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DIAGNOSTIC ASSESSMENT OF GOVERNANCE, SECURITY, AND CONFLICT RISKS IN SMALL-SCALE GOLD MINING ZONES

IN THE WEST GONJA, BOLE AND SAWLA-TUNA-KALBA DISTRICTS (SAVANNAH REGION)

GOLD FOR GOOD BASELINE STUDY SERIES

TECHNICAL REPORT 1 OF 3

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FOREWORD

Gold has come late to the Savannah Region, and it has come quickly. What was, a decade ago, a landscape defined by farming, shea and livestock is now one in which pits and crushers sit alongside fields, forest reserves and the Black Volta. That speed is the essential fact behind these three studies. It has outrun the region's regulatory institutions, its land administration systems and its security architecture; and it has outrun the evidence base on which any of them might act.

For too long, research and policy attention on Ghanaian artisanal and small-scale mining (ASM) has concentrated on the long-established mining landscapes of the south. This has left a critical gap in evidence for the north, and in particular for the West Gonja, Bole and Sawla-Tuna-Kalba districts, precisely where the intersection of resource extraction, fragile institutions and regional insecurity carries the highest stakes. The three baseline studies introduced by this foreword were commissioned by the Gold for Good (G4G) project to close that gap.

Gold for Good, funded by the European Union under NDICI Crisis Response (FPI/2025/488-718 – PC69961) and implemented by Association Coginta, pursues an integrated and inclusive model of ASM governance that brings together institutional strengthening, environmental protection and rehabilitation, market formalisation and value-chain improvement, conflict-sensitive security governance, and inclusive local development. The project's working premise is that ASM in these districts cannot be governed sector by sector. A patrol post sited without reference to migration corridors will police the wrong road. A rehabilitation programme designed without reference to household income will restore land that people will come back to and remine. They will not leave the land alone. A licensing reform that ignores customary tenure will be complied with only where the state is watching, because the authority that actually allocates land will not have consented to it.

Three studies, one evidence base

The first study, a *Diagnostic Assessment of Governance, Security and Conflict Risks in ASM Zones*, led by Prof. Ebenezer Owusu-Sekyere, maps ASM communities and site typologies, examines the statutory and customary systems that regulate them, and identifies the drivers of conflict and the security threats emerging in the zone. It documents a landscape of largely unlicensed operations, overlapping and contested institutional mandates, and conflict pressures sharpened by the region's proximity to active cross-border insecurity.

The second study, a *Socio-economic Profiling and Mapping of ASM Sites*, led by Prof. Paul Kwame Nkegbe, builds a demographic and livelihood portrait of mining communities and their non-mining neighbours. It traces economic organisation and specialisation along the value chain, analyses land ownership and tenure arrangements at mining sites, and follows the labour mobility and gold-trading networks that connect the corridor to markets and to countries beyond Ghana's borders.

The third study, an *Ecological and Health Risk Assessment of ASM Sites and Identification of "No-Go" Areas*, led by Dr Dzigbodi Adzo Doke, quantifies the environmental and public-health consequences of mining and delineates areas where mining should not occur. Drawing on water, soil and biological sampling, probabilistic health-risk modelling and ecological survey, it finds measurable heavy-metal contamination and serious occupational hazards, while offering an important note of hope: because much mining remains localised surface activity, substantial opportunities for ecological restoration still exist.

The three assessments were conducted independently by separate expert teams, using distinct methods and answerable to distinct disciplinary standards. They were not, however, conceived independently. They share a geography, a set of study communities and a common set of questions, and they were designed as three lenses on one corridor rather than three separate enquiries that happen to fall within the same district boundaries. That shared design is what this foreword records, and it is why the same foreword appears in each of the three volumes.

An integrated reading

Although each study stands on its own, their fuller value lies in being read together, and the most reliable findings in this series are those that emerge in more than one volume, arrived at by different means. Three such convergences deserve particular emphasis.

The first concerns land and protected areas. The socio-economic profiling establishes that mining in this corridor is taking place at sites that are too close and some even inside the Yerada Forest Reserve, and along the fringes of the Bui National Park. Approaching the same landscape through an entirely different method, the ecological and health risk assessment reaches a compatible conclusion — that encroachment on forest reserves, rather than proximity to water, is the dominant driver of composite environmental risk across the mapped sites. Read alongside the governance assessment's account of contested and overlapping institutional mandates, the implication is uncomfortable but clear: the areas under greatest ecological pressure are also those where regulatory authority is least settled.

The second concerns contamination and who bears it. The ecological and health risk assessment finds cadmium above international guideline values in every soil sample analysed and mercury in the great majority, with probabilistic modelling indicating that a substantial share of child exposure scenarios exceeds acceptable non-carcinogenic thresholds — a markedly higher share than for adults. That finding acquires its full weight only when placed beside the socio-economic profiling, which documents the settlement patterns, household composition and dependence on mining income that determine which children live on that soil and

why their families are unlikely to move. Environmental risk in this corridor is not evenly distributed, and it is not freely avoidable.

The third concerns mobility and the border. The governance assessment records that migrant miners from Burkina Faso, Côte d'Ivoire, Mali and Nigeria outnumber local miners at several sites, while the socio-economic profiling maps the labour and gold-trading networks along which those movements run. Together they describe an economy that does not stop at the national boundary — a fact of direct consequence for how border security in this corridor is conceived, and one that a study confined to any single district, or to any single discipline, could not have established.

Governance weaknesses enable the informality that drives environmental harm; environmental degradation and health risk erode the very livelihoods the socio-economic profile documents; and competition over land, water and gold feeds the conflict dynamics that threaten community stability and regional security. A companion synthesis report draws these threads together in detail, but readers of any single volume are encouraged to hold the others in view, for the challenges described here are, in reality, one interconnected challenge.

From evidence to action

These are baseline studies, and their purpose is operational. Their findings feed directly into the project's activity chain:

- **Joint border patrol post siting** draws on the governance assessment's conflict hotspot mapping and the socio-economic profiling's migration and trading-network analysis, so that posts are placed where movement actually occurs rather than where the map suggests it should.
- **Land rehabilitation prioritisation** draws on the ecological and health risk assessment's no-go delineation and site risk classification, together with the socio-economic profiling's findings on land tenure, so that rehabilitation is directed to sites that are both ecologically critical and institutionally feasible to secure.
- **Inter-agency training for security and environmental enforcement agencies** draws on the governance assessment's analysis of institutional mandates, so that training addresses the specific overlaps and gaps identified rather than generic capacity deficits.

The findings presented here were reviewed by regional stakeholders at the Gold for Good Regional Validation Workshop held in Damongo from 14 to 17 July 2026, where district assemblies, traditional authorities, regulatory agencies, security services and mining community representatives examined the evidence and contributed to the selection of priority sites.

Limitations held in common

Three constraints apply across the series and are stated here once, so that each volume need not rephrase them separately. The studies were conducted within a single field season and therefore capture a seasonal snapshot of activity known to fluctuate with the agricultural calendar and with rainfall. Sampling in the mining communities was purposive rather than probabilistic, reflecting the absence of any reliable population register for a largely informal and highly mobile workforce; the findings characterise the sites studied and should be extrapolated with care. And access to some locations was shaped by prevailing security conditions and by the willingness of operators to be observed, which introduces a known direction of bias in the documentation of unlicensed operations and of child labour. None of these constraints is unusual in ASM research, and none unsettles the convergent findings described above — but readers should hold them in view.

Acknowledgements

We record our thanks to the lead and national experts and their teams, whose rigour produced these assessments; to the Savannah Regional Coordinating Council and the Savannah Regional Minister; to the District and Municipal Assemblies of West Gonja, Bole and Sawla-Tuna-Kalba; to the Yagbonwura and the traditional authorities of the Gonja Kingdom; to the Minerals Commission, GoldBod, the Environmental Protection Authority, the National Security Coordinating Secretariat and the security services; and to colleagues at Coginta headquarters in Geneva, in particular Anne Moltes, Victoria Walker and Hervé Gonsolin, for their review throughout.

Our principal debt is to the miners, farmers, traders, chiefs, women's groups and young people across the three districts who gave generously of their time and spoke candidly about work that is often conducted at the edge of legality. This series exists because they were willing to be counted.

Together, these studies provide the first integrated, district-level evidence base on ASM in the Savannah Region. They are intended to serve regulators, traditional authorities, security agencies, mining actors, development partners and the communities themselves as a shared foundation for more inclusive, peaceful and sustainable mining governance. The ambition that gives the project its name, that gold might be turned to good rather than becoming a curse, depends on exactly this: honest evidence, applied with care. It is our hope that the evidence assembled here will be matched by the collective will to act upon it.

