changing due to a policy shift aimed to address SGBV issues, especially sexual activities with children. A very strong law was enacted in 2018 that now proposes serious consequences to any sexual activity against women. The current First Lady of Sierra Leone initiated a 'Hands Off Our Girls' campaign which is promoting community awareness about the rights of women and girls and supporting communities to report any SGBV, especially against girls. The new mining bill, which will review the Mines and Minerals Act, 2009, also has some serious proposals for women's socio-economic benefits and protection. Part two and three of the proposed Customary Lands Right Act, 2021, are fully dedicated to removing all forms of discrimination previously upheld by customary laws. The new law proposes that both male and female family members can own, inherit and benefit from customary family land deals equally.

⁴ All legally acquired mining licenses are surveyed with GPS. The coordinates always used to determine boundaries between two plots.

⁵ A female miner attesting that women are sexually exploited in mining communities - NRGI https://www.youtube.com/watch?v=rxNTpFlsado

8.3 Environmental impact of artisanal mining

It is often stated that artisanal mining has a more negative impact on the environment than other forms of mining. The main argument is that this is because the artisanal mining sector is less regulated and more informal when compared to large-scale mining, which needs to behave more responsibly due to regulation. This is however not true in all cases. Large-scale rutile and bauxite mining communities in Bonthe and Moyamba are seriously devastated. Where rutile is mined using dredges, ponds and lakes are left with barely no soil to cover the pits. In Kono, there is already an artificial hill of boulders and rubble from the mining pit of Koidu Limited Kimberlite Mining Company.

Among the environmental issues commonly associated with artisanal mining are destruction of habitats, no responsibility for reclaiming land after mining activities (see Figure 4), water pollution of fresh riverbeds and excessive use of water sources during mining.

In this assessment, we have found that 15 out of the 21 mine sites visited are close to a water body. The presence of water is crucial for mineral extraction (washing gravel). In 6 sites, water is further away, meaning that miners need to transport their gravels over some distance. In 12 of the visited sites (57%), respondents said water bodies were smelling and had changed colour due to mining activities. The washing of the gravel unavoidably turns the water muddy and brown, leading to those colour changes observed. About a month prior to this study (in February, 2021) there was a persistent call from communities for the government to act on rampant illicit artisanal and small-scale mining along river basis thus leading to pollution of the water. Villagers on the river side who depend on the streams and rivers for domestic and economic activities were seriously affected by the mining activities. Ponds can easily dry out in the dry season if they are used to wash gravel.



Figure 4: An abandoned artisanal diamond mining site in Kono District ©NMJD

In 17 out of 21 sites, miners admitted that they cut down trees to clear the land in preparation of mining. This is a typical practice, as mining requires clearing the land surface entirely and excavating the soil to a depth usually above the stipulated 10m. In one site, trees are used to burn charcoal for sale. Amidst acute lack of reliable electricity and poor economic conditions of Sierra Leoneans, charcoal is the main energy source for cooking in most homes in the cities and bigger towns.

It is rare for any artisanal miner to reclaim the land, because they are not legally obliged to do so. The license calculation includes a land reclamation fee. However, the license fees paid to the

government, which includes environmental tax, is insufficient to address the environmental damage. Therefore, when the miners leave with no obligation to reclaim the land after mining, they are not held responsible, while the government is equally not able to reclaim those mined-out areas.

8.4 Government oversight of artisanal mine sites

To comply with mining laws and regulations, artisanal miners need to first acquire a land lease agreement with the landowners, in the case the applicant is not the landowner. Then an application is made at the decentralized National Minerals Agency (NMA) office. NMA staff at the cadaster will check whether part or the whole of the land in question is not under a valid license. When this is not the case, a survey team will visit the site for GPS reading. Once the land is cleared of all conditions and the base map of the site is ready, payment for the license is made and the license is issued.

During this study, it was found that 17 of the surveyed sites (81%) have a document to show that the plot was licensed. Three sites had no documentation to show. One site couldn't tell whether the plot was licensed or not.

