



Government  
of Ireland  
International  
Development  
Programme



# AT WHAT COST?

Rivers of Gold and the Governance Crisis  
— in Liberia's Artisanal Mining Sector —



Integrity Watch Liberia | February 2026

## Contents

Executive Summary .....	3
<i>Expansion of River-Based Mining</i> .....	3
<i>Illegal Mechanization within Artisanal Mining Areas</i> .....	3
<i>Environmental Destruction of River Systems</i> .....	4
<i>Informal Financial Flows and Emerging Political Economy</i> .....	4
<i>Community Elite Capture and Uneven Distribution of Benefits</i> .....	5
<i>Weak Regulatory Oversight</i> .....	5
<i>Emerging National-Level Risks</i> .....	5
<i>Recommendations</i> .....	6
2. Introduction .....	6
2.1 <i>Background of ASM in Liberia</i> .....	7
2.2 <i>Purpose of the Monitoring Report</i> .....	7
2.3 <i>Why the Issue Matters Now</i> .....	8
3. Methodology .....	9
3.1 <i>Field Visits and Site Inspections</i> .....	9
3.2 <i>Key Informant Interviews</i> .....	10
3.3 <i>Observational Monitoring</i> .....	10
3.4 <i>Community Consultations</i> .....	10
3.5 <i>Limitations of Evidence Collection</i> .....	11
4. Key Findings .....	11
<i>Key Finding 1: Rapid Expansion of River-Based Dredging Operations</i> .....	12
<i>Key Finding 2: Artisanal Class C Licenses Increasingly Used for Mechanized Operations</i> .....	12
<i>Key Finding 3: Severe Environmental Disturbance of River Systems</i> .....	12
<i>Key Finding 4: Declining Fish Populations and Livelihood Disruption</i> .....	13
<i>Key Finding 5: Growing Participation of Foreign Operators in River Mining</i> .....	13
<i>Key Finding 6: Emergence of the Claim Holder System and Sub-Leasing Arrangements</i> .....	13
<i>Key Finding 7: Emergence of Informal Financial Systems Around Mining Operations</i> .....	14
<i>Key Finding 8: Governance Vulnerabilities and Allegations of Rent-Seeking</i> .....	14
<i>Key Finding 9: Occupational Safety Risks and Informal Labor Conditions</i> .....	14
<i>Key Finding 10: Emerging National Risks Linked to River-Based Mining</i> .....	14
5. The Expansion of River-Based Mining .....	15
5.1 <i>Growth of Dredging Operations</i> .....	15
5.2 <i>Mechanization Under Class C Licenses</i> .....	16
5.3 <i>Foreign Participation in River Mining</i> .....	16
5.4 <i>The Claim Holder System</i> .....	17
6. Environmental Impact Assessment .....	17
6.1 <i>River Turbidity</i> .....	18
6.2 <i>Sediment Disturbance</i> .....	18
6.3 <i>Fisheries Collapse</i> .....	19
6.4 <i>Land Degradation</i> .....	19

6.5 Public Health Risks .....	19
7. The Informal Political Economy of Gold .....	20
7.1 Informal Revenue Systems .....	20
7.2 Community Elite Capture .....	21
7.3 Protection Networks .....	21
7.4 Cultural Barriers to Enforcement .....	22
7.5 Rent-Seeking Vulnerabilities .....	22
8. Governance and Institutional Challenges .....	22
8.1 Weak Enforcement Capacity .....	23
8.2 Regulatory Gaps .....	23
8.3 Lack of Licensing Transparency .....	23
8.4 Informal Compliance Systems .....	24
9. Community Benefits – Myth vs Reality .....	24
9.1 Informal Payments and Unstructured Contributions .....	25
9.2 The Absence of Legally Binding Community Agreements .....	25
9.3 Belleh Yallah Case Study: A Structured Community Agreement .....	26
9.4 The Wider Governance Implications .....	26
10. Occupational Safety Crisis .....	27
10.1 Absence of Personal Protective Equipment (PPE) .....	27
10.2 Canoe and Dredging Platform Risks .....	27
10.3 Youth Labor and Economic Vulnerability .....	28
10.4 Absence of Insurance and Emergency Response Mechanisms .....	28
11. National-Level Risk Analysis .....	29
11.1 Mount Coffee Hydropower Risk .....	29
11.2 Water System Risk .....	29
11.3 Economic Dependency Risk .....	30
11.4 Governance Erosion .....	30
13. Policy Reform Roadmap .....	31
Immediate Priorities .....	31
Medium-Term Priorities .....	32
Long-Term Priorities .....	33
14. Conclusion .....	34

## Executive Summary

Artisanal and small-scale mining (ASM) has become one of the most rapidly expanding livelihood activities in several rural regions of Liberia. While historically practiced as a low-scale economic activity that supplemented agriculture and fishing, the character of artisanal mining in some parts of the country appears to be changing significantly. Field monitoring conducted by Integrity Watch Liberia (IWL) in eight mining communities across Gbarpolu and Bong Counties reveals a sector undergoing transformation, one marked by expanding river-based mining operations, increasing mechanization within artisanal license areas, growing environmental degradation, and emerging governance vulnerabilities.

This report presents findings from monitoring visits conducted under the project “Strengthening Inclusive Governance and Accountability in Liberia’s Natural Resources Sector, Phase II.” The monitoring exercise sought to examine the environmental, governance, and socio-economic implications of artisanal mining activities in selected mining corridors, particularly along the Tuma River Belt in Gbarpolu County and sections of the St. Paul River Basin in Bong County. The findings suggest that while artisanal mining continues to provide important income opportunities for rural populations, particularly unemployed youth, the current trajectory of the sector presents significant environmental risks, governance challenges, and potential national implications if left unaddressed.

### *Expansion of River-Based Mining*

One of the most significant developments documented during the monitoring exercise is the rapid expansion of river-based mining activities, particularly through the deployment of dredging equipment that extracts sediment directly from riverbeds. In several communities visited, floating dredging platforms equipped with suction hoses and processing systems were observed operating within active river channels.

This pattern represents a shift from traditional artisanal mining along riverbanks toward direct riverbed extraction, which has a far greater environmental footprint. In some stretches of the rivers visited during the monitoring missions, multiple dredging platforms were operating within close proximity to one another, creating visible disturbances to water flow and sediment distribution.

The expansion of dredging operations appears to be driven by a combination of rising gold prices, increased access to extraction equipment, and the growing participation of operators seeking to capitalize on gold-bearing deposits located within river systems. As a result, rivers that historically served as sources of fishing, domestic water use, and community transportation are increasingly being transformed into active mining corridors.

### *Illegal Mechanization within Artisanal Mining Areas*

A key governance concern identified during the monitoring exercise relates to the increasing use of mechanized extraction methods within areas reportedly operating under Class C artisanal mining licenses. Under Liberia’s Minerals and Mining Law, Class C licenses are intended to support artisanal mining conducted primarily with manual tools and minimal mechanization.

However, field observations indicate that many operations within these areas now involve suction dredges, pumps, and other equipment typically associated with Class B mechanized small-scale mining operations. This shift effectively blurs the legal distinction between artisanal and mechanized mining activities, allowing operators to conduct higher-impact extraction under licensing frameworks designed for lower-impact activities.

The growing disconnect between licensing categories and operational practices raises important questions regarding regulatory enforcement and the ability of existing governance systems to maintain the integrity of Liberia's mining licensing framework.

### *Environmental Destruction of River Systems*

The environmental impacts associated with the expansion of river-based mining are already visible across several of the communities visited during the monitoring missions. Rivers affected by dredging operations displayed significant turbidity, with water appearing heavily discolored due to suspended sediment released during extraction activities.

Repeated dredging has disturbed riverbeds and contributed to the formation of sediment accumulations resembling artificial islands in some areas. These disturbances alter the natural hydrology of river systems and disrupt aquatic habitats that support fish populations and other forms of biodiversity.

Community members in multiple locations reported that fish populations have declined sharply in sections of rivers where dredging has become concentrated. For communities that historically relied on fishing as a source of food and supplemental income, the decline of fisheries represents a direct livelihood challenge.

Mining activities have also contributed to broader environmental degradation, including abandoned excavation pits, disturbed soil structures, and underclaimed landscapes surrounding mining areas. These environmental impacts extend beyond the immediate mining sites and contribute to long-term ecological vulnerability within affected watersheds.

### *Informal Financial Flows and Emerging Political Economy*

Beyond environmental concerns, the monitoring exercise revealed the presence of informal financial arrangements that appear to shape the operation of mining activities within certain communities. Miners and community members reported various forms of periodic payments and contributions associated with access to mining sites and operational stability within mining areas.

These payments are typically conducted outside formal financial systems and are rarely documented through official records. While the precise scale of these financial flows remains difficult to quantify, their recurrence across multiple communities suggests the existence of an informal economic structure operating alongside the formal licensing framework governing artisanal mining. The emergence of these informal systems highlights the broader political economy surrounding gold extraction, where multiple actors, including miners, claim holders, community intermediaries, and other stakeholders, participate in economic relationships that influence how mining operations function in practice.

### *Community Elite Capture and Uneven Distribution of Benefits*

The report also documents concerns regarding the management of mining-related financial contributions within communities. In several locations, payments made by mining operators were reportedly received by individuals within local leadership structures without clear mechanisms for public accounting or community oversight.

Without transparent management systems, these arrangements can create perceptions of elite capture, where benefits generated from mining activities are concentrated within smaller leadership circles rather than distributed broadly across the community. At the same time, the environmental and social impacts of mining are borne collectively by residents whose water sources, fishing grounds, and landscapes are directly affected by extraction activities.

