



FOREST POLICY, TRADE, AND FINANCE INITIATIVE

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RAPID ASSESSMENT OF LIBERIA'S MINING SECTOR, WITH A FOCUS ON THE LOCAL IMPACTS ON FORESTS AND PEOPLE

Acknowledgments

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Foreword

In 1965, the book Growth Without Development offered a stark critique of Liberia's economic model—one heavily reliant on a foreign-dominated mining industry that generated impressive revenue but left the majority of Liberians behind. Sixty years later, the findings of this rapid assessment suggest that Liberia remains trapped in that same cycle. The economy has grown, driven largely by the mining sector, but Liberia has failed to develop.

Today, mining accounts for a fifth of Liberia's GDP, dominates exports, and generates a significant share of government revenue, yet this wealth is not being translated into better services, stronger institutions, or improved well-being for most citizens. Instead, the evidence presented here shows widespread non-compliance by mining companies and the systematic underreporting of trade and undervaluation of exports, all leading to millions of dollars in losses, depriving Liberia of the resources it needs to invest in its people and future.

At the same time, rural communities—those living closest to the mines—are suffering the greatest harm. Many are not receiving their legally mandated share of benefits, undermining their development. Their forests are being cleared, their water sources polluted, and their livelihoods disrupted. Promises have been made but not kept. The result is frustration, distrust, and too often, conflict.

Liberia's forests—half of the remaining biodiversity hotspot in West Africa—are also at risk. Areas proposed for protection are being reduced to accommodate mining interests. These overlaps, combined with legal ambiguities and poor coordination among government agencies, are undermining Liberia's commitments to biodiversity conservation, climate action, and the rights of local communities.

This is a pivotal moment. Liberia must break with the past. It cannot afford another decade of extractive growth that fails to deliver meaningful development. What is needed now is more transparency, more accountability, and a fundamentally different model of resource governance—one that prioritizes social equity, environmental sustainability, and community rights. Fortunately, the Government appears ready. Liberia's EPA and FDA have strongly defended against the de-gazettement of the country's premier protected area, Sapo National Park. Likewise, the EPA's recent nationwide environmental monitoring and compliance assessment has set a marker for companies to clean up their act.

This report provides a clear and evidence-based call to support the Government in their renewed engagement. It calls for reforms to Liberia's mining legislation—aligning the Mining Law with the 2010 Minerals Policy and international best practices. It calls for improved oversight of trade to generate increased revenue. It calls for the full and fair sharing of benefits, and for mining companies to meet their obligations—not only under Liberian law, but under the broader principles of justice and good governance. And it calls for the long-overdue national land use plan that protects ecologically critical areas and upholds community land rights.

Liberia has a choice. It can continue down a path of growth without development, or it can choose a new future—one where natural wealth becomes a foundation for shared prosperity, peace, and resilience.

We hope this report contributes meaningfully to that choice—and to the urgent, collective work of making development real for all Liberians.

Michael Jenkins
President and CEO
Forest Trends

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Acronyms and Notes

ARREST	Agenda for Inclusive Development (GoL's Poverty Alleviation Plan)	NDC	Nationally Determined Contribution (Liberia's national climate action plan under the Paris Agreement)
ASM	Artisanal & Small-scale Miners/Mining	NGO	Non-governmental Organization
CBL	Central Bank of Liberia	NFRL	National Forestry Reform Law of 2006
CDA	Community Development Agreement	NRWP	Natural Resources Women Platform
CDF	Community Development Fund	NTFPs	Non-timber Forest Products
CF	Community Forest	PEP	Politically Exposed Person(s)
CFDC	Community Forestry Development Committee	P/PA	Proposed Protected Area[s]/Gazetted Protected Area[s]
CLMDC	Community Land & Management Development Committee	PPCA	Public Procurement & Concessions Act
CMF	Concession Management Framework	SAFC	Salayea Authorized Forest Community
CSR	Corporate Social Responsibility	UN	United Nations
ED	Executive Director	US\$ or USD	United States Dollar
EPA	Environmental Protection Agency	B	Billion (e.g., US\$2B = 2 billion US dollars)
FDA	Forestry Development Authority	M	Million (e.g., 1M ha = 1 million hectares)
FPIC	Free, Prior, and Informed Consent	30X30	30 percent of Liberia conserved by 2030 (as part of Liberia's conservation commitments)
FOMAL	Federation of Miners Association of Liberia		
GAC	General Auditing Commission		
GDP	Gross Domestic Product		
GIS	Geographic Information System		
GoL	Government of Liberia		
IMF	International Monetary Fund		
LRA	Liberia Revenue Authority		
LEITI	Liberia Extractive Industries Transparency Initiative		
LMAL	Local Miners Association of Liberia		
MACs	Ministries, Agencies, and Commissions		
MCAS	MME Cadastre Administration System		
MD	Managing Director		
MDA	Mineral Development Agreement		
MFDP	Ministry of Finance and Development Planning		
MME	Ministry of Mines & Energy		
MOU	Memorandum of Understanding		
NBC	National Bureau of Concessions		

Notes

Mining Licenses

In this report, for the sake of clarity, we use the term “exploration license” for the set of licenses that allows “the right to conduct exploration” (Mining Law § 5), and we use “production license” for the set that allows “the right to operate mines” (§ 6 & 7) including those that are linked to extractive operations (like Llasting).¹

We use geospatial data for mining licenses from the Ministry of Mines & Energy (MME) Cadastre Administration System (MCAS, collected on April 15, 2025 (Ministry of Mines and Energy n.d.)).

- The only information in the MCAS spatial database on artisanal mining is a map with points indicating 18 Class C mines (out of almost 2,500 active and applicant Class C licenses). The MME provides no other geospatial information for these 18 licenses (like polygons showing where the mines are actually located). Likewise, the MME provides no information on unlicensed mines. Therefore, for all intents and purposes, we note that the MME provides no spatial information on artisanal mining.
- The Hummingbird Resources Inc. Dugbe Gold Project in Sinoe County is listed as a Mineral Development Agreement (MDA) in the MCAS database. Despite the MDA having been ratified more than five years ago, the MME does not report granting a production license to Hummingbird (that is, there is no active nor even applicant production license in the MCAS database). Therefore, being unlicensed, the 176,540 ha associated with Hummingbird does not figure in any of the assessment's maps, tables, or other calculations.
- As our assessment is based on this MCAS GIS data, our calculations (e.g., regarding areas under license) may differ from other references that use other data sources.

Land Use Designations

We use geospatial data for industrial logging areas (i.e., Forest Management Contracts (FMCs)), Community Forests, and parks and other Protected Areas (PAs), including Proposed PAs (PPAs) provided by the Forestry Development Authority (FDA) on June 23, 2025.

Units

Currency: \$ = US dollars, unadjusted for inflation, unless otherwise noted.

Area: hectares (ha), unless otherwise noted.

Executive Summary

Mining has long been the cornerstone of the Liberian economy, dominating exports, and generating nearly a fifth of GDP and government revenue. Post-war reforms were driven largely by international requirements, including those imposed by the Security Council for lifting UN sanctions. These reforms sought to embed principles of good governance and to prevent the sector from again becoming a source of instability. Central to this vision was the equitable sharing of benefits, from industrial mining of gold and iron ore particularly. Decision makers recognize this as a Constitutional duty. Indeed, Article 7 of the 1986 Constitution obliges the Government of Liberia (GoL) to manage natural resources “in such manner as shall ensure the maximum feasible participation of Liberian citizens under conditions of equality as to advance the general welfare of the Liberian people and the economic development of Liberia.”

This assessment draws on legislative reviews, trade data, field research, and geospatial analysis to evaluate whether Liberia’s mining sector is meeting that constitutional promise.

Fiscal Impacts and Government Revenue Losses

Despite post-war reforms, the assessment finds that the GoL is losing significant revenue from both industrial scale and artisanal mining. Minerals are consistently sold at below international market prices, and trade data suggest widespread under-reporting, with importers recording billions more in imports from Liberia than Liberia reports as exports to its trade partners. Specific evidence is challenging to obtain, but discrepancies of this magnitude and consistency often indicate large-scale tax evasion and illicit trade, including cross-border smuggling. Liberia’s fiscal losses are compounded by weak enforcement of mining laws and regulations, which allows companies to under-declare output and evade associated royalties, and violate environmental obligations with minimal consequences. While difficult to quantify precisely, the GoL is likely losing hundreds of millions of dollars annually, undermining its ability to deliver essential services and invest in development.

Community Benefits and Local Impacts

Incomplete and Inequitable Benefit Sharing: in addition to national losses, there is strong evidence that communities living near industrial mining operations are not receiving their fair share of benefits. Based on existing legal entitlements and contractual commitments: i) under their Mineral Development Agreement (MDA), companies responsible for large scale extraction of gold and iron ore must share revenue with the local communities affected by their mining; ii) companies engaged in exploration must spend two percent of their annual budgets on local development, and iii) under the Land Rights Act, companies must now provide five percent equity to affected communities. However, reporting on these last two are not transparent and compliance is, therefore, unknown. What records are available for the first type of benefits sharing suggests that between 2007 and 2023 no more than US\$119 million has been shared with communities, with an additional \$12 million in in-kind contributions such as road rehabilitation. What should have been shared is also not clear, but it is likely at least \$188 million.

However, there is considerable variation in the legal requirement for the seven large gold and iron ore companies, as iron ore MDAs were established post-conflict, whereas the gold MDAs were from pre-war. Gold producers currently contribute less than 0.1 percent of their reported export earnings to community

development compared with about 5 percent for iron ore. If gold mining was required to contribute at the same rate as iron ore companies, local communities would have a legal claim of \$454 million to date.

Governance Failures at the County Level: Evidence also suggests that those funds that have been paid since 2012 were directed, not to the communities themselves, but to county governments. The General Auditing Commission (GAC) has documented gross fiscal mismanagement and a lack of oversight by the Ministry of Internal Affairs. As a result, communities remain impoverished, feel cheated, and are frequently in conflict with both government and companies.

Environmental Damage: The environmental toll of mining is severe. Liberia's Environmental Protection Agency (EPA) has identified widespread non-compliance, including pollution of water sources and broad ecological degradation. It is noteworthy that in contrast to failures relating to financial regulation, there have been a number of successful closures and penalties for polluting mines. Mining also poses a grave threat to forests. Nearly 50 percent of Liberia's forests overlap with active or applicant mining licenses. When small-scale and illicit operations are included, the true extent of the risk of deforestation is far greater. Mining has even encroached on Liberia's network of protected areas, undermining its biodiversity commitments and limiting opportunities for carbon and conservation finance.

Conflicts between mining and other land uses, particularly community forests, highlight foundational contradictions in Liberia's legal framework. While the Mining Law grants the State extensive mineral rights, the Forestry Development Authority (the FDA) has granted forestry licenses to the same areas. This ambiguity has led to multiple court cases. A striking example is the Salayea Authorized Forest Community (SAFC) case, where both a mining license (issued by Ministry of Mines & Energy) and a logging contract (authorized by FDA) were deemed valid. The resulting dispute highlights the lack of coordination this ambiguity creates.

Proposals for Reform and Sustainable Development

To restore community trust and maximize national benefits from mining, Liberia must undertake urgent reforms across fiscal, governance, and environmental dimensions, with the aim of:

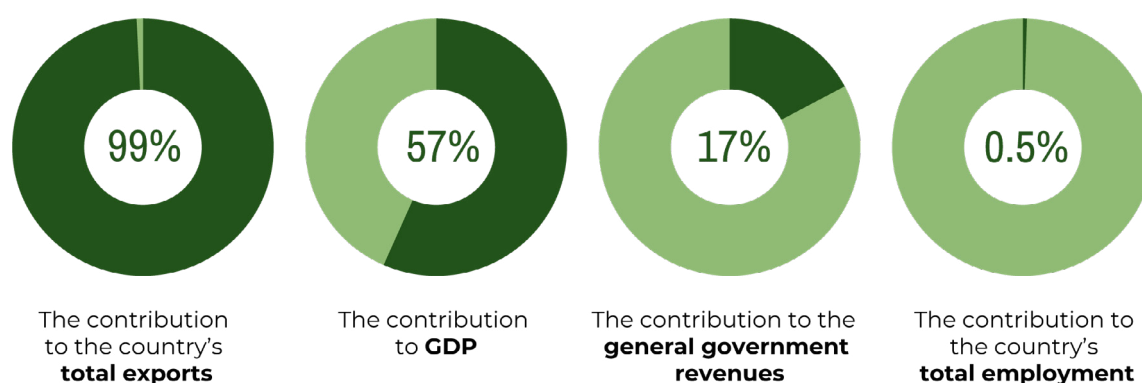
- Stemming Financial Losses from current extraction by improving monitoring of production and exports, strengthening customs verification, and enforcing full tax and royalty compliance.
- Revising the Legal Framework to clarify contradictions between mining, forestry, and land laws, and ensure consistent interpretation of land-use rights.
- Ensuring Transparent Benefit Sharing through direct community payment mechanisms, enforcement of community equity participation, and auditing County-level disbursements.
- Strengthening Environmental Oversight by reinforcing the EPA's monitoring capacity, publishing compliance data, and explicitly linking verification of environmental performance to license renewals.
- Aligning Incentives for Companies by requiring gold mining companies to contribute to community development at parity with iron ore operators, and linking fiscal incentives to compliance.
- Building Long-Term Trust with Communities through the delivery of predictable, audited, and participatory benefit-sharing programs
- Developing a National Land Use Plan that identifies "no-go" zones for mining based on ecological importance, community land rights, and commitments under the Land Rights Law, including Free, Prior, and Informed Consent (FPIC).

Liberia's history of "growth without development" is a tragic legacy of wasted potential dating back decades, where mining drives rapid GDP expansion but there is limited social progress. Reversing this will only be possible if mining revenues are transparently managed and communities are meaningfully included. Sustainable mining governance, not opaque resource extraction, must now define Liberia's economic future.

1 | Introduction

Mining is critical to Liberia. The most recent analyses from the Liberia Extractive Industries Transparency Initiative (LEITI 2025) report is that, in 2023, the formal sector constituted 85 percent of exports and 19 percent of GDP, as well as 17 percent of all government revenue (Figure 1). In the 1980s (and before a period of prolonged civil unrest), Liberia was the largest iron ore producer in Africa and the sector employed 15 percent of the country's workforce (50,000+ people) (Gunn et al. 2018). Since the end of the civil war, and the resumption of industrial mining, the sector has not met the expectations of the Government of Liberia (GoL) and many of its development partners. As of 2023, only 0.5 percent of the labour force, or 2,587 people (>99 percent men), work in the formal mining sector (LEITI 2025).

Figure 1: Contribution of the Extractive Sector to Liberia Source: LEITI 2023.



Source: LEITI (2023)

Over-promising and unmet expectations have long been a problem for the sector. The GoL's most recent poverty alleviation plan, ARREST Agenda for Inclusive Development (Government of Liberia 2024), aims for over eight percent growth for the mining sector between 2025-2030.

Even if the sector can achieve this rapid growth, development will not necessarily follow. Indeed, in the past, even when the economy grew on the back of mining, the country failed to develop. In the 1950s, Liberia had the second highest growth rate in the world, but the country suffered *Growth without Development* (the name of Clower et al.'s 1966 review of the sector). Sadly, this is still largely the case. Liberia and most Liberians do not benefit enough from the exploitation of Liberia's resources.

The GoL understands the twin challenges of growth *with* development. Indeed, ARREST recognizes:

“the effective management of these [mineral] resources has been challenging due to historical, social, and economic factors... such as insufficient revenue capture, limited community benefits, environmental harm, and governance weaknesses. Poorly negotiated terms often favor investors, reducing public revenue and transparency. Revising [the terms of mining contracts] is critical to address these gaps, ensure equitable resource distribution, strengthen environmental safeguards, and align agreements with Liberia’s development priorities. In attracting foreign investment, issues such as corruption, inadequate infrastructure, and environmental degradation continue to pose significant hurdles. Other challenges include limited capacity by Liberian institutions to implement mining laws, limited benefits to the communities around the mining areas which causes tensions, limited enforcement and compliance to environmental standards by the companies, limited mineral beneficiation, limited transparency in licensing and regulation among others.”²

In order to better understand these challenges, and how they might be overcome, **this report is a rapid assessment of the mining sector with a focus on local impacts.**

First, we assess the impacts of mining on forests.

Liberia’s forests are of global importance. Liberia contains almost half of the remaining tropical rainforest in West Africa (FDA 2020), which is a *biodiversity hotspot*³. The loss of these forests drives greenhouse gas emissions linked to climate change (Pearson et al. 2017).

In this assessment, we map the overlap between mining and forest cover, with a focus on areas of conservation importance, including parks and other protected areas (PAs), as well as those areas *proposed* for PAs (PPAs).

Next, we assess the impacts of mining on people.

Aside from the global importance of Liberia’s forests, most rural Liberians rely on these forests. Mining undermines environmental services when local water sources become polluted and when forests are cleared or degraded by mining operations.

Mining also interferes with local livelihoods when it displaces people from their land, depriving them of income, and further undermining customary rights, including the right to self-determination, that are already poorly enforced.

In this assessment, we map the overlap between mining licenses and Community Forests (CFs).

Next, we assess the impacts of the trade in minerals on state revenue.

We first evaluate the production and export of minerals and then examine evidence of tax evasion and other losses.

² The previous Weah administration also recognized this lack of development in its New Pro-Poor Agenda for Prosperity and Development: “[g]rowth did not create the anticipated jobs or achieve the desired structural transformation.” (GoL 2018). USAID (2008) has also long recognized this, noting that the GoL was “counting on such growth [from mining] as a means of contributing significantly to employment, income generation and infrastructure development.”

³ Hotspots are a network of ecosystems that contain 80 percent of the world’s plants and animal species in only 2 percent of the earth’s surface area.

Lost state revenue undermines the GoL's ability to deliver for its citizens.

Finally, local people, being those most affected by mining, can expect to share in the benefits generated by the exploitation. Indeed, 1) A key condition of an exploration license is that the mining company spend at least two percent of their budget on the development of communities affected by their operations; 2) Under the Land Rights Law, communities where mining concessions are located “shall collectively maintain a minimum five percent undiluted free carried interest in the rights of the Concession...in addition to any other benefits;” and, 3) Liberia’s large industrial (Class A) mines are required to make an Annual Social Contribution into a “separate segregated account” for “community development and infrastructure investments” (sometimes called a ‘Community Development Fund’, ‘social payments’, or ‘benefit sharing’). These three benefits are above and beyond any compensation that people are entitled to when mining leads to direct losses.

In this assessment, we attempt to calculate the amount of money that the mining companies are required to contribute to community development and evaluate what has been accomplished with this revenue.

In summary, the overall objective of this assessment is to understand the impact of the mining sector on Liberia’s forests and the rural communities that depend on these forests for their lives and livelihoods.

2 | Scope and Methodology

This rapid assessment of Liberia's mining sector draws on geospatial analyses, trade data, field research, interviews with Government of Liberia officials and legislative review. The following sources have been consulted:

Geospatial information⁴

Primarily shared by Liberia's Ministry of Mines & Energy (MME)⁵ and its MME Cadastre Administration System (MCAS) (MME n.d.), the Forestry Development Authority (FDA⁶), and non-governmental organizations (NGOs), primarily World Resources Institute/Global Forest Watch and those in Liberia, including World Chimpanzee Foundation.

Forest cover data

We used forest cover maps from Metria & GeoVille (2016) obtained from a cloud-free, homogenous satellite image database acquired over Liberia between 2013-2015 at 5-30 m spatial resolution with an overall thematic accuracy well above 90 percent; in particular, we use their GeoVille 2014 dataset of 10 m resolution. The forest cover totals are consistent with that of the Liberia National Forest Inventory 2018/2019 (World Bank Forest Carbon Partnership Facility 2018).

Economic information

Primarily from the LEITI⁷ and the Central Bank of Liberia, but we also consulted publications by the Ministry of Finance and Development Planning (MFDP) and the Liberia Revenue Authority (LRA), and met with the Federation Miners Association of Liberia, Voice of Liberia Extractive Transparency, and the Brokers Union.

Environmental information

Primarily from Liberia's Environmental Protection Agency (EPA⁸) and the National Bureau of Concessions (NBC⁹).

Legal review

Our legislative framework summary was reviewed by Heritage Partners & Associates, LLC of Monrovia.

This desk research was complemented by field work and interviews in three locations: Case Study 1 & 3, Sinoe and Rivercess Counties, in and around the Kwa PPA; and, Case Study 2, Gbarpolu County, around the Kpo PPA.

All the relevant documents and data, as well as supplementary information, used in our analyses can be found on the Forest Trends' website for the 2026 Mining Assessment at: <https://www.forest-trends.org/publications/liberia-rapid-assessment-of-the-mining-sector/>

⁴ The methodology used for the geospatial analysis is explained in the relevant results section.

⁵ We thank the Deputy Minister for Planning for talking with the team on July 8, 2025, at his MME office.

⁶ We thank the Managing Director for talking with the team on July 7, 2025, at his FDA office.

⁷ We thank the Head of the Secretariat for talking with the team on April 17 & July 9, 2025, at his LEITI office.

⁸ We thank the Executive Director for talking with the team on July 9, 2025, at his EPA office.

⁹ We thank the Executive Director and his team for talking with the team on July 9, 2025, at his NBC office.

3 | Overview of the Mining Sector in Liberia

Context

Geology

Liberia sits on two geologic zones: i) the west, rich in iron ore, gold, and diamonds; and, ii) a zone that extends from Guinea and Côte d'Ivoire into the southeast, also rich in gold, as well as base metals like zinc and lead. In 2016, China sponsored a geologic survey—the first systematic attempt in 45 years. However, the survey results are yet to be made public, though previous surveys indicate reserves of lithium, uranium, neodymium, and various industrial minerals (e.g., rutile, ilmenite, and sand) (Gunn et al. 2018).

History of Mining

Given these geological assets, mining has long been central to Liberia's economy, contributing up to two-thirds of export earnings. Iron ore was the dominant industrial commodity, but gold and diamonds (and more recently sand (Photo 1)¹⁰) have long been important at the artisanal scale—providing income to hundreds of thousands of people, up to a fifth of them women. However, much of this trade has been informal, depriving government of revenue¹¹ and leaving diggers open to exploitation. Being informal, the trade has also attracted organized crime, in part because the commodities can be used to launder illicit gains (Hunter 2020).

Photo 1. A black sand mining operation in Sinoe County that is using a spiral separator for primary processing. The operation is reportedly owned by the Vietnamese STT Heavy Minerals Resource Ltd.¹²



Source: The DayLight 2023.

¹⁰ The semi-mechanized mining of sand has been increasing near urban centres along the coast. While the building trades use sand for construction, 'black sand' (Photo 1) is reportedly being exported (to China and Vietnam) to extract coltan or for ceramic manufacturing.

It should be noted that, aside from detrimental environmental impacts, illegal sand mining is often tied to organized crime. Global demand is increasing, and sand is now the third largest illicit commodity in international trade (Taylor 2024).

¹¹ According to LEITI (2025) artisanal mining is "largely informal and not well regulated...a significant portion of revenues disappear into informal channels...[depriving government] of significant revenue, which could be captured if effective tax regimes were put in place."

¹² Note: there are 17 former licenses (all either expired, cancelled, or surrendered) for STT Heavy Minerals Resource, Ltd (or variants), including Class B production licenses for sand, zircon, as well as heavy minerals. There is no information on ownership, other than noting that four of the six Class B licenses are "(Liberian & Foreign Owned)" (Ministry of Mines and Energy n.d.).

Mining and Conflict

More than twenty years ago, during Liberia's civil war(s), the large iron ore mines were looted and shut down. Artisanal mining continued, undermining regional peace and security by funding armed groups.¹³ This prompted UN sanctions (solely on the import of diamonds from Liberia; gold was not sanctioned). Post-conflict, recovery began with reforms tied to peace agreements, complying with international certification systems (for example, the Kimberley Process (n.d.) for rough diamonds) and the lifting of the UN sanctions.

Based on World Bank and IMF projections, the Liberia's 2008 *Poverty Reduction Strategy* (Government of Liberia 2008) adopted their optimism and predicted that mining production would contribute \$100M to government by 2011. Instead, the LEITI (2014) reported that mining contributed only a tenth of this (\$12M). This follows a pattern of the sector over-promising but under-delivering.

But even this limited production has failed to benefit most Liberians. Mining continues to produce *Growth Without Development*, the title of a 1966 book that outlined how Liberia had the second highest growth in the world in the 1950s, but profits were mainly sent abroad or accrued to a small ruling elite, thus reinforcing their political power. **While the economy grew, Liberia failed to develop** (Clower et al. 1966).

Post-war Recovery and Challenges

Mismanagement and corruption continue to mar the sector. Poor infrastructure, pandemics (Ebola and COVID-19), and fluctuating commodity prices have further hampered progress. Despite attempts at formalization under Liberia's poverty alleviation strategy, artisanal cooperatives have reportedly been captured by elites, with few tangible benefits for the miners. The LEITI (2025) warns that without government reinvestment and support (including access to credit and machinery), when seeing no benefits, artisanal miners will revert to informality and illicit mining will persist.

All told, despite the attempts at reform, mining has rarely produced the socio-economic benefits predicted by the GoL and many of its most important development partners.

Mineral Potential of Liberia

Despite the failure to deliver, the sector does have substantial promise. In fact, "The geology of Liberia is favourable for the occurrence of deposits of a wide range of metals and industrial minerals" (Gunn et al. 2018). The National Investment Commission (2022) has highlighted this promise. (Their promotional material is reproduced in Figure 2.) The results of the Chinese-sponsored geo-survey apparently confirmed new reserves that President Baokai reportedly said is expected to attract \$3B in investment (Poquie 2025; Mitchell 2025).

¹³ 'Blood diamonds' reportedly even funded Al Qaeda. (Farah 2004; Smillie 2010)

Figure 2. Map showing Liberia's Mineral Potential. Source: Promotional Material of the National Investment Commission

Sites for Mining Operations

Liberia has a **large stock of mineral reserves** which are suitable for new extraction operations, namely **iron ore, gold, and diamonds** alongside **other minerals**.

The continued growth of the mining sector has the potential to contribute significantly to **employment, income generation, and infrastructure development**.

Specific Sites for investment in mining include **Wologizi Mountain, Nimba Mount and the Bong Range**.

Several sites are available for investment in artisanal and small-scale mining across the country.



4 | Regulatory Context

To take advantage of this mineral potential and ensure that the forecasted \$3B in investment is not another case of “over-promising”, it will **require good governance to attract foreign investment and responsible mining companies** willing to comply with the basic rule of law.

In 2010, the Johnson Sirleaf Administration promulgated a new **Minerals Policy** aligned with international best practices.¹⁴ Although a new Mining Law was drafted, the MME never pushed for its passage. Therefore, the Minerals Policy remains mostly aspirational, as the existing Minerals & Mining Law predates the Policy (The Mining Law was passed in 2000, during the Taylor period) and lacks many of the principles found in the Minerals Policy.

4.1. Conflicting Laws

While several issues need reform, one lies at the heart of this report. That is, there is a conflict resulting from overlapping land uses through, on one hand, the issuance of mining Licenses granted by the MME and, on the other hand, areas managed with the aim of maintaining forest cover under the authority of the FDA. Confusion related to which authority can assign permits undermines local economic activity, especially for local people already using the forests for commercial activity like farming, logging, and the collection of non-timber forest products (NTFPs). Indeed, as described in the *Key Challenges* section of this report, a Magisterial Court has already ruled¹⁵ that the agencies need to resolve this conflict, which has become critical given the increasing disputes between forest communities and mining companies.

4.2. Regulatory Framework

Appendix 1 provides a detailed review of Liberia's legislative framework relevant to mining. Here we summarize each of the main policies, laws, and regulations.

Liberia's **Constitution** gives all mineral rights to the State (they are “absolute and supersede the rights of any Landowners or Occupants”). This is reinforced in the Minerals & Mining Law of 2000 (hereafter, the **Mining Law**), which makes little exclusion regarding where mining can occur. In fact, it explicitly permits forest clearing of mine sites, as well as the cutting of timber necessary for use by the mining operation, all without the need for coordination with the FDA.¹⁶

The **National Forestry Reform Law** (NFRL) passed in 2006 acknowledges the right of the MME to permit mining, but it explicitly prohibits mining licenses on forested lands, including: Communal Forests, Cultural Sites, and Protected Areas (§ 9.10), and, for small-scale mining (Class B & C licenses), in PPAs as well (§ 8.2c). Large (Class A) mines can only be located in PPAs if they have “written appropriate guidelines for maximum protection of the Environment and sustainable management of the forest” approved by the FDA (§ 8.2d(i-iii)).¹⁷

¹⁴ For example, best practices promoted by International Responsible Mining Association (n.d.).