Bole, Savannah Region, Ghana — July 31, 2026

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EXECUTIVE SUMMARY

The study applies four complementary analytical lenses: Political Economy Analysis, Conflict Sensitivity and Do No Harm Analysis, Climate–Security Nexus Analysis, and Gender and Social Inclusion Analysis within a multi-method design. It combines a desk review of more than 74 laws, policies and institutional mandates; key informant interviews with regulators, traditional authorities and miners; focus group discussions with miners, women and youth; and GIS mapping, ground-truthing and photographic documentation of mining sites. Informed consent, confidentiality and cultural sensitivity were maintained throughout.

Four typologies dominate: shallow pit mining (the "ghetto method"), reaching depths equivalent to seven electricity poles over four to six months; surface excavation (the "toface method"), undertaken largely by women; increasingly mechanised ore crushing, washing and alluvial mining using Changfan engines, which is degrading the Black Volta; and tailings reprocessing ("overs"), dominated by women and foreign nationals. Migrant miners from Burkina Faso, Côte d'Ivoire, Mali and Nigeria outnumber local miners at several sites; youth form the primary labour force but are excluded from governance; and child labour is visibly present but undocumented.

Despite robust laws and institutions, formal governance is critically weak. Stakeholders ranked political interference — the "big man from Accra syndrome" — as the single greatest constraint, compounded by insufficient vehicles, motorbikes and speedboats for river monitoring, fragmented inter-agency coordination that enables forum shopping, interference by traditional and opinion leaders, and weak enforcement that signals violations carry low consequences. In this vacuum, community-led governance has emerged with high legitimacy and effectiveness: traditional leaders serve as apex authority over land access and dispute resolution; committees allocate pits, enforce rules and collect levies; ethnic chiefs manage migrant conduct; and sponsors, machine owners, gang leaders, youth groups, women leaders and welfare schemes structure daily operations. However, women, youth and migrants — the primary labour force — are systematically excluded from land allocation, dispute resolution and security structures. Sawla-Tuna-Kalba represents an exception and, more importantly, a source of greater concern. Until recently, when media reports drew attention to the pollution of the Black Volta resulting from ASM activities, the issue had not featured prominently on the agenda of the District Security Council (DISEC). This limited attention to ASM-related activities reflects a critically weak governance framework within the district for monitoring, regulating, and managing the sector.

This publication is the first of three complementary diagnostic assessments produced under the Gold for Good project, funded by the European Union and implemented by Coginta. Together, the three studies provide an integrated evidence base on artisanal and small-scale mining (ASM) in Ghana's Savannah Region by examining (i) governance, security and conflict dynamics, (ii) the socio-economic profile of ASM communities, and (iii) environmental and public health risks. A companion synthesis report brings their findings together to inform more inclusive, peaceful and sustainable ASM governance.

Background

Artisanal Smale-Scale Mining (ASM) in Ghana supports over one million livelihoods and contributes about 40 per cent of national gold output, yet an estimated 70 per cent of operations are unlicensed. Existing research has concentrated almost exclusively on southern Ghana, leaving a critical geographical and thematic gap in the Savannah Region — a gap made more consequential by the region's borders with Burkina Faso and Côte d'Ivoire, where active insurgencies persist. This diagnostic assessment was commissioned to close that gap. Its overarching aim is to investigate the governance, security and conflict risks associated with ASM in the Bole and Sawla-Tuna-Kalba Districts, through four objectives: mapping ASM communities and sites; examining governance systems and gaps; identifying security threats, conflict hotspots and drivers; and providing policy recommendations.

Methods

The study applies four complementary analytical lenses — Political Economy Analysis, Conflict Sensitivity and Do No Harm Analysis, Climate–Security Nexus Analysis, and Gender and Social Inclusion Analysis — within a multi-method design. It combines a desk review of more than 74 laws, policies and institutional mandates; key informant interviews with regulators, traditional authorities and miners; focus group discussions with miners, women and youth; and GIS mapping, ground-truthing and photographic documentation of mining sites. Informed consent, confidentiality and cultural sensitivity were maintained throughout.

ASM Sites and Typologies

The assessment identified 22 mining communities in Bole and three in Sawla-Tuna-Kalba, all situated along the Black Volta, with most operations unlicensed. While the study initially targeted the West Gonja, Bole, and Sawla-Tuna-Kalba districts of the Savannah Region, preliminary field engagements with the District Assemblies, traditional authorities, and community leaders established that there were no active artisanal and small-scale mining (ASM) activities in West Gonja District. As a result, the empirical analysis and discussion are confined to Bole and Sawla-Tuna-Kalba districts, where active ASM operations were confirmed. Four typologies dominate: shallow pit mining (the "ghetto method"), reaching depths equivalent to seven electricity poles over four to six months; surface excavation (the "toface method"),

undertaken largely by women; increasingly mechanised ore crushing, washing and alluvial mining using Changfan engines, which is degrading the Black Volta; and tailings reprocessing ("overs"), dominated by women and foreign nationals. Migrant miners from Burkina Faso, Côte d'Ivoire, Mali and Nigeria outnumber local miners at several sites; youth form the primary labour force but are excluded from governance; and child labour is visibly present but undocumented. Critical demographic data — site populations, age, origin, education, ethnicity and hazard exposure — are absent everywhere. Alluvial mining along the Black Volta intensifies in the dry season, coinciding with peak water scarcity and creating a clear climate–security nexus.

Governance Systems and Gaps

Despite robust laws and institutions, formal governance is critically weak. Stakeholders ranked political interference — the "big man from Accra syndrome" — as the single greatest constraint, compounded by insufficient vehicles, motorbikes and speedboats for river monitoring, fragmented inter-agency coordination that enables forum shopping, interference by traditional and opinion leaders, and weak enforcement that signals violations carry low consequences. In this vacuum, community-led governance has emerged with high legitimacy and effectiveness: traditional leaders serve as apex authority over land access and dispute resolution; committees allocate pits, enforce rules and collect levies; ethnic chiefs manage migrant conduct; and sponsors, machine owners, gang leaders, youth groups, women leaders and welfare schemes structure daily operations. However, women, youth and migrants (the primary labour force) are systematically excluded from land allocation, dispute resolution and security structures. Sawla-Tuna-Kalba is the exception and the greater concern: it exhibits a full governance vacuum, with no district oversight, no informal community structures, no environmental monitoring, and mining conducted secretly at night by outsiders — leaving regulators without situational awareness or any baseline for future formalisation.

Conflict Drivers and Security Threats

Conflict typologies include inter-community disputes over gold-rich land (Wakawaka–Sakpa; Banda Nkwanta–Nouyiri), clashes between ASM operators and large-scale firms over overlapping concessions (Tuntumba, Dollar Power), intra-gang disputes over proceeds, and confrontations between miners and forest guards over reserve encroachment. Cross-border threats are acute: territorial contestation along the Ghana–Côte d'Ivoire border, deliberate manipulation of boundary pillars to access gold-bearing land, porous entry points along the Black Volta facilitating smuggling and illicit mineral trade, migration networks carrying a risk of extremist infiltration, and communication deficits that delay security reporting. Within communities, small arms proliferation, armed robbery, narcotics, gambling and syndicated youth gangs compound insecurity. Communities have responded with informal, often armed and spiritually fortified security groups

operating patrols and checkpoints — many members carrying pump-action or single-barreled weapons without formal training, raising serious concerns over accountability, use of force and escalation. Early warning exists but is informal, personality-dependent and unsupported by any data; conflict resolution blends customary and formal systems effectively, though coercive sanctions such as whipping and banishment raise human rights concerns. Horizontal social cohesion within mining communities is strong, while vertical cohesion between communities and state institutions remains weak.

Conclusion

ASM in the Savannah Region can no longer be understood solely through a livelihood or environmental lens. The convergence of potential transnational crime, border porosity, arms proliferation and extremist infiltration risk has elevated ASM to a strategic national security challenge requiring urgent, coordinated intervention. At the same time, top-down regulation alone will not deliver results: the legitimacy, knowledge and adaptive capacity of community-based governance systems must be combined with the authority of state institutions in a co-created model. This assessment provides the evidence base for that shift and a baseline against which progress in the three districts can be measured.