The contrast between informal payment systems and the more structured arrangements observed in places such as Belleh Yallah, where a locally negotiated agreement governs mining contributions, illustrates how clearer governance frameworks can improve transparency and reduce community tensions.

### *Weak Regulatory Oversight*

Many of the governance challenges identified in this report are closely linked to institutional constraints affecting regulatory oversight. Agencies responsible for monitoring mining activities face logistical challenges in reaching remote mining areas, limited operational resources, and the need to oversee multiple extractive sectors simultaneously.

In addition, the absence of publicly accessible licensing information makes it difficult for communities and civil society actors to verify which individuals or entities hold legal rights to operate in particular mining areas. This lack of transparency complicates efforts to monitor compliance and contributes to perceptions that mining activities operate within loosely governed environments.

Stakeholder interviews also revealed concerns regarding the consistency of regulatory enforcement. While such claims are difficult to verify through documentary evidence, the persistence of these perceptions highlights the importance of strengthening transparency and accountability within the regulatory framework.

### *Emerging National-Level Risks*

Although the impacts of artisanal mining are most visible at the community level, the findings suggest that the expansion of river-based mining may also carry broader national implications. In particular, mining activities occurring within tributaries connected to the St. Paul River Basin raise questions about the long-term health of water systems that support both local communities and national infrastructure.

The St. Paul River system plays a critical role in Liberia's water resources and is linked to the Mount Coffee Hydropower Plant, one of the country's most important sources of electricity generation. While further technical analysis would be required to fully assess the hydrological implications of upstream dredging activities, the monitoring findings underscore

the importance of managing mining activities in ways that protect the ecological integrity of river systems.

The broader national concern is that continued expansion of unregulated river-based mining may gradually transform localized environmental disturbances into larger risks affecting water systems, energy infrastructure, and downstream communities.

### *Recommendations*

The findings of this report underscore the urgent need for a coordinated policy response aimed at strengthening governance, protecting environmental resources, and ensuring that artisanal mining contributes to sustainable development.

Key recommendations emerging from this monitoring exercise include:

- 1. Enforce the Legal Distinction Between Class C and Class B Mining Operations.**  
Regulatory authorities should strengthen enforcement of licensing categories to ensure that mechanized dredging does not occur under artisanal mining permits designed for manual extraction.
- 2. Establish a Publicly Accessible Mining License Registry.**  
Improving transparency in licensing information would enable communities, civil society organizations, and regulators to better monitor compliance and accountability within the sector.
- 3. Strengthen Environmental Oversight of River-Based Mining Activities.**  
Targeted monitoring of mining activities within river systems is needed to prevent excessive sediment disturbance and protect aquatic ecosystems.
- 4. Introduce Community Benefit Governance Standards.**  
Clear guidelines for community agreements, record-keeping, and benefit-sharing arrangements could help ensure that mining-related contributions translate into tangible community development outcomes.
- 5. Promote Occupational Safety Measures in Mining Areas.**  
Awareness programs, basic safety training, and improved access to protective equipment are needed to reduce the risks faced by miners working in hazardous environments.
- 6. Develop a National Strategy for Responsible Artisanal Mining.**  
A comprehensive formalization and governance strategy could help align artisanal mining activities with environmental protection, community development, and national economic priorities.

## **2. Introduction**

Artisanal and small-scale mining (ASM) has long been part of Liberia's rural economic landscape. For decades, gold extraction from alluvial deposits along riverbanks and shallow soils has provided income for households seeking to supplement farming and other subsistence activities. In many parts of the country, particularly in mineral-rich counties such as Gbarpolu, Bong, and Nimba, artisanal mining has historically functioned as a livelihood strategy during periods when agricultural production declines or when families face economic hardship.

In recent years, however, the scale, intensity, and organization of artisanal mining in Liberia appear to be undergoing significant transformation. What was once characterized primarily by manual extraction using simple tools has increasingly evolved into a more complex and commercially oriented activity involving mechanized equipment, organized operational networks, and growing participation by multiple actors across the mining value chain.

These developments have brought renewed attention to the environmental, governance, and socio-economic implications of artisanal mining activities, particularly where extraction occurs directly within river systems that sustain local communities and support broader ecological functions. In response to these emerging concerns, Integrity Watch Liberia conducted monitoring visits to selected mining communities to better understand how these changes are unfolding and what they mean for natural resource governance in Liberia.

## *2.1 Background of ASM in Liberia*

Liberia's mineral sector has historically been dominated by large-scale concessions focused on iron ore, gold, and other minerals. Alongside these industrial operations, artisanal mining has developed as an important parallel activity within rural economies. Artisanal miners typically work with limited equipment and minimal capital investment, extracting gold from river sediments and surface deposits using techniques that have been practiced for generations.

The Minerals and Mining Law of Liberia recognizes the importance of artisanal mining as a livelihood activity and provides legal frameworks, particularly through Class C mining licenses - to enable individuals and small groups to engage in mineral extraction. These licenses are designed to allow artisanal miners to operate within defined areas while maintaining relatively low environmental impact compared to mechanized mining operations.

Despite this legal framework, the ASM sector has historically remained largely informal, with many miners operating outside formal regulatory systems or lacking full awareness of licensing requirements and environmental obligations. Limited institutional capacity to monitor mining activities in remote areas has also contributed to the persistence of informal practices within the sector.

More recently, a combination of economic pressures, technological changes, and increased market demand for gold has accelerated the expansion of artisanal mining across several counties. River systems in particular have become focal points for mining activities due to the presence of gold-bearing sediments that can be extracted through dredging and other techniques. As these activities expand, concerns have grown regarding environmental degradation, regulatory compliance, and the ability of existing governance systems to effectively oversee the sector.

## *2.2 Purpose of the Monitoring Report*

This monitoring report seeks to document and analyze the evolving dynamics of artisanal mining in selected communities in Gbarpolu and Bong Counties, with particular attention to the environmental, governance, and socio-economic implications of river-based mining activities.

While environmental degradation, especially the disturbance of river ecosystems, emerged as a visible concern during field observations, the findings of this monitoring exercise also point to broader governance challenges shaping the artisanal mining sector. These include questions related to regulatory compliance, transparency in licensing and revenue flows, community accountability mechanisms, and the effectiveness of institutional oversight.

The report therefore goes beyond a conventional environmental assessment. Instead, it approaches artisanal mining as a natural resource governance issue, examining how the interaction between miners, communities, regulatory institutions, and informal economic networks influences the way mining activities unfold in practice. By documenting field observations and stakeholder perspectives, the report aims to contribute evidence that can inform policy dialogue, strengthen oversight mechanisms, and support efforts to ensure that artisanal mining contributes to sustainable and inclusive development in Liberia.

### *2.3 Why the Issue Matters Now*

Several converging factors have contributed to the growing importance of artisanal mining in Liberia today. One major driver is the challenge of youth unemployment. In many rural areas, young people face limited access to formal employment opportunities and declining returns from traditional agricultural activities. Artisanal mining has therefore emerged as an accessible income-generating activity that requires relatively little capital and offers immediate financial returns. As a result, large numbers of young people are increasingly entering the mining sector as workers, operators, or intermediaries.

At the same time, rising international gold prices have made artisanal mining more financially attractive. Higher gold prices increase the profitability of extraction and encourage both local and external actors to invest in mining operations. In areas where gold-bearing deposits are accessible along river systems, this economic incentive has contributed to the rapid spread of mining activities. Technological developments are also playing a role. The increasing availability of mechanized dredging equipment has enabled miners to extract gold from riverbeds more efficiently than traditional artisanal methods. While this may increase production, it also significantly amplifies the environmental footprint of mining activities, particularly where dredging occurs directly within active river channels.

Finally, challenges related to regulatory enforcement have allowed mining activities to expand in ways that sometimes blur the legal boundaries between artisanal and mechanized operations. Limited monitoring capacity, logistical difficulties in accessing remote mining sites, and coordination challenges among oversight institutions have made it difficult to ensure consistent compliance with licensing requirements and environmental safeguards. Taken together, these dynamics, economic necessity, rising gold prices, technological change, and regulatory constraints, have created conditions in which artisanal mining is expanding both in scale and complexity. Understanding how these forces interact is essential for designing governance responses that protect Liberia's natural resources while ensuring that mining activities contribute to sustainable community livelihoods and national development.

### 3. Methodology

This report is based on field-based monitoring conducted by Integrity Watch Liberia (IWL) in selected artisanal mining communities in Gbarpolu and Bong Counties. The monitoring exercise sought to document the environmental, governance, and socio-economic dynamics shaping artisanal and small-scale mining (ASM), particularly in areas where mining activities have expanded along major river systems. Selected mining communities include: Gbarpolu – Belleh Yallah, Gbranga Gborketa, Gbomays Town, Kollie Town, Palakwelleh, and Monakwelleh, as well as Piatah, and Matalata in Bong County.

The methodology adopted for this assessment combined direct field observation, stakeholder engagement, and qualitative data collection, enabling the research team to capture both the visible environmental impacts of mining activities and the governance dynamics influencing how those activities are organized and regulated in practice. Given the largely informal nature of artisanal mining operations and the limited availability of structured data within the sector, the monitoring exercise relied heavily on primary field-based evidence and community-level insights.

#### *3.1 Field Visits and Site Inspections*

Field monitoring missions were conducted in twelve mining communities in Gbarpolu and Bong Counties, including communities located along the Tuma River Belt and the St. Paul River Basin. These locations were selected because of the high concentration of artisanal mining activities and the increasing use of dredging equipment observed within these river systems.