¹⁵ In the ruling: “it is prudent for both the [MME & FDA to] handle the growing confusion involving their respective administrative acts”, Hon. GF Ndupehlar (Associate Magistrate). June 8, 2024.

¹⁶ The Mining Law sets the penalties for the contravention of “Laws or Regulations governing...environmental protection” at fines up to \$5,000 and/or prison for 6-12 months. The contravention of other provisions includes penalties of \$2,000-\$25,000 and/or 2 years in jail and/or forfeiture of minerals obtained.

¹⁷ However, the NFRL is a forest-sector-specific law that does not regulate the exploration and extraction of minerals. Additionally, the NFRL was enacted after the 2000 Mining Law, but did not explicitly amend or repeal any of its provisions, which were presumably known by Liberia's lawmakers. This means

The NFRL is consistent with Liberia's aspirational **Minerals Policy** of 2010, with expected outcomes that include "positive impacts on the environment." Overall, the GoL "is committed to nurturing an environment for compliance and enforcement with the highest standards of corporate social responsibility by entities involved in mineral operations."

The 2018 **Land Rights Law** also acknowledges that private land ownership does not extend to mineral rights, but "any interference with or use of the surface of Customary Land in the extraction of mineral resources...shall be (i) upon the free, prior informed consent [FPIC] of the Community, and then (ii) only upon a land lease agreement negotiated in good faith with the community" (§ 33.3).

4.3. Institutional Framework

The mining sector is regulated by multiple agencies that include:

- The Ministry of Mines and Energy (MME) and its Liberia Geological Survey, Cadastre Administration System (MCAS), Bureau of Mines, Office of Precious Metals, etc.;
- The National Bureau of Concessions (NBC);
- The Environmental Protection Agency (EPA); and,
- The Forestry Development Authority (FDA).

Mining Unions also play a role in coordination, training, and advocacy, including:

- Federation of Miners Association of Liberia (FOMAL);
- Local Miners Association of Liberia (LMAL);
- Natural Resources Women Platform (NRWP); and,
- Miners Brokers Union.

Licenses

Table 1 reviews the major mining licenses allocated by the MME in Liberia. For any license to be granted, another party must not hold an existing mineral license covering the same area.¹⁸ Liberia allocates exploration licenses on a first-come, first-served basis (LEITI 2025; page 77 contains an explanation of the main license types).

the NFRL does not necessarily take precedence over the pre-existing Mining Law and, in any event, its provision prohibiting mining is trumped by the Mining Law, which is the sole statute regulating where and how mining may be done in Liberia. Hence, the perceived conflict between the Mining Law's permissive approach to allowing mining in most forested areas versus the NFRL's prohibitions on mining is unavoidable and cannot be resolved by a plea to the provisions of either the NFRL nor the Mining law, but requires urgent resolution through intentional engagement and with sustained consultation between the FDA and the MME as well as other relevant ministries, agencies, and commissions (MACs).

¹⁸ An exception appears to be Class C Licenses, where pre-existing operations are given a "carve-out" to allow continuing operations once a Class A License is issued (although this is reportedly more 'practice' than detailed in law/regulation). There have also reportedly been conflicts between pre-existing Class B and other licenses (e.g., within Bea Mountain's exploration license).

Table 1(a): A Summary of the Major Mineral Licenses in Liberia under the Mining and Minerals Law of 2000

Type	Requirements	Maximum Area	Tenure	Comments
Exploration Licenses				
Reconnaissance	Prohibits drilling or sinking of pits	2,000 km ² (200,000 ha)	6 months Renewable: once for 6 months	- May then apply for an exploration license consistent with the reconnaissance report - May also apply for a Class A license if sufficient geological information is available to indicate potential - This License is not commonly used - The current MME database has no active Reconnaissance Licenses
Prospecting	- MME approved work plan - No commercial mining	100 acres (c.40 ha)	6 months Renewable: once for 6 months	Generally precedes Class B or C Licenses
Exploration	- Workplan proposal submitted to MME within 90 days of license issuance; after approval, exploration must commence within 180 days (unless delay is approved by MME) - May conduct pilot mining	1,000 km ² (100,000 ha) Must be contiguous	3 years Extendable: once for 2-years	- Compared to Reconnaissance Licenses, covers a smaller area, but over a longer duration, with greater financial and operational obligations - The workplan must include consultation with local communities - May then apply for Class A License, with production area selected from the exploration area - If the Exploration License's term is extended for a further two years, then the licensee must surrender at least 50 percent of the initial exploration area (in part to discourage speculators simply holding large areas) - Must spend at least two percent of annual budget on the development of local communities.

Production Licenses				
Class A	- Restricted to primary deposits and large-scale operations - Completed exploration program (or sufficient reconnaissance data is available) - Possess the necessary technical and financial resources - Submit data on production area, metes and bounds, type and size of deposits, etc. - Conclude a Mineral Development Agreement (MDA) - Feasibility report is approved	Production area	25 years Renewable: unlimited 25-year terms (with proven reserves)	- MDA covers legal, fiscal, technical, social terms, including annual contribution to community development - Must be approved by President and ratified by the Legislature - The ratified MDA is treated as equivalent to law
Class B	- Conduct semi-mechanized mining of secondary deposits - Restricted to Liberians, legal residents, or companies with at least 60 percent of equity/ voting power held by Liberians - Production plan is submitted	25 acres (c.10 ha)	5 years Renewable: unlimited 5-year terms	May form cooperatives to share costs, equipment, and infrastructure (maximum 15 members)
Class C	- Conduct small-scale operation (alluvial mining of secondary deposits) - Restricted to Liberian citizens	25 acres (c.10 ha)	1 year Renewable: unlimited 1- year terms	- An individual may hold a maximum of four Class C Licenses simultaneously - May conduct mining as cooperatives
Quarry License	- Exclusive right to develop, mine, and sell industrial minerals and building materials - Same terms as Class B	50 acres (c.20 ha)	5 years Renewable: unlimited 5-year terms	Mainly used for building material such as sand, crushed rock, etc.

Table 1(b): A Summary of the Terms Used in Describing the Major Mining Licenses in this Assessment

Stage	Term	Explanation
Application	Registration	Application has been submitted to the MME
	Validation	Application is scanned into the MME's system, then vetted to ensure that it contains the required documentation
	Approval	The relevant authority in the MME has approved the application, the license is then registered in the MME Cadastre Administration System (MCAS), then payment of the license fee is requested
	License Pending	Awaiting payment of license fee. Once payment has been made, the license will be issued
Active Licenses	Under Review	An Active License that is being reviewed by the MME due to suspected violations of law, regulations, or other issues of noncompliance
Non-Active	Cancelled	Because, for example, the Operator fails to comply with requirements or fails to provide basic reporting
	Expired	The term of the License has ended and has not been renewed
	Surrendered	For example, if the Holder seeks to extend an Exploration License, they must surrender at least 50 percent of the Exploration Area as part of the renewal process
Assets	Heavy Minerals	Minerals with a specific gravity greater than 2.6, such as ilmenite, rutile and zircon
	Base Metals	Non-precious metals such as copper, lead, zinc and nickel that corrode relatively easily when exposed to air or moisture
	Other Minerals	Minerals other than base metals, such as precious metals, industrial minerals, and gemstones
	Associated Minerals	Minerals obtained during the process of extraction that are not the primary economic interest and are generally in smaller quantities

Fiscal Regime

Liberia imposes financial terms for up to 15 years¹⁹ on all mining companies,²⁰ including:

- Corporate income tax: **30 percent** of taxable income or a minimum tax **of 2 percent of gross income**, whichever is greater;²¹
- Royalties (percent of export value): **gold & base metals: 3; iron ore: 4.5; diamonds: 5; all other minerals: 2 – 10** as prescribed in regulation;²²
- Annual surface rents:²³
 - » Exploration \$0.2/acre;
 - » Production: years 1-10 at **\$5/acre**; years 11-25 at **\$10/acre**
- **Community beneficiation:**

For **exploration licenses**, each year, **Operators must spend at least two percent** of its approved budget “on the construction, maintenance or rehabilitation of schools or clinics **within its license area or within other local communities affected**...The Licensee must consult with local officials and traditional leaders as to the facilities that will benefit.” (Mining Exploration Regulation § 9.3b; emphasis added)

Annual Social Contribution (or, Community Development Fund (CDF)): set in the terms of each MDA as part of the licensing agreement. This varies by operation but Exhibit 6 (in Appendix 2) shows a template that has been used in many of the MDAs and that is in line with best practices.

- » The CDF is generally meant to benefit local communities most affected by the mine and its associated operations.
 - » It is worth noting that no MDA contains terms for a grievance mechanism should communities be unhappy with implementation.
 - **Equity participation:**
- Since the enactment of the Land Rights Law (2018; (§ 48(3)), **Communities receive, for free, a minimum 5 percent “undiluted free carried interest in the rights of the Concession.”**
- For **Class A mines: Government receives 10-15 percent interest**
- » Under the Mining Law (§9 .22), the GoL **receives this for free**

Additional fees include *inter alia*:

- **Signature bonuses**
- **Scientific Research Fund**

¹⁹ When entering into a mineral agreement, the GoL is permitted to accept a “stabilizing clause” that sets the terms for up to 15 years.

²⁰ This section is primarily based on analyses in LEITI (2023).

²¹ Liberia’s LRA amended the tax framework in 2024 (§702a) (Liberia Revenue Authority 2024).

²² LRA amended tax framework 2024 (§704).

²³ LRA amended the tax framework in 2020 (§704) (Liberia Revenue Authority 2021)

5 | Assessment Results

The previous section outlined the legislative and institutional frameworks that govern the mining sector, as well as describing Liberia's mineral potential (Appendix 1 provides a more in-depth review of these three aspects of the mining sector). This section examines the present status of the sector, including how these frameworks are being implemented. The penultimate section, *Key Issues & Challenges*, discusses the implications of these findings.

5.1. Registered Mineral Licenses

Liberia's online MME Cadastre Administration System (MCAS)²⁴ and GIS database²⁵ contain nearly 10,300 licenses (Table 2), of which only 12 percent were reportedly active. The vast majority (more than 72 percent) were inactive (mainly expired).

Map 1 shows the geographical distribution of the 89 active production Class A & B licenses and 156 active exploration licenses.²⁶ Map 2 shows applicant exploration and Class A & B licenses. (Hummingbird's Dugbe Gold Project in Sinoe County is listed as a Mineral Development Agreement (MDA) in the MCAS database. Despite the MDA having been ratified more than five years ago, the MME does not report granting a production license to Hummingbird (that is, there is no applicant nor active license in the MCAS database). Therefore, being unlicensed, the 176,540 ha associated with Hummingbird does not figure in Map 1 or 2, nor any of the assessment's other maps, tables, or calculations.)

As noted above, the MME provides no geospatial information on Class C licenses, even though they comprise more than 90 percent of the 1,026 active production licenses and more than 99 percent of the 1,479 applicant production licenses.²⁷ And, of course, the MME provides no data on unlicensed/illicit mines, which are also reportedly widespread.

²⁴ MCAS' downloadable spreadsheet (Ministry of Mines and Energy n.d.). The MCAS database does not include information related to the area associated with each license, nor does it include records for most license applications (those are contained in the spatial database (see footnote 25 below)).

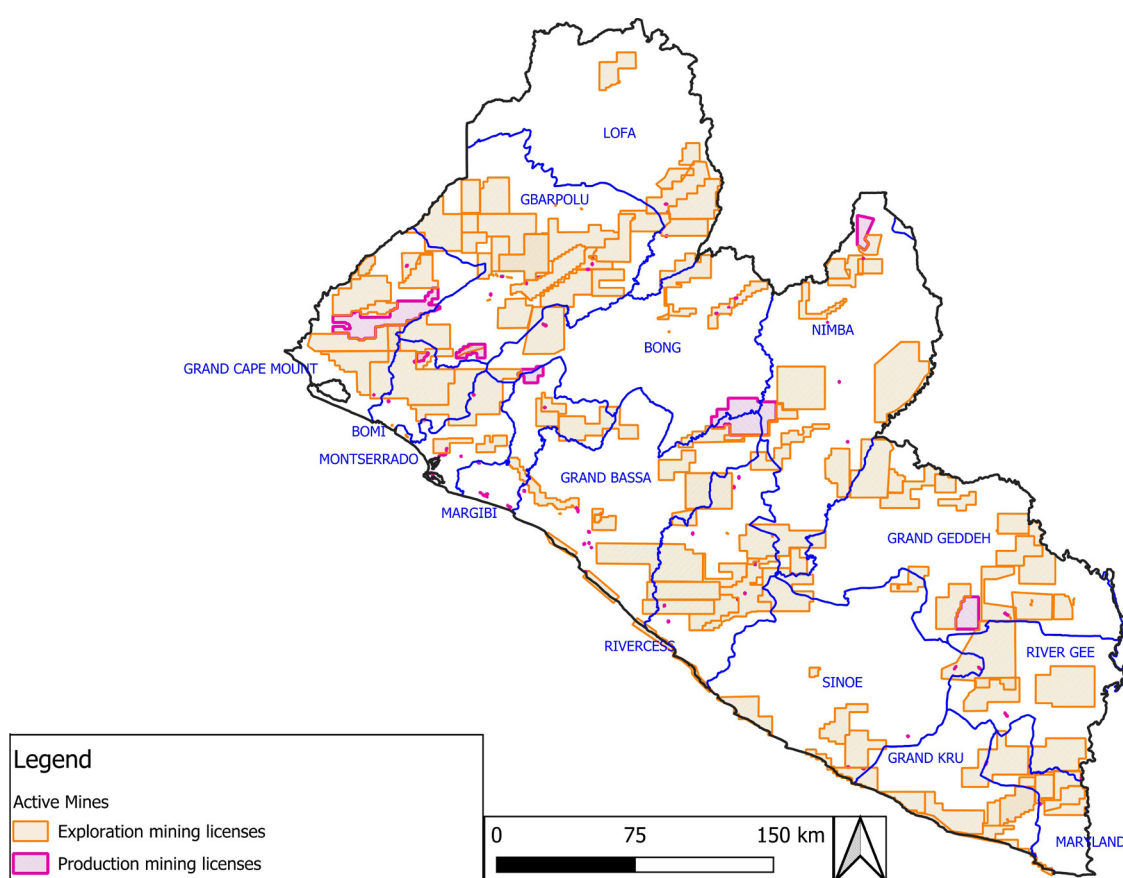
²⁵ MCAS' downloadable spatial database (Ministry of Mines and Energy n.d.)

²⁶ Which includes 42 prospecting licenses.

²⁷ There are only three Class B and no Class As applicant licenses in the MCAS GIS database.

Map 1. Location of all 156 Active Exploration Licenses and 89 Active Class A and Class B Production Licenses across Liberia

Note: the MME provides no geospatial information on the 937 active Class C licenses, nor any unlicensed mining activity, and so they are not included in this map. Likewise, while Hummingbird's Dugbe Gold Project is listed as an MDA, it does not have a Class A license and, therefore, it (and the corresponding 176,549 ha area) is not included in this map.



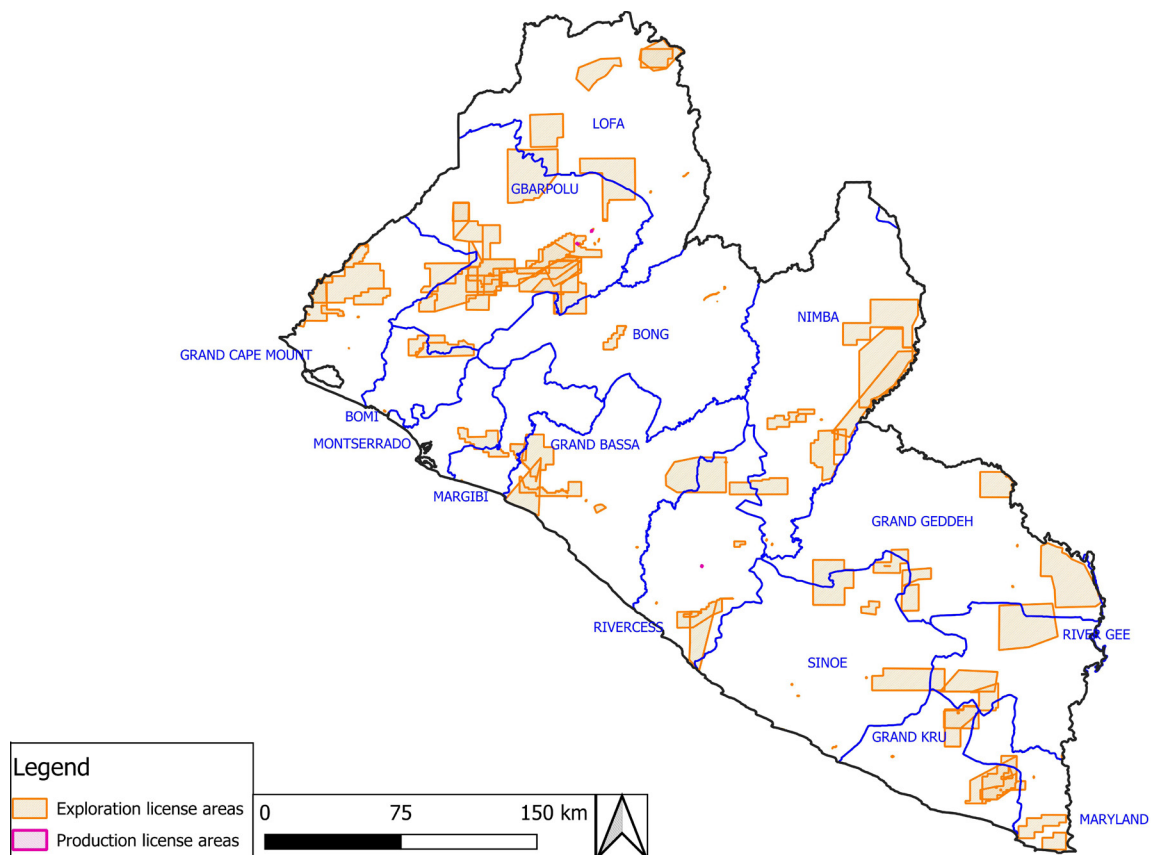
Source: MME GIS database as of April 15, 2025.

More than 3M hectares (ha) are under licensed exploration by mining companies, and 1.7M ha are under applicant exploration licenses (Table 3). The median size of exploration licenses is about 20,000 ha.²⁸

²⁸ No license exceeded the legal maximum area of 100,000 ha.

Map 2. Location of all 128 Applicant Exploration Licenses and the Three Class B Applicant Production Licenses across Liberia

Note: the MME provides no geospatial information the 1,476 applicant Class C licenses, nor for any unlicensed mining activity, and so they are not included in this map. Likewise, there is no Class A license application in the MME database for Hummingbird's Dugbe Gold Project and, therefore, it (and the corresponding 176,549 ha area) is not included in this map.



Source: MME GIS database as of April 15, 2025.

Table 2. Types of Mining Licenses in Liberia²⁹

See Table 1(b) for an explanation of the terms used herein. n/d = no data. Source: MME MCAS³⁰ and GIS databases as of April 15, 2025.

Status		Number of Licenses	
		in GIS database	in MCAS
Active	Active License	1,137	1,232
	Under Review*	73	74
	TOTAL	1,210	1,306
Application	Registration	76	
	Validation	152	
	Approved	149	
	License Pending	1,230	
	TOTAL	1,607	n/d
Non-Active	Cancelled	140	140
	Expired	7,311	7,743
	Surrendered	31	31
	TOTAL	7,482	7,914
GRAND TOTAL		10,299	9,220

*Hummingbird's Dugbe Gold Project is listed as an MDA and, therefore, being unlicensed, it (and the corresponding 176,549 ha area) does not appear in this table or subsequent maps and calculations.

The reason for the discrepancy in Table 2 between the two MME databases is not clear.

Table 3. Status of Mining Licenses in Liberia

See Table 1(b) for an explanation of the terms used herein. n/d = no data. Source: MME MCAS GIS database as of April 15, 2025.

Active?	License Group	License Type	Number	Area (ha)
Active	Exploration	Exploration	114	3,041,476
		Prospecting	42	1,621
	Production	Class A	7	155,474
		Class B	82	2,542
		Class C	937	n/d
	Others	Blasting	14	10,685
		Tailings	6	215
		Broker	6	n/d
		Dealer	1	n/d
		Explosives	1	n/d
Active (total)			1,210	3,212,014

²⁹ The complete list of Licenses can be found online on Forest Trends' Library of Documents.

³⁰ The MCAS database does not include information related to the area associated with each license, nor does it include records for most license applications (those are contained in the spatial database (noted in footnote 25)).

Active?	License Group	License Type	Number	Area (ha)
Application	Exploration	Exploration*	76	1,703,838
		Reconnaissance	1	46,258
		Prospecting	51	21,887
	Production*	Class B	3	118
		Class C	1,476	40
Application (total)			1,607	1,772,141
Non-Active (total)			7,482	9,905,379
Total			10,299	14,889,534

* While Hummingbird's Dugbe Gold Project is listed as an MDA, the MME does not report a corresponding license, and therefore, it (and the corresponding 176,549 ha area) does not appear in this table or subsequent maps and calculations.

Active Production Licenses

Production licenses comprise about 158,000 ha, or five percent of the area under active license. (This includes areas associated with mining, like blasting³¹ and tailings, which are six percent of the area under active production.)

Class A

Most of the seven Class A licenses are of a similar area, averaging 22,211 ha. Together these licenses comprise 98 percent of the production area in Map 1.

Class B

Representing nearly seven percent of all active licenses, Class B licenses are an even smaller proportion of the area associated with production (less than two percent). These licenses average just 31 ha, however this is more than three times larger than the maximum allowable area under the Mining Law (Table 1(a)).

Class C

As mentioned above, the 937 active Class C mines represent the vast majority of active production licenses, but because there is no geospatial data, it is unclear how big an area they comprise. If each were the maximum size allowable (25 acres), then the Class C mines would represent 9,480 ha, or only 0.3 per cent of the total area under active licenses. (But we note that the average Class B license exceeds the legal maximum size and so assumptions regarding the maximum size of Class C licenses may not be valid.)

Caveat: It should be reiterated that the above data are for licensed operations only. They do not include unregistered mining. “Across the region, informality is still so widespread that it has been defined by some as “intractable”...[I]t is public knowledge that there are thousands of illegal miners operating all over the country” (Brazillier et al. 2023).

The impact of mining, on both forests and people, is much larger than suggested by the scale of the licensed sector alone. However, being informal, these impacts are generally unreported by government and therefore, difficult to assess. The implications are profound and explored in the Key Issues section.

³¹ The 14 active Blasting Licenses are dominated by ArcelorMittal Liberia (AML), one of which covers the same area as its Class A License, 10,558 ha. The other 13 Blasting Licenses cover only 127 ha in total.

Commodity Types

Licenses cover ten commodities (Table 4) dominated by gold. Other deposits are grouped as base metals, heavy minerals, and 'other minerals', as well as three bulk materials: rock, sand, and 'quarry' (see a summary of definitions in Table 1(b), above).

Table 4. The Active Mining Licenses in Liberia by Commodity.

License Type	Asset	Active Licenses			License Applications	
		Number	Area (ha)	Average total duration (yr)	Number	Area (ha)
Class A	Gold*	2	107,235	24.50	-	-
	Iron Ore	5	48,240	24.24	-	-
Class A (total)		7	155,475		-	-
Class B	Gold	40	1,549	5.24	3	118
	Diamond	2	93	5	-	-
	Coltan	2	78	5	-	-
	Barite	1	32	5	-	-
	Iron Ore Tailings	1	44	5	-	-
	Quarry	3	61	5	-	-
	Rock	14	250	5.38	-	-
	Sand	21	493	7.63	-	-
Class B (total)		84	2,600		3	118
Class C	Gold	743	-	1.11	1,328	40**
	Diamond	112	-	1.87	82	-
	(unspecified)	82	-	1.05	71	-
Class C (total)		937	-		1,481	40
Exploration	Gold	76	2,420,924	5.27	67	1,576,174
	Iron Ore	23	694,866	5.54	4	102,620
	Diamond	11	304,721	7.8	2	31,657
	Barite	2	20,035	3	-	-
	Coltan	5	102,771	3	-	-
	Lithium	7	347,255	3	1	10,556
	Manganese	2	43,413	3	-	-
	Quartz	2	20,090	3	-	-
	Rutile	1	8,881	3	-	-
	Zircon	1	12,013	3	-	-
	Base metals	41	1,338,699	7.56	18	354,092

	Heavy Minerals	7	68,479	3	-	-
	Other Minerals	4	92,261	3.5	1	30,860
	Associated Minerals	2	20,445	3	-	-
	(unspecified)				1	7,769
Exploration (total)		184	5,494,853		94	2,113,728
Total		1,212	5,652,928		1,578	2,113,886

Source: MME MCAS and GIS database as of April 15, 2025.

**While Hummingbird's Dugbe Gold Project is listed as an MDA, the MME does not report a corresponding license, and therefore, it (and the corresponding 176,549 ha area) does not appear in this table or subsequent maps and calculations.*

***The MCAS GIS database has area data (but no location data) for only one applicant, five expired, and no active Class C Licenses.*

Summary of Class A Licensees

Table 5 summarizes the seven major Class A licenses and three other Mineral Development Agreements (MDAs) reported by the MME.³² Table 6 documents each companies' obligations for annual contributions to affected communities under their MDAs.

Among the companies in Table 5, the LEITI beneficial ownership database³³ only has information for Bao Chico Resources Liberia Ltd: Zhen Zhang, Xin Ting Wang, and Yu Wang, all Chinese, all born in 1970.

³² Information sources include : MME MCAS, LEITI (2023), Wilson et al (2017)

³³ <https://www.leitidatportal.org/MiningOwnership> Accessed September 10, 2025. The MME database has no data on ownership. <https://portal.mme.gov.lr/owner> Accessed September 10, 2025.

Table 5. Terms of the Mineral Development Agreements (MDAs) for the Class A Mining Licenses in Liberia

Company Name (as it appears in MCAS; and as referred to hereafter)	MDA			Class A License				Asset	County
	Start date	End date	LEITI link	MCAS link	Start date	End date	Area (ha)	Estimated reserves/ Ore Grade	
Bea Mountain Mining Corp (Bea Mountain)	2001-11-28	2026-11-28	Bea Mountain MDA 2023 Amendment	CLA 5000/09	2009-07-29 (Production started in 2015)	2033-07-28	53,473 Open Pit	Gold 8.7M t 4.17 g/t Au	Grand Cape Mount Gbarpolu
Western Cluster Limited (Western Cluster)	2001-11-28	2026-11-28	Western Cluster MDA	CLA 2712/22	2022-02-01	2047-01-31	2,261 Open Pit	Iron Ore 563M t 51% Fe	Bomi Gbarpolu
MNG Gold Exploration Inc. (Serhan Umurhan) (MNG Gold) Acquired in 2014 from AmLib United Minerals Inc (AmLib)	2002-03-14	2027-03-14	AmLib MDA	CLA 1987/15	2010-03-14	2035-03-15	53,762 Open Pit	Gold 1.84M t 3.54 g/t Au	Bong Nimba Grand Bassa
Mittal Steel (Liberia) Holdings Ltd.; later amended to ArcelorMittal Liberia (AML)	2005-08-17	2030-08-17	Mittal Steel MDA 2007 Amendment	CLA 2028/05	2005-09-21	2030-09-20	10,558 Open Pit	Iron Ore 417M t 65-69% Fe	Nimba
China Union (Hong Kong) Mining Co. (China Union)	2009-04-01	2034-04-01	China Union MDA	A15001	2011-09-13	2036-09-13	7,849 Open Pit	Iron Ore 290M t 35-45% Fe	Bong

Putu Iron Ore Mining Inc. (Putu Iron Ore)	2010-09-20	2035-09-20	Putu Iron MDA	CLA 2711/14	2014-06-27	2035-09-02	18,836 Open Pit	Iron Ore 4.5B t 45% Fe	Grand Gedeh
Bao Chico Resources Liberia Ltd (Bao Chico)	2022-03-16	2047-03-16	Bao Chico MDA	CLA 2713/22	2022-07-22	2047-07-21	8,736 Open Pit	Iron Ore No data on reserves	Bomi Gbarpolu

Not Operational

BHP Billiton (BHP)	2010-09-16		BHP Billiton MDA	BHP is not mentioned in the MCAS database, but the LEITI database contains a three-year Exploration Agreement for Kitoma Range dated 2005-05-11, and another for the Goe-Fantro Range dated 2005-04-22. (BHP's holdings were reportedly bought by Cavalla Resources, a subsidiary of Jonah Capital; but the Legislature had not given their approval. US-based HPX apparently bought the St John River license in 2024. There is no record of HPX in the MCAS database.)			Iron Ore 132M t 57% Fe	
Hummingbird Resources Inc (Hummingbird)	2019-03-26	2044-03-26	Hummingbird MDA (Note: while the MDA on the LEITI database has been ratified, it has not been signed as executed and delivered [see p. 14 of the MDA]).	MDA is registered in the MCAS as DEL 14011 from 2019-01-10 to 2044-01-09. (Reserves estimated at 2.8M oz gold)			Diamonds Associated Minerals Gold	River Gee Grand Kru Sinoe
Kpo Minerals Inc.* (Kpo)	2001-11-28	2026-11-28	Kpo Resources MDA	Kpo Minerals Inc. holds Exploration License MEL7008923A from 2023-05-02 to 2026-05-01 but it is reportedly Under Review.			Gold Base metals	Bong

Source: MME: <https://portal.mme.gov.lr/license> and <https://portal.mme.gov.lr/map>, GoL 2025, & Wilson 2017 (for estimated reserves and ore grade).