Recommendations

The DISECs should map ASM sites, conflict hotspots, border corridors, environmental risks, and vulnerable groups, supported by a GIS-based ASM security and vulnerability database for evidence-based planning. ASM communities should be equipped with secure reporting mechanisms linked to DISEC, while high-risk areas should have appropriately resourced response hubs to enable early detection, verification, and timely intervention. ASM communities should establish inclusive committees linked to DISEC to support dialogue, mediation, grievance resolution, and conflict prevention, with meaningful representation of traditional authorities, women, youth, miners, and security actors. The Minerals Commission should improve the transparency and efficiency of ASM formalisation, while Ghana should strengthen intelligence sharing and coordinated risk management with Burkina Faso and Côte d'Ivoire along ASM-affected border corridors. Finally, development partners, and civil society should implement targeted livelihood-diversification programmes for vulnerable youth and women, combining vocational skills, entrepreneurship, access to finance, and viable local economic opportunities.

ABBREVIATIONS

ASM	Artisanal and Small-Scale Mining
CSO	Civil Society Organisation
DA	District Assembly
DCE	District Chief Executive
DHS	Demographic Health Survey
DISEC	District Security Committee
DMC	District Mining Committee
EPA	Environmental Protection Agency
EU	European Union
EWER	Early Warning and Early Response
FC	Forestry Commission
FDP	Forcibly Displaced Population(s)
FGD	Focus Group Discussion
GhBC	Ghana Boundary Commission
GIS	Geographic Information System
GNASSM	Ghana National Association of Small-Scale Miners
GPS	Global Positioning System
KII	Key Informant Interview
LI	Legislative Instrument
LPC	Local Peace Committee/Council
MC	Minerals Commission
MDA	Municipal and District Assembly
MESTI	Ministry of Environment, Science, Technology and Innovation
MLNR	Ministry of Lands and Natural Resources
MMDA	Metropolitan, Municipal, and District Assembly
MMIP	Multilateral (Multi-Sectoral) Mining Integrated Project



MoFA	Ministry of Food and Agriculture
MTDP	Medium-Term Development Plan
MWRWH	Ministry of Water Resources, Works and Housing
NAIMOS	National Anti-Illegal Mining Operations in Ghana
NDPC	National Development Planning Commission
PMMC	Precious Minerals Marketing Company
PNDCL	Provisional National Defence Council Law
PVE	Preventing Violent Extremism
SRPC	Savannah Regional Peace Council
SSM	Small-Scale Mining
STK	Sawla-Tuna-Kalba (District)
TOR	Terms of Reference
UDS	University for Development Studies
UKGGP	UK-Ghana Gold Programme
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
VSLA	Village Savings and Loan Association
WANEP	West Africa Network for Peacebuilding
WRC	Water Resources Commission

Artisanal and small-scale mining (ASM) in Ghana, while a critical source of livelihood (supporting over 1 million people and contributing 40% of national gold output), is largely informal (70% unlicensed), leading to significant governance, security, and environmental conflicts.

1. INTRODUCTION

1.1 The National context of ASM in Ghana

One major subsector that contributes significantly to job creation in rural Ghana is small-scale mining (Mabe, Owusu-Sekyere, and Adeosun, 2021). Small-scale gold mining (SSM) accounts for approximately 40% of Ghana's total gold output, according to the Minerals Commission's 2023 report, and supports over 1 million direct and indirect livelihoods. However, the same report indicates an estimated seventy percent of SSM activities remain unlicensed, operating under the local term galamsey, which loosely translates to "gather and sell." Artisanal gold mining, deeply rooted in Ghana's history before the advent of mechanised large-scale operations, was traditionally community-managed under customary laws (Yakovleva & Vázquez-Brust, 2017). However, the contemporary landscape of small-scale and artisanal mining in Ghana is characterized by a complex interplay of formal and informal practices, often leading to conflicts over land and resources (Mabe, Dauda, and Owusu-Sekyere, 2023). These conflicts frequently stem from the spatial overlap between artisanal mining sites and large-scale concessions, a situation exacerbated by historical rezoning and the expropriation of traditional mining lands (Mensah, 2021). The conflict landscape is severe: the West Africa Network for Peacebuilding has recorded over two hundred ASM-related violent incidents since 2020 in Ghana, ranging from small-scale skirmishes to fatal shootings. The legal framework governing this sector includes the Minerals and Mining Act of 2006, as amended, and an ASM formalisation policy introduced in 2021 (Mabe, Dauda, Owusu-Sekyere, 2023).

Existing studies on artisanal and small-scale mining (ASM) in Ghana have predominantly focused on the southern forest zones, largely overlooking the long-standing ASM activities in the northern regions. For example, Adu-Baffour et al. (2021) examined regulatory frameworks and policies specifically within southern Ghana's ASM sector. Other studies have explored the intersection of mining with agriculture (MOFA, 2018), water resources (MSWR, 2007), socio-economic development (NDPC, 2021), and land degradation (MLNR, 1999). However, these works pay minimal attention to the ASM context in Northern Ghana.

This gap is further reinforced by recent state-commissioned reports, including the 2026 Ghana Mining Report and the April 2026 report of the Ministerial Working Committee on Illegal Mining. These documents devote considerable attention to the situation in the south's forest areas, while discussing ASM activities in the north only briefly. Where attempts have been made to examine northern dynamics, the focus has been limited to a few locations in the Upper East and Upper West Regions, thereby relegating the Savannah Region, where ASM activities have persisted for over fifty years, to the background. Such neglect risks sidelining the Savannah Region in terms of policy recognition and targeted interventions.

This oversight is particularly concerning given the region's unique geographical position. The Savannah Region shares borders with both Burkina Faso and Côte d'Ivoire, countries with significant insurgent activity. This strategic location makes it imperative that the region be placed firmly on the radar of any comprehensive study of ASM in Ghana.

1.2 Savannah region in context

Across Ghana's Savannah Region, the rapid expansion of artisanal and small-scale mining (ASM) in Bole and Sawla-Tuna-Kalba districts (Figure 1) has outpaced the capacity of state institutions to regulate, support, or secure the sub-sector.

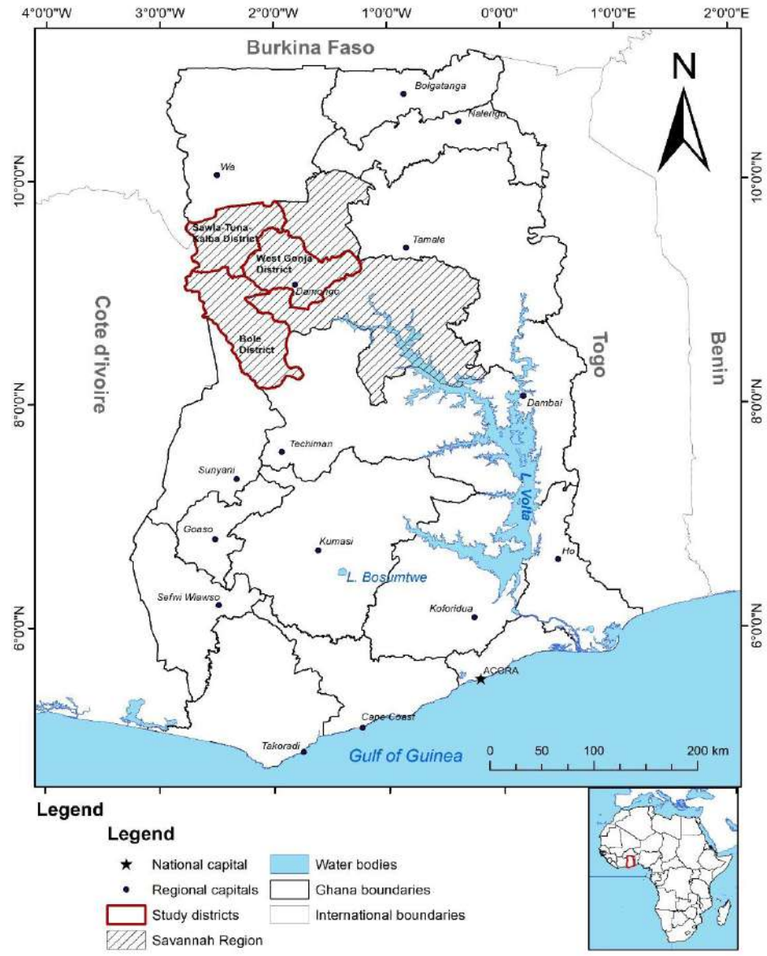


Figure 1: A map of Ghana showing the selected districts for the project

Despite ASM providing direct or indirect livelihoods for an estimated 15,000 people in these three districts alone, the sector operates almost entirely in the shadows. There exists no comprehensive registry of who is mining, where they are mining, under what conditions, or with what consequences for human safety and community stability. This invisibility is not a neutral gap; it is a driver of chronic policy failure, environmental harm, and preventable conflict.