The National Minerals Agency (NMA) has mine wardens who do visit mining sites on regular bases to check if mining sites are in compliance with the law and, if not, seize and confiscate the tools and in some cases, arrest illicit artisanal miners. However, these mine wardens are not part of any State forces. To enforce their decisions, the NMA wardens mostly collaborate with the State police and in extreme cases with the army under the mandate of the Office for National Security (ONS). Other State services also have reasons to visit mine sites, e.g., to verify environmental standards (the Environmental Protection Agency (EPA)) or health issues (the Ministry of Health).

It was discovered that in the week prior to this study (March, 2021), about 33 State service personnel visited the 21 mine sites at least one time. Also during this period, a joint force of NMA staff and security personnel was raiding mining communities in response to the call from local residents about water pollution along riverbeds. The Environmental Protection Agency (EPA) was also notably active within that same period (see Table 5).

Chiefs and other traditional authorities, as the custodians or owners of customary land, also do visit mining sites. This is mostly to check on progress with mining activities as they are entitled to a share of the proceeds. We observed that benefit sharing arrangements vary between the two districts. In Kono, where chiefs assume strong interest in the land, landowners who hold the mining license for their land, may get about 30% of the proceeds. In Kenema, some communities can license the entire area and do not allow strangers to mine on the land. In more cosmopolitan communities like Tongo, landowners go for a strong share of around 50% of the proceeds. However, at present, these lands have been largely given to a large-scale kimberlite mining company, Sierra Diamonds.

Table 5: List of State services visiting this study's 21 artisanal mining sites. NMA = National Minerals Agency; EPA = Environmental Protection Agency; NPAA = National Protected Area Authority

Authority	Purpose	Visits
NMA	Administration, compliance	16
EPA	Environment	6
Chiefs	Authorities	5
Ministry of Health	Health	4
NPAA	Forest	1
Police	Support To Nma	1

The visits are done randomly, depending on the State service and the community. Easy to reach and nearby communities receive more frequent visits than extremely remote and hard-to-reach sites. NMA's mine warden officers are regularly visiting the sites, more than any other agency. They visit sites to check for mining licenses and to ensure compliance with the Mines and Minerals Act and other regulatory laws such as environmental, child right and gender laws. They also visit sites to conduct sensitization on workers' health and safety, on the importance of peace and on the impact of child miners. Joint team visits are rare. Central government officers like Members of Parliament and the Ministry of Mines are mostly focussed on the large-scale mining sites, and do not easily visit the artisanal mining sites. These trends were confirmed in the studied sites. It was also noted that, no non-state armed actor visited any of the artisanal mining sites.

There is no evidence that the miners are interested in these visits from State officials. The State officials are regulators. Miners, especially those whose licenses are expired or are not in compliance with other regulations, largely run away during the visits and only return after the State officials have left.

9 CHALLENGES CHARACTERIZING THE ARTISANAL MINING SECTOR OF SIERRA LEONE

Several challenges were noted, based on the mine-site survey data presented in Section 8 and from the focus group discussions with community members and stakeholders engaged in the artisanal mining sector:

9.1 Legislative challenges for artisanal mining

As clear from our mine site survey, diamond production in Kono and Kenema districts at the time of the survey was rather low (29.5 carats in 21 mine sites (see Table 2, section 8.1.4). More than half of the sites (12 of the 21) didn't find any diamonds for that period. After decades of mining, surface layers in Kono and Kenema districts have become depleted in diamonds, requiring miners to go deeper to excavate diamond-rich gravels that have not been mined before. These deeper layers have not been mined as much, because the current law (Mines and Minerals Act, 2009) restricts artisanal miners from using earthmoving machines to conduct deeper mining operations. The Act also forbids them from going deeper than 10-meter depth. In focus group discussions, miners and community stakeholders that were interviewed all indicated that these legislative restrictions are threatening the existence of the artisanal diamond mining sector.

In reaction to this challenge, the government of Sierra Leone is in the process of reviewing the **Mines and Minerals Act of 2009**. During the nationwide consultations held as part of this review process (held in early 2021) in the four regional headquarter towns including Kenema and in Koidu (headquarter town of Kono district), artisanal miners recommended review of the law so that they can be allowed to use machines in their mining activities. Miners and communities remain hopeful that the reviewed law will include their recommendations. However, this remains to be seen. The proposed law has not changed the 10-meter depth restriction for artisanal mining. Instead, it has further categorized small-scale mining into categories 'A' and 'B' ⁶. The intention is to provide a mid-way opportunity to some artisanal miners who would want to dig deeper than 10 metres to acquire a small-scale mining license category 'B'. However, the emerging challenge will be the ability of citizens to acquire a scale-scale mining license category 'B'.