*It is unclear if Kpo is the same company as Kpo Resources Inc.

Table 6. Terms in the Class A Mining License Mineral Development Agreements (MDAs) Related to Communities in Liberia

Company	Annual Payments	Surface Rental to Communities	Index for Inflation	Composition of Decision-making Committee	Payment Authority	Audit	Reporting	Comments
Amlib (now MNG Gold)	"Nothing herein shall require the Operator to make any expenditure or incur any costs beyond what it would have made or incurred in the ordinary course of its business"	N	-	-	-	Y	Y	Agreement from the Charles Taylor period
Mittal Steel	\$3M	N	N	AML, GoL, & communities	-	Y	N	1st \$1.5M was used to pay outstanding LIMINCO wages
ArcelorMittal Liberia amendment	\$3M (split between 3 counties)	N	N	No change	GoL approval	Y	N	The Community Development Fund (CDF) template in Appendix 2 was not used
AML amendment	No changes							
China Union	\$3.5 (split between 3 counties)	N	N	Appointed by GoL	Deposited to GoL general revenue account	Y	Y	CDF template was not used

Company	Annual Payments	Surface Rental to Communities	Index for Inflation	Composition of Decision-making Committee	Payment Authority	Audit	Reporting	Comments
Western Cluster	\$2M first year, then \$2.5M, once commercial production begins: \$3.1M	N	Y ("Deflator rate")	Dedicated committee of WC, GoL, & communities	Only for direct delivery of services & infrastructure of affected communities	Y	Y	CDF template was used
Western Cluster MOU	No changes							
Bea Mountain	"Nothing herein shall require the Operator to make any expenditure or incur any costs beyond what it would have made or incurred in the ordinary course of its business"	N	-	-	-	N	N	MDA was ratified during the Charles Taylor period
Bea Mountain Amendment	\$0.25M + \$0.5M Clan Development Fund + \$0.27M surface rental + \$15,000 to operate Fund	Y	N	Community Development Agreement (CDA; committee with 3 from company, 3 from GoL, 4 from affected communities)	Company joint signatory	Y	Y	The MDA in the LEITI database (n.d.) is missing the final 7 pages, including Appendix E that outlines the terms for the 'Clan Development Fund,' and it is not known if the CDF template in Appendix 2 was used.

Company	Annual Payments	Surface Rental to Communities	Index for Inflation	Composition of Decision-making Committee	Payment Authority	Audit	Reporting	Comments
Putu Iron Ore	\$0.5M, then in years 2-4: \$1.25M, \$1.5M, \$3M, thereafter \$3M (adjusted for inflation) or 0.5% of taxable income (whichever is greater)	N	Y	Dedicated committee of Putu, GoL, & communities	Only for direct delivery of services & infrastructure for affected communities	Y	Y	CDF template was used
BHP	\$0.1M during exploration + \$0.1M/ exploration license; \$0.25M mine construction + \$0.25M/license; \$3M during mining + \$0.75M/license	N	N	Dedicated committee of BHP, GoL, & communities	Only for direct delivery of services & infrastructure for affected communities	Y	Y	CDF template was used
Bao Chico	\$0.5M, \$0.8M from year-6; plus \$0.08M education fund for Gbarpolu County	N	Y, but only for Education Fund	Dedicated committee of Bao Chico, GoL, & communities	Only for direct delivery of services & infrastructure for affected communities	Y	Y	CDF template was used
Hummingbird	\$0.3M (split between 4 counties) for 4 yrs, then \$0.2M for 6 yrs, then \$0.25M; plus \$5,000 to operate the Fund	N	For other GoL payments, but not Community Funds	CDA committee with 3 from company, 3 from GoL, 4 from affected communities	Separate interest-bearing account	Y	Y	CDF template was used

Source: links to the individual MDAs are contained in Table 5.

5.2. Impact of Mining on Forests

Impacts on Forest Cover

There is considerable literature from around the world detailing the detrimental impacts of mining on forests: for a recent survey, see Bradley (2020) *Mining's Impact on Forests*.³⁴ There are, however, only a few recent assessments of the impact of mining operations on forest loss *in Liberia*.³⁵

- Enarvube et al. (2019) found that forest loss decreased in Nimba County during the last civil war, except around illegal mining activities, where it increased, encouraged by the armed combatants. Further, there has been a “sharp post-conflict increase in mining activities, rapid settlement expansion and increasing forest loss.”
- Metria & GeoVille (2016) developed land cover and forest maps for Liberia, but did not overlay them with mining concessions.
- The World Bank (2016) and Kennedy (2024) created overlay maps of mining on forest cover, but provided no further analyses.
 - » Here we expand on their methodology by quantifying the overlaps between mining and Liberia's forest estate, as well as other forest uses.

Overlap between Mining and Forests

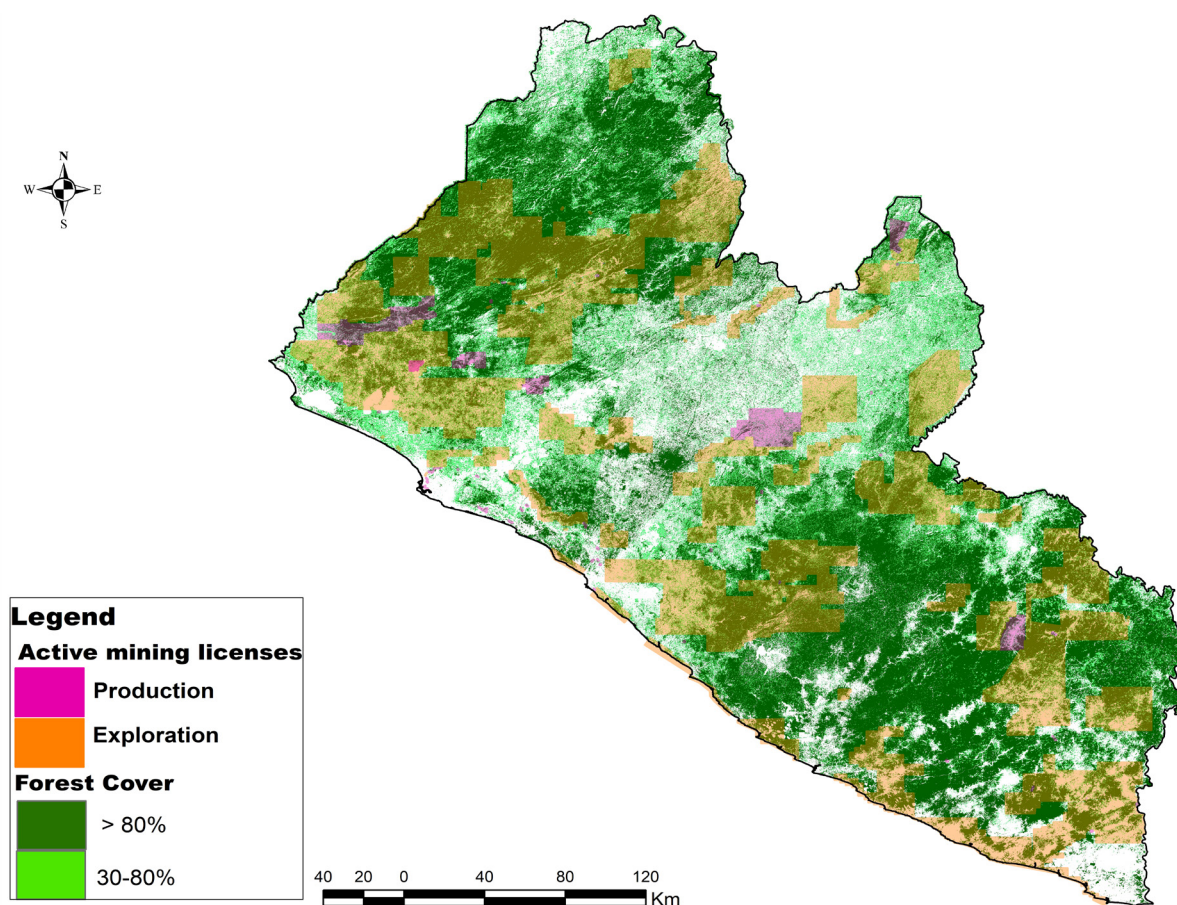
At one time or another, almost all the forests of Liberia have been at risk from mining. That is, there is a large overlap between forest cover and mining licenses (Maps 3-5). Currently, at least 2M ha of forest³⁶ lies within areas permitted for exploration (that is, about a third of Liberia's forests) and 99,653 ha in areas under active Class A and B licenses for production (Table 7). (Again, the MME does not publish geospatial data on artisanal and illicit/unlicensed mining.)

³⁴ <https://www.chathamhouse.org/sites/default/files/2020-10/2020-10-14-minings-impacts-forests-bradley.pdf>

³⁵ Likewise there are few recent assessment of the impact of logging companies conducting illegal mining in Liberia, but see World Bank (2010).

³⁶ With at least 30 percent canopy cover.

Map 3: Active exploration and Production Mining Licenses and Forest Cover



Source: MME GIS database as of April 15, 2025, and forest cover from GeoVille 2014.

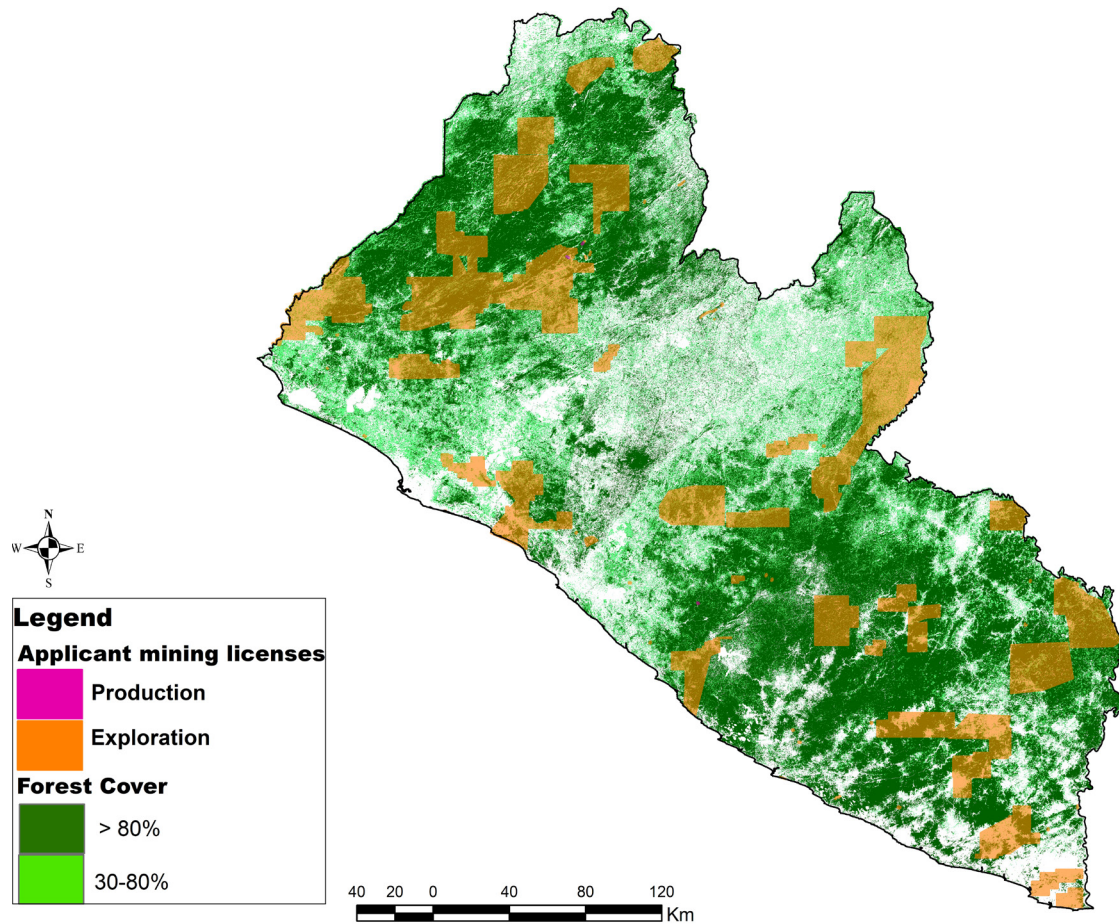
Further, more than 1.1M ha of forest lies within areas under application for exploration and Class A & B production (Table 7), and almost 1.8M ha has recently expired.

Table 7. The Amount of Overlap between Mining Licenses and Forest Cover in Liberia

Mining license status	Type	Area & percent*	Forest cover >80%	Forest cover 30-80%	All other land cover
Active	Exploration	Area (ha)	1,372,225	682,502	817,265
		Percent	31%	31%	27%
	Production	Area (ha)	54,078	45,475	57,984
		Percent	1.2%	2.1%	1.9%
Applicant	Exploration	Area (ha)	786,874	341,474	354,740
		Percent	18%	16%	12%
	Production	Area (ha)	83	15	60
		Percent	<1%	<1%	<1%
Expired between 2022 and 2025	Production & Exploration	Area (ha)	1,156,601	566,596	732,143
		Percent	26%	26%	24%

Source: MME MCAS and GIS database as of April 15, 2025, and GeoVille 2014 forest cover.

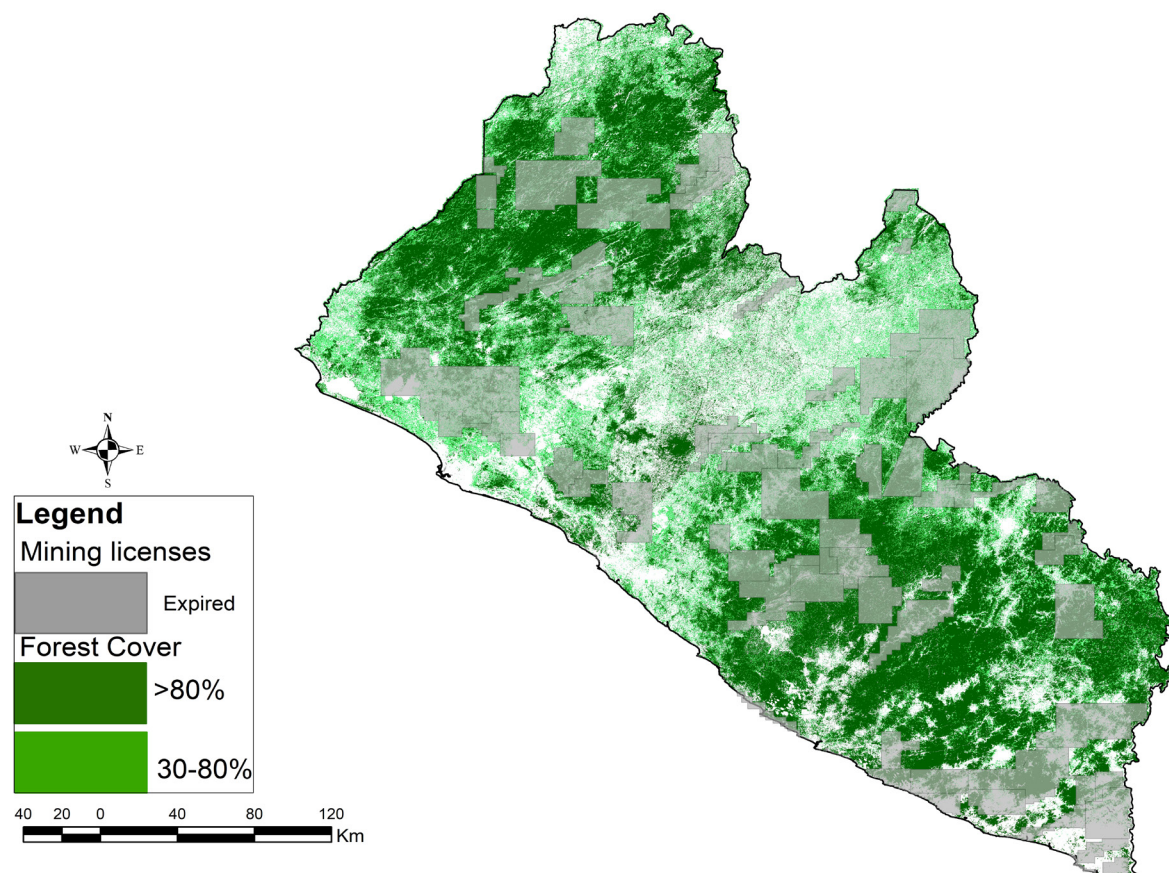
* Percentage of the total area for that land cover classification that is occupied by mining licenses. i.e., 31% of all the forest cover over 80% in Liberia is occupied by active exploration licenses.

Map 4: Applicant Exploration and Production Mining Licenses and Forest Cover

Source: MME GIS database as of April 15, 2025, and forest cover from GeoVille 2014.

Map 5: Expired Mining Licenses and Forest Cover

For those exploration and production licenses that expired between 2022 and 2025.



Source: MME GIS database as of April 15, 2025, and forest cover from GeoVille 2014.

Remote Sensing

Two studies have used satellite imagery to detect where forests have been cleared associated with mining activity; worldwide, they both detected nearly 100,000 unique areas. When looking at Liberia alone (Appendix 3), however, the two studies combined identified only 49 unique patches where 1,455 ha of forest was lost associated with mining sites. Given that this is less than 0.1 percent of the known area licensed for mining, not to mention all the widespread, unlicensed mining activity, it suggests that there are still major limitations to using remote sensing to detect forest loss associated with mining in Liberia.

As the next section shows, mining is clearly causing devastating environmental impacts.

5.3. Impact on Environmental Degradation

Impacts on Water Quality

In Liberia, water “quality has [been] reduced over the past years...affected mostly by Coliform bacteria contamination, heavy metal contamination, and fecal indicator bacteria...attributed to inadequate sanitation systems, flooding, mining activities, and the fast-developing agro-industrial sector” (Gökçekuş 2022). Indeed, where sampling has been conducted around former mining sites, water appears to be polluted and not fit for human consumption (Text Box 1).

Text Box 1: China Union (Liberia) Bong Mines Investment

One site that has been studied is the China Union site in Bong County, Central Liberia (Wilson et al. 2017). The iron ore mine started production in early 2014 but ceased operating after only one-and-a-half years, closing during the Ebola crisis (although the mine later re-opened). Despite this short operational period, water samples collected in 2016 from around the former mine site were found to contain “heavy metals (e.g., iron, aluminum, calcium, and zinc)...in high concentrations” and “concentrations [of dissolved solids] in all of the water sample exceed the WHO and Liberia Water Standard Class I [drinking water] guidelines... Aluminum, boron, and calcium were also present in high concentrations in some of the water samples, as well as phosphorus and zinc, which were found in all of the water samples” (Wilson et al. 2017). At one of the six sampling sites (see Figure 3), the concentration of chromium also exceeded the Liberia’s drinking water guidelines.

These findings are concerning given that local communities use these sites for drinking water and other domestic uses.³⁷

³⁷ Gleekia & Sahu (2016) and (2018) generally corroborate these findings.

Figure 3. Photographs of the Water Sample Point Collection at the Former China Union Iron Ore Mine in Bong County

S = surface water sample; G = ground water sample; S1: Pump Station; S2: Tailing Dam; S3: Upstream Waydea; S4: Downstream Waydea; G1: Well, Botota Town; G2: Borehole, Gorsue Town.



Source: Wilson et al (2017).

EPA Shuts Down China Union

In June 2024, the EPA issued a 'notice of violation' and a fine of \$120,000. "China Union blatantly ignored the EPA warnings and continued to operate without any environmental permits, continuing its environmental degradation and pollution" (EPA 2024). The EPA shut down the mine in August 2024. (It has reportedly opened again, with a planned increase in production from 1M to 2M t/yr.)

The "environmental violations includ[ed] operation without an effluent discharge license, transportation of ores via the Bong Mines railway without an environmental mitigation plan, construction of a new processing plant without an environmental permit, construction of a medium tailings processing plant without environmental permit and unregulated discharge of tailings into the nearby wetland among others."

Additional Actions by the EPA

In the EPA's year-end report for 2024 (EPA 2025b), the Executive Director (ED), Dr Yarkpawolo, noted the following achievements:

- 1,463 compliance inspections and investigations of 198 complaints;
- 60 compliance notices amounting to halt orders, restoration orders, fines and shutdowns; and,
- More than \$1M in fines on companies violating the environmental laws of Liberia.

According to media reporting (New Republic Liberia 2024), in addition to China Union's \$120,000, the EPA took action against:

- JM Mining Company Inc, fined \$95,000 for operating a Class B gold mine in Gbarpolu County, discharging effluent and diverting the Maher River without an environmental permit.
- Scott Investment fined \$400,000 for similar violations, causing massive sediment deposits.
- Randall and Orethea Doe Multi-Purpose Company fined \$140,000 for similar violations.
- Bao Chico fined \$135,000 for operating without an effluent discharge license.
- United Africa Minerals fined \$30,000 fine for environmental violations (EPA 2025a).

Media (ADF 2025) also report that in 2025 the EPA:

- In April, fined Hongtu Mining Company, of Grand Bassa County, \$10,000 for "river pollution, uncontrolled mining, and disrupted local livelihoods—without any EPA authorization" (Toe 2025).
- Also in April: "Elevated levels of arsenic, turbidity, and solids in the river" were detected near Bea Mountain's mine in Grand Cape Mount County (Toe 2025).
- In May, Scott Investment (co-owned by Gao Freng, known as Barry "the Original Minister" of Mines), who was allegedly "implicated in running an illicit mining network that has defrauded the government of over \$29M" was shut down and equipment seized. Scott Investment's two mines in Grand Gedeh County allegedly committed "serious environmental violations" (Liberia Public Radio 2025). The EPA also found Scott "operating without an environmental permit, resulting in significant land degradation and pollution" (Environmental Protection Agency Liberia 2025a)
- Also in May: African Commodity Inc and the Palm Group of Companies "were both found mining without permits and failing to comply with national environmental standards" (EKMS Liberia 2025).

In a May 2025 nationwide environmental monitoring and compliance tour (Environmental Protection Agency Liberia 2025b), among the issues the EPA team discovered were:

- "Ghanian miners using dredges on the river...Class C miners are operating excavators, causing significant land degradation and water pollution" in River Gee County (Environmental Protection Agency Liberia 2025c).³⁸
- SOAUR Mining Company in Maryland County had abandoned their Class B mine without restoring the area (Environmental Protection Agency Liberia 2025d).
- "Kplon Mining and Agriculture Cooperative had diverted a river and caused substantial environmental degradation using excavators" (Environmental Protection Agency Liberia 2025e)

³⁸ The EPA's Facebook posting has 24 photographs of the damage done by the dredging.

- In Grand Kru County, MK Group, a Class B mine, was operating without the necessary permits, causing serious environmental harm, as was Baby Girl Creek Mining and GMGC Mining Company (Environmental Protection Agency Liberia 2025a).
- In Grand Gedeh County (Environmental Protection Agency Liberia 2025f):
 - » “Alex Gee Mining Group...is severely impacting nearby wetlands through sediment deposition, water quality depletion from turbidity, extensive land degradation, and lack of restoration measures. No environmental permit” (Environmental Protection Agency Liberia 2025g).
 - » Solo Mining Group of Companies had no environmental permit and were “engaging in unsustainable mining practices” (Environmental Protection Agency Liberia 2025h).
 - » Josephine N Zulu’s Class B Prospecting License was halted for operating without an environmental permit.
 - » Joe Wama Mining Group was “operating without an environmental permit, leading to significant sediment and tailings deposition in wetlands” (Environmental Protection Agency Liberia 2025i).
 - » Harris Davies Mining Group had no environmental permit and was silting the surrounding wetlands (Environmental Protection Agency Liberia 2025j).
 - » “In Gio-Twabo, numerous Class B and C mining sites were found operating without adherence to environmental laws, with Class C miners illegally using excavators” (Environmental Protection Agency Liberia 2025k).

“Dr. Yarkpawolo (the EPA ED) said EPA investigations found that all the identified mining companies along with dozens of “Class B” miners in Grand Kru, Rivercess, Maryland, Grand Gedeh, Bong, and Lofa counties were using heavy machines such as dredges and earthmovers without proper environmental permits... [E]quipment used by the miners pose a serious danger to the environment, often polluting water bodies and communities and also causing deforestation. In some instances, companies use mercury to extract minerals, a chemical that violates the Minamata Convention, of which Liberia is a signatory” (Deemie 2025).

5.4. Impacts on Protected Areas

In addition to the immediate impacts on water, forest cover, and forest degradation, mining is undermining the long-term conservation value of Liberia's network of protected areas (PAs) and Liberia's ability to meet its national climate action plan under the Paris Agreement (i.e., its Nationally Determined Contribution (NDC)), as well as any other international commitments to climate and conservation (EPA 2021). The Deputy MME Minister informed the assessment team that the MME considers it their right to allocate licenses, including in proposed protected areas (PPAs).

Protected Areas

Of the six PAs, three have no overlap with licensed mining companies (East Nimba, Krahn Grebo (South), and Sapo National Parks; Map 6). However, Gola, Piso, and Krahn Grebo (North) are overlapped by active mining licenses across 51,310 ha, or 11 percent of their area. Inside Gola there is a 40 ha Class B gold mining license; the rest of the overlap is for exploration.

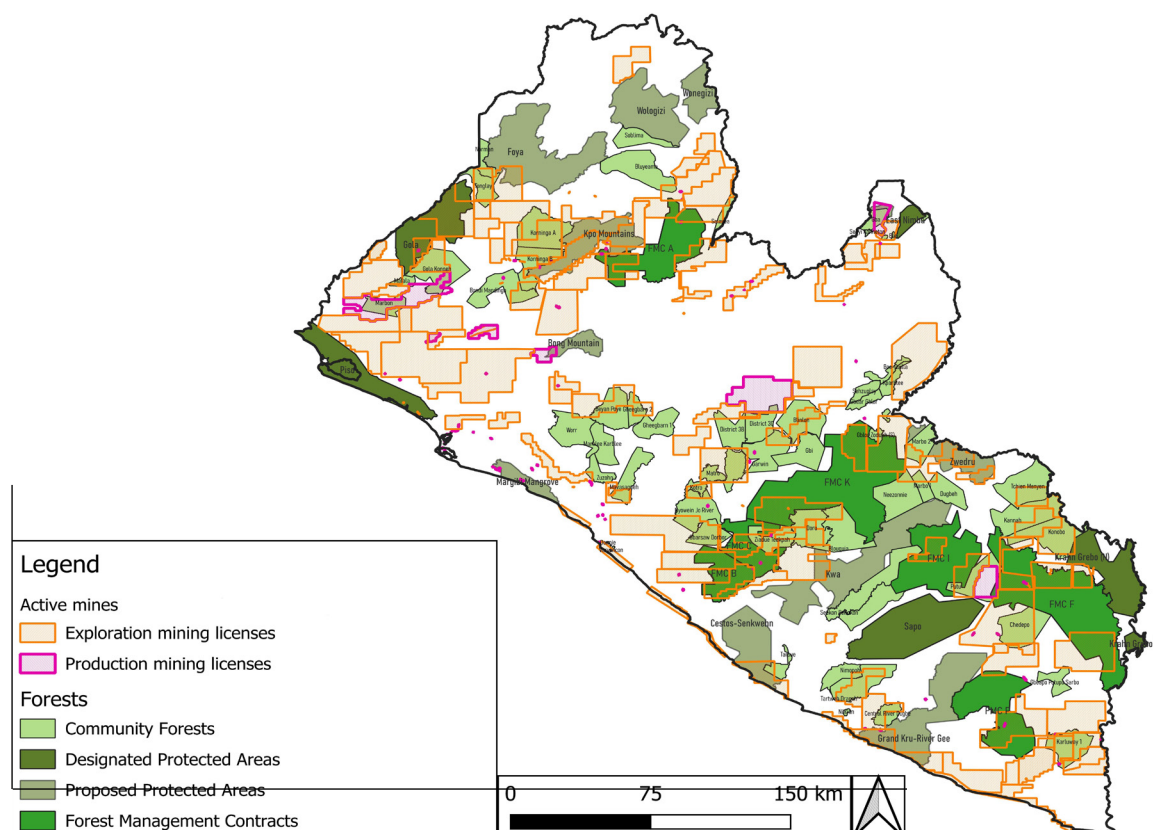
In addition, two applicant licenses, both for exploration and totalling 57,899 ha, are pending (Map 7); one license is only 40 ha and is located in Lake Piso Multiple Sustainable Use Reserve; the other, much larger license, is in Krahn Grebo (North).