During these visits, the monitoring team conducted site inspections of active mining locations, documenting the operational methods used by miners, the types of equipment deployed, and the immediate environmental conditions surrounding mining sites. Particular attention was given to areas where mining activities were occurring directly within river channels or in close proximity to water sources used by local communities.

Observations focused on several key aspects of mining operations, including:

- The presence and use of dredging equipment in river channels
- Evidence of mechanized extraction methods
- River turbidity and sediment disturbance
- Land degradation and abandoned mining pits
- Occupational safety conditions for miners
- Community proximity to mining operations

These site inspections provided visual and contextual evidence that informed the environmental and governance assessments presented throughout the report.

### *3.2 Key Informant Interviews*

To complement field observations, the monitoring team conducted informal and semi-structured interviews with a range of stakeholders operating within the artisanal mining landscape.

These interviews included discussions with:

- Artisanal miners and dredge operators
- Community leaders and local authorities
- Youth groups and residents of mining communities
- Individuals involved in gold trading and mining logistics

The purpose of these interviews was to gain insight into how mining operations are organized in practice, how financial arrangements are structured, and how regulatory institutions interact with mining communities.

Interview discussions explored topics such as licensing practices, operational arrangements between miners and claim holders, informal payment systems within mining sites, community benefit-sharing arrangements, and perceptions of regulatory oversight within the sector.

Because many aspects of artisanal mining operate within informal systems, these stakeholder perspectives provided important contextual understanding of the economic and governance structures that shape mining activities in affected communities.

### *3.3 Observational Monitoring*

In addition to interviews and site inspections, the monitoring team engaged in systematic observational monitoring of mining operations and community conditions. Observational monitoring focused on documenting visible patterns of activity and environmental change without directly intervening in mining operations.

This included documenting:

- The number and distribution of dredging platforms along river segments
- The presence of processing sites along riverbanks
- The movement of workers and materials associated with mining activities
- Environmental disturbances within river channels and surrounding landscapes

Where appropriate, photographic documentation was collected to support field observations and provide visual evidence of the conditions described in this report.

Observational monitoring was particularly important for identifying patterns that may not always emerge through interviews alone, such as the scale of dredging activity along specific river stretches or the visible transformation of landscapes surrounding mining sites.

### *3.4 Community Consultations*

The monitoring exercise also included community consultations and informal discussions with residents living in or near mining areas. These consultations allowed community

members to share their experiences regarding the social, environmental, and economic impacts of mining activities.



Community discussions often focused on:

- Changes in river conditions and water quality
- The impact of mining activities on fishing and agriculture
- Perceived benefits or payments associated with mining operations
- Community relations with mining operators
- Concerns related to safety, sanitation, and environmental degradation

These consultations helped situate the monitoring findings within the broader social context of mining communities, highlighting how environmental and governance challenges affect everyday life for residents.

### *3.5 Limitations of Evidence Collection*

It is important to note that certain aspects of artisanal mining governance, particularly those related to informal financial arrangements and allegations of corruption are inherently difficult to document through conventional evidence-gathering methods.

Many of the financial transactions associated with artisanal mining occur outside formal systems and are conducted informally, often without written records or official documentation. In addition, activities linked to rent-seeking or unauthorized payments are rarely conducted in ways that generate verifiable documentary evidence.

As a result, some findings presented in this report rely on consistent accounts and perspectives shared by multiple stakeholders, rather than formal records or documented transactions. These accounts provide valuable insight into perceived patterns of practice within mining communities but should be interpreted as indicative observations rather than definitive legal determinations.

For this reason, references to governance vulnerabilities, informal payment systems, or alleged rent-seeking practices in this report are framed carefully based on field observations, stakeholder testimonies, and patterns reported by multiple interviewees.

Despite these limitations, the combination of site inspections, interviews, observational monitoring, and community consultations provides a robust qualitative foundation for understanding the evolving dynamics of artisanal mining in the communities examined. The findings presented in the following sections reflect the cumulative insights gathered through these multiple sources of field-based evidence.

## *4. Key Findings*

Field monitoring conducted in mining communities across Gbarpolu and Bong Counties reveals a rapidly evolving artisanal mining landscape characterized by significant environmental disruption, governance vulnerabilities, and expanding informal economic networks. While artisanal mining has long been a source of livelihood for many rural communities in Liberia, the scale and nature of current operations suggest that the sector is undergoing a profound transformation. The findings presented below summarize the most significant patterns observed during the monitoring exercise. These findings reflect a combination of field observations, stakeholder consultations, and community-level insights gathered during site visits to mining-affected communities.

### ***Key Finding 1: Rapid Expansion of River-Based Dredging Operations***

One of the most striking developments observed during the monitoring visits is the rapid spread of dredging activities within river systems, particularly along sections of the Tuma River Belt in Gbarpolu County and segments of the St. Paul River Basin in Bong County. Rivers that historically served as sources of fishing, drinking water, and transportation are increasingly being used as active mining corridors.

Floating dredging platforms equipped with suction hoses and sediment processing equipment were observed operating directly within river channels. In some areas, multiple dredging platforms were positioned within close proximity to each other along the same river stretch, indicating a level of extraction intensity that significantly alters the physical characteristics of the river system.

This expansion signals a shift from traditional riverbank mining to direct riverbed extraction, raising serious environmental concerns regarding sediment disturbance, water turbidity, and long-term ecosystem degradation.

### ***Key Finding 2: Artisanal Class C Licenses Increasingly Used for Mechanized Operations***

Liberia's Class C mining licenses are designed to support small-scale artisanal mining conducted with manual tools and minimal mechanization. However, field observations suggest that in several locations these licenses are now being used to facilitate operations that resemble Class B mechanized mining activities.

The presence of suction dredges, pumps, and other forms of mechanized extraction equipment within areas reportedly operating under Class C permits indicates a growing disconnect between legal licensing categories and actual mining practices on the ground.

This trend effectively allows mechanized mining activities to occur under regulatory frameworks designed for low-impact artisanal operations, thereby weakening the environmental safeguards and oversight mechanisms that would normally apply to mechanized mining.

### ***Key Finding 3: Severe Environmental Disturbance of River Systems***

The environmental impacts of river-based mining are already visible in the physical condition of several river segments visited during the monitoring exercise. Rivers in affected areas exhibited high levels of turbidity, with water appearing heavily discolored and laden with suspended sediment.

In certain locations, repeated dredging activities appear to have contributed to the formation of sediment accumulations resembling artificial islands, suggesting significant alteration of the natural riverbed. Such disturbances have the potential to disrupt aquatic ecosystems, alter river flow patterns, and contribute to long-term ecological degradation if left unaddressed. The scale of sediment disturbance observed raises concerns not only for the ecological integrity of these waterways but also for the communities that depend on them for domestic and livelihood purposes.

#### ***Key Finding 4: Declining Fish Populations and Livelihood Disruption***

Community members consistently reported that fish populations have declined significantly in areas where dredging activities have become concentrated. In several communities, residents indicated that sections of rivers previously used for fishing now yield little or no catch.

The collapse of fisheries has direct implications for household food security and rural livelihoods, particularly in communities where fishing once served as an important source of protein and supplemental income. As fish stocks decline, families become more dependent on purchased food or alternative livelihood activities, including mining itself. This dynamic creates a feedback loop in which environmental degradation contributes to increased economic reliance on the very activities driving the degradation.

#### ***Key Finding 5: Growing Participation of Foreign Operators in River Mining***

Monitoring visits also revealed the presence of foreign operators participating in dredging activities, with community members frequently referencing the involvement of miners from neighboring West African countries, particularly Ghana.

These operators are often perceived to possess technical knowledge and experience related to dredging equipment and river-based gold extraction. Their participation may therefore contribute to the spread of mechanized mining practices within areas that were historically dominated by manual artisanal extraction. The growing involvement of foreign actors raises additional governance considerations related to compliance with Liberia's mining regulations, which prioritize citizen participation in artisanal mining activities.

#### ***Key Finding 6: Emergence of the Claim Holder System and Sub-Leasing Arrangements***

A common operational structure observed within mining areas is the "claim holder system," in which individuals who possess mining licenses control access to specific mining areas but do not necessarily conduct mining operations themselves.

Instead, these claim holders frequently sub-lease sections of their licensed areas to dredge operators or mining groups, receiving financial payments or shares of gold production in return. This arrangement creates a layered operational structure involving license holders, equipment operators, financiers, and laborers. While such arrangements may facilitate economic activity, they also complicate regulatory oversight by separating the legal holder of the mining license from the individuals conducting the actual mining operations.

### ***Key Finding 7: Emergence of Informal Financial Systems Around Mining Operations***

Field interviews suggest the existence of informal financial arrangements within mining communities, including periodic payments made by mining operators to various local actors. Some interviewees referenced contributions collected on a weekly basis within mining sites, although the precise structure and recipients of these payments varied across locations.

Because these transactions are typically conducted informally and without documentation, the total financial flows associated with these arrangements remain difficult to quantify. Nevertheless, the presence of such systems suggests that a parallel economic structure may exist alongside the formal licensing and regulatory framework governing mining activities.

### ***Key Finding 8: Governance Vulnerabilities and Allegations of Rent-Seeking***

Discussions with miners and community members frequently raised concerns regarding the effectiveness of regulatory oversight within the artisanal mining sector. Some stakeholders suggested that regulatory visits to mining sites may sometimes prioritize the collection of informal payments rather than strict enforcement of compliance requirements.

While such claims are difficult to verify through documentary evidence, the consistency of these accounts across multiple interviews highlights perceptions of governance vulnerabilities within the sector.