⁶ Small-scale Category A mining means the intentional extraction of minerals in mechanized open cast or underground operations not exceeding 40 metres depth conducted on area more than 50 hectares up to 200 hectares; and Small-scale Category B mining means the intentional extraction of minerals in mechanized open cast or underground operations not exceeding 20 metres depth conducted on more than one hectare up to 50 hectares.

A second legislative challenge for artisanal miners is posed by small- and large-scale miners. Until the review process gets through (hopefully by the end of 2021), the Mines and Minerals Act, 2009 gives the power to a small- or large-scale mineral right (license) holder to possess land owned by an artisanal miner. This means that a large-scale or small-scale mining interest can overrule a valid artisanal mining right. Government lets this happen because small-scale and large-scale miners pay more taxes, tend to employ more people and are comparatively more regulated than artisanal miners. Moreover, local landowners have complained that sometimes foreign miners who have tried to obtain artisanal mining rights and failed, can easily obtain a small-scale mining license and in this way, can take over several artisanal mining plots. Large-scale miners are accused of laying claim of ownership over wider areas of land, thereby prohibiting artisanal miners to carry out their mining activities on these lands. Artisanal miners feel powerless in these cases. This is most prominent in Tongo, where large-scale mining company Sierra Diamonds Limited has taken over the Tonguma Mines previously acquired by Koidu Holdings Limited, and in Komaro gold field, which is now occupied by the Wongo Mining limited. The new mining law proposes that the two owners (i.e., the artisanal miner and the large-scale or small-scale miner) agree on shared use of the land. This is a valid proposition, because usually the artisanal miner only digs the surface while the large-scale miner goes deeper.

Thirdly, and reversely, the **informality of the artisanal mining sector** also poses challenges to the government and its legislative/regulatory efforts. It is being noted in several public documents, including the Artisanal Mining Policy, that the lack of reliable data on artisanal mining operations (cf. e.g. Section 8.1.4) is making the government lose significant taxes and assists in the smuggling of diamonds across the porous borders of Sierra Leone and its neighbouring countries, into nearby countries. Moreover, without proper documentation, government regulatory agencies cannot determine how many people are engaged in the field and what is required to support local miners. This adds to their vulnerability (see Section 9.2). Currently efforts are being made by the national mining sector to collect more data. This has started with the electronic mapping of all legally acquired artisanal mining sites by the National Minerals Agency.

9.2 Lack of regulation leaves artisanal miners vulnerable

The informality of the artisanal mining sector and the lack of regulation and monitoring of activities in the field leave artisanal miners vulnerable. Our study has found several examples of this.

First of all, through **precarious financing** (see Section 8.1.5), miners have to depend too much on shady investors and on what buyers are willing to pay them. In the absence of other options to access capital and finance mining operations, these financiers are often the only option. In these relations, miners do not hold the negotiation power, because of entrenched poverty or prefinancing arrangements, amongst others.

More regulation/formalization could allow miners to engage into more controlled business arrangements with financiers, to get access to alternative financing sources and to obtain fairer prices for their stones. The current Mining Regulatory framework makes an attempt to provide some directives, but most miners say the government officials who implement the regulations use their discretions to satisfy the financier.

Secondly, in Section 8.2 of our findings, we elaborated that serious **health and safety issues** for miners and mining communities, with accidents and illnesses common among miners, are impacting the lives of miners. This is facilitated by the absence of effective regulation, monitoring and awareness of health and safety conditions of workers on mine sites.



Figure 5: Men and women working at an artisanal diamond mining site ©NMJD

Thirdly, as described in Section 8.3, significant environmental issues are related to artisanal mining. Water pollution is also affecting nearby communities, especially those who rely on rivers as a source of water for domestic use. Deep abandoned pits close to communities have led to several children drowning in Koidu city and its surroundings. Better guidance, regulation and monitoring of mining sites are key to ensure more sustainable environmental practices and a safer and healthier environment for miners and mining communities.