Proposed Protected Areas (PPAs)

Of the 11 PPAs, only Wologizi and Wonegizi are free of overlap with active mining licenses (Map 6). Across the other nine PPAs, licenses overlap 20 percent of their area: 166,407 ha in active exploration and 8,595 ha in production licenses.

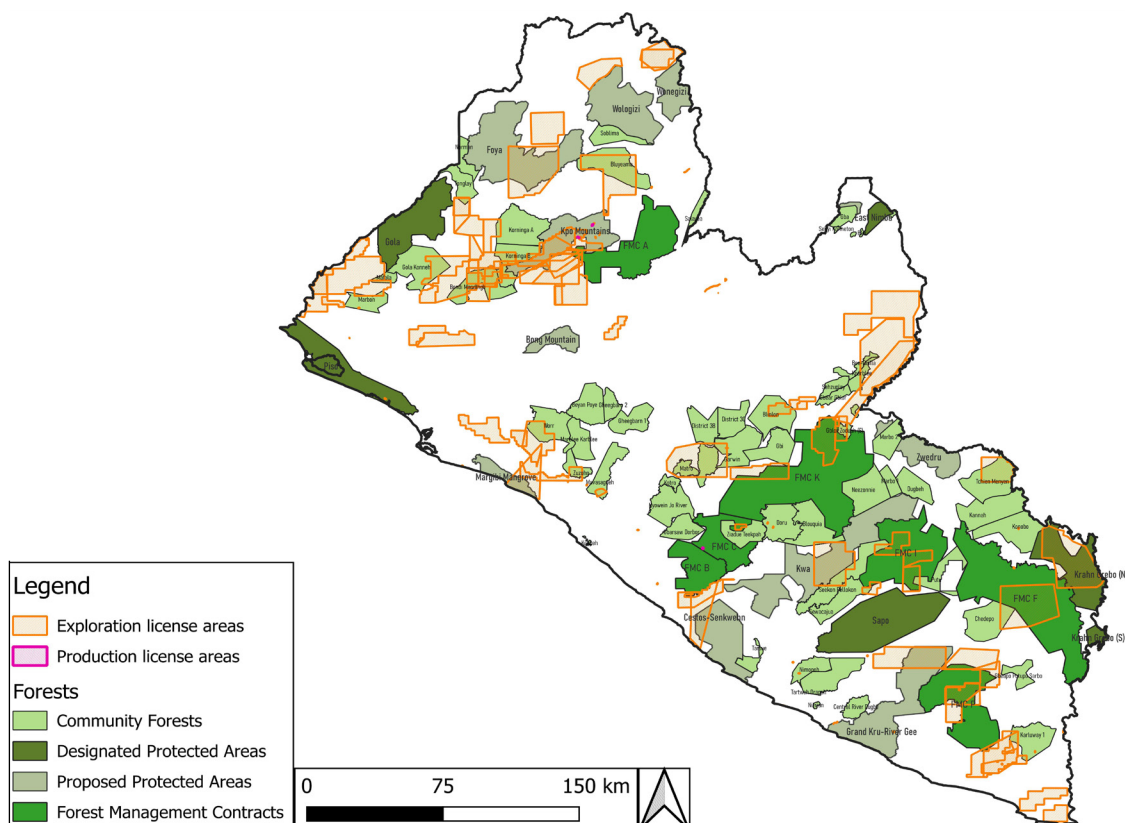
Already PPAs have been reduced in size to accommodate mining (Case Study 1).

Map 6. Overlap between Active Mining Licenses and Proposed/Protected Areas, Community Forests, and Large Industrial Logging Concessions (FMCs)



Source: MME GIS database as of April 15, 2025 and FDA GIS data as of 23 June 2025 for FMCs, P/PAs, and CFs.

Map 7. Overlap between Applicant Mining Licenses and Proposed/Protected Areas, Community Forests, and Large Industrial Logging Concessions (FMCs)



Source: MME GIS database as of April 15, 2025 and FDA GIS data as of 23 June 2025 for FMCs, P/PAs, and CFs.

Case Study 1: Mining among the Main Drivers of Changes to the Kwa Proposed Protected Area

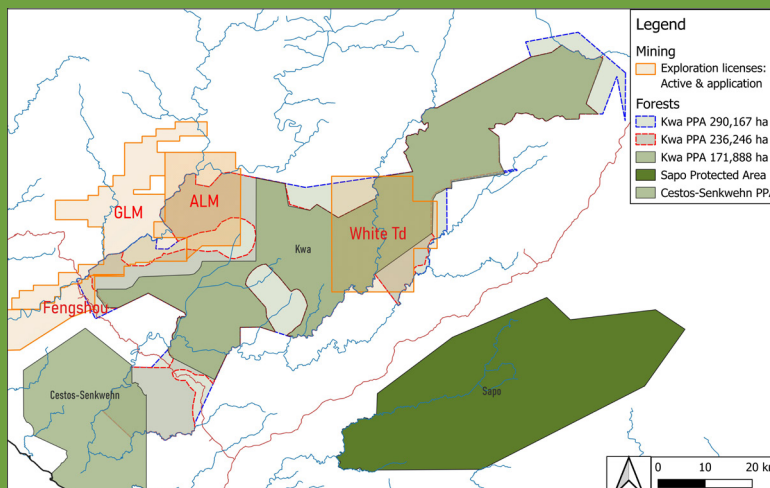
The 2006 NFRL (§ 9.1a) required Liberia to “establish a Protected Forest Areas Network, together with Conservation Corridors, and incorporating existing National Forests, to cover at least 30 percent of the existing forested area of Liberia, representing about 1.5 million hectares.”³⁹ As part of the initial planning, about half of the the Krahn-Bassa National Forest was included as the Krahn-Bassa PPA.⁴⁰ Protecting the Krahn-Bassa area is critical to Liberia meeting its commitment to conserve 30 percent of its rainforests, the largest of West Africa’s remaining rainforests. It is also crucial to the country’s climate pledge to reduce its deforestation rate by 10 percent under Liberia’s NDC.

Despite its importance, when the first formal proposal of the renamed Kwa PPA was released in 2016, a fifth of the area had been removed to exclude major roads, settlements, and farming areas (Map 8). Since then, the Kwa PPA has lost a quarter of its area (reduced to only 171,888 ha) through successive reductions, in part to accommodate mining.

³⁹ This commitment is reiterated in the National Wildlife Conservation and Protected Area Management Law of Liberia, 2016, also known as the National Wildlife Law (Client Earth 2016).

⁴⁰ Figure 2 map in FDA (2023) Gazettement package: Krahn-Bassa Proposed Protected Area (Forestry Development Authority 2025).

Map 8: Kwa PPA Showing Boundary Changes Made by the Forestry Development Authority since 2023, in Part to Accommodate Two Active Exploration Mining Licenses (GLM & ALM) Allocated by Liberia's Ministry of Mines & Energy



Just after the initial proposal was made, about three percent of the western end of the Kwa PPA was allocated to the Cestos-Senkwehn PPA. A further 15,505 ha was also excised from this end of the PPA, thus completely severing the corridor between Kwa and Cestos-Senkwehn PPAs. (The previous excision had restricted the width to 1.3 km in the middle of the Kwa PPA.)

Then, in January 2023, the MME approved two exploration licenses that overlap the Kwa PPA and that were not in the original gazettement package. One is held by ALM Inc. and the other to GLM Inc. (Debar W. Allen).⁴¹ Both are for gold and active until January 2026. The FDA appears to have excised approximately 35,000 ha from the Kwa PPA to accommodate these mining companies.

More recently, the FDA published a map that excised about 6,833 ha, apparently to accommodate an expansion of the Seekon-Pellokon Community Forest.⁴²

In June 2023, the FDA (2023) released a revised gazettement package. The typical 60-day public consultation period has long since passed, yet the gazettement package has not yet been submitted to the legislature.

Further excisions are possible. Indeed, the MME database now has two applicant licenses that overlap the Kwa PPA, including White Trade Mining Company Inc. (abbreviated to White Td on Map 8) application for a 29,942 ha gold exploration license that cuts across the entire PPA.

The Deputy Minister of MME confirmed that the Ministry does not consider PPAs off-limits to mining: “after all, they might not locate a park there.”

⁴¹ For full details see ALM: <https://portal.mme.gov.lr/license/655575> and GLM: <https://portal.mme.gov.lr/license/649354>. Accessed 15 April 2025. Note: Debar Allen is the General Manager of Bea Mountain (BMMC) (Dodo 2024).

⁴² The spatial data provided the research team by FDA in June 2025 includes a polygon for Seekon-Pellokon Community Forest that measures 44,982 ha. The CF was first approved in 2017 with an area of 6,204 ha. The Seekon-Pellokon CFMA is available at: <https://loggingoff.info/library/seekon-pellokon-cfma/>. Accessed August 10, 2025.

In addition to the active licenses, there are applications for 177,795 ha of exploration and 46 ha of production across the six PPAs (Map 7). Only Bong Mountain, Cestos-Senkwehn, and Nimba West reportedly have no additional applicant licenses pending.

Despite the noted overlaps in Maps 6 & 7, the analyses above undoubtedly underestimate the actual conflict with mining because, as previously noted, the maps do not include Class C and unlicensed mines. The impact of this mining appears to be substantial.

For example, Sapo National Park has been repeatedly invaded by illegal miners.

- In 2005, it was estimated that 8,000 illegal miners occupied Sapo, “with large settlements named Iraq, Afghanistan, New York, New Creation and Baghdad” (McCandless and Christie 2006). The GoL and the UN Mission in Liberia (UNMIL) alerted the local communities and mining encampments that they planned to remove the miners. By the time of the “evacuation” only 1,000 miners remained and most of them left voluntarily.⁴³
- By 2010, the World Bank estimated that 6,000 illegal miners were back in the park.
- More than 3,000 miners were removed as recently as 2023 (Miapue 2023).
- But by 2025, more than 5,000 miners, including those from Sierra Leone, Ivory Coast, Ghana, and Nigeria, had once again set up permanent camps.
- Reportedly on “August 1, 2025, a government-led operation involving the Armed Forces of Liberia and other national security units was launched to expel illegal settlers from the Kojayee area of Wakaba Statutory District. However, the operation was unexpectedly halted” (Pannyonnoh 2025).

If some lawmakers have their way, Sapo will be lost altogether. The Representative from Sinoe is pushing for de-gazettement (FM 91.9 Radio 2025). In response, the EPA ED, Dr. Yarkpawolo, presented a detailed, cogent defense of the park, arguing (EPA 2025c) that the de-gazettement would:

- Undermine existing laws and international commitments.
 - » e.g., Under the Convention on Biological Diversity, Liberia has committed to a network of PAs covering 30 percent of the country by 2030 (i.e., 30X30)
- Undermine Sapo’s ecological importance and the ecosystem services it provides.
- Undermine the opportunity to obtain payment for these ecosystem services, including “Liberia’s Carbon Market ambition.”
- Undermine communities’ well-being by facilitating harmful land uses. “Experience across Liberia shows that [exploitation] often favor elite interests at the expense of broader communities.”⁴⁴
- Long-term planning is abandoned for short-term gain. Degazettement can “be the first step down the slippery slope of environmental deregulation.”⁴⁵

The MD of the FDA, Rudolph Merab (Front Page Africa 2025), agrees: Sapo “is not just a national treasure—it is a globally recognized biodiversity hotspot, a major carbon sink, and a symbol of Liberia’s environmental leadership.” The FDA is committed (with legislative funding) to “scaling up staffing, enforcing

⁴³ Many had moved to the Butaw Oil Palm company where diamonds had been found.

⁴⁴ Here, Dr Yarkpawolo cites the misuse of the Private Use Permit (PUP) framework for logging that was meant to support the economic development of local communities, but that instead, driven by corruption at the FDA, undermined local control and sustainable forest management. See the Presidential Investigation on PUPs: <https://www.forest-trends.org/wp-content/uploads/2023/09/SIIB-report-on-PUPs.pdf> Accessed August 12, 2025.

⁴⁵ Saah David (formerly of the FDA and USAID) also makes a solid defense of Sapo, including that de-gazettement would “set a dangerous precedent, inviting similar moves across other PAs and emboldening illegal encroachment” (David 2025).

park boundaries, and implementing livelihood support for surrounding communities...[including r]estoration projects, ecotourism expansion, and stronger community engagement...Rather than de-gazetting [Sapo], we must unite to protect, manage, and benefit from it for generations to come.”

Dr Yarkpawolo also recognized the undeniable need for improved/alternative livelihoods for local people, but he noted that the governance challenges facing Sapo are not unique. Rather than killing the park, Dr Yarkpawolo argues that Liberia needs to unlock its potential.

5.5. Impacts on Local People

In addition to threats to human health from mining, locals are being excluded from areas where mining licenses are allocated, undermining their rights including to self-determination. This is causing conflict, especially when it threatens their livelihoods.

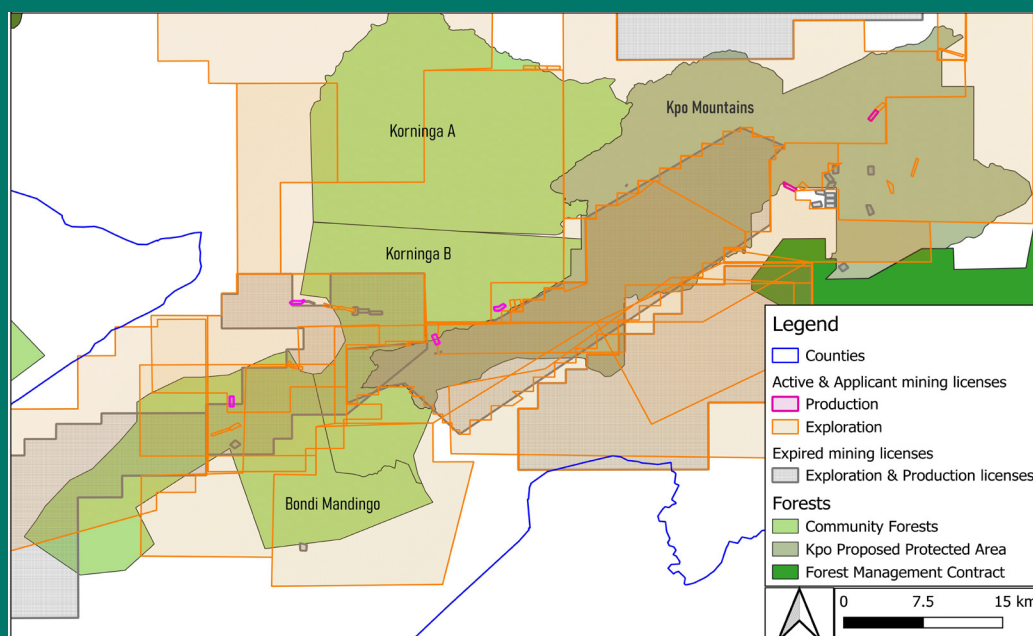
However, our Case Studies (2 & 3) suggest that, lacking alternatives, locals are often desperate for any assistance that mining companies and the GoL promise. But experience often differs from the promises; media reporting⁴⁶ and our two Case Studies also suggest that locals are concerned about the pollution associated with mining, and they are generally unsatisfied with what little (if anything) is offered in compensation.

⁴⁶ For example, Kamara (2022).

Case Study 2: Mining, Logging, and Conservation Interests in Gbarpolu County

In Gbarpolu County, the Kpo Mountains PPA is bordered by three Community Forests: Bondi Mandingo in the south, and Korninga A & B to the north. Almost the entirety of all four areas is overlapped by an active, applicant, and/or recently expired mining license (Map 9).

Map 9: Mining Licenses that Overlap the Kpo Mountains PPA and the Bondi Mandingo, Korninga A, and Korninga B Community Forests in Gbarpolu County



“When you look over the forest you see the good things the forest provides for us. The biodiversity that lives in the forest can also help us, and there is a need for us to preserve them because they are important,” said a 46-year-old farmer in Gbarqueta, a community in the Kpo Mountains.

The farmer is a representative in the Community Assembly that governs the Bondi Mandingo CF. He believes preserving the biodiversity of the Kpo Mountains would yield benefits for the locals and the country. However, he is concerned about the livelihoods and infrastructure development needs of this community. “I prefer preserving the forest over mining, over farming, and other activities that will spoil the forest. Mining is one of the things that destroys forests, and slashing, burning [for agriculture] destroys forests, so if the forest is preserved, it will be good for us.”

The 83,000 ha forested Kpo Mountains reach nearly 1,000 meters above sea level, and form part of the Upper Guinean Forest ecosystem, a biodiversity hotspot of global importance. In 2003, the Liberian government first decided to set aside the area as a national park, in part to meet its international commitments on biodiversity and climate (e.g., cutting deforestation by 10 percent under Liberia’s NDC, as well as the meeting the 30X30). The area is yet to be fully gazetted and thus, remains a Proposed Protected Area (PPA).

Interviews with nearly two dozen people indicate that many individuals support the gazettement of the Kpo Mountains PPA; however, they call on authorities to ensure that locals benefit from conservation.

One town chief feels that local communities should be offered alternative source of income if conservation efforts restrict their access to forest or mining resources. “They should build poultry [farms] for the Kpo Mountain area citizens, the government should assist us on the farming level, like farming tools, [and other] materials that people use [for] farming.”

“When the government comes to take the forest, let them give us money to make a business or something to sustain me and my children, because this is the only place we are depending on,” said a resident of Camp Two, a mining town.

The Kpo Mountains are highly sought by mining companies due to the rich mineral deposits. Kpo sits on one of the richest diamond and gold belts in Liberia. Kpo also holds potential for iron ore and other base metals.⁴⁷ Instead of conservation, many see mining as the most likely route to development.

The Development Chairperson in a community heavily dependent on mining within the Kpo Mountains feels strongly about community ownership of the mountain and the forest. He believes the government should respect their rights—including for mining—because it is their main source of livelihood. “The government has failed to let its citizens understand what the issue is of preserving the forest and why it’s that important. The government has not met us; they have not told us. So, if you ask me, I will say I prefer what I’m doing. And what I know here is I believe that when [a big mining] company comes to this town will develop lot of people will run to this place. I also believe we will get young people having jobs to do around here.”

He has heard about conservation before, particularly wildlife protection, from NGOs, but said he stresses that the government has not told them about the importance and benefits of preserving Kpo. “I can say, the forest is our daily bread because all activities of this community are within the forest. For instance, our mining, agriculture, and hunting. These are things our people depend on in sending their children to school and maintaining their homes. Apart from those things, we don’t have other jobs here.”

An Assistant Town Chief argues that mining brings benefit to both local miners like him and the government. While he prefers mining, he believes the Liberian government should decide what is best for its people and the forest. “We are in line with the government because we are also taxpayers. People come here (government tax agents) and we pay taxes to the government for Class C Licenses,” he said.

While conservation has not delivered to these communities, mining has not done any better. Some communities in the Korninga Chiefdom are renowned for mining dating back

⁴⁷ See, for example, Figures 3-6 in Gunn et al. 2018.

to the 1970s. Mining activities intensified during and after the Civil War, but it was halted in 2018 when the community obtained approval for two Community Forests (Korninga A and B). It has since resurfaced. One elder in the town told us “the social impact caused by mining is not getting better because [as we continue to] do the mining, we are damaging the water and forest” (e.g., Photo 2).

Photo 2: Forest Destroyed by Mining about 1km North of Henry Town in Korninga B Community Forest



Source: CS-IFM, taken June 13, 2025; see Map 10 for photo location.

“Mining has brought more problems to the community because communities are not benefiting at all,” said a representative of the Korninga B. “In the next two to three years, I think there will be plenty of people with epilepsy in the area from mining impacts,” he asserted, referring to the increased use of mercury and other poisonous chemicals increasingly used by miners.

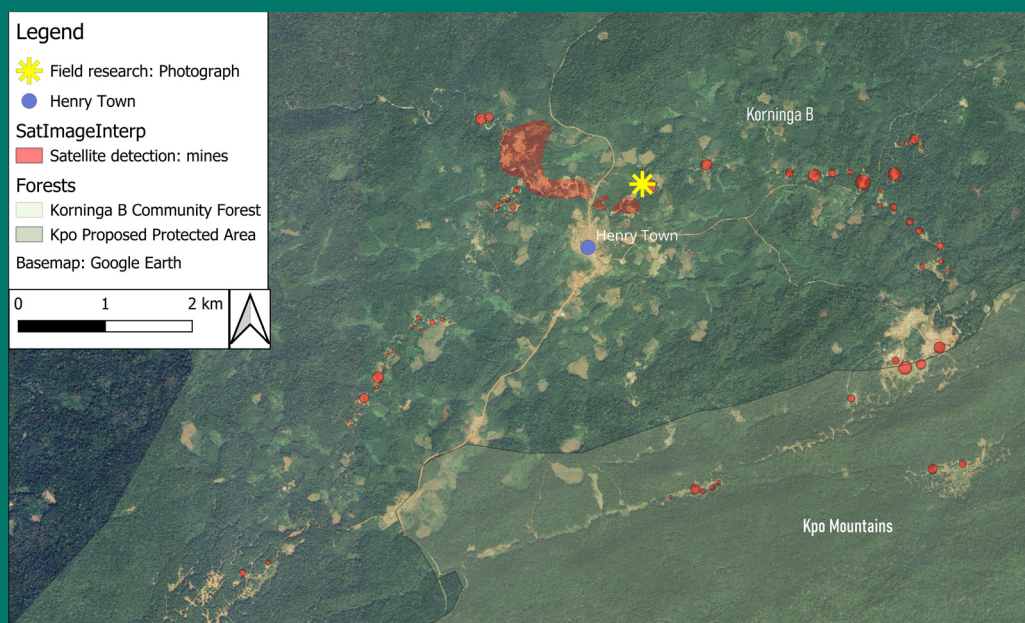
These concerns are corroborated by satellite detection of mines (Map 9). In addition to the larger area indicated on the map, which was detected by Maus et al (2022), we identified a further 65 mining ponds within a few kilometres of Henry Town. Most are within Korninga B Community Forest but many are also inside Kpo Mountains PPA. In a community discussion in Henry Town, we heard that the environmental issues arising from mining include:

- Water pollution: “we can’t drink from the creeks anymore, we have to buy mineral water and for people who can’t afford, they are usually sick from running stomach and other skin diseases”.
- Damage to non-timber forest products (i.e. ‘piassava trees’, a type of palm used to make rope, rattan, bamboo).
- Forest degradation: “I have seen people using shovels to mine, [but in Henry Town] people are using the excavators to mine, and they destroy the trees and dig big holes. [that are left open].”

Social issues were also identified:

- “We continue to have boundary issues with [a neighbouring community] because they continue to do mining in our forest and if we talk, they say they do not have to deal with us. The boundary demarcation is clear between us, but they continue to violate [it] and no one is speaking about this. This might likely lead us to using other means to get them out.”
- “We believe mining brings less benefits than forestry. For example, the logging company that was here before were paying fees (land rental and cubic meter stumpage fees) to the community, but the mining people are not paying anything to the community, only to the community elites.”
- “Most of our boys are contracted by miners, and they get paid on a daily basis so they do not have time for school”.
- “We are trying to put the forestry committee and the mining people together for them to work together. Even though the forestry people are trying but the miners don’t want to listen to any of us. FDA and the community people are working together, [but] the government agent for mining does not listen to us, [they] only listen to their bosses from Monrovia. But we are very much interested in making them to work together.”

Map 10: Environmental Impact of Mining Evident in Satellite Images (ed-pink shading) near Henry Town



The Assistant Town Chief concluded “[b]ut whatever the case may be, the government has the upper hand in deciding anything. The government is more (powerful) than us, so whatever the case may be, once it is in the right direction for the future, anything the government decides we will agree.”

Case Study 3: Kwa PPA – Choices Communities Must Make when Deciding Among Alternative Land Uses

The communities around the Kwa Proposed Protected Area tell two different tales. Those that have spent the past decade waiting for conservation projects have become disillusioned with the international community's ability deliver, whereas those communities affected by logging and mining feel mistreated by the companies. Lacking options, the former now look to mining for jobs and development, while those that have lost trust in mining look to conservation for their future. While they tell different tales, all the communities are desperate for some economic activity that will provide jobs and development.

In his mid-60s, there is a father of nine that spent his entire life in Solo Town, farming near the forested slopes on the Rivercess side of the Kwa Mountains. He rises each morning to tend his crops, but his gaze often drifts to the green ridgeline nearby, part of the proposed Kwa Protected Area. For him, those mountains are more than trees and rivers. They are the backdrop to decades of debate that, in his eyes, have left his community empty handed.

"For more than 30 or 40 years, we have gained nothing from this [conservation]," he said, sitting on a wooden bench outside his home. "Our children need schools, jobs, and food. We survive from farming, and now some mining."

His is just one of several communities in Rivercess County that, although initially supportive, no longer supports the establishment of the entire Kwa PPA as a National Park. In January 2025, communities adjacent to Kwa petitioned the FDA and the MME to "urge the government to allocate a portion of the land to a mining company to create jobs and alleviate poverty in the area...The communities and their leaders emphasized that they are not opposed to conservation but stressed the importance of balancing conservation efforts with their need for survival."⁴⁸ The communities had become disillusioned with how little the conservation projects had provided.

Townpeople welcomed the mining company, GLM, to explore for gold in areas previously designated for protection. Mining, they argue, offers more hope than conservation. (GLM is an affiliate of Bea Mountain, a Turkish-owned company that runs Liberia's largest gold mines in Grand Cape Mount County.) Locals say GLM has already provided dozens of jobs that make a difference in their lives.

"It is hard times that made us [drop] protecting the forest to allow companies to come here and mine in the forest," says a 60-year-old mother of six and a chairperson representing the women from the Norman Clan. "Since we have been here protecting the forest, we have not received any help from anybody, from the government or an NGO... No road, no clinic, and no good school for our children."

An elder in ITI Town, a community on the border with Sinoe County, says "life around the proposed Kwa Protected Area is now better with the coming in of Bea Mountain. It was [a] proposed protected area, but we are discussing the benefits of the people who live here.

⁴⁸ Meetings with stakeholders in Rivercess County. Unpublished stakeholder consultation meeting report provided to the research team in May 2025 (Ministry of Mining and Energy 2025).

Protecting plants and animals is one thing for future use..., but the people for whom those things were created and kept are starving.”

At stakeholder meetings held by the MME and FDA in the Rivercess section of Kwa PPA, the head of the county’s traditional council, remarked that “the FDA should step back a little so that the people can have something to eat.” A local Pastor agreed, “Who enjoys poverty? Poverty makes you old and ugly. During our meeting, we agreed that the land should be given to Bea Mountain so we can have jobs.” The MME & FDA report noted that his “statement was met with unanimous support, as the men cheered and applauded.”

To be fair to the conservation NGOs working in the area, it has taken an unexpectedly long time to help the communities formalize their land claims. Although land title is not required for the enforceability of customary rights, the Land Authority had assured the project that the issue would be resolved by July 2025.

The MME Deputy Minister for Planning and Research noted that the behavior of the mining companies will be critical, urging them to address issues “such as pollution, land degradation, and poor labor practices”. He also “urged the community to maintain this same level of engagement” in the Environmental and Social Impact Assessment process to ensure their concerns are addressed, so that commitments made by the mining company are clear.

A youth representative said that “[w]e have endured hardship before, so we need assurance that the company will not exploit us.” And a civil society representative noted “we will closely monitor what Bea Mountain provides in compensation to the people. We will monitor their operations and hold them accountable.”

The situation is different in neighbouring Sinoe County, which hosts another part of the Kwa PPA. Here, many, including a former local government official for Sanquin District, support conservation.

“The Sinoe side of the proposed protected area is safe,” he says. Unlike his Rivercess neighbors, he is not aware of mining activities in his area, but said hunting is a common practice among his people. He believes that park development could attract international visitors, generate livelihoods, and enhance conservation efforts, ultimately improving local living standards. He would love to see the forest stay protected, but stressed the need for concrete social and economic progress.

A local youth representative of Nehneh Town shares these concerns. “Conservation is a good thing, but when we are thinking about our livelihoods, we wonder what will become of us...If our livelihoods are improved, nobody [will] do hunting and all those hard work.”