The most immediate consequence of this data void is socio-economic vulnerability. Without formal recognition or documentation, ASM workers, including a significant proportion of women and children, remain excluded from labour protections, health services, and alternative livelihood programs. Child labour is visibly present at many sites, yet without disaggregated demographic data, social protection agencies cannot target interventions. Furthermore, because no official profile exists, legitimate miners are indistinguishable from transient or illegal operators, making it impossible for the Minerals Commission to issue community mining permits or for district assemblies to collect appropriate royalties.

Equally pressing is the security dimension. The target districts share borders with remote forest reserves. Unregistered ASM sites in these areas have become nodes for smuggling, not only of gold but also of firearms and controlled substances. Local police and immigration officials report recurring incidents of extortion, nighttime robbery, and land-use violence, yet they lack any geospatial baseline to map crime hotspots or allocate patrols effectively. In several communities, informal militias have emerged to “protect” claims, leading to armed clashes between groups and, on occasion, with traditional landowners. Because no security audits of ASM sites has ever been conducted, early warning systems remain blind to emerging flashpoints.

Compounding these human and security crises is a deepening deadlock in land governance. The absence of mapped boundaries means that ASM operations encroach on areas not permitted by law. Chiefs and land committee members report being unable to mediate disputes because they lack authoritative maps showing which sites are active, who claims them, and their environmental footprint. Consequently, farmer-herder-miner conflicts that could be resolved through spatial planning instead escalate into protracted chieftaincy or ethnic tensions. The dry season, when water levels drop and mining intensifies, has become a predictable period of volatility, yet the districts under study have not yet developed a risk map to guide preventive action.

At the policy level, national strategies for ASM formalisation continue to fail because the strategies are based on regional averages and anecdotal evidence. The Multilateral Mining Integrated Project (MMIP) and subsequent Community Mining Scheme guidelines assume a baseline level of data that does not exist for the Savannah Region. Without granular, site-specific information on operator

demographics, security dynamics, and land use, the government cannot differentiate between viable cooperative candidates and criminal networks. As a result, well-intentioned policies either bypass these districts entirely or are applied in one-size-fits-all ways that exacerbate local grievances.

1.3 Critical gap in literature and study rationale

Despite ASM providing direct or indirect livelihoods for an estimated 15,000 people in these districts alone, the sector operates almost entirely in the shadows. There exists no comprehensive registry of who is mining, where they are mining, under what conditions, or with what consequences for human safety and community stability. This invisibility is not a neutral gap; it is a driver of chronic policy failure, environmental harm, and preventable conflict.

Despite growing national and international attention to artisanal and small-scale mining (ASM) in Ghana, the existing body of literature suffers from a significant geographical and thematic imbalance. As established in the preceding sections, research has disproportionately focused on the environmental and regulatory dimensions of ASM in the forest zones of Southern Ghana. Consequently, three critical gaps remain unaddressed, particularly in relation to the Savannah Region.

There is no spatially explicit, integrated dataset on the distribution of ASM site**s** across the Bole, and Sawla-Tuna-Kalba districts. While anecdotal reports and fragmented administrative records suggest widespread ASM activity, the precise locations, boundaries, scale, and proximity of these sites to water bodies and other sensitive environmental features remain undocumented. This absence of geospatial data severely constrains evidence-based environmental planning and resource management.

The governance systems and regulatory compliance frameworks governing ASM in these districts have not been systematically examined. The existing literature offers little insight into how state institutions—such as the Minerals Commission, the Environmental Protection Agency, and the District Assemblies—actually function at the local level in northern Ghana. Even less is known about the interaction between formal state institutions and customary governance systems, or about the emergence of informal, community-led regulatory arrangements in response to state absence.

The security dynamics surrounding ASM activities in this borderland region remain almost entirely unexplored. No study has systematically documented the types of crime, violence, and conflict associated with ASM in the Savannah Region, nor has any research mapped the cross-border dimensions of mineral smuggling, arms proliferation, or migrant labour networks. The potential links between unregulated ASM zones and broader national security threats, including extremist infiltration from the Sahel, represent a particularly urgent but neglected area of inquiry.

These three gaps are not separate; they are deeply interconnected. The absence of spatial data obscures governance failures, and both gaps, in turn, enable unregulated security dynamics. Together, they suggest that ASM in the Savannah Region is no longer solely an environmental issue but has evolved into a complex challenge with profound governance and security implications.

Without a systematic diagnosis that addresses these interconnected gaps, stakeholders risk designing and implementing interventions that ignore the underlying political economy of violence. Piecemeal approaches that focus exclusively on enforcement or solely on alternative livelihoods will likely fail if they do not account for how power, authority, and economic interests are organised within ASM communities. Moreover, unresolved conflict over mining rights has the potential to destabilise the broader transitional zone, exacerbating tensions and undermining regional stability.

1.4 Overarching aim of the study

This study was commissioned specifically to fill these critical gaps. Its overarching objective is to provide the first integrated, spatially explicit, and empirically grounded diagnosis of ASM governance, security, and conflict risks in the Bole and Sawla-Tuna-Kalba districts. Ultimately, this report aims to move the conversation beyond environmental narratives and toward a more holistic understanding of ASM as a governance and security challenge in Ghana's northern borderlands.

1.5 Map ASM sites in the districts in terms of size, and its proximity to key environmental features, particularly water bodies

Project Objectives

- Examine institutional arrangements, governance systems and gaps in the ASM sector in the two districts of the Savanah region
- Identify key security threats and drivers of conflict associated with ASM activities
- Explore the opportunities and threats associated with ASM activities, and best practices that can be adopted to serve as potential models for implementation
- Provide policy and programmatic recommendations based on the findings

1.6 Scope of Work

The study covered three selected districts within the Savannah mining corridor, focusing on:

Mapping ASM sites: Field mapping and ground-truthing of artisanal and small-scale mining (ASM) sites were conducted to obtain precise geographic coordinates and boundaries of identified ASM locations, providing data on the physical attributes of ASM sites, including size and proximity to key environmental features, particularly water bodies.

Governance Analysis: Identified and engaged relevant institutions, including CSOs, DA staff, FC staff, MC staff, EPA staff and Chiefs, to gather insights on their role and experiences on ASM. This included the extent and effectiveness of the implementation of policy guidelines and legislation on ASM, with a focus on successes, challenges, and the way forward.

Community Stakeholder Analysis: interacted with key stakeholders at the community level, including traditional leaders, Leaders of the Mining Association, Leaders of the Women Association, and Leaders of the Youth Association, to explore the opportunities and threats associated with ASM activities and explored best practices that can be adopted to serve as potential models for implementation, especially focusing on initiatives that target young women and girls.

Security and Conflict Analysis: This focused on the identification of the security risks associated with each ASM site, violence or conflict incidents, criminal activity (smuggling, illegal trade), and cross-border movements and the mapping of high-risk zones and patterns of insecurity.



2. METHODOLOGY

2.1 Research design

In line with the Terms of Reference (TOR), the research team adopted a multi-method approach that integrated several complementary data collection strategies. These included a comprehensive review of government policies and mining regulations, analysis of relevant official documents, expert interviews, direct site observations, photographic documentation, and Geographic Information System (GIS) techniques.

The methodology was deliberately designed to bridge scientific evidence with lived realities by actively engaging a wide range of stakeholders across the selected districts. These included regulatory bodies, community leaders, small-scale mining (SSM) operators, and civil society organisations. This participatory approach ensured that the findings reflect not only measurable indicators but also the everyday experiences, challenges, and aspirations of those directly affected by ASM activities.

2.2 Research analytical frameworks

The study was structured around four complementary analytical frameworks that guided data collection, analysis, and interpretation:

1. **Political economy analysis:** Examined power relations, institutional dynamics, economic interests, and the distribution of benefits and costs in ASM governance. This framework focused on understanding how political interference, patronage networks, elite capture, and competing livelihood imperatives shape governance outcomes and create barriers to formalisation.

2. **Conflict sensitivity / Do No Harm:** Assessed how interventions in ASM may interact with existing conflicts, identifying connectors (factors that build peace) and dividers (factors that drive conflict). This framework ensured that research and recommendations avoid inadvertently exacerbating tensions and instead contribute to peace and stability.

3. **Climate-security nexus:** Examined interconnections between climate change, environmental degradation from mining, and human security outcomes. This framework explored how climate variability compounds vulnerabilities, threatens water resources, and contributes to conflict dynamics.

4. **Gender and social inclusion:** Analysed how ASM activities and governance affect different social groups, particularly women, youth, and migrants and the extent to which these groups participate in and benefit from ASM governance. This framework identified differentiated vulnerabilities, exclusion patterns, and opportunities for inclusive programming. These frameworks were applied consistently across desk review, field research, data analysis, and recommendation development to ensure comprehensive, context-sensitive findings.