In the absence of transparent monitoring systems and publicly accessible licensing data, these perceptions can undermine confidence in regulatory institutions and create incentives for mining operators to rely on informal arrangements rather than formal compliance mechanisms.

### ***Key Finding 9: Occupational Safety Risks and Informal Labor Conditions.***

Working conditions within many of the mining sites visited during the monitoring exercise raise serious safety concerns. Miners were frequently observed working without protective equipment, safety training, or basic occupational safeguards.

River-based dredging operations often rely on canoes and floating platforms that appear structurally unstable, exposing workers to the risk of drowning, equipment accidents, or other hazards. In addition, the absence of formal employment arrangements means that miners typically operate without insurance coverage, medical protection, or emergency response systems in the event of accidents. These conditions highlight the broader vulnerability of workers within informal mining economies.

### ***Key Finding 10: Emerging National Risks Linked to River-Based Mining***

Beyond the immediate environmental and governance challenges within mining communities, the expansion of river-based mining raises broader national concerns. Rivers affected by dredging activities form part of larger water systems that support downstream communities and critical infrastructure.

In particular, disturbances within sections of the St. Paul River Basin may have implications for water supply systems and hydropower infrastructure, including the Mount Coffee Hydropower Plant. Sustained sediment disturbance and ecological degradation in upstream

mining areas could therefore carry consequences that extend far beyond the immediate mining sites.

Taken together, these findings highlight the urgent need for strengthened governance frameworks capable of addressing the environmental, economic, and institutional challenges emerging within Liberia's artisanal mining sector.

## **5. The Expansion of River-Based Mining**

One of the most defining developments observed during the field monitoring exercise is the rapid expansion of river-based artisanal and small-scale mining activities, particularly through the use of dredging equipment that extracts sediment directly from riverbeds. While artisanal mining has historically taken place along riverbanks and shallow alluvial deposits, recent years have seen a clear shift toward direct mining within active river channels, significantly altering both the environmental footprint and the organizational structure of the sector.

This transformation is visible across several mining corridors visited during the monitoring missions in Gbarpolu and Bong Counties, where mining activities along the Tuma River Belt and the St. Paul River Basin have intensified. The expansion of dredging operations has brought new actors, technologies, and financial arrangements into the artisanal mining economy, creating a more complex system of extraction that increasingly blurs the distinction between traditional artisanal mining and mechanized small-scale mining. The following sections provide a detailed examination of the key factors driving this expansion and the operational structures that now characterize river-based mining activities.

### ***5.1 Growth of Dredging Operations***

Perhaps the most visible change in the artisanal mining landscape is the increasing presence of dredging platforms operating directly within river systems. During the monitoring visits, multiple dredging units were observed positioned along river segments where miners extract sediment from the riverbed using suction hoses connected to pumps mounted on floating structures.

These dredging systems function by drawing sediment from the bottom of the river and passing it through sluice mechanisms designed to separate gold particles from sand and gravel. Once processed, the remaining sediment is discharged back into the river channel, often generating plumes of suspended material that significantly increase water turbidity. Community members reported that the number of dredging operations along certain river segments has grown steadily over the past several years. In some locations, several dredges operate simultaneously within the same stretch of river, transforming sections of what were once natural waterways into active extraction zones.

This expansion is largely driven by economic incentives. Rising gold prices have made dredging increasingly profitable, while improved access to equipment has made it easier for operators to deploy mechanized extraction technologies. As a result, rivers that once supported subsistence fishing, transportation, and domestic water use are increasingly becoming focal points of mining activity.

The growth of dredging operations also reflects a shift in the scale of extraction. While traditional artisanal mining typically involved individuals or small groups working along

riverbanks with basic tools, dredging allows operators to extract larger volumes of sediment in shorter periods of time. This increased productivity has accelerated the pace at which river ecosystems are being disturbed.

### *5.2 Mechanization Under Class C Licenses*



A major governance challenge associated with the expansion of river-based mining is the increasing use of mechanized extraction methods within areas licensed for artisanal mining activities. Under Liberia's Minerals and Mining Law, Class C licenses are intended to support small-scale artisanal mining conducted primarily with manual tools and minimal mechanization. These licenses are structured to allow rural communities to participate in mineral extraction while maintaining relatively low environmental impact.

However, field observations indicate that many operations currently functioning under Class C permits now utilize equipment typically associated with Class B mechanized mining operations, including dredging pumps and other mechanized processing systems. This development effectively allows operators to conduct mechanized mining activities under licensing frameworks that were designed for low-impact artisanal extraction. In practice, the distinction between Class C and Class B mining operations becomes increasingly blurred when mechanized equipment is introduced into areas that were legally designated for manual mining methods.

The result is a regulatory gap in which mechanized extraction expands without the corresponding environmental safeguards, operational reporting requirements, and monitoring standards that would normally accompany mechanized mining licenses. If left unaddressed, this trend risks undermining the integrity of Liberia's mining licensing framework while simultaneously increasing the environmental pressures associated with mining activities in river ecosystems.

### *5.3 Foreign Participation in River Mining*

Another significant development observed during the monitoring exercise is the growing presence of foreign operators participating in river-based mining activities. Community members and miners interviewed during the field visits frequently referenced the involvement of individuals from neighboring West African countries, particularly Ghana. Foreign participation in artisanal mining is not uncommon in West Africa, where experienced miners often migrate across borders in search of new gold deposits. These miners may bring specialized knowledge, operational techniques, or access to equipment that can accelerate the development of mining sites.

In several communities visited during the monitoring missions, local residents suggested that some foreign operators play a central role in introducing dredging technologies and organizing river-based extraction activities. Their experience with mechanized mining methods may therefore contribute to the rapid expansion of dredging operations within artisanal mining zones.

While cross-border participation in mining activities reflects broader regional dynamics within the West African gold economy, it also raises regulatory questions regarding compliance with Liberia's mining laws, which generally prioritize the participation of Liberian citizens in artisanal mining activities. The presence of foreign actors in river-based mining zones may therefore require closer attention from regulatory authorities to ensure that mining operations remain consistent with national legal frameworks.

#### ***5.4 The Claim Holder System***

An important operational structure that has emerged within artisanal mining areas is the "claim holder system," which shapes how access to mining locations is organized and managed.

Under this arrangement, individuals who possess valid mining licenses often obtained under Class C permits, serve as claim holders controlling access to specific mining areas. Rather than conducting mining activities directly, these claim holders frequently enter into agreements with dredging operators or mining groups who carry out the actual extraction work.

In such cases, dredging operators may pay the claim holder a fixed weekly fee, a percentage of gold production, or other financial contributions in exchange for the right to operate within the licensed area. The claim holder therefore functions as an intermediary who manages access to the site while receiving economic benefits from the mining activity.

This arrangement introduces additional layers into the artisanal mining economy. Instead of a direct relationship between a license holder and a mining operation, multiple actors become involved, including financiers who support equipment acquisition, dredge operators who manage the extraction process, laborers who perform the physical work, and community intermediaries who facilitate negotiations.

While the claim holder system can help organize mining activity within certain areas, it also complicates regulatory oversight. When the individual named on the mining license is not the same person operating the dredging equipment, determining responsibility for environmental compliance, operational standards, and legal accountability becomes significantly more difficult.

In many cases, this structure contributes to the emergence of informal operational networks that function alongside the formal licensing system, further blurring the boundaries between regulated and unregulated mining activities. Taken together, the rapid growth of dredging operations, the increasing mechanization of artisanal mining areas, the involvement of foreign operators, and the emergence of claim-holder arrangements illustrate how Liberia's artisanal mining sector is evolving. These developments underscore the need for stronger governance mechanisms capable of responding to the changing dynamics of mining activity within the country's river systems.

## **6. Environmental Impact Assessment**

The environmental consequences of the expanding artisanal and small-scale mining activities observed in Gbarpolu and Bong Counties are both immediate and cumulative. The field

monitoring missions revealed significant alterations to river ecosystems, surrounding landscapes, and community living conditions. These changes are largely driven by the increasing use of dredging technologies and intensified extraction practices along river corridors.

While artisanal mining has historically been associated with localized environmental disturbance, the scale of current activities, particularly those occurring directly within river channels suggests that the ecological impact is becoming broader and more systemic. The effects are visible not only in the physical condition of river systems but also in the livelihoods and health conditions of communities that depend on these ecosystems. The following sections summarize the most significant environmental impacts observed during the monitoring exercise.

### *6.1 River Turbidity*



One of the most visible environmental consequences of river-based mining is the dramatic increase in water turbidity across affected river systems. In several locations visited along the Tuma River Belt and segments of the St. Paul River Basin, the water appeared heavily discolored, with thick suspensions of sediment creating a muddy and opaque appearance. This turbidity is primarily caused by

dredging operations that continuously extract sediment from the riverbed and discharge processed material back into the water.

The repeated disturbance of sand, gravel, and fine sediment particles causes these materials to remain suspended in the water column for extended periods. High turbidity reduces water clarity and disrupts the ecological balance of river systems. It limits the penetration of sunlight necessary for aquatic vegetation and interferes with the normal functioning of aquatic habitats. For communities that rely on rivers for domestic water use, increased turbidity also makes the water less suitable for drinking, cooking, washing, and bathing. Residents in several mining communities reported that sections of rivers that once served as reliable sources of household water are now considered unsafe or unsuitable for daily use due to the persistent discoloration and sediment content.

### *6.2 Sediment Disturbance*

Closely related to increased turbidity is the broader issue of sediment disturbance within riverbeds and channels. Dredging equipment extracts large quantities of sediment from the bottom of rivers, fundamentally altering the structure and stability of riverbeds.