The conservation NGO at the stakeholder meeting in Rivercess assured the communities that “substantial funding has been secured from the European Union to boost up...efforts in terms of jobs, livelihoods, and infrastructure development for the host communities for at least the next eight years. This will allow all of us together to establish a carbon project, to conduct an international research and training site and to promote ecotourism at Proposed

Kwa National Park.” They noted that while the MME had “consented to the creation of the national park and the harmonized boundaries, today we have a situation in which different government institutions have competing interests.”

Holding companies accountable in the past has been a challenge. As the communities acknowledged in their petition to the GoL, “Rivercess County has been a major contributor to the National Budget of the Republic through the logging industry but cannot be considered for development to commensurate with the extraction and depletion of its forest.”

The mining companies, as well as the GoL (in particular the MME and FDA) and the conservation organizations, will all have to be careful to set realistic expectations for what they can bring. Otherwise, despite their ardent hopes for development, mining and conservation will not bring the bright future that the Rivercess communities want.

Overlap with Community Forests

Of the 1.4M ha across 64 community forests (CFs) areas recognized by the FDA, 53 CFs (83 percent) are overlapped by active mining licenses (Map 6), and an additional one (the Sewacajua Community Forest) is overlapped by an applicant exploration license (Map 7). So, of the 64 CFs, all but ten have potential conflicts with licensed mining companies.⁴⁹

While it is permissible for the MME to license mining on privately held land, there have been a number of legal cases where a local community sued the mining companies for infringing on their logging areas (see Text Box 2).

Text Box 2: Lawsuit Against Mining in Community Forest: the Salayea Case

One example of what may transpire when CFs are in conflict with mining is the Salayea Authorized Forest Community (SAFC), which launched a criminal complaint in the local Magisterial Court against three individuals for *Mining without a License, Smuggling of Illegal Minerals, Criminal Trespass, and Criminal Facilitation*. In their June 2024 ruling, the Court established that a valid Class C License had been issued to the defendants by the MME, but that the SAFC also had a valid Forest Management Agreement entered into with the FDA. The Court found it “prudent for both the MME on the one hand and the FDA on the other hand to firstly handle the growing confusion involving their respective administrative acts before an aggrieved party can move to court.” The SAFC has since asked for the FDA to intervene on its behalf. Apparently, the mining operation continued even after their Class C license had expired (Farr 2025).

⁴⁹ The 581,526 ha in Active Mining Licenses are mainly (95 percent) for Exploration. The overlaps range from minor to the entire CF, with the median overlap among the 54 CFs being one third of their registered area. There are 57 Authorised CFs, but some contain more than one area of forest, making 64 CF areas in total.

Further, 227,791 ha in Applicant Exploration licenses overlap 31 CFs, with the median overlap of 16 percent.

In addition to the SAFC experience:

- In 2019, the Swiss company (although apparently with origins in Russia) Solway Mining Inc. was granted an exploration license (for iron ore) that overlapped 152 ha of Blei Community Forest and 70 ha of Delton Community Forest (Mukpo 2020).
 - » Initially the Community Forest management bodies of Blei and Sehyl Koo-doo sued Solway in Sanniquellie Magerial Court for illegal entry into their forests. Mediation apparently resolved the case, and Solway paid \$3,000 and an MOU was signed (Kamara 2022b).
- In June 2024, after miners encroached the Bondi Mandingo Community Forest, the community reportedly sued the miners for criminal trespass, criminal mischief, and disorderly conduct, requesting \$500,000 for damages (Farr 2024).
- In July 2024, Korninga B Community Forest received \$200,000 from Bea Mountain for “illegal entry into their forestry without authorization to prospect for minerals.” This was after the Court ruled that Bea Mountain had to pay \$1.3M in special damages and \$3M in general damages, but the company allegedly “refused to pay...[and] the court later advised the parties to undertake an out-of-court settlement” (Sustainable Development Institute 2024).

The *Key Challenges & Issues* section will examine the impact of these conflicts.

In fact, the potential conflict is even greater than that suggested by the area of community forests overlapped by mining. The FDA is apparently pursuing the cancellation of the non-performing industrial logging concessions (FMCs). When that happens, under the Land Rights Law, this land should be turned back over to community control.

As with community forests, there is a large amount of overlap between FMCs and mining.

Overlap between Mining and FMCs

Active exploration licenses overlap all seven FMCs and 40 percent of their area (Table 8). Applicant licenses overlap 191,348 ha. Almost all (99.97 percent) of this area is under exploration license.

Table 8. Overlap between Industrial Logging Concessions and Active Mining Licenses in Liberia

FMC	Logging Company	# of overlaps	Area of overlap (ha)	% of FMC overlapped
FMC A	Alpha	11	39,833	33%
FMC B	EJ&J	7	54,691	95%
FMC C	LTTC	9	40,131	68%
FMC F*	Euro	11	107,480	42%
FMC I	Geblo	4	27,408	21%
FMC K	ICC	6	98,812	37%
FMC P	ARL	9	35,532	30%
TOTAL		57	403,888	40%

Source: MME GIS database as of April 15, 2025, and FDA GIS data as of June 23, 2025.

* F is the only FMC reported to be currently operational.

Again, the maps undoubtedly under-estimate conflicts between mining and logging because they do not include Class C Licenses nor unlicensed/illicit artisanal mines. As documented above, logging companies frequently complain about unregulated mining in their concessions. However, logging companies themselves have also been reported to be involved in unregulated mining.⁵⁰

⁵⁰ For example Giahue 2022.

5.6. Economic Impacts of Mining

In addition to the local impacts of mining on humans and the environment, the sector has economic impacts on government and local people. To understand some of these impacts, we also assessed production, trade (the sector is almost exclusively export-oriented), revenue collection by government, and the legally required benefits sharing with the local communities most affected by mining operations.

Appendix 4 contains the detailed information on production and trade since the resumption of the sector following the end of the civil war and the lifting of UN sanctions. Here we summarize the main findings.

Production

Although formal production is at its highest levels over the past twenty years (Table 9), the mining sector has never met projections made by the GoL. Diamond production is small relative to iron ore and gold (Table 9). Production in iron ore has been relatively steady, but gold has reportedly risen dramatically.

Exports

Exports show a similar trend, but notably, it appears that Liberia under-reports exports. In comparison to the GoL's reporting, importers consistently report much more trade with Liberia for gold and iron ore (Figure 4); that is, since 2011, importers reported in excess of \$2.7B (43 percent) more in exports compared to Liberia's reported exports. Furthermore, for iron ore, production levels exceeded exports by 44 percent (25M t (as reported by Liberia); and 23M t more than importers reported). Either there are huge amounts of stockpiles or exports are being un-reported.

Whether the differences are due to errors, fraudulent under-reporting, transfer-(mis)pricing, and/or smuggling to evade export (and other) taxes and fees is not clear.

Table 9: Production of Iron Ore, Gold, and Diamonds Reported in Liberia from 2011-2024. [1960 is also given for comparison (from Clower et al. 1965).]

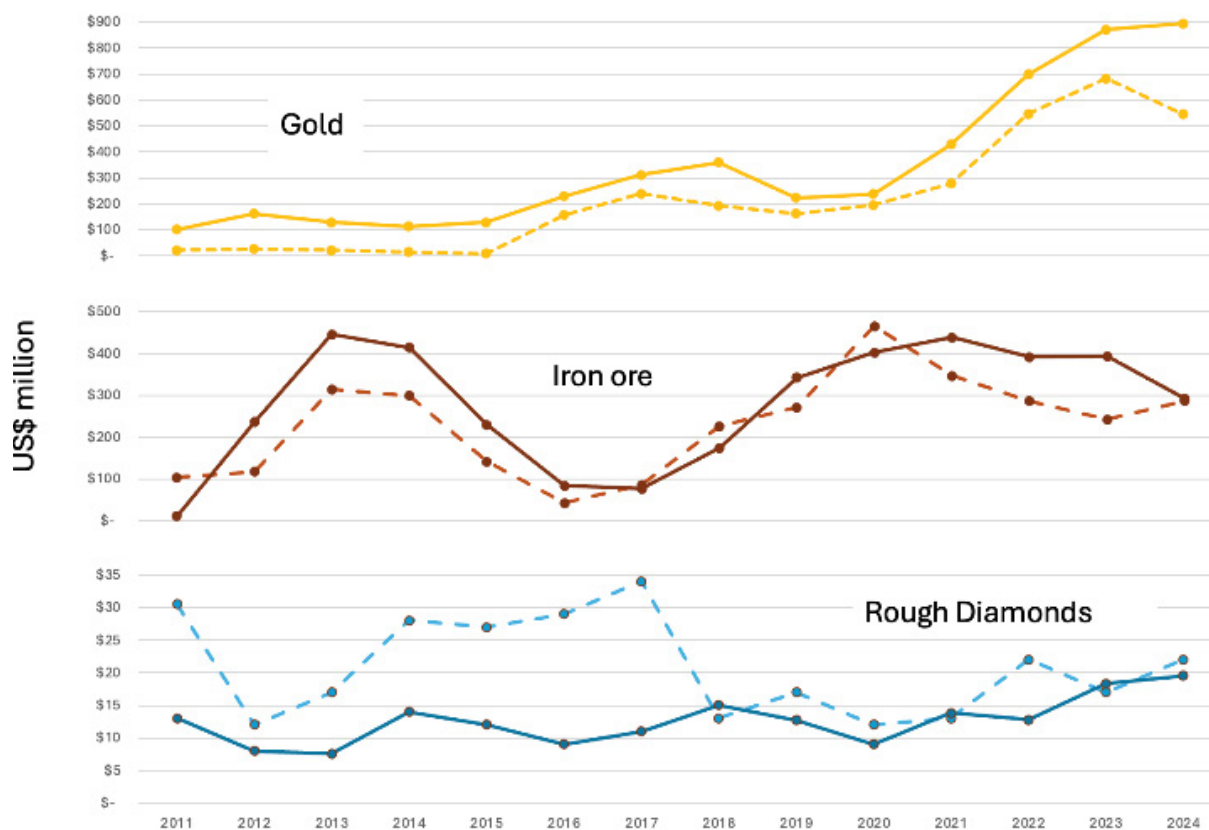
Production	1960	...	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Iron																
MT (M)			1.9	2.4	4.9	4	4	1.4	3.9	4.8	4.4	4.9	5	5	5.05	5.205
\$M								\$115			224.0	267.7	462.1	319.7	331.8	316.9
\$/t									\$82.14		\$50.92	\$54.63	\$92.42	\$63.93	\$65.71	\$60.88
Gold																
Oz	1,036		16,328	20,609	18,869	14,740	9,205	125,251	185,688*	181,197	163,000	140,000	252000	369,000	438,000	442,000
\$M	\$230							\$157	\$242		161.2	187.9	336.5	542.3	702.2	886.8
\$/oz	\$22		equivalent of \$240/oz in 2025					\$1,253	\$1,303		\$989	\$1,342	\$1,335	\$1,470	\$1,603	\$2,006
Diamonds																
Carat	1,000		39,091	34,271	47,820	57,885	53,158			27,619	53,000	62,000	62000	56,000	56,000	47,000
\$M	2.5										15	12	15	23	18	17
\$/carat	\$2,500		equivalent of \$27,000/carat in 2025								\$284.80	\$197.40	\$237.34	\$402.25	\$313.82	\$352.97

Source: LEITI annual reports to 2018, Central Bank of Liberia (CBL) 2019-2024 (except for iron ore in 2020: the CBL values for volume exported for the first six months of 2020 are clearly inaccurate and the LEITI data are used instead).

Note: LEITI data are fiscal years, CBL are calendar years, so there is some overlap in 2019.

* LEITI reported gold production in kg not oz.

Figure 4. A Comparison in the Amount of Trade (US\$ million) in Gold, Iron ore, and Rough Diamonds from Liberia
As reported by importing countries (thick line) and by Liberia itself (dotted line).



Source: UN Comtrade (importers) and LEITI (exports) to 2019, Central Bank of Liberia for 2020-2024.

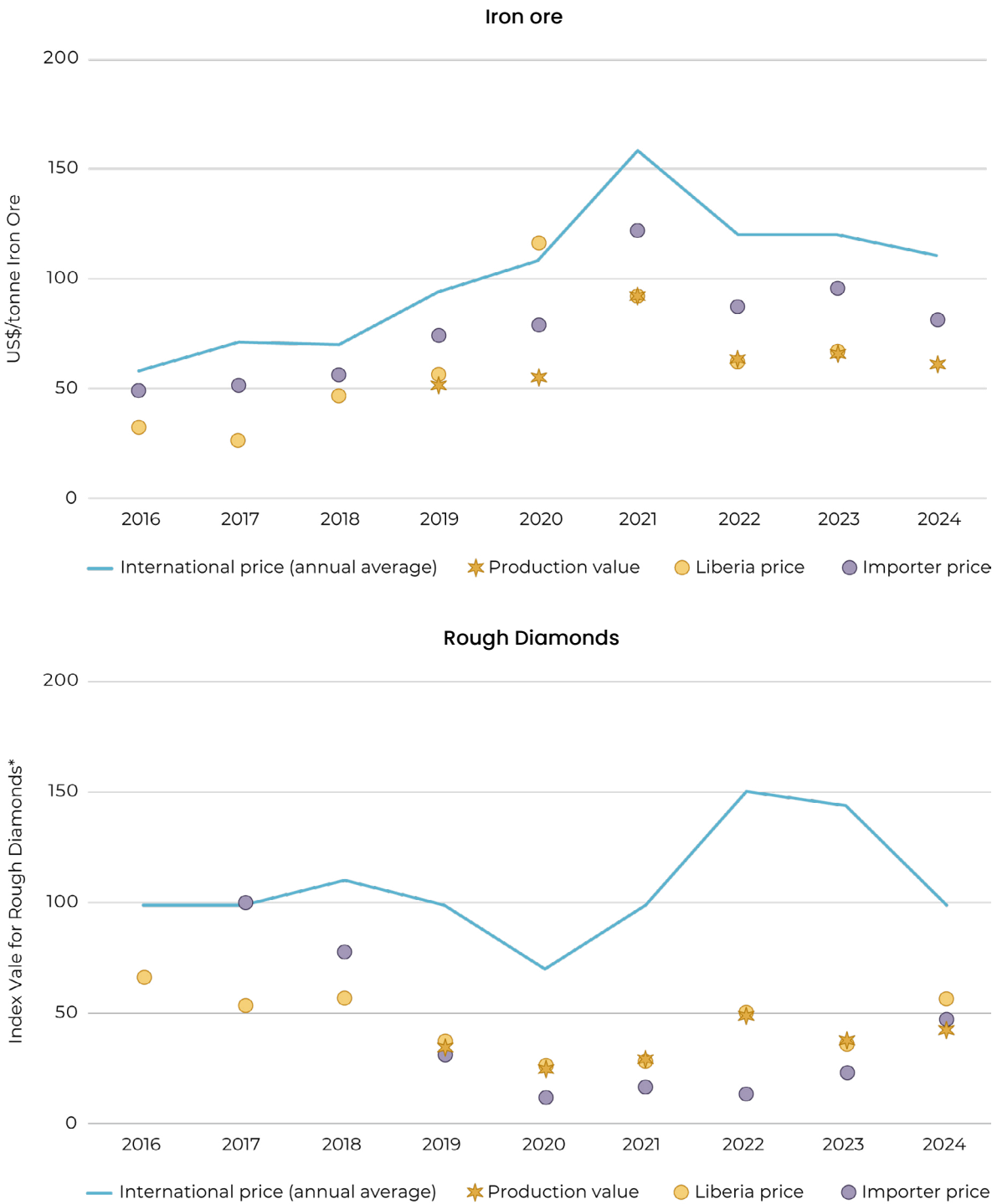
More Evidence of Under-reporting

When comparing the two sides of the mirror—Liberia, on one side, and importer reporting on the other (Figure 4)—another trend emerges. It is in value where the big differences in trade appear, not in volume. In fact, where we can compare both, exporters of iron ore in Liberia reported more volume in trade (by 2M tonnes) than importers reported, yet Liberia reported almost \$2.7B less in trade. Again, this under-reporting of the value of shipments is consistent with transfer-(mis)pricing to evade export taxes and other fees.

More Evidence of Under-valuing

Even the larger values reported by the importers appear to be below market prices (Figure 5). The cause of this under-valuation is not clear. The pattern may be the result of intentional under-reporting, as noted above, but it is not necessarily fraud. It may be that buyers consider Liberian goods to be particularly risky and so pay a correspondingly lower price. **Regardless, Liberia loses millions when it sells its commodities at prices below the international market.**

Figure 5. The Average Value of a) Iron Ore and b) Diamonds Production & Trade (as reported by Liberia and by Importing Countries) as Compared to their International Benchmark Price



*Note: Zimnisky Global Rough Diamond starting Index Value 100 in December 2016

Source: Liberia: LEITI, Importers: UN Comtrade; Iron ore: USG (FRED); Zimnisky Global Rough Diamond Price Index.

* International diamond prices are an index starting at 100 in 2007. We set the highest price reported for Liberia (i.e., importer reporting in 2017) equal to the reference price.

Government Revenue

Over the same period as Table 9, the LEITI reported \$884M in government revenue from the mining sector.⁵¹ The likely losses (and possible tax evasion noted above and in Appendix 4) suggest that far more could/should have been collected. Furthermore, if the two percent turnover tax introduced in 2024 existed since the resumption of the industry after the war, the GoL would have collected additional revenue in excess of \$176M—just from the reported iron ore and gold exports. Instead, there is no record in the LEITI data of any income tax being paid by any mining company. This lost money undermines the GoL's ability to function and deliver on its poverty reduction strategy.

5.7. Annual Social Contributions (Community Development Funds; CDFs)

While Liberia and the GoL have suffered losses in mining revenue, it is perhaps local people that bore the brunt most strongly. Not only do they suffer the impacts (noted above, like polluted water), lose out on promised jobs when the sector under-performs, and suffer when the government fails to deliver, but our analyses indicate that local people are also failing to collect on their full legal entitlement to benefits sharing from the mining sector.

There is no evidence that mining companies conducting exploration were spending two percent of their approved budget on local development, nor that they had given five percent equity to the communities (nor that they had paid dividends).⁵² Where there was evidence of spending, i.e., the social contributions of Class A mines, it appears that communities lost out.

Based on reporting by LEITI, between 2007 and December 2023, companies claim that at least \$119M has been shared by seven of the large Class A mines (Table 10), as well as at least an additional \$12M claimed as “in kind” (for work like road rehabilitation). (Note: the 2023 reporting included more than \$4.5M in voluntary payments in addition to the \$3M in mandatory expenditures.)

Text Box 3: ArcelorMittal Liberia's (AML) Annual Social payment Requirements

AML has reportedly paid about half of the annual social contributions claimed by Class A mining companies in the LEITI reporting (Table 10).

Under its amended MDA,⁵³ AML is required to share \$3M each year with communities “that have formed and which may form as a result” of its operations, divided into \$1.5M for communities in Nimba County, \$1M in Grand Bassa, and \$500,000 in Bong. All “disbursements and allocations” should aim to improve “the continuing economic and social viability” of these communities, based on “plans and programs” mutually established with these communities. However, funding decisions are to be made by a committee formed by the company and government (which notably does not include the communities themselves), and subject to final approval by the government. Funding shall also “be subject to independent audit in accordance with generally accepted accounting principles.”⁵⁴

⁵¹ The most recent data from LEITI is to December 2023.

⁵² Here we note that this does not necessarily mean that no payments have been made, just that there is no record of compliance publicly available.

⁵³ MDA amended in 2007 (LEITI 2007).

⁵⁴ While this section of the MDA does not mention the timing of these audits, “generally accepted accounting principles” would require a cadence of at least annual auditing.

More recently, although the MDA has not been amended, AML and the GoL have apparently agreed that instead of all money going to affected communities, now only “20% of each county’s allocation must be spent annually in communities classified as ‘directly affected by ArcelorMittal operations’...The priorities...should be subject to consultations at the county and community level...facilitated by both ArcelorMittal and the GoL through...County Development Management Committees (CDMCs) in each of the beneficiary counties...The guidelines specifically require each CDMC to ensure that no less than 20% of their county’s allocation will be spent annually in communities where ArcelorMittal Liberia operates” (Friends of the Earth International 2012).

It appears that most of this money, especially in the last decade, has not been shared with affected communities as legally required (e.g., Text Box 3; each of the Class A MDAs relevant annual obligations are listed in Table 6). Instead, the money has reportedly been given directly to the relevant county governments.

That is, in the *National Budget for Fiscal Year 2012-13* (Ministry of Finance and Development Planning 2012), Section 9b has been interpreted to require all Social Development Funds (including those from Class A mining companies, although Section 9 does not refer to mining specifically) to “first be deposited into the County Development Fund Account...Allocation, disbursement and utilization...shall be determined and expressed in a Resolution of, and by, the County Council.” A three-member Project Management Committee appointed by the County Council will serve as decision-making body (§9h) and be responsible for “proper internal controls in accordance with generally accepted accounting principles” and the PPCA (§9n(iii)).

Section 9c further requires “all banking regulations and financial audits as provided for by Law,” and §9f requires The Minister of Internal Affairs to “also ensure that each County Council requests the entire amount appropriated...[and] deposited into the County Development Fund Account.”

Once allocated, “it shall be the responsibility of the citizens of the targeted area to meet and appoint a Project Monitoring Team...[to] coordinate the planning of all activities” (§9j).

However, there is no public reporting on how the Counties have spent the money claimed in Table 10. But the General Auditing Commission (GAC) reports of County spending demonstrate widespread mismanagement.⁵⁵ Most recently in 2021, the GAC found gross violations and a lack of oversight by the Ministry of Internal Affairs (“in the absence of adequate supporting documents, the validity, occurrence, and accuracy of payments may not be assured...[which may] lead to fraudulent financial management practices, through the processing and disbursement of illegitimate transactions.” (General Auditing Commission n.d.))

⁵⁵ Note: the General Auditing Commission website that contained the 2013 audits appears to be no longer functional.

Table 10. Community Contributions (US\$ million) Claimed by Class A Mining Companies in Liberia. Source: LEITI annual reports.*

LEITI report #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15***	16	GRAND	
Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021/22	2023	TOTAL	%**
Arcelor Mittal Liberia Ltd	6.99*****	3.00	6.00	3.08	3.10	0.72	8.25	2.59	0.48	3.00	1.50	1.50	n/d	n/d	16.92	1.67	58.8	52%
China Union				3.50	6.05		3.50	3.50				4.80	n/d	n/d		4	25.35	23%
Western Cluster				0.33	2.00		2.50	2.50					n/d	n/d	1.93	4	13.26	12%
Putu Iron Ore					0.90	0.09	3.01	4.50					n/d	n/d			8.5	8%
BHP Billiton				0.40	0.45				0.20			0.76	n/d	n/d			1.81	2%
AmLib/MNG Gold								0.01	0.02	0.09	1.10	0.05	n/d	n/d	0.09		1.36	1%
Bea Mountain								0.10		0.49			n/d	n/d	0.36	1.89	2.84	3%
African Gold Mining						0.04							n/d	n/d			0.04	0%
Hummingbird																	0	0%
Others	0.03				0.33	0.01							n/d	n/d	0.01		0.38	0%
TOTAL	7.02	3.00	6.00	7.31	12.83	0.86	17.28	13.20	0.70	3.58	2.60	7.11	3.36	3.36	19.31	11.56	119	0%
IN KIND PAYMENTS	0.49			6.12	noted *****	3.06	0.10			0.36	1.56		0.09	0.12			11.9	*****
GRAND TOTAL	7.51	3.00	6.00	13.43****	12.83	3.92	17.38	13.20	0.70	3.94	4.16	7.11	3.45	3.48	19.31	11.56	131	

* In a third of the reports (both in terms number, as well as overall value), the EITI.org database included payments not noted in the LEITI annual reports. They are included herein.

** This column is the percentage of cash payments between 2007-2023, excluding 2019 & 2020 when the annual LEITI reports did not disaggregate by company.

*** LEITI (2023) report covered the period July 2021 to December 2022.

**** FY2010: LEITI report notes that Community Social Development Fund was only given \$150,000 of this amount.

***** FY2011: LEITI report notes in-kind payments but does not assign a value. For all years, China Union is more than half (55%) of all claims for in-kind contributions and Bea Mountain is 13%. The other companies reported substantially less in terms of in-kind claim than for their cash contributions.

***** FOE (2010) also report of a \$1M contribution in 2006 by Arcelor Mittal Liberia, which is not in the LEITI database. <https://www.foei.org/publication/working-for-development-arcelormittals-mining-operations-in-liberia/> Accessed September 15, 2025.

n/d = no data

Table 11. Required Community Contributions (US\$ million) for Class A Mining Companies in Liberia

Adjusted for inflation (US Deflator) according to the terms of each Mineral Development Agreement (i.e., inflation adjustment was only required for Western Cluster, Putu Iron, and Bao Chico (for its Education Fund only)).

Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	TOTAL
ArcelorMittal Liberia	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	54.0
China Union				3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	52.5
Western Cluster						2.0	2.5	2.5	2.6	2.6	2.6	2.7	2.7	2.8	2.9	3.1	3.2	3.3	35.5
Putu Iron Ore					0.5	1.3	1.5	3.0	3.0	3.1	3.1	3.2	3.2	3.3	3.4	3.7	3.8	3.9	39.9
BHP Billiton				0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.5
MNG Gold																			0.0
Hummingbird														0.3	0.3	0.3	0.3	0.3	1.5
Bao Chico																0.6	0.6	0.6	1.8
Bea Mountain																	1.0	1.0	2.0
TOTAL	3.00	3.00	3.00	6.60	7.10	9.85	10.60	12.14	12.19	12.25	12.35	12.48	12.58	12.96	13.23	14.29	15.53	15.70	188.8

What Should Have Been Paid?

In addition to the lack of clarity regarding where the money went, it is not clear whether the amount paid (Table 10) actually meets the legal obligations for the mining companies in the first place (Table 6) (Note Table 10 reportedly includes an additional \$4.5M in voluntary payments for 2023, so the legal obligations reportedly paid were actually less than \$115M.) However, it is likely that the payments in Table 10 are far below what should have been paid. Indeed, by 2025, the nine companies likely should have paid almost twice as much, \$190M (Table 11).⁵⁶

Indexing for Inflation

Note that the total in Table 11 includes indexing for inflation for the payments by Western Cluster and Putu Iron Ore, as required by the terms of their MDA.⁵⁷ Why only these MDAs require indexing for inflation is not clear.

Sharing Land Rental with Communities

Table 11 also includes obligations to share land rental. It is not clear why the government only requires Bea Mountain to share land rental with communities. It is also worth noting that at \$4/acre/year,⁵⁸ Bea Mountain's land rental is \$6/acre/year less than the minimum legal requirement of \$10/acre/year in year 11+ of a production license.

MNG Gold

Further, it is not clear what should have been paid by MNG Gold. When AmLib obtained their MDA during the Taylor period, there was no required annual contribution. In fact, their MDA noted that while the company was expected to contribute to "the continuing economic and social viability" of affected communities, it also stated that "[n]othing herein shall require the Operator to make any expenditure or incur any costs beyond what it would have made or incurred in the ordinary course of its business." When AmLib's License was obtained by MNG Gold these terms do not appear to have changed.⁵⁹ Why the AmLib MDA was not amended (as Bea Mountain's was, for example) is not clear.

5.8. Underpayment by Gold Mining Companies

The lack of required social contributions for MNG Gold also serves to highlight the vast discrepancy between requirements for all Class A companies that mine iron ore versus those mining gold. Iron ore companies are required to make payments on the order of \$3M per year, whereas Bea Mountain is not even required to pay \$1M per year and for MNG, as noted above, it is not clear that they have to make any payments at all.

For iron ore, this means \$12.6M per year across the five mining companies, or 1,160 percent more than the meagre \$1M from the Class A gold mining companies. This difference is even more inexplicable given that gold exports were three times that of iron ore (i.e., in 2024, \$600M more gold was reportedly exported than iron ore). Given the massive increase in the price of gold, the discrepancy now is likely much greater.

⁵⁶ There are many reports of mining company arrears, e.g., Front Page Africa (2017).

⁵⁷ Bao Chico's MDA also requires that the \$80,000 in annual payments for education to the residents of Gbarpolu County must be adjusted for inflation.

⁵⁸ Bea Mountain's original MDA required only \$0.08/acre/year for "land in the Exploration Area" and only \$0.8/acre/year "in a Production Area."

⁵⁹ Despite this, LEITI reports that MNG has made at least \$1.8M in social payments. As above, it is not clear how this \$1.8M has been used.

If the gold companies' contribution was set at a similar rate as the iron ore companies, then an additional \$37M at least would have been directed to communities in 2023. This is about 40 times what was reportedly shared.