2.3 Desk review

The team reviewed relevant policies, institutional frameworks and legislation on minerals and mining activities in Ghana. Other relevant literature on the subject was reviewed. To identify the most relevant literature, a systematic review of a wide range of peer-reviewed journal articles was conducted. The search process was guided by key terms such as artisanal and small-scale gold mining (ASM), galamsey, small-scale mining, mining conflicts, *and* governance of mineral resources, among others. These keywords were selected to capture both the technical and socio-political dimensions of mining in Ghana.

The search and selection process was conducted in two distinct phases. The first phase focused on sourcing official policy and regulatory documents from key government institutions. This involved a systematic review of relevant websites, including those of the Minerals Commission (MinCom)[1], the Ministry of Agriculture[2], and the National Development Planning Commission[3], as well as other pertinent state agencies. These platforms provided access to legislation, policy frameworks, strategic plans, and regulatory guidelines that govern Ghana's mining sector. The second phase focused on selecting relevant academic literature, particularly peer-reviewed journal articles addressing various dimensions of mining. In total, seventy-four (74) articles were purposively sampled and organised into ten thematic categories. These themes reflect the key debates and areas of inquiry in the ASM literature, enabling a structured, in-depth analysis of governance frameworks, environmental impacts, socio-economic dynamics, conflict patterns, and policy responses within the sector.

1 https://www.mincom.gov.gh/acts/
2 http://mofa.gov.gh
3 https://ndpc.gov.gh/

2.4 Field research

The research team undertook field visits to carefully selected communities within each district to gather first-hand information. The selection of districts and communities was based on their level of engagement with artisanal and small-scale mining (ASM) activities. The study was initially conceived to examine ASM activities across the West Gonja, Bole, and Sawla-Tuna-Kalba districts of the Savannah Region. However, preliminary stakeholder engagements and field verification exercises with the District Assemblies, traditional authorities, and community leaders confirmed that there were no active ASM operations in West Gonja District during the study period. Consequently, the field investigation, analysis, and findings presented in this report are based exclusively on evidence gathered from the Bole and Sawla-Tuna-Kalba districts, where active ASM sites were identified. The specific communities selected from each district are presented in Table 1 and Figures 2 and 3.

Table 1: Selected districts and their communities

Mining Districts	Communities Selected
Bole District	Dollar Power, Wakawaka, Maluwe, Dakurope, Kui, Banda Nkwanta, Tinga, Kilampobile, Sakpa, Tuntumba, Cluff and Camp
Sawla-Tuna-Kalba	Kulbi, Kpali, Vuvuu

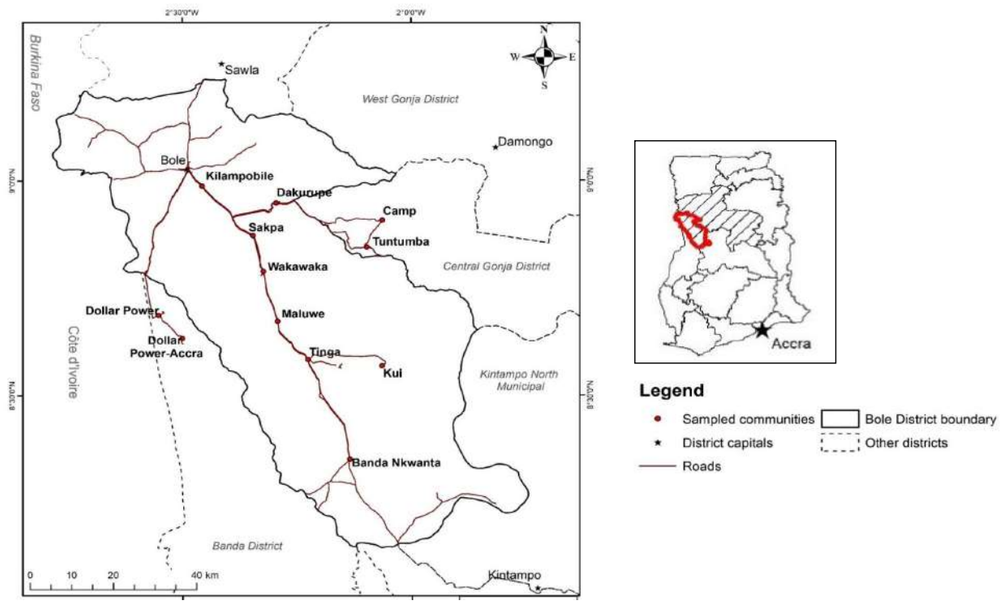


Figure 2: Location of ASM Communities in the Bole District

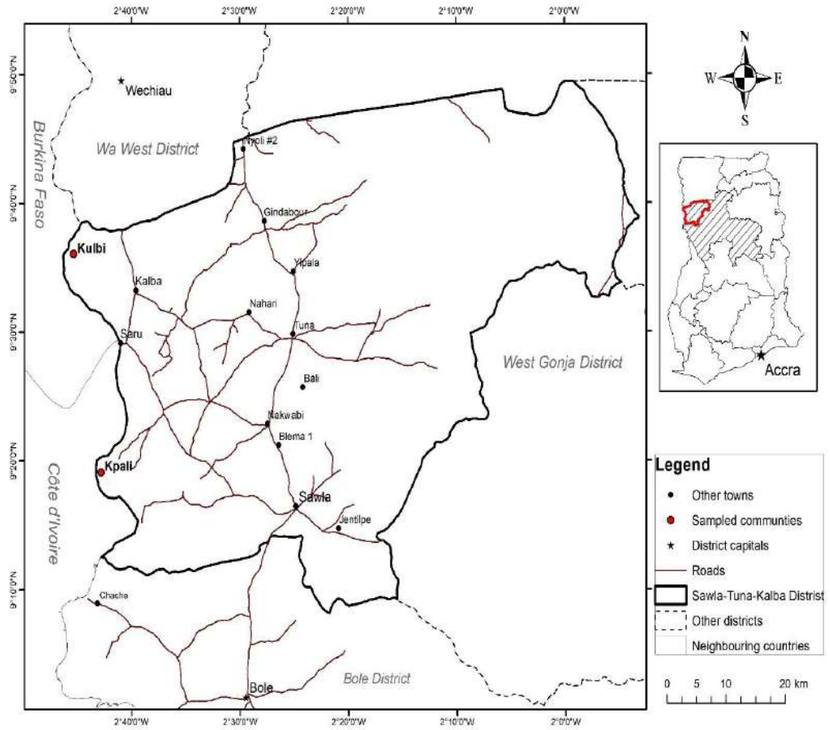


Figure 3: Location of ASM Communities in STK

2.5 Why the three study districts

The selected districts intersect with two key gold belts, namely the Bole-Nangodi belt and the Bui-Banda belt (Kesse, 1985, and Nzulu, 2023). These are important ASM hubs in Ghana. They also lie within the Black Volta Basin, a major transboundary sub-basin of the Volta River System that shares borders with Burkina Faso and Côte d'Ivoire (Figure 4). Within Ghana, the basin spans approximately 18,384 km^2 (about 14% of the total basin area), with the Tain and Poni Rivers as its principal tributaries. The sustainability of these water resources is increasingly threatened by ASM activities and deforestation (Water Resources Commission, 2024). The districts' strategic location at the intersection of resource extraction, transboundary water governance, and national border security makes them critically important sites for this study.