9.3 Socio-economic challenges to artisanal mining communities

During our focus group discussion in Kono and Kenema districts, civil society groups testified that artisanal mining has rather disempowered rural communities than empowered them – in contrast to what was anticipated by the government when it designed its vision for artisanal mining. Many factors are responsible for artisanal miners staying in poverty, including mineral smuggle, lack of standard pricing agencies and lack of diamond cutting and polishing and gold refinery facilities where miners can get the end-point benefit of their minerals along the value chain. The miners are not adequately protected by the laws and regulations, and thus have always been at the receiving end of the supply chain. This is the most obvious in the prices paid to miners for rough diamonds versus the prices paid for diamonds on the global market. Overall, it is very hard to make a decent living in artisanal mining.

Poverty is also visible and entrenched in mining communities due to absolute lack of public health and social amenities. The Tongo community, for instance, is widely known for water shortage. The gold mining community of Nimikoro still doesn't have any public health facility regardless of the influx of people there. There are many of such cases of utter lack of basic social and health amenities characterizing (rural) mining communities.

More regulation towards formalization of the artisanal mining sector would allow miners to earn a more decent living (get a better price), work in better conditions (with rights and duties) and in healthier environments. Most of the miners are local indigents of their communities. By improving on their living conditions through artisanal mining, the communities in which they live can be transformed.

10 CONCLUSIONS

This study was undertaken to establish a comprehensive understanding of the diamond supply chain in order to have a baseline knowledge of the actors, actions and linkages, and develop a concise database of artisanal diamond mining sites in an effort to contribute to improved governance of the artisanal diamond mining sector in Sierra Leone.

The objective was to analyze what the barriers and opportunities for formalization of the artisanal diamond sector in Sierra Leone are, through a case study of selected mining sites in Kono and Kenema districts.

Our general conclusion drawn from this assessment is that, the artisanal mining sector of Sierra Leone is indeed faced with several challenges arising from the fact that the sector is less regulated and largely informal. Amongst the key challenges identified in this study are a lack of documentation of the sector, legislative and socioeconomic challenges for artisanal miners and the overall vulnerability of mining communities.

That notwithstanding, artisanal mining is still very instrumental for the livelihood support of rural communities. The findings indicate that the sector is still productive and still employs many workers. We have also concluded that formalization of artisanal mining is crucial for the government in order to have control over the activities carried out by the various actors engaged in the sector. Delay with formalization will only exacerbate the negative impacts on the affected communities and the miners.

The formalization process should take a deliberate effort to make the sector organized, attractive and meaningful to address the serious environmental, social and economic challenges that are discussed.



Figure 6: Miners at an alluvial artisanal diamond mining site in Kono District ©NMJD

11 RECOMMENDATIONS

From the findings and the conclusions drawn, the following actions are recommended:

- 1. Government to undertake a well-planned formalization effort of the artisanal mining sector - Government has already taken a very bold step to have an Artisanal Mining Policy. However, at this time that the government is reviewing the mining laws, it is also the appropriate time for government to enact a law that can address the injustices in the artisanal mining sector and make sure artisanal mining contributes to increased development and wellbeing.
- 2. While awaiting laws that can effectively govern the artisanal mining sector, effective implementation of the Artisanal Mining Policy, 2018 and other existing regulations, can savage the existing anomalies Government has to make deliberate efforts to raise citizens awareness on its policy positions elaborated in the 2018 Artisanal Miming Policy. In that policy, Government acknowledged that regardless of the existence of several regulatory frameworks and Sierra Leone signing up to many international regulatory instruments such as the Africa Mining Vision, the EITI, and Kimberley process, "insufficient attention has been given to regulatory oversight of artisanal mining in Sierra Leone. Mineral sector regulatory oversight has predominantly focused on large-scale mining with some attention to small-scale mining operations; leaving artisanal mining with no regulatory oversight beyond licensing procedures and processes." (AMP, 2018 p17)
- 3. Government to align the contents of the propose Customary Land Right Act with some related sections of the proposed Mines and Minerals Development Act In order to restore the rights of citizens and make them benefit from the artisanal mining sector, the legislative environment has to be favourable. Land acquisition processes for mining and other investments has to be well defined and put at the advantage of the citizens. This goes beyond the condition for a land lease agreement. For citizens to have control of the artisanal mining sector, land should be their right and no foreign investor should have a dominant control over land used for (artisanal) mining.
- 4. Government to consider the domestication of the Washington Declaration Government should lower fees for artisanal mining licenses and increase accessibility, enhanced data collection and analysis, strengthen property right, financial transparency and good governance, increase empowerment and awareness actions for miners and investors, expand access to mining inputs, mitigate environmental damage, harmonize laws and enhance occupational health and workers' safety, to name but a few.