At equal rates, by 2025, more than \$454M would have been shared with communities. Even at this, the total benefits shared would only be about five percent of the \$8.8B in gold⁶⁰ and iron ore exports. Instead, **the contributions by gold companies to affected communities represent less than 0.08 percent of their reported export earnings.**

Complaints

Both lawmakers and civil society advocates have complained about the lack of annual payments. For example, Montserrado lawmakers demanded the release of withheld development funds (Gee 2025). Legislators also demanded that the CEO of Hummingbird appear before them to answer questions about unpaid liabilities (Weedee-Conway 2025). (Note that there are no records in the LEITI nor MME databases of any social payments by Hummingbird.⁶¹)

One important example: NGOs brought a complaint (OEC Watch n.d.) against AML for allegedly breaching the OECD Guidelines with regards to its management of the Community Social Development Funds by failing to address the needs of communities impacted by its operations and by not properly informing neighbouring communities about the possible impacts of its operations. The complaint to the OECD also raised allegations of corruption about AML's 'donation' of 100 pick-up trucks that ended up with government officials.

AML and the GoL made several promises of reform. But ten years later, it appears that these promises have been not kept.

⁶⁰ LEITI (2023) reported that "artisanal small-scale miners" was responsible for less than 1 percent of gold exports.

⁶¹ In both the MME's online database and the LEITI's.

6 | Key Challenges and Issues

Overall, our rapid assessment of mining in Liberia is that the sector continues to over-promise and under-deliver. **While the sector grows, Liberia fails to develop.** In particular, we found several key issues:

1. **Liberia is losing money.**
2. **Communities are not receiving their legally entitled share of benefits.**
3. **There is widespread failure of mining companies to comply with legislation, including environmental laws and regulations. Communities are suffering.**
4. **Forests are under threat from mining.**
5. **Liberia's mining legislation needs revision.**

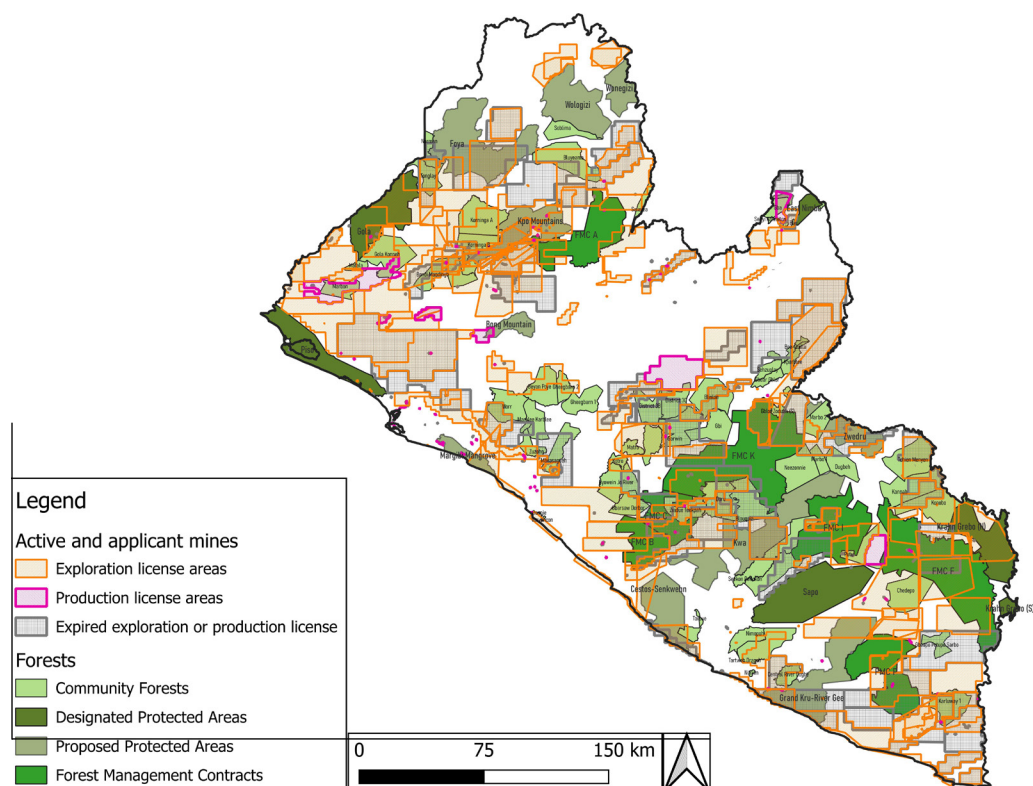
Addressing these issues is a major challenge for Liberia. In this section, we aim to discuss these issues and suggest possible pathways for reform.

6.1. Environmental Impacts

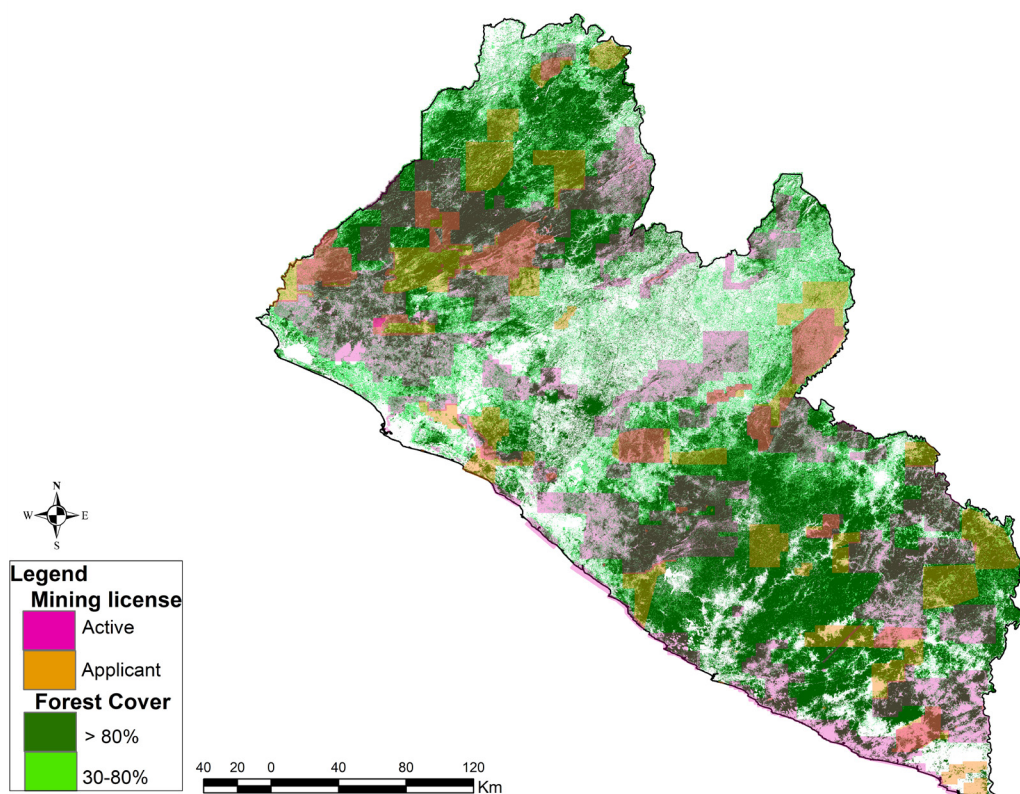
Deforestation and Habitat Destruction

Liberia is an area of global conservation importance with almost half of the remaining forests in the biodiversity hotspot of West Africa. Maintaining these forests is critical to meeting Liberia's international commitments (e.g., cutting its deforestation rate by 10 percent (under its NDC) and conserving 30X30). However, at one time or another, virtually the entire country has been under a mining license (Map 11); forests, in particular, do not escape this conflict (Map 12).

And these map just the formal, licensed part of the sector conducting exploration and larger (Class A & B) mining for which the MME shared geo-spatial data. In addition, thousands of licensed (Class C) artisanal and unregulated/illicit mining operations occur in almost every County, in almost every corner of the country. Undoubtedly the impacts and conflicts are much more widespread than even Maps 11 & 12 indicate.

Map 11: Mining licenses in Liberia

Source: MME GIS database as of April 15, 2025, and FDA GIS data as of 23 June 2025 for FMCs, P/PAs, and CFs.

Map 12. Active and Applicant Mining Licenses and Forest Cover

Source: MME GIS database as of April 15, 2025, and forest cover from GeoVille 2014.

These mining companies degrade and de-forest during exploration when they cut access roads and dig pits. Then when mines begin production, they are legally entitled to clear forests and use the timber for their operations, without coordination with the FDA. In a recent nationwide environmental monitoring and compliance tour, the EPA determined that all of the smaller (Class B & C) mines they inspected were operating without the required environmental permits and the effluent discharged was polluting the land and water, threatening human and ecological health.

In addition to these immediate impacts on human and ecological health, the mining sector is undermining the long-term conservation of Liberia's biodiversity. Mining licenses overlap most of the areas of key conservation importance that make up Liberia's proposed network of protected area. Already the FDA has drastically reduced the area of the Kwa PPA, in part to accommodate mining. The integrity of all P/PAs are at stake if mining is allowed to proceed. Indeed, the local House Representative, Romeo Quioh (and former FDA Deputy MD and EPA Deputy ED), has proposed the de-gazettement of Liberia's first and biggest PA, Sapo National Park (FM 91.9 Radio 2025).

Given the growing threat that the mining sector poses to public and ecological health, and the integrity of Liberia's network of protected areas, Liberia should **establish a formal mechanism across key regulatory agencies to improve the coherence of the sector's governance**. Such a task force should have the authority to clarify mandates and enforce accountability. The MME and FDA should join the EPA in **coordination to halt illegal operations, review licenses, and drive compliance**. The MME should provide better data, including geo-locations of all Class C mines.

Furthermore, Liberia needs to review its conservation strategy to **define 'no-go areas' for mining based on ecological importance and community rights**. Here too, the EPA ED and the FDA MD have taken the lead to clarify the benefits to Liberia and Liberians of a fully functioning network of protected areas. This undoubtedly **starts with a national land use plan—a policy that has long been advocated, but yet to be delivered**.

De/Reforestation—Crisis and Opportunity

One area where immediate collaboration could benefit both the environment and local communities is in the remediation of forests damaged by mining. The EPA's recent monitoring identified many areas in need of immediate restoration and reforestation. The large mining companies could be made to **establish nurseries** for tree seedlings. (All mining licenses include terms for mine closure, and nurseries will be necessary to achieve future site remediation.) Such activities would employ local people. Liberia could even **attract climate finance to expand its reforestation efforts** beyond the mining sites. Perhaps the gold mines, who's existing community contribution requirements are disproportionately low, could be made to immediately establish the first nurseries.

6.2. Conflicts Driven by Mining

While it is permissible for mining licenses to be allocated on top of private and communal land, coordination and sequencing can help the GoL and mining companies reduce conflict and obtain the social license to operate.

At present, there appears to be incoherence. The dominant pattern is one of over-promising and under-delivering so that communities feel cheated, on all aspects from employment to compensation and other benefit sharing (e.g., annual social contributions). Instead of the social license to operate offered by

satisfied communities, when expectations are unmet, the resentment breeds conflict, which has often turned violent, resulting in losses to communities and mining companies.

The likelihood of such conflict is non-trivial. This assessment found that mining licenses overlap all the industrial logging concessions (FMCs) and the vast majority of Community Forests (CF), and this overlap is substantial.

Over-promising, Under-delivering—A Risk to Peace and Security

“The bridge is damaged; they are not even able to help us mend that bridge. It is part of the agreement we have with them to repair damaged roads and bridges, but they are not doing anything regarding the MOU. So, in fact, maybe in time to come, it may result in us creating blockade for them. And we will not allow them to go in the forest to exploit our minerals while they are not doing the things they are supposed to do for us.” Gbarpolu citizen (from Ministry of Internal Affairs Peacebuilding Office (2017))

Such conflicts are common. When the Ministry of Internal Affairs' Peacebuilding Office (African Centre for the Constructive Resolution of Disputes 2017) mapped opportunities to consolidate peace, opinions differed about the impact of the Concession Management Framework (CMF) on peacebuilding, but nearly half of respondents complained that companies have become the source of contention in communities owing to their failure to honor corporate social responsibilities for job creation and development projects. Respondents in six counties in particular were most skeptical: Gbarpolu, Rivercess, Sinoe, Grand Gedeh, River Gee, as well as Montserrado (many of which have substantial mining operations). There, respondents complained of increased suffering, “especially where arable farmlands have been used, and employees suffer delays in receiving compensations for their labour...In some communities, these disagreements have resulted in violent conflicts, with citizens vandalising company property. Without the appropriate involvement of local leaders in decision-making about concession agreements, the education of local communities and rigorous monitoring by government, these conflicts will continue to hurt the economy, undermining efforts to foster development.”

Interviews in mining areas by the Center for Transparency & Accountability in Liberia (CENTAL 2021) found similar complaints: “there were no proper reclamation efforts as pits dug for mining are left open, thus posing serious risks for pedestrians and wildlife. Infrastructure such as bridges, roads, and handpumps were damaged by mining operations with no reparations or benefit to communities. The proliferation of artisanal mines led to increase in sexual violence, prostitution, and teenage pregnancy...Bong County residents had to protest so that their voices and plights could be heard. The protest led to imprisonment and deaths of some of those imprisoned.”

Despite these concerns, many rural communities in Liberia are so desperate to improve their situation that, by virtue of a lack of options they seize the opportunity when mining is offered, in hopes that the operations will bring jobs and other benefits. (See Text Box 7 for a recent example of communities reportedly choosing mining over conservation.)

Over-promising Drives Conflict

When the sector over-promises and under-delivers, communities lose trust in the mining company and the GoL (the MME in particular). To avoid this, mining companies need to **avoid short-term expedience and, as the Deputy MME Minister admonished to the communities around the Kwa PPA, the companies must engage in real consultation with affected communities** and build reasonable expectations for both sides. The **mining proponents need to be honest** about their impacts, and when the communities identify those that are unacceptable, the mining company needs to adjust their plans to eliminate them and mitigate the remaining impacts as much as feasible. Otherwise, conflict will occur.

But the communities must also be realistic in their understanding of what the companies are promising. They cannot “just hear what they want to hear”, so getting promises in writing is an important step.

Preferential Local Procurement

In addition to managing impacts, the mining company needs to offer reasonable benefits to the communities affected by their operations. This starts with complying with legislation around preferential procurement of goods and services from locals, including jobs (offering training if required to raise the skills of local workers). The salaries and prices offered must also comply with Liberian law. The National Bureau of Concessions should monitor compliance.

Access Payments to Landowners

By law, mining operations must also pay landowners for the use of their land. The structure of this may include equity sharing (where the community owns a portion of the company), but it should not exclusively be this. Here, we note that Bea Mountain's MDA (§ 18b) requires “in fulfillment” of the Land Rights Act,⁶² the affected communities receive (free of charge) 5 percent equity “in the Company's Operations.” However, it is not clear that equity has been shared with the communities, and there are no reports that any dividends have been paid to the GoL or to any of the communities.⁶³

Compensation

Beyond these access payments, Liberia's Constitution also requires “prompt and adequate compensation,” as does the Mining Law and Regulation Governing Exploration, which extend the rights to compensation to Occupants⁶⁴ (not just landowners) to offset the opportunity cost[s] associated with the impact of exploitation, including “any damage to the Land or any crops or improvements thereon including compensation for the expected market value of growing crops or any long term loss in value of the Land caused by or resulting from the activities.” Under this legislative framework, mining companies will need to determine compensation payments for direct as well as indirect impacts. Again, this compensation must be fair and reasonable and paid in a timely manner. Transparency is critical to hold companies and the GoL accountable.

⁶² Land Rights Act 2019, § 48(3). Note also that the Land Rights Act (§ 33(3)) further requires that “any interference with or use of the surface of Customary Land require the free, prior informed consent [FPIC] of the Community.” And that in Liberia, landowners are given the “right of first refusal” for a Class A or B Mining License. That is, under the Mining Law (§ 11.4) prospectors must first give landowners the right to develop the mineral resources on their land. However, it is unlikely that, without major assistance, landowners in Liberia have the technical and financial expertise to develop a mine, especially a primary deposit Licensed under Class A.

⁶³ Dividends “will be payable only once all the project capital investment and any related...loan and interest have been fully recovered.” We also note that the GoL has been a 15 percent owner of AML but has apparently never received a penny in dividends.

⁶⁴ Defined as “any person who is in lawful possession of real property.”

Annual Contributions

Finally, to secure the social license to operate from the local communities, mining companies need to negotiate benefits sharing agreements.⁶⁵ These payments may also be made in-kind (like road rehabilitation). Regardless, under international best practices, they should be known, consistent, and reliable (something like the annual land rental payments used in the forestry sector) not just variable and, thus, unpredictable (like a turnover-tax or an export tax).

Whatever the mix of benefits to be shared with communities, they must be clear, easy to calculate, and easy to measure, documented and publicly available so that the company and the GoL can be held accountable for any failure to deliver.

Summary

To avoid conflict, the mining companies must comply with all four of these aspects of “beneficiation” (to use a term in Liberia’s 2010 Minerals Policy). Further, the communities must have realistic expectations regarding what they will receive. The **GoL can play a critical role here in documenting the amounts due, sensitizing the communities** to these facts, and then **holding the companies accountable**.

Coordination and Sequencing

Another role the GoL can play is to **require better coordination** between landowners/users and the mining companies. When a license is allocated, local stakeholders need to be informed. They can then better coordinate with the mining company regarding where and when mining activities will happen so that the mining does not conflict with local activities. In some cases, the **GoL can sequence activities** so that the present users can conclude their operations before the land is used by the mine. For example, where possible, the mining company should allow logging to finish before moving in.

Conflicting Land Rights

Otherwise, when mining licenses are allocated on top of existing land use(s), conflict is likely.

“The Government of Liberia shall establish a framework for the evaluation and management of competing land use options with a view to maximising the sustainable developmental potential for the nation and future generations. This will involve recognition of the rights of other land users, the development of procedures for identifying and consulting potentially affected communities and persons as well as appropriate compensation principles.”
Mineral Policy of Liberia (2010).

Indeed, as reported above, the likelihood for conflict is great given the major overlap between mining and other uses (Map 11).

⁶⁵ These are in addition to those discussed herein, i.e., by regulation, two percent of exploration budgets must be spent on local development; Class A mines are required to make annual social payments to affected communities; and by law, five percent of mining companies must go to customary landowners that are inside the mining concession.

Industrial Forestry and Mining

Given that mining overlaps all seven of the large industrial forestry concessions, the FMC holders would all be entitled to compensation from the mining company.⁶⁶ Thus, the presence of a mining license creates a perverse incentive for a logging company to retain its contract area, even when it no longer intends to log. This speculation ties up the forest, preventing other economic uses.⁶⁷

At present, the FDA apparently intends to terminate all non-operational FMCs. Under the Land Rights Law, these areas should revert to community control. Once that happens, the overlap with mining licenses may lead to conflicts with the communities that want to use the forests for other income-generating uses.

Community Forests and Mining

The Salayea Authorized Forest Community's (SAFC) criminal complaint against three individuals for mining is a clear example of the disputes that may arise from this overlap (Text Box 2).

Resolve Conflict between FDA and MME

As the Magisterial Court in the Salayea case found, the **GoL must undertake an administrative review to resolve the uncoordinated and overlapping authorizations** granted by the MME and the FDA. Otherwise, the ambiguity undermines governance and drives conflict.

Again, what is clear is that **Liberia needs a national land use plan.**

Inadequate Benefits Sharing with Affected Communities

"The Government of Liberia will ensure that communities adversely affected or that could be thus affected by mining operations derive regular and significant benefits from those operations. A predictable formula shall be put in place to determine such benefits, which shall include but not be limited to revenue allocation, access to employment, the provision of infrastructure for local use and resources for local education and skills formation."
Mineral Policy of Liberia (2010).

Communities understand that they are entitled to benefits from the mining sector and when these expectations are not met, they feel—not surprisingly—cheated. Indeed, unmet expectations have long driven conflict, sometimes violent, between the communities and the private sector (Mengofia 2024). For example, violence broke out in Nimba County with locals upset by the lack of delivery by AML on their lack of corporate social responsibility (CSR) payments (Front Page Africa 2025b).

The GoL needs to respect the terms in the MDAs that they negotiated and then hold their agencies and the mining companies accountable. But the GoL also needs to **examine options for a better delivery mechanism** than simply depositing the money in County bank accounts, especially where the individual MDAs are explicit that the affected counties (as opposed to the Counties) are to benefit.

⁶⁶ Article 9.2 of the Mining Law states that "Mineral Rights are always subject to existing rights of other Persons."

⁶⁷ Although all but one FMC are non-operational, there is no report that any logging companies have surrendered their concessions. The GoL should ensure that they are not merely hanging on to their FMCs awaiting compensation. Further, the GoL should also ensure that the logging companies meet their liabilities and pay off their substantial arrears to the GoL, including in land rental (30 percent of which is to go to affected communities) (Forest Trends 2024).

6.3. Financial Transparency and Revenue Management

“The fact that minerals constitute a non-renewable resource makes it necessary for the country to maximise the economic linkages, particularly the collection of economic rents in compensation for the forgone benefit, due to giving up its mineral resources for private sector exploitation. Unlike other concessions where the state asset is returned at the end of the lease with an enhanced value, mineral assets are depleted by the concessionaire and the state is left with a hole in the ground. The substantial impacts that mineral operations can have on the environment, society and future generations warrant that appropriate policy prescriptions be developed by the government to provide a mechanism for compensation as well as incentives to encourage sustainable development of its mineral resources, through the facilitation of sustainable ancillary economic activities.” Mineral Policy of Liberia (2010).

Rather than *Growth without Development*, Liberia's current Mining Policy aims to maximize revenue from the sector for the country's long-term development. However, given the lack of a new Mining Law, the Policy remains aspirational. Indeed, we found evidence of a lack of compliance with the Policy: we found evidence consistent with tax losses due to under-reporting, transfer-pricing, and smuggling. Even under the best case, Liberia is selling its mineral resources at below-market prices, losing hundreds of millions of dollars in the process.

The GoL should enhance the capacity of the Liberia Revenue Authority (LRA), and the sector-specific, large taxpayer unit(s), to detect and prevent fraud and revenue leakage. This likely requires, for example, specific **transfer pricing audits (informed by importer-country reporting)**. **Standardized mining contracts** (MDA Project n.d.; Initiative for Responsible Mining Assurance 2018) **(with terms like the social contribution template** (Appendix 2)) will help **remove discretionary authority and, thus, reduce corruption**.

7 | Conclusion

To better understand what has driven growth without development in Liberia, and how this might be reversed, this report is a rapid assessment of the mining sector in Liberia. We conclude that Liberia must take immediate steps to stem financial losses, compel compliance, improve planning to foster sustainable development, ensure accountability of compensation and other benefits sharing with local communities, and create a national land use plan that includes a comprehensive network of protected areas that will protect Liberia's biodiversity and attract climate finance.

Appendix 1: Liberia's Legislative Framework for Mining

Liberia's legislative framework relevant to mining is reviewed by LEITI (2025). Here we provide a brief overview. [All the documents referred to in this review can be found at Forest Trends' online library at: <https://www.forest-trends.org/publications/liberia-rapid-assessment-of-the-mining-sector/>]

Policy

The legal framework for the mining sector of Liberia is meant to be informed by the 2010 Mineral Policy (the "Policy") of Liberia. However, the Policy post-dates the relevant statute (the Mineral and Mining law of 2000) that is the substantive mining law of Liberia. Thus the Policy remains aspirational.

The Policy's vision statement is: "Equitable and optimal exploitation of Liberia's mineral resources to underpin broad-based sustainable growth and socio-economic development." The Policy's aim is for a sector that is "environmentally friendly" that avoids "environmental degradation due to mining activities."

Under the Policy, the regulatory framework is to be open and transparent, and the allocation for licenses through competitive auction to maximize revenue but also to discourage speculation.

The Policy requires that the GoL establish a framework for the management of competing land uses "with a view to maximising the sustainable development potential for the nation and future generations... includ[ing] the recognition of the rights of other land users...potentially affected communities and persons as well as appropriate compensation principles." The Policy also states that the GoL will ensure that "communities adversely affected or that could be thus affected by mining operations derive regular and significant benefits from those operations," which will include, following effective consultation and participation, a "predictable formula" for benefits sharing, including revenue, jobs, infrastructure, education and skills training, and that mining companies are encouraged to give local preference when procuring for their supply chains. This is, in part, to "promote critical social acceptance of mineral projects."

Section 7 of the Policy addresses "Environmental Stewardship and Social Responsibility." Among the principles "set out in Liberia's environmental policy" include "international best practices" that

"development should be based on sustainable natural resource use and sound management and also that full environmental and social costs or benefits foregone should form part of public and private sector planning. The policy will also develop an integrated and multi-sectoral systems approach to resource and environmental planning."

The EPA is tasked to develop relevant guidelines for mineral exploration and exploitation with the MME. This will include approved environmental and social impact assessments based on early consultation with affected public, plans for managing environmental and social impacts, and "right from the inception of the operation, include plans for redressing physical impacts upon closure of the mine as well as for sustaining community livelihoods thereafter."

The Policy recognizes that miners, especially "artisanal and small-scale" (ASM), require training in "technical skills to assist them to mine sustainably," and "will facilitate the provision of such skills and modernisation... by giving access to appropriate technologies, such as mercury-free gold processing. The Government

of Liberia will also make available extension services...technical advice and the facilitation of capital (micro-loans) schemes.”

In particular, the Policy notes the “growing concern on beach erosion caused by uncontrolled sand mining” and so will “put mechanisms in place to ensure sustainable mining.”

Among the expected outcomes for the sector include an overall goal of “positive impacts on the environment...A scorecard will be formulated to enable government to monitor these contributions.”

Overall, “[t]he Government of Liberia is committed to nurturing an environment for compliance and enforcement with the highest standards of corporate social responsibility by entities involved in mineral operations.”

All these policies will remain aspirational until a new mining law is passed. The previous Johnson Sirleaf Administration drafted a new law, but it was never shared with the legislature. The present government reportedly aims to amend the 2000 Mining Law, rather than draft a new law. Regardless, the law should adhere to the principles of the Extractive Industries Transparency Initiative (EITI) and should be harmonized with other statutes, particularly those governing land use and environmental/forest management.

Laws and Regulations

The legal framework for Liberia’s mining sector consists of the following primary and secondary legislations (collectively, “Statutes”):

1. The Constitution of Liberia (1986)
2. The New Mineral and Mining Law of 2000
3. Regulations Governing the Exploration Under a Mineral Exploration License (2010)
4. The Mining Policy (2010)
5. Environmental Protection & Management Law (2002)
6. The Land Rights Act of 2018
7. National Forestry Reform Law (NFRL of 2006)
8. The Liberia Revenue Code, as amended
9. Liberia Extractive Industries Transparency Initiative (LEITI) Law (2009)
10. Liberia Beneficial Ownership Disclosure Regulation for Domestic Entities
11. National Bureau of Concessions Act

Below is a summary of each of the listed Statutes:

Laws

The Constitution of the Republic of Liberia

- The 1986 Constitution is the supreme law of the land
- Article 22(b) says that private property rights “shall not extend to any mineral resources on or beneath any land or to any lands under the seas” as such minerals “shall belong to the Republic and be used by and for the entire Republic.”

- Article 24 provides that any private property may be taken by exercise of eminent domain for “public purpose”, subject to payment of “prompt and adequate compensation.”
- Article 7 requires “the economy and natural resources of Liberia to be managed in a way that ensures the maximum feasible participation of Liberian citizens under conditions of equality to advance the general welfare of the Liberian people and the economic development of Liberia.”
 - » This provision apparently forms the legal basis of preferential reservations of Class C licenses for Liberian nationals as per the terms of Section 4.2 of the Minerals and Mining Law, as well as other local content rules established in other Liberian statutes such as the Decent Work Act and the Public Procurement and Concession Act (PPCA).