During field observations, several sections of the rivers displayed signs of sediment displacement and irregular deposition patterns, including the formation of sediment piles within the river channel. In some areas, these accumulations resembled small artificial islands created by repeated dredging and sediment discharge.

Such disturbances can significantly alter river hydrology. Changes in sediment distribution may redirect water flow, increase erosion along riverbanks, and create unstable conditions for aquatic habitats. Over time, these alterations can lead to long-term changes in the morphology of the river, making natural recovery increasingly difficult.

Sediment disturbance also has implications for downstream environments. Sediment transported by river currents may accumulate in other sections of the river system, potentially affecting communities and ecosystems located far from the immediate mining sites.

### *6.3 Fisheries Collapse*

Another major environmental consequence reported by community members is the decline in fish populations within sections of rivers affected by dredging activities. Fish depend on stable aquatic environments with adequate oxygen levels, clear water conditions, and undisturbed breeding habitats. The persistent turbidity and sediment disruption associated with dredging operations degrade these conditions and make river environments less hospitable for aquatic species.

In multiple communities visited during the monitoring exercise, residents indicated that areas previously used for fishing now produce significantly reduced catches. Some respondents stated that certain sections of the river no longer support fishing at all due to the intensity of mining activities.

The decline in fish populations has direct implications for household food security and rural livelihoods. Fishing has traditionally served as an important source of protein and supplemental income for communities located near river systems. When fish stocks decline, households lose both a nutritional resource and a livelihood option.

This loss may also push more community members, particularly young people, toward participation in mining itself, thereby reinforcing the cycle of environmental degradation and economic dependency on gold extraction.

### *6.4 Land Degradation*

Beyond the rivers themselves, mining activities are also degrading the surrounding landscape. Field visits revealed numerous abandoned pits, disturbed soils, and unreclaimed excavation sites across mining areas. Mining pits are frequently left open after extraction activities cease. These pits often fill with stagnant water and create uneven terrain that is unsuitable for agriculture or other productive uses. In many cases, there is little or no attempt to refill or rehabilitate these sites after mining operations move elsewhere.

The cumulative effect of these practices is the gradual transformation of previously productive land into degraded terrain characterized by exposed soil, unstable ground, and scattered excavation scars. Land degradation also contributes to increased erosion, particularly during rainy seasons when loose soils are easily washed into nearby river systems. This process further exacerbates sedimentation problems within rivers already affected by dredging activities. The absence of systematic land reclamation practices highlights a significant gap in environmental management within artisanal mining areas.

### *6.5 Public Health Risks*

The environmental conditions associated with intensive mining activities also create several public health risks for nearby communities. One of the most immediate concerns relates to water contamination. As rivers become increasingly turbid and potentially polluted by mining-related activities, communities that rely on these water sources face greater risks of waterborne diseases. Where alternative water sources are unavailable, households may have little choice but to continue using compromised water for domestic purposes.

Another potential concern is exposure to mercury, a substance commonly used in artisanal gold processing in many parts of the world to separate gold from sediment. While mercury use was not uniformly documented at every site visited, its presence in artisanal mining contexts raises significant health concerns because of its toxicity and ability to accumulate in aquatic ecosystems.

Mercury exposure can lead to severe neurological and developmental health effects, particularly among children and pregnant women. If used improperly, mercury can contaminate both water and soil, creating long-term environmental and health risks. In addition, many mining communities visited during the monitoring exercise lacked basic sanitation infrastructure. Rapid population growth in mining areas, driven by the influx of workers and traders has not been accompanied by adequate investment in sanitation systems. As a result, conditions such as open defecation, unmanaged waste disposal, and overcrowded living arrangements were observed in several mining camps. These conditions increase the likelihood of disease outbreaks and contribute to broader health vulnerabilities within already underserved rural populations.

## **7. The Informal Political Economy of Gold**

Beyond the visible environmental impacts of artisanal and small-scale mining lies a more complex and often less visible system of economic and governance relationships that shape how mining activities operate in practice. Field monitoring conducted in Gbarpolu and Bong Counties suggests that artisanal mining has evolved into a multi-layered informal economy, where financial flows, social power structures, and regulatory interactions intersect in ways that frequently fall outside formal governance frameworks.

While Liberia's mining laws establish clear licensing procedures and regulatory requirements, the day-to-day functioning of many mining sites appears to be shaped by informal arrangements among miners, claim holders, community leadership structures, and regulatory actors. These arrangements influence how mining operations are permitted, how benefits are distributed, and how compliance with legal and environmental standards is interpreted in practice. This section examines the emerging informal political economy of gold mining observed during field visits, highlighting the economic incentives, governance vulnerabilities, and social dynamics that sustain mining activities within river-based artisanal mining zones.

### ***7.1 Informal Revenue Systems***

One of the most frequently discussed issues during stakeholder interviews was the presence of informal financial contributions associated with mining operations. Miners and community members described various forms of periodic payments made within mining sites, often structured as weekly or operational contributions collected from miners or dredging

operators. These payments are typically not documented through official records and may vary in amount depending on the size of the mining operation, the number of workers involved, or the perceived profitability of the site. In some cases, miners reported contributing fixed amounts on a weekly basis to individuals or structures responsible for managing access to mining areas or facilitating operational stability within the site.

Because these financial flows occur outside formal revenue collection systems, it is difficult to quantify the total economic value circulating within these arrangements. Nevertheless, the consistency with which these payments were referenced across multiple interviews suggests that informal revenue systems play a significant role in organizing economic relationships within mining communities. These informal financial structures exist alongside the formal licensing fees required under Liberia's mining regulations, creating a parallel system of payments that operates largely beyond the oversight of official regulatory institutions.

### *7.2 Community Elite Capture*

Another governance challenge observed during the monitoring exercise relates to the management of mining-related payments at the community level. In several mining communities, payments made by mining operators are reportedly received by individuals within local leadership structures who act as intermediaries between miners and the broader community. These payments are often described as contributions intended to support community needs or to maintain harmonious relations between mining operators and residents. However, community members in some locations expressed concerns regarding the lack of transparent systems for recording, managing, or distributing these funds.

Without formal accounting mechanisms or community oversight structures, the management of such payments may become concentrated in the hands of a limited number of individuals. This situation can create perceptions of elite capture, where benefits generated from mining activities are not distributed broadly across the community but instead remain within smaller leadership circles. The absence of transparent governance mechanisms at the community level can therefore undermine accountability and weaken the ability of residents to ensure that mining-related contributions translate into meaningful community development benefits.

### *7.3 Protection Networks*

Field interviews also pointed to the existence of informal protection arrangements within certain mining areas. According to several stakeholders, mining operators may seek protection or operational security through financial contributions to individuals or structures that facilitate continued access to mining sites.

Such arrangements may involve actors within the mining community, intermediaries associated with claim holders, or other local stakeholders who influence the operational environment within mining zones. In practice, these networks can function as informal systems that help mining operators navigate potential conflicts, community tensions, or regulatory visits.

The presence of protection networks illustrates how economic incentives can shape governance relationships within artisanal mining areas. Rather than relying exclusively on formal regulatory compliance, some operators may depend on informal arrangements to maintain operational continuity. While these dynamics are difficult to document through

formal evidence, the recurrence of similar accounts across interviews suggests that informal protection structures may play a role in shaping how mining activities are organized and sustained in certain locations.

#### ***7.4 Cultural Barriers to Enforcement***

In addition to economic arrangements, cultural and traditional practices can sometimes influence the interaction between mining communities and regulatory authorities. During the monitoring visits, stakeholders in some communities referenced the use of traditional cultural practices often associated with local “devil” societies or sacred customs, as a means of signaling community authority or controlling access to certain areas. In some instances, such practices may be invoked during periods of regulatory inspection or external intervention.

These cultural dynamics can create complex situations for regulatory authorities attempting to enforce compliance measures. While traditional institutions play an important role in community governance and cultural identity, their intersection with mining activities can sometimes complicate the enforcement of formal regulatory standards. Understanding these cultural dimensions is important for designing regulatory approaches that respect community traditions while still ensuring that environmental protection and legal compliance are upheld.

#### ***7.5 Rent-Seeking Vulnerabilities***

A recurring theme in discussions with miners and community members was the perception that interactions between mining operators and regulatory actors sometimes involve informal payments associated with inspection visits or compliance monitoring. Several stakeholders suggested that miners may occasionally pool financial resources in anticipation of regulatory visits from various institutions involved in overseeing mining activities. These accounts indicate a perception among some operators that regulatory engagement may involve informal financial expectations rather than strictly compliance-based enforcement.

It is important to note that such claims are difficult to verify through documentary evidence, as transactions of this nature, if they occur, are typically conducted informally and without written records. However, the frequency with which these perceptions were expressed during interviews highlights the governance vulnerabilities that can arise in contexts where oversight systems lack transparency and accountability mechanisms.

When regulatory processes are perceived as negotiable or inconsistent, mining operators may come to view informal payments as a routine operational cost rather than as a violation of regulatory standards. This dynamic can weaken public confidence in oversight institutions while reinforcing informal governance structures within mining communities.

## **8. Governance and Institutional Challenges**

The challenges facing Liberia’s artisanal and small-scale mining sector are not solely environmental or economic; they are fundamentally governance challenges. While the country has established legal frameworks and institutional structures intended to regulate mining activities, the monitoring exercise suggests that significant gaps exist between the formal regulatory framework and the realities of mining operations on the ground.