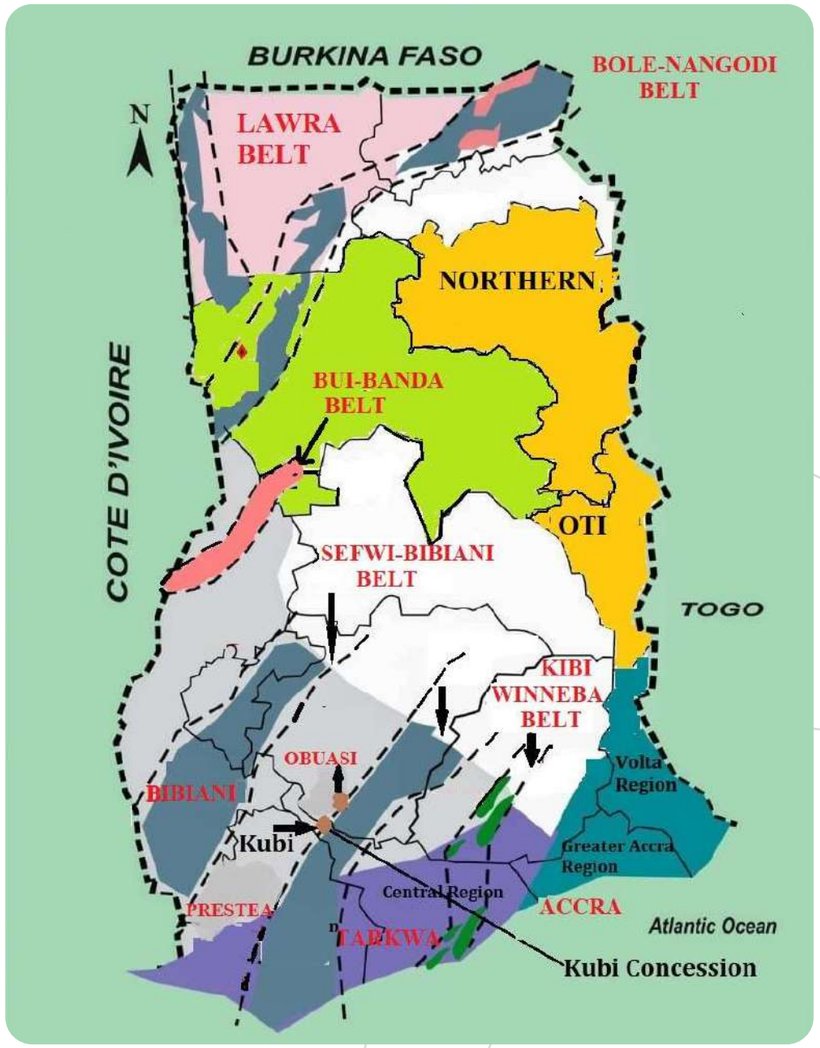


Figure 4: Geological map of Ghana showing the major gold belts (Nzulu, 2023)

2.6 Data collection

2.6.1 Regulator-level Key Informant Interviews (KIIs)

The data collection procedures were tailored to the different stakeholder groups involved in ASM as required by the TOR. The first phase of data collection focused on the ASM regulator level, where participants were purposively selected based on their institutional roles and direct engagement with ASM governance. Table 2 shows the category of key institutions selected for interviews using a well-developed key informant interview guide (see appendix 1).

Table 2: Category of key institutions selected for interviews

S/N	Key Informant Categories	Number
1	Minerals Commission	1
2	Forestry Commission	1
3	EPA	1
4	Ghana Immigration Service	1
5	Ghana Police Service	1
6	Water Resources Commission	1
7	District Chief Executives / District Assembly Representatives	1
8	Gold Board (represented by licensed gold aggregators)	1
9	Ghana National Association of Small-Scale Miners (GNASSM)	1
10	A Rocha Ghana (civil society organisation)	1
11	Blue Water Guard	1
Total		11

Each interview was tailored to the informant's specific role and institutional knowledge, guided by semi-structured protocols organised around thematic blocks relevant to their mandate. These included governance and institutional coordination, security dynamics, the mining economy and association roles, and cross-border dimensions where applicable. Interviews were conducted in English and lasted 45-60 minutes each. Informed consent was obtained from all participants prior to commencement, and notes were taken systematically. Audio recordings were also made where permitted and subsequently transcribed for analysis.

2.6.2 Community-level Key Informant Interviews (KIIs)

In each of the communities visited, the stakeholders in Table 3 were purposively selected for interviews using a well-developed key informant interview guide (see appendix 2) as follows:

Table 3: Categories of community-level Key Informants

Community	Key Informant Categories	Number
Banda Nkwanta	Assemblyman	1
	Committee Secretary	1
Dolla Power	Committee Secretary	1
	Chief's Representative	1
	Youth leader	1
Dakrupe	Committee Chairman	1
	Committee Secretary	1
Tinga	Assemblyman	1
	Site Owner	1
	Security guard	1
	Women group leader	1
	Chief	1
Wakawaka	Committee Secretary	1
	Chief	1
	Security Guard	1
Tuntumba	Committee Secretary	1
	Chief's rep	1
	Security Guard	1
Kulbi	Assembly Man	1
Total		19

In all, 30 KIIs were conducted instead of the 26 as indicated in the TOR. This was due to the community dynamics and contextual issues. All interviews were conducted in the local languages (Gonja, Dagari/Waale, and Twi), depending on the respondents' preferences, with trained bilingual facilitators. Each interview lasted fur 50–70 minutes, with informed consent obtained before commencement. Notes and audio recordings (where permitted) were transcribed and translated into

English for analysis. The interviews focused on land allocation, dispute-resolution mechanisms, relations with miners, security, threats, migration, relationships with regulatory agencies, internal governance systems, and legitimacy challenges, among others.

2.6.3 Community-level Focus Group Discussions (FGD)

Apart from the community-level interviews, FGDs were conducted in selected communities to supplement and triangulate the data from other participants. The participants for the FGD were conveniently selected. In all, thirteen (13) FGDs were conducted instead of the six in the TOR. This was due to the community dynamics and contextual issues.

Table 4: Participants in the community-level Focus Group Discussions

Community	Category of Discussants
Dollar Power	Male miner group at site (Aloko Boys)
	Women's group (complementary service providers)
	Community Youth group (Chiselers)
Tuntumba	Women's group at the mining site (toface washers)
	Male miner group at site (Aloko boys)
	Male miner group (Gang leaders)
Wakawaka	Male miner group (Gang Leaders)
	Women's group at mining site (Over washers)
Banda Nkwanta	Community youth group
Dakrupe	Male miner group (Gang leaders)
	Women's group (complementary service providers)
Tinga	Women groups at mining site (Load buyers)
Kulbi	Community youth group

Each FGD was homogeneous in composition (e.g., all women, all youth, all miners) to encourage open dialogue and reduce power imbalances. Discussions were facilitated by a trained moderator and a note-taker, using a topic guide organised around specific themes (see appendix 3). The FGDs were conducted in the local languages (Gonja, Dagari/Waale, and Twi). Among the notable themes were:

- Livelihood contributions, challenges with regulators, relations with landowners and security forces, and perceptions of formalisation.
- Gendered risks, access to decision-making, participation in peacebuilding, and economic opportunities.
- Recruitment pathways, conflict roles (as perpetrators or peace actors), access to alternative livelihoods, and relations with traditional authorities.
- Risk mapping and conflict priority matrices.

Each FGD lasted for 90-120 minutes and was conducted in the preferred local language at a neutral, accessible community venue. Discussions were audio-recorded (with group consent), transcribed verbatim, and translated.

Additionally, the study employed high-resolution imagery alongside printed base maps to enable participants to collaboratively delineate mining sites, competing land uses, and areas prone to conflict. The outputs from each group were subsequently validated during plenary sessions to resolve discrepancies and strengthen the credibility of the findings. The final maps were then digitised and standardised using GIS tools, while recorded discussions provided valuable contextual insights into spatial patterns and land-use dynamics. Finally, at each ASM site visited, photographs were taken to complement and enrich the various forms of data collected.

2.6.4 Ethical considerations

Informed consent in line with Coginta protocols was obtained from all participants prior to their involvement in the study.

The confidentiality and anonymity of respondents were strictly maintained throughout the research process and in all reporting.

Due consideration was given to local customs, cultural norms, and existing conflict dynamics to ensure respectful and non-disruptive engagement within the study communities.

A bird’s eye view of abandoned deep mining pits in Dollar Power

3. KEY FINDINGS

3.1 Desktop studies

The desk review revealed that Ghana has enacted a wide range of legislation and policies and established numerous institutions to regulate the ASM sector, both directly and indirectly. This raises a fundamental question: have these legal frameworks been effectively enforced, and to what extent have they regulated ASM activities in Ghana? Table 5 presents the major legislations regulating minerals and mining activities in Ghana.