The Minerals and Mining Law (2000)

- Covers ownership, exploration, development, and mining of minerals.
- Section 2.1 reaffirms Article 22(b) of the Constitution that all minerals are owned by the Republic, and Section 2.3 states that “Holders of Mineral Rights shall acquire ownership of and title to the Minerals they extract by Mining pursuant this Law.”
- Defines who is eligible for holding Mineral Rights, and specifically disqualifies the President, Vice Presidents, all lawmakers, judges, and senior government officials including staff of the MME (§ 42f).⁶⁸
- Requires exploration licenses before applying for a mining license (§ 6.2), and then establishes three production licenses:
 - » Class C licenses are restricted to Liberians (§ 4.2h)
 - » Class B are also restricted to Liberians unless the non-Liberian is legal residents or permitted to seek employment in Liberia or unless Liberians own at least 60 percent of the equity or voting power (§ 4.2i)
 - » Requires that a Mineral Development Agreement (MDA) be concluded between the GoL and an Eligible Applicant prior to issuance of a Class A Mining License.
- Section 6.7d(4) grants to the Holder the right to “cutting of timber only insofar as it is necessary to clear for buildings” to erect habitation, offices, and other facilities, build dumps, ditches, drainage, roads for mining operations, and “to use in construction of the mining site.”
- Section 11.4 states that the “legal owner or lawful occupant of property on which minerals are discovered shall be entitled to a right of first refusal in any application for obtaining Class A or Class B Mining Licenses as against third party or third parties”, which may be interpreted as requiring FPIC.⁶⁹
 - » In any case, where an exploration and/or mining operation leads to damage or diminution in the value of the land/property, the landowner or lawful Occupant is, pursuant to Section 11.3, “entitled to just, prompt adequate compensation.”
- Section 17.3 states that “the Minister [of the MME] and the Minister of Finance shall establish from time to time and publish in the Regulations the annual surface rental fees to be paid by Holders of Mineral Rights on Land owned by Government”, it being understood that the limitation of Section 17.3 to “land owned by Government” means that such surface rental established solely by the Government does not include rental payable for Private Land and Customary Land.

⁶⁸ If someone was a License Holder before assuming any of these positions they must dispose of the rights or put their interest into a Blind Trust.

⁶⁹ But it should also be noted that there is not a similar right for exploration. The Land Rights Law (which supersedes the Mining Law on issues regarding land rights) also provides communities with FPIC.

National Content requirement	Details of requirements	Applicability in Liberia	Legal framework
Employment provisions	Compulsory requirement prohibiting employment of foreign labour in unskilled positions.	Mining operators are not allowed to employ foreign unskilled labour.	Mining and Minerals Law 2000; MDAs
	Requirement to employ local labour in skilled positions.	The Mining Law states that a preference in skilled / technical / managerial positions should be given to Liberians. Mineral Development Agreements (MDAs) typically state that firms must submit a plan to ensure that 30% of such positions are filled by Liberians after five years, and 70% after 10 years.	
Local procurement provisions	Firms to source inputs from domestic suppliers only if available on a competitive basis.	Firms must 'to the maximum extent possible' give a preference when purchasing goods and services to those produced by Liberian firms (where the latter are defined as being those where Liberians are entitled to receive at least 60% of profits), provided that such goods are comparable to those obtainable from other sources.	MDAs
Capability and knowledge development	Requirement for the training of local labour or certification of local supplier.	The Mining Law states that training should be provided to enable Liberians to qualify for skilled / technical / managerial positions. Mineral Development Agreements (MDAs) typically set out instruments (e.g. overseas scholarships, donations to local universities) to achieve this, where necessary and operationally possible.	Mining and Minerals Law 2000; MDAs
R&D contribution and transfer of technology	Firms required to transfer technology to local firms	Firms must conduct business 'in such a way as to encourage technology transfer'.	Mining and Minerals Law 2000; MDAs
	Firms required to carry out some levels of R&D locally	Up to two professionals, including geologists, mining engineers, surveyors etc. must participate in technical aspects of operations as well as marketing activities. Firms are obliged to contribute to a Mining Development Fund.	

- Describes environmental protection requirements
 - » Allows Holder of Mineral Rights “unlimited access to raw materials” (§ 20.5c), “subject to the provisions of international conventions...and laws and regulations.”
 - » Permits dumps, ditches, trenches, and roads, the harvesting of timber for mine construction, and the “necessary” use of water and other resources (§ 5.7d); and railways between mines and mills (§ 5.7e).
 - » Chapter 8: ENVIRONMENTAL PROTECTION
 - § 8.1 Protection of the Environment “[T]ake reasonable preventative, corrective and restorative measures to limit pollution or contamination” (§ 8.1).*
 - § 8.2 Restoration of Site “[R]estore the terrain of any Land disturbance...to its prior state, or if it is not feasible to do so, then to undertake such reclamation as will render the Land useful.”*
 - § 8.3 Environmental Safeguards. “[A]ll water polluted...is restored...such that the area is drained by natural runoff with a minimum erosion...[R]eforestation...for large scale felling of trees...The Minister shall issue detailed Regulations...and other measures...to ensure compliance.*
 - Requires Environmental Management Program (§ 8.5) and Periodic Environmental Assessment (§ 8.6).*
 - » Specific authorization from the Minister is required before:
 - Exercise a right of pre-emption over all minerals;*
 - Clearing land of trees;*
 - Harnessing (or otherwise using) waterfalls⁷⁰;*
 - Developing roads, conveyors, canals, channels, etc;*
 - Developing railways, ports, and airports (§ 11.6).*
 - » Prohibits mining in “Poro or Sande grounds, and other grounds reserved for public purpose, except with the consent of the officials ...and subject to special terms and reasonable conditions as may be prescribed for the protection of the surface users” (§ 10.1).
 - » Requires mitigation of risk to safety...[and] water sources (§ 16.1) and report accidents (§ 16.3).
- With respect to forests, Section [§] 6.7 permits the authorized cutting of timber “only insofar as it necessary” to clear the site and for “use in construction of the mining site.” (The section does not exclude private or communal property rights unless specified in the individual operation’s MDA. Presumably the provision does, however, prohibit the sale, including export, of any timber harvested by the mining company (or anyone else) under the mining license as this would be outside of what is “necessary” to harvest.)
 - » However, does not require coordination with the FDA.

Contraventions of “Laws or Regulations governing...environmental protection” are subject to fines up to \$5,000 and/or prison for 6-12 months⁷¹ (§ 22.7b).

⁷⁰ The Law also regulates radioactive minerals (§ 13) and prohibits the development of geothermal resources (§ 14).

⁷¹ Contraventions of Chapters 4-6 covering the eligibility of Mineral Rights and the Right to Conduct Exportation, Operate Mines and Quarries subject to the penalties of \$2,000-\$25,000, and/or 2 years in jail, and/or forfeiture of Minerals obtained (§ 22.1).

Model Mineral Development Agreements (MDAs)

- The 2008 MDA template guides development and negotiations between the GoL and mining companies (see Appendix 2 for the template for the obligatory annual social contributions to communities affected by the mining company).

Revenue Code of Liberia (2000, and as amended in 2011 and 2024)

- Provides the legal basis for taxation of individuals and corporations in Liberia.
- Sections 700-714 of the Code cover taxation of the mining sector, including *inter alia*:
 - » Corporate income tax: this is calculated at the rate of 30 percent.
2024 amendment: 30 percent of taxable income or a minimum tax of 2 percent of gross income, whichever is greater.⁷²
 - » Royalties: payable to government at the time of each shipment. Different minerals are subject to different tax rate:
2024 amendment: gold & base metals: 3 percent of export value; iron ore: 4.5; diamonds: 5; all other minerals: 2 – 10 as prescribed in regulation.⁷³
 - » Surface rents: exploration licenses and Class A licenses are subject to surface rent tax ranging from US\$0.20 per acre up to US\$10 per acre, depending on the location and year of the license.
 - » Dividends.
 - » Capital allowance.

Liberia Revenue Sharing Law of 2021

- Defines Revenue Sharing as the distribution of revenues between central and local government, as well as between local government and sub-local government units.
- Consistent with Article 7 of the Constitution, the Revenue Code of Liberia, and the Local Government Law of 2018, the following shall constitute the sources of revenues that the central government shall collect and share with local governments: payments by a natural resource concessionaire for exploitation of a natural resource, including but not limited to exploitation of:
 - (a) Iron Ore operations;
 - (b) Gold and Diamond operations (§ 3.4).
- This natural resource-based revenue will be shared with local governments (§ 4.5).
- Sharing will be determined by a derivative-based model. This means the distribution shall consider the source (county) from whence the natural resource revenues were generated (§ 6.1).
- Under the derivative-based model, distribution shall be as follows:
 - (a) 10 percent to the county of origin;
 - (b) 25 percent to all the fifteen county Governments, including the county of origin;
 - (c) 60 percent to the Central Government towards its general revenues; and,

⁷² Liberia's LRA amended the tax framework in 2024 (§702a) (Liberia Revenue Authority 2024).

⁷³ LRA amended tax framework 2024. §704

(d) 5 percent to communities and/or counties affected by the exploitation and transportation of the natural resource for shipment overseas or processing within Liberia (§ 6.2).

- Natural resource revenues, including concessionaire's annual CSR contributions designated to be shared amongst the counties shall first be deposited into a Transitory Account to be established at the Central Bank for later distribution amongst Local Governments (i.e., not deposited in the central government's Consolidated Account at the CBL) (§ 6.4).

Environmental Protection & Management Law (2002);

- This law is implemented by the Environmental Protection Agency (which is established by a separate agency legislation called the EPA Act).
- Requires Environment Impact Assessments (EIAs) for all new projects, including mining and natural resource exploitation (§ 6).
- Outlines the EIA process, Environmental Impact Statements (EIS), public participation, and EPA's role in reviewing and approving EIAs (§ 7).
- Prescribes:
 - » The standards for EIAs, audit and monitoring, etc.
 - » Standards for safe mining such as water, air, and soil quality standards. Regulates hazardous materials and solid waste, noise and radiation. (§ 35-40).
 - » International principles of sustainable development including the precautionary principle, polluter-pays principle, intergenerational equity, public participation, international cooperation.

National Forestry Reform Law (NFRL 2006)

- The NFRL governs forest resources and mandates the FDA with this management (§ 2.2).
- All forest resources are held in trust by the GoL except private and communal forests (§ 2.1b).
- Requires that use of forest land and resources must conform to sustainability principles (§ 4.3).
- Requires all major activities, including mining in forest areas, to undergo EIAs under the Environmental Protection and Management Law (§ 8.1d(ii)).
- Provides for Community Rights in Forest Lands enabling local communities to manage forests sustainably, including rights to non-timber resources. (§ 10).
- Requires the FDA to "classify all Forest Lands...according to their legal status and potential sustainable use" (§ 4.4b).
- Acknowledges the right of the GoL to issue mining licenses on forested lands, but:
 - » The law prohibits Class B & C mining licenses in Proposed/Protected Areas (§ 8.2c) and prohibits Class A mines in National Forests and Proposed Protected Areas unless the FDA approves and "appropriate guidelines for maximum protection of the Environment and sustainable management of the forest," written by the FDA, is a condition of the grant (§ 8.2d).
 - » It also prohibits prospecting and mining in protected areas (Strict/Nature Reserves, Game Reserves, National Parks), Communal Forests,⁷⁴ Cultural Sites, and National Forests (for Class B & C) (§ 9.10b).

⁷⁴ Communal Forest is defined in the NFRL as "An area set aside by statute or regulation for the sustainable use of Forest Products by local communities or tribes on a non-commercial basis." In contrast, Community Forest is defined as "[t]he governance and management of Forest Resources in designated areas by communities for commercial and non-commercial purposes to further their livelihoods and development. "Community" in the sense of community forestry means a group of local residents who share a common interest in the use and management of Forest Resources, with traditional or formal rights to the land and the forests on it." National Forests are defined as "An area, set aside pursuant to Chapter 9 of this Law, for sustainable regulated commercial Forest Product extraction, Hunting, and the preservation of essential environmental functions performed by the forest."

- If mining or mineral exploration occurs in the forest areas, the operation must comply with both the Forestry Law and Minerals & Mining Law, and be subject to environmental and social safeguards (§ 5.7).

Community Rights Law with Respect to Forest Lands (CRL 2009)

- The CRL gives communities the rights and responsibility for managing their own lands, providing opportunities to communities to derive economic benefits from the use of their forest resources

Land Rights Law (2018)

- Delineates the different categories of land ownership and tenures in Liberia.
- Establishes four categories of land ownership, and prescribes the means by which each category of land can be acquired, used, transferred, and managed, consistent with the right to derive economic benefit from the use of their forest resources.
- Acknowledges that land ownership does not extend to mineral rights, but “any interference with or use of the surface of Customary Land require the free, prior informed consent of the Community” (§ 33(3)).⁷⁵
- “Communities on which Concessions are located, after the Effective Date, including Mineral Concessions, shall at all times collectively maintain a minimum of five percent (5%) undiluted free carried interest in the rights of the Concession, license or permit, in addition to any other benefits which the Community shall be entitled to receive” (§ 48(3)).
- Section 48.2 of this Act establishes a statutory right of communities to attend and participate in the Review of Concessions: “During any review of any Concession located on Customary Land after the Effective Date, the inputs and concerns of the Community shall be presented through the CLDMC to ensure that the rights and interest of the Community are safeguarded and protected.”
- When a concession located on a Customary Land ends or is terminated, the Concession Area(s) shall revert to the Community and shall become Customary Land (§ 48(4)).
- “Every Protected Area in a Customary Land shall be and remain owned by the Community and conserved and managed by the Community” (§ 42(3)).
- “Land previously designated but have not been gazetted as of the Effective Date of the Act shall be negotiated between the FDA and the Community” (§ 42 (1)).

Liberia Extractive Industries Transparency Initiative (LEITI) Law (2009)

- Responsibility for transparency in the extractives sector.
- Stipulates reporting requirements all mining companies.
- Requires all operating mining companies register in a publicly available database.

National Bureau of Concessions Act of 2010

- The principal purpose of the NBC is to “monitor and evaluate compliance with concession agreements” and “provide technical assistance” to concessionaires and government entities to comply with the PPCA.

⁷⁵ Some interpret this as in competition with Article 22b of the Constitution, which give the government the absolute rights.

Regulations

“Regulations Governing the Exploration Under a Mineral Exploration License” known as *Exploration Regulations* became effective March 2010. It implements key provisions of the Mining Law relating to exploration and mining licenses, including the issuance, modification, re-issuance and transfer of licenses.

With respect to the environment, the Exploration Regulations require:

- Within 90 days of a License, the Operator must submit (and get approval) of a work program and meet EPA requirements⁷⁶ (§ 4.1).
- The Minister should not approve a licensee’s proposed work program and budget unless the EPA confirms it has issued all the required approvals and permits (§ 4.2e), including an EPA license (§ 2.3b) consistent with the operator’s Environmental Management Program (§ 2.3a).
- A license to mine does not grant the licensee the right to mine lands within Liberia that have been reserved for public purposes, except with the written consent of the authorized officer(s), which shall be filed with the Minister before any exploration work can commence (§ 2.4b).
- A licensee, upon notice to the Minister, may surrender a portion, not be less than ten percent, of its licensed area. Within sixty (60) days following the notice to the Minister, the licensee shall deliver to the Minister (i) an environmental assessment and audit and a certificate from the CEO of the licensee showing no non-compliance in respect of the surrendered area ; and (ii) overdue filings and all other information required to be submitted to the Minister (§ 3.2b &c).
- A licensee may request an extension of its license term if it fulfills its approved work program and budget and is compliant with all mining laws/regulations. However, the license area shall not exceed fifty percent of the original license area (§ 5.2a)
- A request for extension should be submitted not more than 120 days and not less than 45 days before the end of the initial license term along with a new proposed work program and budget and a map of the license area (§ 5.2c)
- Exploration reports must be submitted by a licensee each quarter along with a full technical annual report (§ 6.1)
- The mining operations may not enter areas cultivated for subsistence farming, and may not interfere with drinking or irrigation water (unless replacing equal quality and quantity) (§ 7.1b) without written agreement to provide full and complete compensation (§ 7.1e)
- Exploration may be conducted on land other than land owned by the government upon the licensee delivering to the landowner/occupant a written agreement to provide full compensation for any damage to the land, crops or any long-term loss in value to the land (§ 7.1e)
- A landowner/occupant may petition the Ministry if they believe the licensee is not compliant with its obligation under the written agreement (§ 7.2b). In such an instance, the Ministry will appoint hearing officer(s) to investigate the claim (§ 7.2c)
- May use water, gravel, sand, clay, stone, and timber (except from protected species) “in accordance with applicable environmental Law” and regulation, and with the permission of the “landowner or an Occupant”, and “solely to the extent reasonably necessary” (which prohibits sale of such material) (§ 7.3)

⁷⁶ Any extension or expansion to the license area must also comply with these requirements

- Section 10. ENVIRONMENTAL PROTECTION
 - » Must comply with relevant legislation, take preventative and corrective measures, diligently mitigate and/or restore (§ 10.1)
 - » Annual Environmental Performance Reporting required (§ 10)
 - » Annual Environmental Audit (§ 10.2); promptly remedy any non-compliance
 - » “[B]efore beginning Exploration provide security for its performance...equal to 15% of the budget for its approved work program” (§ 10.3a), which may need to be increased (§ 10.3b; & Schedule 10.3)
- A licensee is not required to pay royalties or other taxes on exploration samples that do not have any commercial value (not to exceed five metric tons for any one location) (§ 13.1).
- Any change of control of a licensee requires the written approval of the Minister. (§ 15.4)
- The Minister may order a suspension of the license for a material failure to comply with Section 10.1 that has not been remedied within 60 days (§ 16.1e)
 - » If this failure is not cured within 60 days or if the Operator provided false or misleading information to the EPA, the license may be terminated (§ 17.1d & e)
- If the operator surrenders their License, then an environmental assessment and audit must be delivered within 60 days showing compliance with obligations (§ 3.2c), otherwise at the end of the term they have 180 days (§ 3.3)
 - » A penalty of \$100 per day for non-compliance including environmental restoration and remediation (§ 3.2e)

With respect to social obligations, the Exploration Regulations require that:

- The Operator must train Liberian employees and give preference to local hiring (§ 9.1), as well as Liberian preference for goods and services (§ 9.2).
- The Operator must “encourage [local] economic and social development” and “provide for meetings on a regular basis” between itself and the local communities “for the purposes of reasonably minimizing any adverse impacts” (§ 9.3a).
- Each year, Operators must spend an amount at least 2 percent of its approved budget “on the construction, maintenance or rehabilitation of schools or clinics within its License Area or within other local communities affected...The Licensee must consult with local officials and traditional leaders as to the facilities that will benefit” (§ 9.3b).

The **FDA Regulations** contain many requirements, including:

- FPIC from the CFDC required before Commercial Use is allowed in customarily held Forest Land (FDA Reg. 102-07, § 61c(3)).

Liberia Beneficial Ownership Disclosure Regulation for Domestic Entities XXIII No.38. became effective July 2023

- Meant to ensure enforcement of provisions that senior officials of government (including the President, Vice Presidents, Minister and other senior government officials), as well all lawmakers and judges, do not own apply for or hold interest in Mineral Rights.

- “Beneficial Owner” refers to:
 - i. the natural person(s) who ultimately owns or controls or exercises ultimate effective control over a legal person or arrangement;*
 - ii. where no natural person exerts control through ownership interests, the natural person(s) exercising control of the legal person through other means, such as control through relationships, financial power or contractual associations;*
 - iii. where no natural person meets the criteria under (i) or (ii) above, the relevant natural person(s) who holds the position of senior managing officer.” (§ 2.1.1)*
- The duty to disclose beneficial ownership is based on the following:
 - i. “a direct or indirect ownership interest of at least five percent (5%) in a Reporting Entity where the Beneficial Owner is the ultimate shareholder;*
 - ii. a direct or indirect controlling interest of at least five percent (5%) voting rights in a Reporting Entity where the Beneficial Owner is the ultimate shareholder or otherwise has the ability or power to exercise at least five percent (5%) of the voting rights of that Reporting Entity;*
 - iii. a direct or indirect ownership interest or voting rights of at least five percent (5%) in a Reporting Entity where the Beneficial Owner is a foreign PEP; or*
 - iv. a direct or indirect ownership interest of one percent (%) in a Reporting Entity where the Beneficial Owner is a domestic PEP” (§ 2.1.2).*
- “A Reporting Entity that (i) fails to submit information regarding all of its Beneficial Owners; (ii) fails to submit information regarding all of its Beneficial Owners to the Registry within timelines prescribed by this Regulation or (iii) fails to submit complete information regarding all of its Beneficial Owners, shall be liable to a fine of not less than Three Thousand United States Dollars (US\$3,000.00) and not exceeding live Thousand United States Dollars (US\$5,000.00) and a daily penalty of One Hundred United States Dollars (US\$100.00) until the non-compliance is rectified.” (§ 4.1.1).

Appendix 2: Template for Community Funding Requirements in Mineral Development Agreements

EXHIBIT 6

PRINCIPLES RELATING TO COMMUNITY FUNDING

General

Subject to the following paragraph, the Annual Social Contribution shall be deposited and held in one or more separate segregated accounts as determined by the Government from time to time for use in accordance with Section 8 and this Exhibit 6.

Where any audit conducted pursuant to Section 8.2(b) demonstrates a material discrepancy between the actual disbursements or expenditures made pursuant to Section 8.2 and the budgeted and/or reported disbursements or expenditures as determined by the Committee, the Company shall be entitled to require that the monies be retained in an escrow account pending an agreement between itself, the Government and the Committee regarding an alternative funding mechanism be established for the purposes of managing the contributions and disbursements made pursuant to Section 8 (for example, through the establishment of a trust arrangement).

The following principles shall be applied to any particular project or activity within the Program:

Governance of the community development and infrastructure investments

- Selection of the community development and infrastructure projects shall be apolitical and completely transparent.
- No direct payments to individuals will be made, save for the purpose of paying for goods or services duly rendered in the execution or oversight of one or more funded projects which has been authorized by the Committee.
- The Company retains the right to independently audit (at its own expense) any disbursement or expenditure made from the Annual Social Contribution or any project supported with funds from the Annual Social Contribution.
- Other than the obligations set forth in Section 8.2 of the Agreement, the Company will have no further obligations with respect to any project supported with funds from the Annual Social Contribution, including, but not limited to, any on-going or periodic maintenance and repair costs or other operational costs in connection with the projects funded by the Program Budget.

Project Selection Criteria and Process

- Members of the Committee will work collaboratively to identify, prioritize, and select appropriate community development and Infrastructure projects.

Appendix 3: Using Remote Sensing to Detect Mining Activity

We found two studies (Maus et al (2022) and Tang & Werner (2023)) that used satellite imagery to try to detect mining activity, both of which detected nearly 100,000 unique areas (patches) worldwide where forests have been cleared associated mining.

We examined the Liberia part of their analysis and found that:

- Using imagery from 2019, Maus et al (2022) detected 51 patches of apparent mining activity across Liberia. Seven of these, on close inspection, do not appear to be mines. These mis-detections included log yards and areas around communities, and were, therefore, removed from subsequent analysis. This reduced the total number of patches to 44 and adjusted the area detected from 1,513 ha to 1,433 ha.
- Tang & Werner with imagery from 2020, detected 23 patches totalling 971 ha with no obvious mis-detections.

When comparing the two analyses, the Tang & Werner data include five patches that were not in the Maus dataset. In fact, there were only 17 patches common to both datasets.⁷⁷

Between the two studies, their techniques identified only 12 mining areas; this is out of the 89 active Class A or Class B licensed areas, 156 active exploration licenses, and the 2,400 Class C licences listed in the MCAS database, not to mention all the widespread unregulated, informal, and/or illicit mines. This lack of detection of most mining activities suggests that there are clear limitations to this approach.

Nonetheless, between the two analyses, they detected at least 49 unique patches where 1,455 ha of forest loss that appear to be linked to mining. Due to the proximity of some of the patches, it is likely that they represent clearings for 12 separate mining operations.

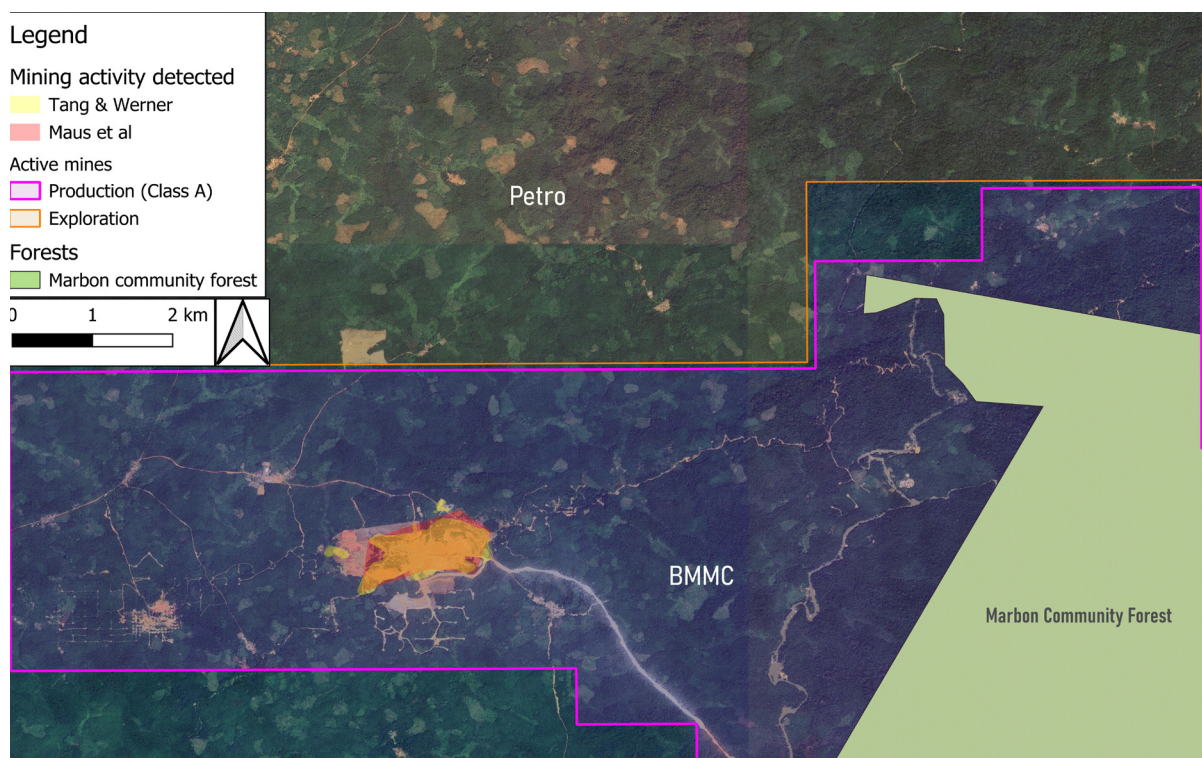
The 12 cases included:

- 1,278 ha within the licensed area of four active Class A mines:
 - » Bea Mountain (500 ha of forest loss; Figure 1);
 - » AML (441 ha);
 - » MNG (218 ha); and,
 - » China Union (13 ha)).

⁷⁷ Note: while the two techniques identified the same 17, they varied in the boundaries for the sites. In our analyses, we used the larger of the two polygons identified.

Map 13. An Example of Satellite Detection of Mining Activity using the Methods of Maus et al (2022) and Tang & Werner (2023)

The area detected is within the area licensed by Bea Mountain Mining Corp for Class A production; no activity specific to mining was identified in the Exploration area of Petrotre Liberia Inc.

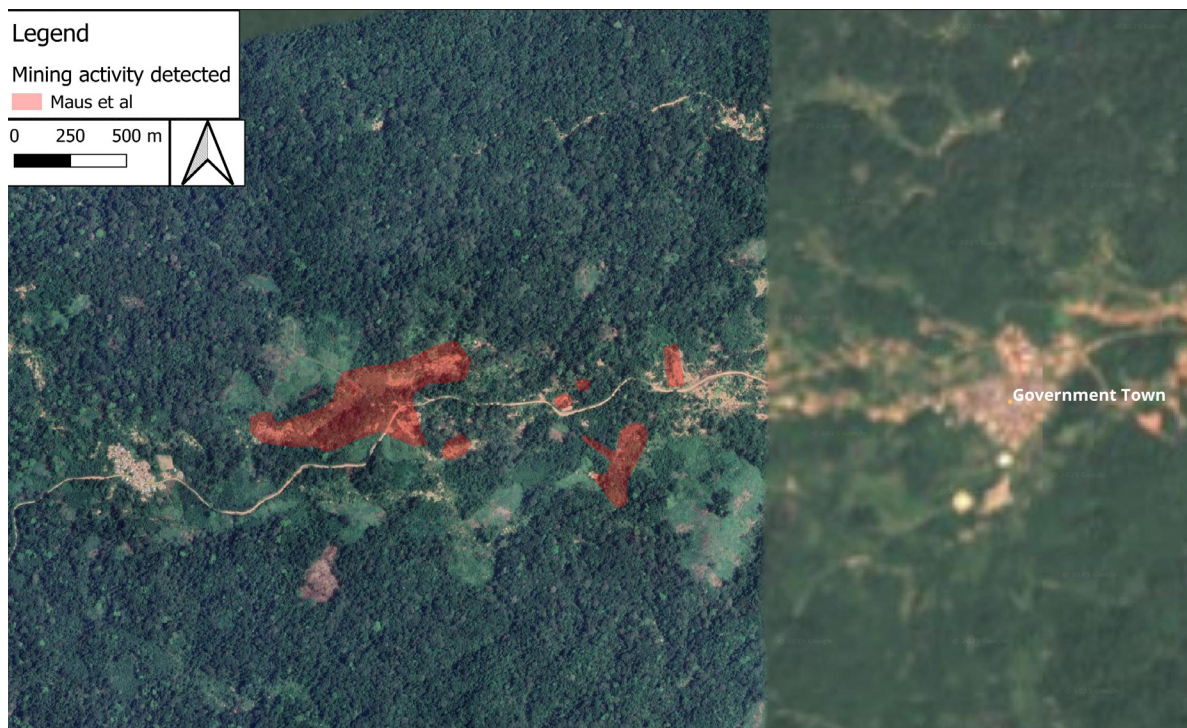


Sources: MME MCAS for mining data; the FDA for Community Forest data; Google satellite basemap for forest cover.