These gaps are particularly evident in remote mining regions where artisanal mining is expanding rapidly and regulatory institutions face logistical, institutional, and operational constraints. In such contexts, formal governance mechanisms are often supplemented - or in some cases replaced by informal systems that shape how mining activities are organized and managed. Addressing these governance challenges is critical if Liberia is to ensure that artisanal mining contributes to sustainable development while minimizing environmental harm and strengthening public trust in natural resource management.

### *8.1 Weak Enforcement Capacity*

One of the most significant institutional challenges affecting the governance of artisanal mining in Liberia is the limited enforcement capacity of regulatory institutions. Agencies responsible for monitoring mining activities, particularly the Ministry of Mines and Energy and the Environmental Protection Agency, often face considerable logistical and resource constraints when attempting to oversee operations in remote mining areas.

Many artisanal mining sites are located in regions with limited road infrastructure, difficult terrain, and long travel distances from administrative centers. As a result, routine monitoring visits can be infrequent, making it difficult for regulatory authorities to maintain consistent oversight of mining activities. In addition to logistical challenges, enforcement agencies may also face limited staffing, inadequate operational resources, and competing regulatory responsibilities across multiple sectors. These constraints can reduce the frequency of site inspections and weaken the ability of regulators to detect and respond to non-compliance in a timely manner. The result is an environment in which mining activities can expand rapidly with limited formal supervision, particularly in river systems where dredging operations are mobile and difficult to monitor continuously.

### *8.2 Regulatory Gaps*

While Liberia's Minerals and Mining Law provides an important foundation for regulating the sector, several regulatory gaps appear to affect the practical governance of artisanal mining activities. One of the most visible challenges relates to the distinction between artisanal and mechanized mining operations. As discussed in earlier sections of this report, field observations indicate that some mining operations conducted under Class C artisanal licenses now involve equipment and extraction methods that resemble mechanized small-scale mining.

The increasing use of dredging equipment within artisanal license areas highlights a regulatory challenge: the existing framework may not always provide clear operational guidance or enforcement mechanisms capable of addressing evolving mining technologies and practices.

In addition, the regulatory framework governing artisanal mining often focuses primarily on licensing requirements, while operational monitoring and environmental compliance mechanisms remain comparatively weak in practice. This imbalance can allow mining operations to maintain formal licensing status while operating in ways that diverge from the intended regulatory structure. Strengthening regulatory clarity and updating operational guidelines may therefore be necessary to ensure that the legal framework remains responsive to the changing realities of artisanal mining.

### *8.3 Lack of Licensing Transparency*

Transparency in licensing information is another important challenge affecting the governance of the artisanal mining sector. During the monitoring exercise, stakeholders frequently raised questions about which individuals or entities hold valid mining licenses within specific mining areas.

Access to comprehensive and publicly available licensing data remains limited, making it difficult for communities, civil society organizations, and even some government actors to verify whether specific mining operations are legally authorized. In areas where multiple operators are active along river systems, the absence of accessible licensing information can create confusion regarding who is responsible for particular mining activities.

Limited transparency also complicates efforts to monitor compliance with licensing conditions. Without clear visibility into the identity of license holders, regulators and communities may find it difficult to determine whether mining operations are being conducted in accordance with legal requirements. Improving transparency through publicly accessible licensing databases and clearer documentation of mining rights could significantly strengthen accountability within the sector.

#### ***8.4 Informal Compliance Systems***

In situations where, formal regulatory oversight is limited or inconsistent, mining communities often develop informal systems for managing mining activities. These systems may involve negotiations between miners, claim holders, community leaders, and other stakeholders who collectively influence how mining operations are organized within a given area.

Informal compliance systems may regulate aspects such as access to mining sites, payment arrangements, dispute resolution, and interactions with external actors. While these systems can provide a degree of local order within mining communities, they also operate largely outside formal legal frameworks.

The emergence of informal compliance systems reflects the adaptive responses of communities and mining operators to gaps in formal governance structures. However, these arrangements may also weaken accountability mechanisms and create opportunities for unequal power dynamics or financial arrangements that lack transparency. Over time, reliance on informal governance systems can further blur the distinction between regulated and unregulated mining activities, making it more difficult for regulatory institutions to assert authority and enforce environmental or operational standards.

### **9. Community Benefits – Myth vs Reality**

One of the most frequently cited justifications for the rapid expansion of artisanal and small-scale mining in rural Liberia is the assumption that mining activities generate economic benefits for host communities. In many mining areas, operators and intermediaries often point to periodic payments, employment opportunities, or small contributions to local leaders as evidence that mining activities support local development.

However, field monitoring conducted in Gbarpolu and Bong Counties suggests that the reality of community benefits is far more complex. While mining operations do generate financial flows within communities, these benefits are often informal, unstructured, and

unevenly distributed, raising important questions about accountability, transparency, and long-term community welfare. The contrast between informal payment arrangements and structured community agreements reveals a critical governance gap in how mining-related benefits are managed and shared within mining communities.

### *9.1 Informal Payments and Unstructured Contributions*

In many of the mining communities visited during the monitoring exercise, mining operators reported making periodic financial contributions to individuals within the community. These payments are often framed as gestures intended to maintain peaceful relations with local residents or to acknowledge the community's presence around mining areas.

Such payments may take the form of weekly contributions, occasional cash payments to local leaders, or small ad hoc donations during community events. While these contributions may create the perception that mining activities are benefiting the community, they are typically not governed by any formal agreements, written commitments, or transparent management structures.

As a result, there is often little clarity regarding how much money is being generated from these contributions, who is responsible for managing the funds, or how they are ultimately used for community purposes. In several communities visited during the monitoring missions, residents indicated that payments made by mining operators were often received by community leaders without formal records or public reporting mechanisms.

This lack of transparency can create tensions within communities, particularly when residents perceive that financial benefits associated with mining activities are not being distributed fairly or invested in community development priorities.

Moreover, informal payment systems tend to prioritize short-term transactional relationships between mining operators and community intermediaries rather than long-term investments in infrastructure, social services, or environmental restoration. As a result, the broader community may receive limited lasting benefits from mining activities even as the environmental and social costs of extraction continue to accumulate.

### *9.2 The Absence of Legally Binding Community Agreements*

Another important governance challenge is the absence of legally binding agreements governing the relationship between mining operators and host communities in many artisanal mining areas. Unlike large-scale mining concessions, which often require formal community development agreements or negotiated benefit-sharing arrangements, artisanal mining operations typically function without structured frameworks that define community benefits, environmental responsibilities, or dispute resolution mechanisms.

In practice, this means that mining activities may occur within or near communities without any formal commitments regarding how operators will contribute to local development or mitigate environmental impacts. The absence of structured agreements leaves communities vulnerable to uncertain and inconsistent benefit-sharing arrangements, often dependent on informal negotiations between operators and community leaders.

This situation highlights an important gap in Liberia's natural resource governance framework: while the legal structure for licensing mining activities exists, the mechanisms for ensuring equitable community benefits from artisanal mining remain largely underdeveloped.

### *9.3 Belleh Yallah Case Study: A Structured Community Agreement*

An important contrast to these informal arrangements can be observed in Belleh Yallah, where the monitoring team documented a more structured relationship between mining operators and the host community. In this case, community members indicated that mining activities were governed by an informal but structured memorandum of understanding (MOU) between the operators and the community leadership. The agreement outlines specific contributions that mining operators are expected to make to the community, including financial payments and support for certain local development priorities.

While the Belleh Yallah arrangement may not constitute a legally binding contract under national law, it represents an important example of how structured agreements can create greater clarity regarding community benefits and responsibilities. The existence of an agreed framework allows both the mining operators and community representatives to define expectations regarding financial contributions and operational conduct.

Residents in Belleh Yallah reported that the presence of a structured agreement has helped reduce misunderstandings between miners and the community while providing a clearer basis for discussing how mining activities should contribute to local development. This case illustrates how even modest forms of structured agreements can strengthen accountability and create more predictable benefit-sharing arrangements within artisanal mining contexts.

### *9.4 The Wider Governance Implications*

The contrast between informal payment systems observed in many mining communities and the more structured arrangements seen in Belleh Yallah highlights a broader governance challenge facing Liberia's artisanal mining sector.

Without transparent mechanisms for managing mining-related contributions, communities may receive fragmented and short-lived financial benefits, while the environmental and social costs of mining continue to accumulate over time. Informal payments may temporarily ease tensions between mining operators and local leaders, but they rarely translate into sustained community development outcomes. The absence of structured benefit-sharing frameworks also limits the ability of communities to hold mining operators accountable for environmental stewardship, social responsibilities, or long-term investments in community wellbeing.

Strengthening governance in the artisanal mining sector therefore requires moving beyond informal payment arrangements toward more transparent, participatory, and accountable systems for managing community benefits. Establishing clear guidelines for community agreements, improving record-keeping and transparency around mining-related contributions, and promoting inclusive community decision-making processes could help ensure that mining activities generate more meaningful and equitable benefits for host communities.

Ultimately, the question facing many mining communities is whether artisanal mining will remain a system of short-term transactional payments, or whether it can evolve into a more

structured framework that delivers lasting social and economic benefits alongside responsible environmental management.

## 10. Occupational Safety Crisis

While the environmental and governance implications of artisanal mining are often the most visible aspects of the sector, the monitoring exercise also revealed a serious and largely overlooked occupational safety crisis affecting miners themselves. Across several mining communities visited in Gbarpolu and Bong Counties, the conditions under which miners operate suggest that the human cost of artisanal mining is both significant and insufficiently addressed.