12 REFERENCES

- 1. GoSL (2009). Mines and Minerals Act, 2009; (under review)
- 2. GoSL (2018). Artisanal Mining Policy
- 3. GoSL (2019) National Medium Term Development Plan 2019-2023
- 4. NMJD, KPCSC Assessment of COVID19 on mining communities;
- 5. NMJD_ISODEC_ Assessment of the impact of COVID 19 on the mineral and macroeconomic sector of Sierra Leone
- 6. DDI (2008). Standards and Guidelines for Sierra Leone Artisanal Diamond Mining Sector
- 7. GoSL Geo-data management Policy, 2018.
- 8. DDI-Development Diamonds: something to think about (Ian Smillie, DDI, 2018)
- Levin, E. & Turay, B. (2008). Artisanal Diamond Cooperatives in Sierra Leone: Success or Failure? https://www.researchgate.net/publication/238094564_Artisanal_Diamond_Cooperatives_in_ Sierra_Leone_Success_or_Failure
- 10. NRGI Video Documentary Women and Mining in Sierra Leone https://www.youtube.com/ watch?v=rxNTpFlsado
- 11. De Beers GemFair Initiative https://gemfair.com/
- 12. GIA https://4cs.gia.edu/en-us/diamond-buying-guide/

13 ANNEX 1

Details (per surve	ved mining	site on	mineral	production	in the s	ite
Details	Der Surve	yea mining	SILC OII	minerui	production	in the J	i c c

Name of Site	Production Comments
Number 6 and 7	The production can be good when you meet gravel
Bakundu	Production process is very challenging because most of the time it will take a very long time without seeing a single Diamond.
Bondo Bush site	Poor production, they need loan facilities and other alternative livelihood.
CPJ digging	Production is not going as expected and the miners are very much discouraged.
Gbogboa 1	Lack of knowledge on where the diamonds are being exported.
Gbogboa 2	The production of the site seems low according to the respondents
Kainjama mining site	As a result of covid-19 no mining was taking place in this site since 3rd March 2020 when they obtained license for the mining pit. They resumed mining on 12th December 2020 and have not had any production since then
Kenja	Production as of last year was not bad but we hope it will be better this year
Landoma	Production is very poor in the sense that diamonds are very scarce these days as compared to their usual winnings.
Lauma area	The site is better and productive for us now but it is seasonal.
Legbeyawi mining site,	We have experienced poor production on this site. Since we started washing the gravel, we have not found any diamond.
Maima Junction	Not very encouraging.
Mamen on the rock site	The local miners in the mining sites are underpaid by their employers. Most workers are paid \$2 per day. They hope for an increase in salary.
Mapota mining site	Diamonds are hard to come by at this particular site as it has been dug many times.
Mottema Pala	The proceeds from mining are really slow, but we still focus on it because of our love for mining activities and there is no other job occupation we can engage in.
Number 11	There is low production at present on the site as expected.
Nyekehun	Production is very low as compared to the past.
On the Rock	Production is satisfactory
Seovama	As a miner we are not treated fairly by our supporters or managers. The payment is not encouraging to meet our needs. We wish for a fair share of 30% from Diamond Sale but we are not allowed to know what actually the sale is.
Water-Works Junction	We have not yet succeeded in getting diamond(s), but hopefully, based on the materials seen in other pits within this locality we are hopeful.
Yeigbehda Site	The production on this site is somehow encouraging