- One cluster of three patches of 53 ha overlapped the Korninga B Community Forest. This is within the area of an active exploration license for Ignis gold mining company and an expired exploration license for MNG.
- One cluster of six patches covered 30 ha inside the area for Hummingbird in Sinoe County (Figure 2); note: according to the MME cadastre, Hummingbird does not have a license, it only has an MDA.⁷⁸
 - » As part of this assessment, we conducted fieldwork near Government Town (close but outside the area in Map 13) and detected a large amount of mining activity (Photo 4). They appeared to be artisanal in scale (albeit highly damaging to the environment).

⁷⁸ Note: the deforestation could also be the result of Class C mines (which have no geolocation data in the MME cadastre) or other illegal mining.

Map 14. Satellite Detection of Mining Activity using the Methods of Maus et al (2022) near Government Town, Sinoe County, Liberia



Source: Google satellite basemap for forest cover.

Photo 4. Evidence of Artisanal Mining near Government Town, Sinoe County, Liberia



Source: CS-IFM, taken June 7, 2025

- Another cluster of two patches of 4 ha of forest loss each overlapped the Grand Kru/River Gee PPA. This is within the area of a cancelled exploration license for Rhino Gold.
- The remaining five clusters overlap with areas licensed to:
 - » East Rock, for gold. The applicant exploration license is being validated;
 - » Prosis, for gold, diamonds and base metals. The exploration license is under review;
 - » Gem Rocks, for gold. The exploration license has expired;
 - » Z&H and Rockstar, both for construction rock. The two Class B licenses are active and under review, respectively. The two companies also held prospecting licenses in the same areas, both of which have expired; and
 - » KBL, for gold. Two Class B licenses, both of which have been cancelled.

Note: the patches detected overlapping the KBL, Z&H, and Rockstar areas extend beyond the boundaries of each of the mining licenses (which are all less than 40 ha).

- Lastly, there is a single 11 ha patch that sits outside any licensed area (although it is in the same cluster as the Z&H and Rockstar areas).

Although useful in detecting the 12 mining operations noted above, techniques using remote sensing to measure the impact of mining are still early in development. Therefore, the absence of evidence should not be misinterpreted as evidence of the absence of widespread impacts of mining.

Appendix 4: Mineral Production and Trade

Production

This appendix provides the background data on production collated in Table 9.⁷⁹

- **Gold** has shown the most dramatic rise.
 - » The Central Bank of Liberia reported 442,000 ounces (or almost 14 t) of production in 2024, presumably mostly from just two large mines (Bea Mountain and MNG).⁸⁰
- While many of the **iron ore** mines have closed since the re-opening of the sector, Liberia is reportedly producing a record high volume since the resumption of the sector post-sanctions: 5.2Mt in 2024 (according to Central Bank of Liberia (CBL) data).
 - » However, ArcelorMittal Liberia (AML) is a long way from its expected maximum production of 15M t/yr.⁸¹
- **Diamond** production is reportedly declining, but it is dwarfed by at least an order of magnitude by the other two commodities.

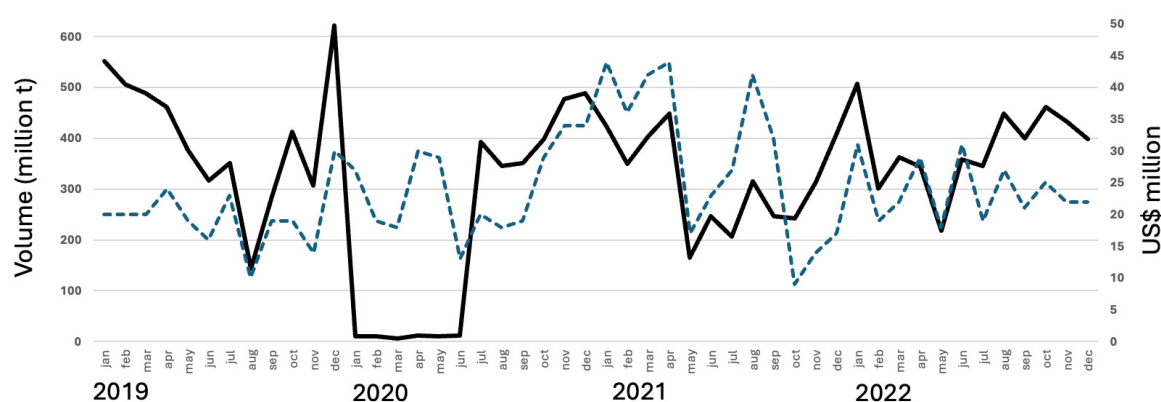
One important caveat: these data do not include all artisanal production, including mines that are unlicensed/informal (and sometimes illegal). As discussed below, it is difficult to quantify this unreported trade.

⁷⁹ We examined the GoL data for simple errors in data-entry. (Sometimes operators can make simple keystroke mistakes where additional or insufficient numbers are input (e.g., 1,000 is input instead of 100,000). Or the data is input with the wrong units (e.g., the data should be in tonnes, but it is inadvertently reported in kilograms instead (e.g., 2,000 (kg) is input instead of 2 (t)).) We found little evidence for this, however.

The one case of obvious error that we found is for the CBL data for the volume of exports in the first six months of 2020. The data is about two-orders magnitude lower than before and after this period (the solid line in Figure 6), while the value of exports during that period was within the normal band (the dotted line in Figure 6).

Figure 6. The Only Obvious Error in Mining Trade Data Reported by Liberia

i.e., Central Bank of Liberia data on the volume (solid line) and value (dotted line) of iron ore exports.



To avoid using this obviously incorrect CBL data, we instead used the export data provided by LEITI for 2020, for which there is no irregularity.

Although there are no other obvious data entry errors, we cannot discount the possibility that the data are still inaccurate for other reasons (like they are incomplete because certain Counties or certain Operators mistakenly failed to share data).

⁸⁰ As discussed below, LEITI (2021-2023) reported comparatively little artisanal gold production compared to these two large-scale Class A mines.

⁸¹ However, under Phase II of its expansion project in the Nimba mountain range, iron ore production is expected to rise by 40 percent in 2025 (Mitchell 2025).

Exports

- Exports of **gold** have also reportedly been increasing (Table 9; Figure 4).
- Unlike production levels, exports of **iron ore** were comparatively flat, around 34M t from 2016-2024 (Figure 4, Table 9).

- » Production volumes were reportedly 40 percent more than export volumes (by 23M t) over the same period.

LEITI and CBL report 57 Mt of production from 2011-2024

Prior to 2016, LEITI reports almost \$1B in exports of iron ore, but it failed to report the corresponding volumes in export.

- Some of these exports were likely iron ore mined and stockpiled prior to the war.

- In 2018, Liberia reported a substantial drop in the export of rough **diamonds**.

Reporting by Other Countries of Imports from Liberia

It appears that Liberia's data under-reports actual exports. In comparison to the GoL's reporting, importers consistently report much larger trade with Liberia **for gold and iron ore** (Figure 4): that is, since 2011, importers reported 43 percent more trade than did Liberia, in excess of \$2.7B.

Whether the differences demonstrated by mirror statistics like Figure 4 is due to errors, fraudulent under-reporting, transfer-(mis)pricing, and/or smuggling to evade export (and other) taxes and fees is not clear.

Mirror Statistics

- For **gold**, importers report almost \$5B in imports from Liberia since 2014 (Table 12), \$1.7B more than Liberia reported as exported.
- For **iron ore**, the trend is similar (Table 13): importers reported almost \$4B in imports from Liberia, \$913M more than Liberia reported.
- In contrast, Liberia reported \$120M more in **rough diamonds** exports than importers (mainly Belgium) reported coming from Liberia (Table 14).
 - » It may be that Liberia reported the export of diamonds to neighboring countries (Sierra Leone and Guinea, for example), but Belgium and other importers reported the diamonds as having originated in these entrepôts, thus, underestimating the trade from Liberia and overestimating production in these other countries.

Regardless, the volumes reported by Liberia have fallen recently, in line with the levels reported by importers (Figure 4). Again, the accuracy of this is not clear, but it undoubtedly under-estimates actual trade as it likely misses large amounts of unreported artisanal production.

Gold

Gold was Liberia's most important export (by value; Table 12): 93 t of gold, worth more than \$5B (Table 9), was reportedly imported from Liberia since 2014. Switzerland alone reported more than three-quarters (76%) of the imports, followed by UAE and Lebanon. Outside of the top three, Türkiye was by far the biggest reported importer (\$85M). India, USA, Rep. of Korea, Belgium, and Poland together reported about \$4M in imports. The market price that Switzerland reportedly paid in 2022, \$1,627/oz, was six

percent above the average sale price reported by Liberian exporters. If this difference was constant over the entire period, it would have resulted in more than \$300M extra revenue from Liberian gold, of which the GoL would be entitled to three percent, or an extra \$9M in royalties.

Table 12. Reported Imports of Gold from Liberia (US\$ million), 2014-2025

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Grand Total
Switzerland		19	105	189	244	149	101	343	544	707	894	531	3,826
UAE	113	109	120	121	54	20	12	23	56	58			687
Lebanon					61	53	39	63	94	105			414
Others			4			2	85		5	1	1		98
Total	113	128	229	311	359	223	237	429	699	871	894	531	5,025

Source: UN Comtrade as of July 31, 2025, Harmonized Tariff Schedule Code 7108

Iron Ore

Since 2014, more than 44 million tonnes of iron ore have been reported imported from Liberia, worth almost \$3.4B (Table 10). France, China, and Germany all reported more than \$0.5B in imports (Table 13). The other countries reporting between \$1.5M-\$100M in imports were **Belgium, Netherlands, Italy, Bosnia Herzegovina**, and those reporting less than \$1.5M were Romania, Türkiye, Canada, South Africa, and Estonia.

Table 13. Reported Imports of Iron Ore from Liberia (US\$ million), 2014-2025.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Grand Total
France	\$61	\$33	\$19	\$15	\$53	\$84	\$141	\$183	\$154	\$116	\$80		\$940
China	\$252	\$136	\$15		\$40	\$103	\$78	0	0	\$48	\$76		\$748
Germany	\$10	\$7	\$21	\$17	\$28	\$54	\$81	\$108	\$87	\$86	\$57	\$31	\$588
Poland	\$20	\$29	\$22	\$28	\$21	\$24	\$53	\$81	\$44	\$50	\$17	\$12	\$401
Spain	\$36	\$15		\$3	\$10	\$14	\$19	\$25	\$36	\$49	\$36	\$84	\$326
UK			\$2		\$6		\$4	\$25	\$48	\$34	\$21		\$139
Czechia	\$32	\$10	\$5	\$14	\$9	\$25	\$6						\$100
Other	\$3				\$8	\$36	\$20	\$16	\$23	\$11	\$7	\$8	\$131
Total	\$414	\$230	\$84	\$77	\$174	\$342	\$402	\$438	\$392	\$393	\$293	\$135	\$3,373

Source: UN Comtrade as of July 31, 2025, Harmonized Tariff Schedule Code 2601.

Diamonds

About \$150M in diamonds were reportedly imported from Liberia since 2014 (Table 14). Belgium was by far the biggest importer: more than two-thirds (69 percent) of all goods. UAE and USA were the other major importers. Minor countries were dominated (more than half) by India and Israel, with the remainder made up by China, Singapore, South Africa, Italy, Germany, China, Hong Kong SAR, Czechia, Rep. of Korea, Botswana, Thailand, Japan, United Kingdom, Canada, and Switzerland. The trade was reported as 550M carats, but the data on carats is likely incomplete as a number of the countries did not provide complete data for volumes (about seven percent of the 149 year/country combinations; for example, Israel and Switzerland reported values of shipments but did not report the number of carats).

Table 14. Reported Imports of Rough Diamonds from Liberia (US\$ million), 2014-2025.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Grand Total
Belgium	13	9	7	6	12	10	7	10	8	8	10	101
UAE	0.6	0.5	0.9	2.4	0.2	0.4	1.6	3.5	3.5	8		22
USA	0.9	2.6	0.8	2.2	2.4	1.7	0.3	0.4	0.33	0.9	7	19
Other	0	0.2	0	0.2	0.1	0.3	0.3		0.5	1.6	2.9	6
Total	14	12	9	11	15	13	9	14	13	18	20	148

Source: UN Comtrade as of July 31, 2025, Harmonized Tariff Schedule Code 7102.

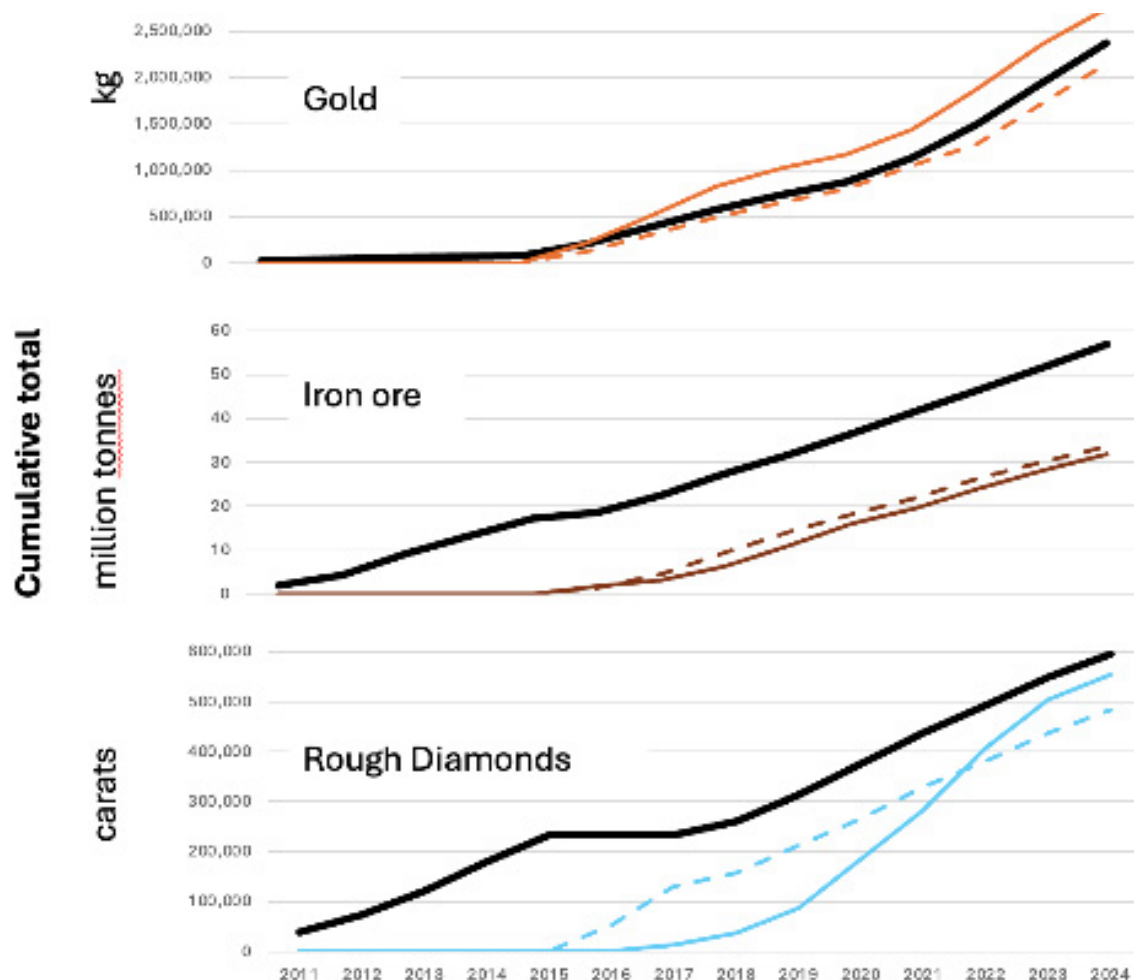
Production Exceeds Exports

Another contradiction in the trade data is that production levels for iron ore and diamonds have exceeded export levels since 2011 (i.e., in Figure 7, the thick black line (production) is higher than the thin lines (cumulative exports)). Over this time:

- Rough diamond production exceeded exports by seven percent.
- Iron ore production reported for Liberia was 44 percent greater than the amount reported as exported.⁸²

While not evidence of smuggling, it begs the question: if these goods have not been smuggled out of Liberia, then where are they now? What happened to the excess production?

Figure 7. Cumulative Total Production in Liberia (black line) and Exports (dotted line = Liberia reports, coloured line = importers) Reported Since 2011 for a) Gold, b) Iron Ore, and c) Rough Diamonds



Source: CBL from 2019, except iron ore exports for 2020 where the CBL reporting for the first six months are clearly erroneous (see footnote 81); otherwise LEITI data.

Gold showed the opposite pattern: exports exceeded production. This begs another question: where did the additional gold come from? While the excess could be from unreported production by the licensed gold mines (to evade taxes, for example), it could also be from gold produced by unregulated artisanal miners. In the past, this production dwarfed formal production. However, by definition, it is difficult to estimate the size of something unreported, even when it is acknowledged officially.

⁸² In fact, the excess may even be greater because some of the initial exports may have been from previous stockpiles as opposed to new production.

Informal/Unreported Production and Trade

Gold

In fact, the 370 t in excess gold (Figure 7a) probably underestimates artisanal production as much of this informal (and sometimes illegal) production was likely smuggled, eluding formal reporting chains (both in Liberia and in the importing countries), and thus not appearing in the data in Figure 7a.

Indeed, according to the LEITI data, artisanal gold is, officially, only a small fraction of total production (between one percent to 17 percent from 2019 to 2023)⁸³.

But there is believed to be a large amount of unreported production.^{84,85} Here, we use three methods to estimate the trade in artisanal gold and diamonds:

1. We used “mirror statistics”;
2. We surveyed the literature; and,
3. We used confidential informants to provide their expert opinion.

If there is concordance between the three approaches, we can feel assured that the estimates are relatively accurate.

Mirror Statistics

Figures 4 and 7 are consistent with major amounts of trade unreported by Liberia. That is, importers report \$2.7B more in iron ore and gold trade than does Liberia. Again, this is consistent with under-reporting and/or smuggling, but it fails to include completely unreported trade.

Expert Opinion (Literature and Confidential Informants)

Experts have tried to determine the size of informal, artisanal production. For example, in 2015, an OECD report⁸⁶ estimated that Liberia may have produced 4 tonnes of artisanal gold, whereas LEITI in 2015 reported only 9,000 oz production in total (i.e., just over a quarter tonne)—thus suggesting at least 3.5 tonnes of informal production. In 2022, the MME estimated that one artisanal mining site alone, known as Sam Beach in Central Rivercess County, produced “several thousand ounces of gold annually.”⁸⁷

The OECD report also estimated that “roughly 90% of [artisanal] gold is smuggled out of the country”⁸⁸ overland to Guinea, followed by Sierra Leone and Côte d’Ivoire. “This is consistent with regional trade routes, which flow from Liberia through Guinea and up into Mali.” Apparently, differentials in export taxes from one country to the other play a major role as incentives to regional gold smuggling (Genoway 2018).

⁸³ In contrast to gold, LEITI (2025) report all diamond production in Liberia to be artisanal in scale.

⁸⁴ e.g., US International Trade Administration (USITA 2025) notes that “the sector is poorly regulated, and dominated by unlicensed and illegal miners” and stresses the lack of law enforcement and governmental control. See also Hunter (2020).

⁸⁵ While the GoL has committed to reducing illicit production (see reforms undertaken as part of the 2018 New Pro-Poor Agenda for Prosperity and Development mentioned above), we found no official GoL reports on the size of the artisanal trade.

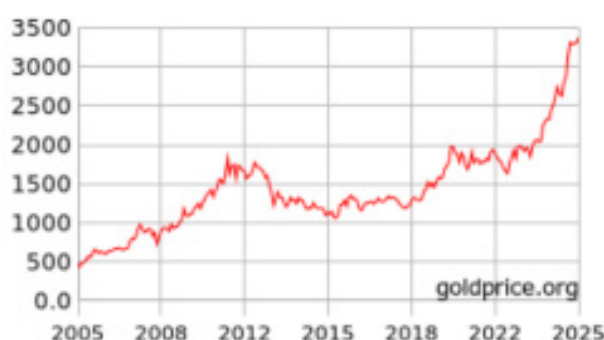
⁸⁶ Hunter. 2020.

⁸⁷ Kamara. 2022. <https://news.mongabay.com/2022/12/in-liberia-a-gold-boom-leads-to-unregulated-mining-and-ailing-rivers/> Accessed August 5, 2025.

⁸⁸ This was also the ratio estimated by the UN Panel of Experts on Liberia in 2013.

The current level of unreported artisanal production is not clear, nor is the amount of it that is smuggled. However, as the price of gold has increased (Figure 8), presumably the incentive to mine has increased, including among artisanal miners desperate for income. In fact, as mentioned next, diamond diggers may be turning to gold mining driven, in part, by this price pressure.

Figure 8. International Price of Gold (US\$ per ounce)



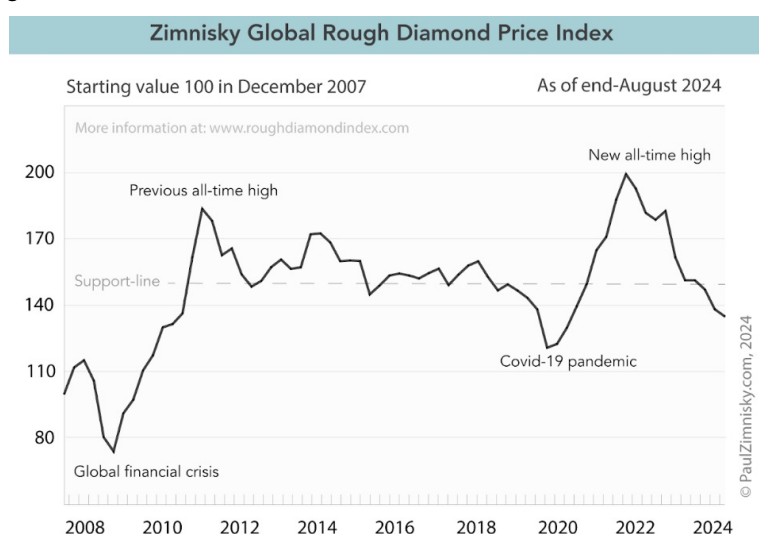
Source: Gold Price (n.d.).

One further driver of gold production may be money laundering. There are reportedly buyers in West Africa willing to pay more than the international market price for gold. This is because, rather than buying a commodity, the buyers are allegedly buying a currency. Their “dirty” money buys the gold in Liberia, and then the gold is sold and ‘clean’ money received, reportedly in the Middle East.

Diamonds

In comparison to gold, the illicit trade in diamonds appears to be dropping. While it is difficult to know exactly why, experts claim two main reasons. The first is that the price of diamonds has “plunged” (Figure 9) (Zimnisky 2024’ Reyes 2025).

Figure 9. Global Rough Diamond Price Index



Source: Zimnisky 2024.

The second reason for the drop in diamond production is more difficult to verify: diamond buyers in Liberia claim to have stopped trading because the diggers are now demanding higher payment. As the diggers now have access to mobile phones, they can look up market prices, including those in Belgium,

and this “price transparency” is driving their demands for higher payment. Because this has greatly reduced margins, the buyers claim they are no longer interested in taking the risks associated with the illicit trade in rough diamonds. Instead, they have apparently moved to illicit gold, especially because the trends in rough diamond prices are going in the opposite direction to gold (compare Figure 8 and 9).

Certainly, the large increases in gold exports are consistent with this.

Payments to Government

MME Online Repository reporting

From the trade reported above, the MME Online Repository database reports \$37M in payments from the mining sector (Table 15).⁸⁹ Primary License Fees have always been important (Figure 10), but Surface Rental has become more important. Royalties were the vast majority of payments between 2015-2017, but now hardly factor at all in the MME database.

The “annual payments” are also trivial. Of the four largest amounts, MNG Gold reported \$172,878 in total annual payments over the entire 16.5-year period, China Union reported \$100,000, and Western Cluster \$74,203. MME does not report any annual payments for ArcelorMittal Liberia (AML); the only AML payments in the database are two \$3,000 Primary License Fee payments from 7-8-24.

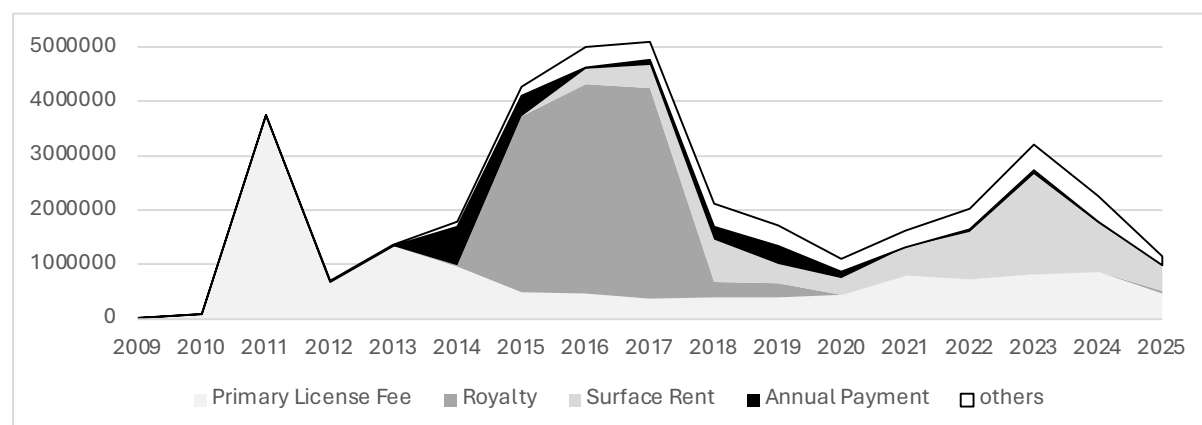
Table 15. Summary of Payments to Government of Liberia from the Mining Sector 2008-2025 (Unit: \$)

Primary License Fee	13,020,510
Royalty	11,604,865
Surface Rent	6,780,644
License Renewal Fee	2,824,515
Annual Payment	2,032,185
Renewal Fee	388,950
Other Processing Fees	201,733
Mineral Development Fund fee	143,555
Other	126,723
Renewal Application Fee	106,145
Primary Application Fee	76,910
Delinquent Fee	3,396
Survey Fee	3,300
GRAND TOTAL	37,313,431

Source: MME Online Repository, as of August 2, 2025.⁹⁰

⁸⁹ The MME online repository also contains an interesting fact: they report that almost 10% of the total receipts in Table 12 came from just one operator, A. Musa Keita. He reportedly made 940 primary licenses payments even though he only has 4 diamond and 1 corundum garnet licenses (all of which are expired).

⁹⁰ <https://sso.revenuedev.org/?returnUrl=https://portal.mme.gov.lr>, accessed Aug 2, 2025.

Figure 10. Distribution of Payment Types by Mining Companies according to Liberia's Ministry of Mining & Energy

Source: MME Online Repository, as of August 2, 2025.

The MME database clearly does not include all payments to the GoL from the mining sector, as the LEITI reports more than \$884M in tax and non-tax payments to the GoL (just between 2007 to the December 2023, the most recent data available from the LEITI; Table 16). In comparison, over this same time period, the MME database contains less than \$31M in receipts, or just four percent of the amount reported by the LEITI.

Table 16. Summary of Payments to Government of Liberia from the Mining Sector for Fiscal Years 2007 to December 2023

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
To GOL	29.5	10.6	38.4	43.8	56.9	70	79	53.4	27.8	28.4	33.5	41.6	45.2	64.4	-	140.6	121.5

Source: LEITI annual reports.

Note: LEITI (2023) report covered the period July 2021 to December 2022.

State Ownership

Class A licenses are required to share 10-15 percent equity with the GoL. AML reports having shared 15 percent equity with government.

Regardless of ownership structure, no mining company, including AML, has ever reportedly paid a dividend to Liberia.

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