Table 5: Legislation on ASM in Ghana

S/N	Legislations	Key objective
1	Environmental Protection Act, 1994 (Act 490), as amended by Act, 2025 (Act 1124)	To establish the Environmental Protection Agency and regulate environmental protection activities in Ghana.
2	Environmental Assessment Regulations, 1999 (LI 1652)	To provide procedures for environmental impact assessment and permitting development projects.
3	National Environmental/Legislation Policy, 2013	To provide a framework for integrated environmental management and sustainable development.
4	National Climate Change Policy, 2013	To address climate change mitigation and adaptation in Ghana.
5	The Constitution of Ghana, 1992	To provide the supreme legal framework governing the state, citizens' rights, and natural resource management.
6	Minerals and Mining Act, 2006 (Act 703)	To regulate the exploitation and management of mineral resources in Ghana.
7	Minerals and Mining (Amendment) Act, 2015 (Act 900)	To strengthen regulations governing mining activities and improve compliance mechanisms.
8	Minerals and Mining (Amendment) Act, 2019 (Act 995)	To further amend mining laws and strengthen governance and enforcement in the mining sector.
9	Minerals and Mining Policy of Ghana, 2014	To provide policy direction for sustainable and responsible mineral resource development.
10	Artisanal and Small-Scale Mining Framework, 2015	To formalise and regulate artisanal and small-scale mining activities.
11	Small Scale and Community Mining Operational Manual, 2021 Small Scale and Community Mining Operational Manual, 2021	To guide operational procedures and best practices in community and small-scale mining.
12	Minerals and Mining (Licensing) Regulations, 2012 (LI 2176)	To regulate the licensing process for mineral rights and mining operations.
13	Minerals and Mining (General) Regulations, 2012 (LI 2173)	To provide general operational guidelines for mining activities in Ghana.
14	Minerals and Mining (Health, Safety and Technical) Regulations, 2012 (LI 2182)	To ensure health, safety, and technical standards in mining operations.
15	Minerals and Mining (Compensation and Resettlement) Regulations, 2012 (LI 2175)	To regulate compensation and resettlement for people affected by mining activities.
16	Minerals and Mining (Ground Rent) Regulations, 2018 (LI 2357)	To regulate the payment of ground rent associated with mineral rights.
17	Minerals and Mining (Support Services) Regulations, 2012 (LI 2174)	To regulate support service providers within the mining industry.
18	Minerals and Mining (Explosives) Regulations, 2012 (LI 2177)	To regulate the handling, storage, and use of explosives in mining activities.
19	Minerals and Mining (Local Content and Local Participation) Regulations, 2020 (LI 2431)	To promote local participation and utilisation of local goods and services in mining operations.
20	Minerals and Mining (Mineral Operations–Tracking of Earth Moving and Mining Equipment) Regulations, 2020 (LI 2404)	Minerals and Mining (Mineral Operations–Tracking of Earth Moving and Mining Equipment) Regulations, 2020 (LI 2404)
21	Environmental Protection (Mining in Forest Reserves) Regulations, 2022 (LI 2462)	To regulate mining activities within forest reserves and minimise environmental destruction.
22	Multi-Sectoral Mining Integrated Project, 2017	To strengthen governance, environmental management, and stakeholder coordination in the mining sector.
23	Mercury Law, 1989 (PNDCL 217)	To regulate the importation, distribution, and use of mercury in Ghana.
24	National Action Plan to Reduce and, Where Feasible, Eliminate Mercury Use in ASGM in Ghana, 2020	To minimise and eventually eliminate mercury use in artisanal and small-scale gold mining.
25	Environmental Protection (Mining in Forest Reserves) Revocation Instrument, 2025	To revoke previous provisions permitting mining in forest reserves.

Source: a compilation of various documents

This legislation demonstrates that Ghana has enacted robust legal and regulatory frameworks to regulate ASM. These laws collectively seek to transform the sector into a formalised, environmentally responsible, and economically productive industry. The literature (Ghana Mining Report 2026), however, suggests that despite the existence of these legislations, several challenges, such as weak enforcement, institutional coordination deficits, political interference, and corruption, among others, have constrained the effectiveness of the legal frameworks. There are, therefore, gaps between regulatory intentions and implementation outcomes.

3.2 Key institutions responsible for regulating ASM in Ghana

To oversee the ASM sector, Ghana has established multiple institutions with distinct mandates. These institutions have specific mandates covering a range of regulatory functions, including the issuance of mining licenses, conducting environmental impact assessments, and providing security at ASM sites, among others. The key institutions and their respective functions are presented in Table 6.

Table 6: Key institutions responsible for regulating small-scale mining in Ghana.

Institution	Main functions in small-scale mining regulation	Spatial level of operation
Minerals commission	Primary regulator of the mining sector; processes and recommends mining licenses; monitors mining operations; coordinates mineral policies; ensures compliance with mining laws; provides technical guidance to miners.	National, regional and district
Environmental protection agency	Issues environmental permits; conducts environmental impact assessments (EIAs); monitors pollution and land degradation; enforces environmental standards in mining areas; promotes reclamation of degraded lands.	National and regional
Water resources commission	Regulates the use of water resources; grants water use permits; monitors pollution of rivers and streams; protects water bodies affected by mining activities; coordinates water resource management.	National and basin
Forestry commission	Protects forest reserves and wildlife resources; regulates mining activities within or near forest reserves; monitors illegal mining in forest areas; promotes reclamation and afforestation.	National, regional and forest district
Ministry of Lands and Natural Resources	Provides overall policy direction for the mining sector; supervises sector agencies; develops national mining policies and reforms; coordinates anti-galamsey strategies.	National
Minerals development fund	Manages and distributes mineral royalties to mining communities and institutions; supports mining sector development and community projects.	National
Geological survey authority	Conducts geological investigations and mapping; provides geological data for mineral exploration; supports identification of viable mining areas.	National
Land Use and Spatial Planning Authority	Prepares land-use plans; ensures mining activities conform to spatial planning regulations; prevents conflicts between mining and other land uses.	National, regional and district
Lands commission	Administers public and stool lands; facilitates land acquisition processes; resolves land ownership and boundary issues related to mining.	National and, regional
Office of the Administrator of Stool Lands	Collects and disburses stool land revenues and royalties from mining activities to traditional authorities and local assemblies.	National, regional and district
Ghana revenue authority	Collects taxes, royalties, and duties from mining operators; monitors revenue compliance within the mining sector.	National, regional and district
District assemblies	Enforce local bylaws; monitor mining activities; support community engagement and local conflict management; coordinate local development planning.	District
Ghana police service	Enforces mining laws; combats illegal mining (galamsey); arrests offenders; supports security operations in mining areas.	National, regional district and community
Ghana armed forces	Supports anti-illegal mining operations, especially in forest reserves and river bodies; provides security enforcement under special operations.	National and command
Immigration service	Monitors and controls the involvement of foreign nationals in illegal small-scale mining activities.	National and border stations
Attorney-general's department	Prosecutes illegal mining offences and provides legal interpretation of mining laws.	National
Judiciary of Ghana	Adjudicates mining-related disputes and prosecutes offenders involved in illegal mining.	National, regional and istrict
National commission for civic education	Conducts public education and awareness campaigns on responsible mining and environmental protection.	National, regional and district
Traditional authorities	Control customary lands; influence access to mining lands; mediate conflicts; support or resist mining operations within communities.	Local territories

Despite the existence of these institutions and their clearly defined mandates, significant overlaps in responsibilities persist within the governance framework for small-scale mining. These overlaps manifest in several critical areas, including licensing, environmental monitoring, enforcement operations, and revenue collection. For instance, multiple agencies such as the Minerals Commission, the Environmental Protection Agency, and the District Assemblies are simultaneously involved in monitoring mining activities. Yet no single institution has clear overall authority or responsibility for coordination. Table 7 illustrates the various areas where these institutional functions intersect and overlap.

Table 7: Areas of institutional overlap

Area of overlap	Institutions involved	Nature of the overlap
Licensing and permit approval	Minerals Commission, Environmental Protection Agency, Water Resources Commission, Forestry Commission, District Assemblies	Multiple approvals are required before mining can begin, resulting in lengthy and sequential licensing procedures.
Environmental monitoring and protection	Environmental Protection Agency, Water Resources Commission, Forestry Commission, District Assemblies	All institutions monitor environmental impacts such as land degradation, water pollution, and destruction of vegetation.
Enforcement against illegal mining	Ghana Police Service, Ghana Armed Forces, Forestry Commission, Minerals Commission, District Assemblies	Several institutions simultaneously undertake anti-galamsey operations and law enforcement activities.
Monitoring of mining operations	Minerals Commission, EPA, District Assemblies, Forestry Commission	Different institutions conduct site inspections and compliance monitoring for similar operational issues.
Land administration and access	Lands Commission, Traditional Authorities, District Assemblies, Office of the Administrator of Stool Lands	Multiple actors influence land allocation, ownership verification, and access to mining concessions.
Revenue collection and distribution	Ghana Revenue Authority, Minerals Development Fund, Office of the Administrator of Stool Lands, District Assemblies	Different institutions collect, manage, and distribute mining revenues and royalties.
Community engagement and public education	National Commission for Civic Education, District Assemblies, Minerals Commission, EPA, Traditional Authorities	Several institutions undertake awareness creation and stakeholder engagement activities.
Reclamation and land restoration	EPA, Forestry Commission, Minerals Commission, District Assemblies	Institutions share responsibilities for the reclamation of degraded mining lands.
Regulation of water bodies	Water Resources Commission, EPA, Forestry Commission, Ghana Navy (in some operations)	Institutions jointly monitor and protect rivers and water bodies from mining pollution.
Conflict resolution	Traditional Authorities, District Assemblies, Judiciary, Police Service	Multiple authorities address mining-related disputes at different levels.