For many miners, particularly young men who migrate into mining areas seeking economic opportunity, the work environment is defined by physical risk, minimal safety protections, and the absence of formal labor safeguards. Mining activities are frequently conducted without protective equipment, structured safety procedures, or emergency response systems. Workers operate in conditions that expose them to the dangers of drowning, equipment accidents, hazardous substances, and long working hours under physically demanding conditions.

Despite these risks, miners typically function outside formal employment systems, meaning they have no access to insurance, compensation mechanisms, or occupational protections if accidents occur. As a result, injuries or fatalities associated with mining operations often remain unrecorded and unaddressed within formal labor or regulatory frameworks.

### *10.1 Absence of Personal Protective Equipment (PPE)*

One of the most immediate safety concerns observed during field visits was the widespread absence of basic personal protective equipment (PPE) among miners. Workers operating dredging equipment, handling sediment, and navigating unstable mining sites were rarely observed wearing protective gear such as helmets, gloves, boots, eye protection, or flotation devices. In river-based dredging operations, miners often stand on floating platforms or narrow wooden structures that shift with the movement of water and equipment. The absence of protective gear in such environments significantly increases the risk of injury or drowning if workers lose balance or if equipment malfunctions.

Beyond physical injuries, miners are also exposed to prolonged contact with contaminated sediment and potentially hazardous substances associated with gold processing. Without proper protective equipment, the long-term health implications of such exposure remain a significant concern.

### *10.2 Canoe and Dredging Platform Risks*

River-based mining operations rely heavily on **canoes and improvised floating structures** to transport workers, equipment, and extracted materials between dredging sites and riverbanks. During the monitoring visits, miners were frequently observed navigating these vessels without life jackets or other safety measures.

Canoes often carry multiple workers and heavy equipment across sections of river that are already destabilized by dredging activities. The presence of strong currents, uneven riverbeds, and floating dredging platforms further increases the risk of accidents.

In many cases, dredging platforms themselves appear to be constructed from temporary or improvised materials, raising questions about their structural stability. Workers standing on these platforms while operating suction hoses or managing processing equipment may face significant risks if platforms shift, collapse, or become unstable due to changes in river flow. The combination of unstable equipment, moving water, and the absence of basic safety precautions creates an environment in which accidents can occur quickly and with serious consequences.

### *10.3 Youth Labor and Economic Vulnerability*

The monitoring exercise also highlighted the dominant presence of young people within mining operations. In many of the sites visited, a large proportion of the workforce consisted of young men who had migrated from nearby communities or other counties in search of economic opportunities.

For many of these young workers, artisanal mining represents one of the few accessible income-generating activities available. The promise of immediate financial returns often outweighs concerns about safety risks or long-term environmental consequences.

However, the heavy reliance on youth labor within mining operations raises broader social concerns. Young workers frequently enter mining without formal training, without awareness of occupational hazards, and without access to protective equipment or structured supervision. Their participation in physically demanding and hazardous work environments exposes them to significant risks at an early stage of their working lives.

In addition, the economic dependence of young workers on mining activities may reduce incentives to pursue alternative livelihoods such as agriculture, vocational training, or education, potentially reinforcing cycles of economic vulnerability within mining communities.

### *10.4 Absence of Insurance and Emergency Response Mechanisms*

Perhaps the most troubling aspect of the occupational safety situation observed during the monitoring exercise is the complete absence of formal safety nets for miners in the event of accidents or injuries. Unlike workers in formal employment sectors, artisanal miners typically operate without any form of insurance coverage, health protection, or compensation mechanisms. If a worker is injured during mining operations, medical costs must often be borne by the individual, family members, or informal community support networks.

There are also few structured emergency response systems in place within mining areas. In the event of accidents such as drowning, equipment failure, or severe injuries, miners must often rely on improvised responses from nearby workers or community members. Access to medical facilities is frequently limited, particularly in remote mining locations where transportation infrastructure is poor. This lack of institutional support effectively leaves miners to bear the full burden of occupational risks associated with mining activities.

## 11. National-Level Risk Analysis

Although the most visible impacts of river-based artisanal mining are experienced within the immediate communities where extraction takes place, the implications of these activities extend well beyond local mining sites. The monitoring findings from Gbarpolu and Bong Counties suggest that the current expansion of dredging and mechanized artisanal mining is creating risks that are not only environmental and community-level in nature, but also increasingly national in significance.

What appears at first glance to be a localized problem of informal mining along rivers is, in reality, tied to broader national concerns relating to energy security, water systems, rural economic stability, and institutional credibility. As mining activities intensify in river corridors connected to larger watersheds, the consequences of weak regulation and environmental degradation begin to intersect with critical national infrastructure and long-term development goals. The significance of this issue therefore lies not only in the condition of the rivers themselves, but in the fact that these rivers are embedded in systems that support the country's economy, ecological resilience, and public welfare.

### *11.1 Mount Coffee Hydropower Risk*

One of the most important national-level concerns arising from the expansion of river-based mining is the potential risk posed to Liberia's hydropower infrastructure, particularly the Mount Coffee Hydropower Plant, which depends on the St. Paul River system. The St. Paul River is one of Liberia's most important river systems, and disturbances to its upstream tributaries, especially where sediment-heavy dredging activities are expanding may have implications for the broader hydrological stability of the river basin. Although the full technical relationship between upstream artisanal dredging and downstream hydropower performance requires further scientific assessment, the monitoring findings underscore a growing concern: continued sediment disturbance in upstream mining areas may contribute to long-term sediment accumulation and water quality changes within the broader river system. Hydropower systems depend on relatively stable water flow and manageable sediment levels. Excessive sediment loads can affect water intake systems, reservoir efficiency, and infrastructure maintenance requirements. In this sense, unregulated artisanal mining activities in upstream river systems have the potential to evolve from localized environmental disturbances into broader risks for national energy infrastructure.

At a time when Liberia continues to face significant energy access challenges, any activity that threatens the ecological stability of the river systems supporting power generation should be treated as a matter of strategic national concern.

### *11.2 Water System Risk*

The rivers affected by artisanal mining are not isolated environmental features; they form part of larger water systems that support domestic use, fisheries, ecosystems, downstream communities, and local economies. As dredging activities intensify, the cumulative impact on these water systems becomes increasingly significant.

Field observations documented severe turbidity, sediment displacement, and declining river usability in several locations. Communities reported that sections of rivers previously used for drinking, cooking, bathing, and washing are now heavily disturbed and less suitable for daily domestic use. This pattern raises serious concerns about the long-term sustainability of local water sources. The broader risk is that continued mining-related degradation may compromise not only local access to clean water but also the ecological function of connected watersheds. Sediment disturbed in one section of a river system may be transported downstream, affecting larger bodies of water, increasing erosion, and contributing to environmental stress beyond the immediate mining site.

In a country where many rural communities depend directly on surface water systems, the degradation of river quality is not simply an environmental issue - it is a public welfare issue. Water insecurity can deepen poverty, increase public health risks, and intensify local tensions over access to safe water sources.

### *11.3 Economic Dependency Risk*

The monitoring exercise also revealed a growing dependence of many communities, especially youth, on artisanal mining as a primary source of income. In several of the communities visited, stakeholders indicated that mining now offers quicker and more attractive financial returns than agriculture, fishing, or other traditional livelihood activities. While this shift may provide short-term economic relief for households facing limited employment opportunities, it also creates a deeper structural vulnerability: economic dependency on a highly volatile and largely informal extractive activity.

Gold prices fluctuate in response to global market forces that are beyond the control of miners and communities in Liberia. When local economies become increasingly dependent on mining income, they also become more exposed to sudden changes in market conditions. A fall in gold prices, a decline in accessible deposits, or disruptions to mining operations could have severe consequences for households that have reduced their reliance on farming, fishing, or other livelihood activities.

This dependency is particularly concerning where environmental degradation caused by mining is simultaneously undermining the very livelihoods that might otherwise provide alternatives. As fishing declines and agricultural land becomes degraded or abandoned, the local economy narrows further around mining itself.

The result is a pattern of economic concentration around a single extractive activity, which may be profitable in the short term but fragile in the long term. This weakens community resilience and increases vulnerability to future shocks.

### *11.4 Governance Erosion*

Perhaps the most profound national-level risk emerging from the monitoring findings is the gradual erosion of governance authority and institutional credibility within the artisanal mining sector. Where licensing distinctions are no longer consistently enforced, where mechanized operations expand under artisanal permits, where informal payment systems appear to shape operational realities, and where communities perceive regulation as inconsistent or negotiable, the rule-based governance of natural resources begins to weaken.

Governance erosion does not always occur dramatically. More often, it emerges gradually as formal systems lose ground to informal practices. When operators begin to rely more on local arrangements than on legal compliance, and when communities come to expect that enforcement can be mediated through informal relationships, the authority of institutions becomes progressively diluted.

This has implications far beyond the mining sites themselves. Natural resource governance is a central test of state legitimacy, particularly in a country where communities have long demanded that resource extraction deliver tangible and equitable benefits. If artisanal mining becomes a sector where legal categories are routinely blurred, environmental obligations weakly enforced, and accountability systems bypassed, it can reinforce wider public perceptions that natural resource governance remains vulnerable to informality, unequal influence, and selective enforcement. Over time, such perceptions can weaken trust in state institutions, reduce the credibility of regulatory frameworks, and make future reform efforts more difficult.

### **13. Policy Reform Roadmap**

The findings of this report point to a clear conclusion: the challenges associated with artisanal and small-scale mining in Liberia are no longer confined to questions of environmental disturbance alone. They now reflect a deeper governance problem involving weak enforcement, blurred licensing categories, informal financial systems, fragile community accountability, and growing national risks to water systems and public infrastructure.

For this reason, reform cannot be approached through isolated measures or temporary crackdowns. What is required is a sequenced and coherent reform agenda that addresses immediate governance failures while laying the foundation for longer-term institutional strengthening and ecological recovery. Any effective response must recognize the reality that artisanal mining remains an important livelihood activity for many rural households, even as it presents serious environmental and governance risks. The objective, therefore, is not to eliminate artisanal mining, but to bring it under a more credible, transparent, and sustainable framework of governance. The policy roadmap proposed below is organized around immediate, medium-term, and long-term priorities, reflecting the need for a phased response that combines urgent enforcement with structural reform.

#### ***Immediate Priorities***

The first priority must be to restore a basic degree of regulatory credibility in the sector. At present, one of the most damaging features of the current system is the widening gap between the legal framework and the realities of mining practices on the ground. In particular, the continued use of mechanized dredging equipment within areas reportedly operating under Class C artisanal licenses undermines both the integrity of the licensing regime and the environmental safeguards intended to protect river systems.

Immediate action should therefore focus on halting clearly unlawful mechanized operations in artisanal zones, especially where dredging is occurring directly within active river channels. This requires targeted inspections in high-intensity mining corridors, accompanied by clear public communication from the Ministry of Mines and Energy and other relevant agencies regarding the legal distinction between Class C and Class B operations. At the same time, there is an urgent need to improve transparency in licensing information. The absence

of publicly accessible and up-to-date records on who holds mining licenses, where those licenses apply, and what category of operation is authorized creates fertile ground for confusion, abuse, and weak oversight. A basic, accessible licensing registry should therefore be treated as an immediate governance priority.

Another critical short-term priority is to strengthen oversight of informal payment systems and community-level financial arrangements linked to mining operations. While many of these arrangements are difficult to regulate directly in the short term, the government and its partners can begin by promoting minimum standards of transparency in mining-affected communities, including the recording and public disclosure of payments made by operators to local structures. Immediate measures should also include the launch of occupational safety awareness interventions in active mining zones. Even where broader regulatory reforms take time, there is no justification for allowing miners, especially young workers, to continue operating in river systems without any basic safety education, flotation devices, or emergency preparedness guidance. In short, the immediate phase of reform should focus on three things: restoring legal boundaries, improving transparency, and reducing the most immediate environmental and human risks.

### *Medium-Term Priorities*

Once immediate stabilization measures are initiated, attention should turn to building a stronger institutional framework for governing the sector in a more systematic and sustainable way.

A central medium-term priority should be the development of a national formalization strategy for artisanal and small-scale mining. At present, many mining operators function within a grey zone, licensed in principle, but operating in ways that diverge from the legal category under which they are registered. This ambiguity undermines enforcement and leaves miners, communities, and regulators operating within a system that is both fragile and inconsistent.

Formalization should not be understood merely as registration; it should involve the creation of a more realistic and enforceable framework that aligns licensing categories with actual operational practices. This may require the review of current licensing thresholds, clearer guidance on permissible technologies, and stronger conditions tied to environmental and safety compliance.

Related to this is the need for mobile licensing and compliance support mechanisms. Many mining communities are geographically remote and poorly served by regular government presence. Rather than relying solely on centralized regulatory structures, medium-term reform should include periodic field-based licensing clinics, compliance education visits, and structured community engagement processes that make the formal regulatory framework more accessible to miners and communities alike.

Another major medium-term priority is the introduction of environmental bonds, reclamation obligations, or equivalent restoration guarantees for operations that disturb river systems or open significant excavations. At present, one of the most visible failures in the sector is the pattern of extraction without rehabilitation. Riverbeds are disturbed, sediment is displaced,

pits are abandoned, and land is left degraded without any structured obligation to restore it. A more effective regulatory system must ensure that those who profit from extraction also bear some responsibility for environmental rehabilitation.

Medium-term reform should also address the current weakness of community benefit governance. Informal payments and ad hoc contributions should gradually be replaced by more structured and transparent frameworks for community engagement. This includes the development of a standardized template for community agreements or benefit-sharing arrangements, particularly in areas where mining is sustained, organized, and generates significant economic returns. The experience of Belleh Yallah suggests that even modest forms of structured agreement can improve clarity and reduce disputes. This principle should be institutionalized more broadly.

Finally, medium-term reform must include stronger institutional coordination among the Ministry of Mines and Energy, the Environmental Protection Agency, county authorities, and transparency institutions such as LEITI. At present, fragmented mandates and inconsistent field presence contribute to a governance environment in which no single institution appears to exercise comprehensive oversight over what is happening in mining corridors. Without better coordination, reforms in one part of the system are likely to be weakened by inaction in another.

### *Long-Term Priorities*

The long-term challenge is to ensure that Liberia's response to artisanal mining goes beyond compliance management and begins to address the deeper structural conditions that have driven the current crisis.

One major long-term priority is the development of a river basin protection and restoration strategy, particularly for vulnerable watersheds such as the Tuma River Belt and the St. Paul River Basin. The current pattern of sediment disturbance, fisheries decline, and water degradation cannot be addressed solely through site-by-site enforcement. It requires a broader ecological governance approach that recognizes rivers as interconnected systems linked to local livelihoods, downstream communities, and national infrastructure such as the Mount Coffee Hydropower Plant.

Such a strategy should include watershed monitoring, restoration of degraded riverbanks, reclamation of abandoned mining areas, and clearer legal protections for ecologically sensitive river systems. It should also involve stronger integration between mining policy and national water resource governance.

A second long-term priority is the creation of alternative livelihood pathways for young people in mining-affected communities. One of the strongest drivers of the current expansion of artisanal mining is the lack of viable economic alternatives. As long as youth unemployment remains high and agriculture is perceived as less profitable than gold extraction, the pressure on river systems will continue. Long-term reform must therefore include investments in youth employment, rural enterprise development, agricultural

revitalization, and vocational opportunities that reduce the overwhelming economic pull of informal mining.

A third area for long-term reform is legal and regulatory modernization. The evidence documented in this report suggests that existing frameworks are struggling to keep pace with the changing realities of artisanal mining, particularly in relation to mechanization, dredging technologies, and informal operational structures such as claim-holder arrangements. Over time, Liberia may need to review and strengthen its legal provisions to clarify what forms of mechanization are permissible, how small-scale operations should be classified, and what specific governance obligations should apply to river-based mining.

Finally, long-term reform must aim at rebuilding public trust in natural resource governance. This is perhaps the most important challenge of all. Communities must be able to see that mining is governed by rules rather than by informal influence, that environmental harm is taken seriously, and that the benefits of natural resource extraction are not captured by narrow interests. Without such trust, even technically sound reforms may struggle to gain traction.

## **14. Conclusion**

The findings presented in this report paint a picture of a sector at a crossroads. Artisanal and small-scale mining in Liberia has long served as a livelihood strategy for rural communities seeking economic survival in contexts where formal employment opportunities remain limited. For many young people, mining offers a rare opportunity to earn immediate income and support their families. In this sense, artisanal mining cannot simply be understood as an environmental problem; it is deeply embedded in the socio-economic realities of rural life.

Yet the evidence gathered through field monitoring in Gbarpolu and Bong Counties demonstrates that the character of artisanal mining is changing in ways that raise profound environmental, governance, and national development concerns. The expansion of dredging operations within river systems, the growing use of mechanized extraction methods under artisanal licenses, and the emergence of informal financial and governance networks suggest that the sector is evolving faster than the institutions designed to regulate it.

Rivers that once sustained fishing, domestic water use, and ecological balance are increasingly being transformed into extraction corridors. Sediment disturbance, declining fish populations, degraded landscapes, and unsafe working conditions reveal the human and environmental costs of mining activities that occur largely outside effective oversight. These impacts are not confined to individual mining sites; they ripple outward into surrounding communities and, in some cases, into river systems that support national infrastructure and water resources.

Equally concerning are the governance vulnerabilities that appear to accompany this expansion. The widening gap between licensing categories and actual operational practices, the limited transparency surrounding mining licenses, the prevalence of informal payment systems, and the perceptions of weak regulatory enforcement collectively point to a governance framework under strain. When formal systems lose their ability to shape behavior on the ground, informal arrangements often fill the vacuum, sometimes in ways that weaken accountability and public confidence in natural resource management.

At the same time, the report highlights the complex social dynamics surrounding mining communities. Many residents recognize both the benefits and the costs of mining. While the sector generates income for miners and local actors, the distribution of those benefits is often uneven, and the environmental consequences are borne collectively by communities whose rivers and landscapes sustain their daily lives.

The central question, therefore, is not whether artisanal mining should exist in Liberia. It already does, and for many communities it represents an essential livelihood. The more urgent question is whether the country can govern this sector in a way that balances economic opportunity with environmental protection, institutional accountability, and long-term community wellbeing.

Addressing this challenge will require a coordinated response that strengthens regulatory enforcement, improves transparency in licensing and community benefits, and invests in sustainable livelihood alternatives for young people who currently depend on mining as their primary source of income. It will also require greater recognition that river systems are not simply sites of extraction but critical ecological assets whose health affects communities far beyond the immediate mining zones.

Liberia's natural resources have long been central to the country's development narrative. The experience of artisanal mining in the river corridors examined in this report serves as a reminder that the true value of these resources cannot be measured only in the gold extracted from riverbeds. It must also be measured in the health of ecosystems, the stability of communities, and the credibility of institutions responsible for stewarding the country's natural wealth. If the lessons emerging from these communities are taken seriously, they present an opportunity, not only to address the immediate challenges of artisanal mining, but also to strengthen the broader foundations of transparent, accountable, and sustainable natural resource governance in Liberia.