3.2.1 State Interventions for regulating ASM

The government has made several efforts to manage ASM with little or no success. Some of the interventions by the government are presented in Table 8.

Table 8: Interventions introduced to regulate ASM in Ghana

Intervention	Date
Inter-Ministerial Committee on Illegal Mining	**2013**
Anti-Illegal Mining Operations	**2006**
Operation Halt 1 (Purposely for timber operations)	
Operation Vanguard	**2017**
Nationwide Ban on All Forms of Small-Scale Mining	**2017**
Audit of Small-Scale Mining Licences and Training of Miners to Adopt Global Best Practices and Responsible Mining Standards	**2017**
GalamStop	**2018**
Operation Halt 2	**2022**
National Anti-Illegal Mining Operations in Ghana (NAIMOS)	**2025 to date**
Blue Water Guard	**2026 to date**



3.2.2 Synthesis of the desk review: political economy perspective

While laws, policies, and the establishment of interventions reflect considerable political commitment to addressing issues related to ASM activities, they have largely failed to achieve sustained success. They can only be described as 'varieties of governance experimentalism'. The reasons include inadequate long-term political will, weak enforcement capacity, limited stakeholder acceptance, excessive political interference, insufficient consultation, and highly personalised implementation approaches.

The finding that Ghana has enacted comprehensive legislation but enforcement remains weak reflects a fundamental political economy dynamic: laws exist on paper but are undermined by political interference, elite capture, and institutional fragmentation. The "varieties of governance experimentalism" observed where interventions are introduced and abandoned without sustained success demonstrates a pattern of political visibility-seeking rather than institutional strengthening. Each intervention (Operation Vanguard, Operation Halt, GalamStop, NAIMOS, Blue Water Guards) represents an attempt to demonstrate political responsiveness without addressing the underlying governance deficits that enable illegal mining. This pattern reflects the political logic of short-term visibility over long-term institutional effectiveness.

3.3 Empirical field research

3.3.1 Objective 1: Mapping ASM communities

Available records maintained by regulatory authorities do not present an up-to-date picture of the number of ASM communities in the region. Several sites previously captured in official records have since been decommissioned or become inactive, while new ASM operations have emerged in remote and difficult-to-access locations that have not yet been identified or incorporated into the regulatory database. For this study, the communities identified are listed in Table 9.

The exact number of ASM communities since some of the known ASM sites have been decommissioned while new ones are so remote to be captured on records. There were also instances where the geographical and administrative locations of some communities are not aligned. Typical examples are Tuntumba, Camp and Cluff. While these are geographically located in traditionally and administratively, they are part of the Bole District. For this study, the communities identified are listed in Table 9.

Table 9: ASM communities

Mining Districts	Communities Selected
Bole District	Banda Nkwanta 1, Banda Nkwanta 2, Chache, Dakuripe, Dollar Accra, Dollar Dablakoro, Dollar Power, Gbenfu, Jama, Kilampobile, Kui, Kwamekwesi, Maluwe, Sakpa, Senye, Teselima, Tinga 1, Tinga 2, Wakawaka, Tuntumba, Cluff and Camp
Sawla-Tuna-Kalba	Kulbi, Kpali, Vuvuu

Local historical accounts revealed that ASM activities in the Bole district for instance, have been present for several decades, with documented activity dating back to the 1970s. In terms of ASM sites, study identified two broad categories: sites distant away from existing communities such as Tinga, Banda Nkwanta, Wakawaka, and sites that constituted communities such as Tuntumba and Dollar Power.

Typologies of ASM activities identified:

Field interactions and observations revealed that ASM activities are undergoing a significant transformation. Rather than remaining a predominantly poverty-driven livelihood strategy undertaken by rural dwellers alongside subsistence farming, ASM is increasingly evolving into a more structured and semi-formalised enterprise characterised by growing mechanisation and technological innovation. This shift is evident in the increasing deployment of equipment and tools, such as oxygen supply pumps, ventilators, water pumps, and more complex machinery, including Changfan engines, drilling equipment, and blasting systems. The adoption of these technologies reflects a gradual transition towards more capital-intensive and organised forms of production within the ASM sector. The following are the features of ASM activities observed in the districts:

- **Small-scale nature of operations**

The ASM activities observed are generally small-scale, with mining typically conducted on clearly demarcated, limited land areas. Operations rely on modest capital investments, often provided by local financiers commonly referred to as "sponsors," and are characterised by the use of basic tools and technologies such as shovels, pickaxes, to complex tools such as oxygen supply pumps, ventilators, water pumps, and more complex machinery including Changfan engines, drilling equipment, and blasting systems, Although individual production levels are relatively low, cumulative output can become significant when multiple small operators are engaged within the same site. This inherently small-scale character contributes to a high degree of informality and operational fragmentation, as activities are commonly organised by individuals, family units, or small cooperative groups rather than large corporate entities.

• Labour-intensive production system

Another key characteristic of the ASM sector is its strong reliance on manual labour. ASM involves physically demanding tasks such as pit excavation, transporting gold-bearing ore, crushing rocks, and washing sediments to extract gold. Human labour, therefore, remains central throughout the entire production chain, from the coordination of activities to final processing. An important observation from the field was that a considerable number of ghetto owners and gang leaders were literate and could communicate in the English language. This finding contrasts with the commonly held assumption in the literature that ASM operators are predominantly illiterate.

• Mixed licensing status

The study also found that ASM operations vary in terms of regulatory compliance, with some sites operating under formal licences while others remain unlicensed. Except for sites such as Tinga and Dakrupe, which have obtained formal licences, most ASM operations in the study area are not officially permitted. Licensed operations are those that have received formal approval from the Minerals Commission and are expected to comply with environmental, safety, and operational regulations, including the submission of production returns. Although leaders of unlicensed sites indicated they were in the process of obtaining permits, interactions with regulatory authorities suggest these processes are less advanced than site operators believe.

• High presence of migrant miners

Field observations further revealed that migrant miners from other parts of Ghana and neighbouring countries often outnumber local miners at several sites. This reflects the highly mobile nature of ASM, which attracts labour from beyond host communities in pursuit of perceived economic opportunities. Migrants were identified from Burkina Faso, Côte d'Ivoire, Mali, and Nigeria, among others. The influx of cross-border labour introduces a transnational dimension to ASM activities, raising important implications for regulation, security management, and resource governance within the sector.

• Gender and social inclusion dimensions

The field visits reveal significant gender and social inclusion patterns. For instance, it was observed that women are concentrated in surface excavation sites (toface method) and tailings reprocessing areas, while men dominate pit mining and mechanised operations. There were few instances (an example is Tinga and Wakawaka where women bought load and processed them). This segregation reflects capital constraints and cultural norms, with women confined to less lucrative but more accessible mining methods.

It was also observed that the youth constituted the largest portion of the labour force. They are systematically excluded from formal governance structures, representing an inclusion gap with implications for conflict risk. The migrants from Burkina Faso, Côte d'Ivoire, Mali, and Nigeria were found to be integrated into production chains but excluded from governance, creating a two-tier inclusion system: economic integration without political or social inclusion.

Insightfully, significant data gaps exist on disaggregated demographic data for ASM labour. This has the potential to prevent targeted social protection interventions. Child labour was visibly present at some ASM sites but undocumented, representing a critical protection gap.



• ASM and climate-security intersection

In STK for instance, ASM activities were concentrated along the Black Volta. The spatial concentration of ASM along the Black Volta creates a critical climate-security intersection. Alluvial mining directly degrades water resources that are increasingly stressed by climate variability. The seasonal pattern of mining intensification during dry seasons coincides with periods of water scarcity, agricultural activity, and heightened competition for natural resources, creating predictable volatility that could be addressed through integrated planning.

Overall, these features collectively underscore ASM as a dynamic, labour-intensive, and partially informal sector shaped by intersecting local livelihood strategies, technological adaptation, and regional migration and regulatory dynamics.

Mining Methods at the ASM Sites

- **Shallow pit mining (ghetto mining)**

This method, locally known as "ghetto mining" involves manual excavation of long, but relatively shallow, pits, with the length of an electricity pole commonly used as a local unit of measurement.



Figure 5: Shallow pit at a mining site

The depth and extent of each pit depend largely on the location and accessibility of the gold-bearing rock layer. In practice, some pits may extend to the equivalent of seven (7) poles in depth, while others may require only about four (4) poles to reach the mineralised zone. It typically takes miners between four (4) and six (6) months to reach the desired depth or gold-bearing layer. Figure 5 shows an example of a shallow pit. To prevent the pit from collapsing, the walls are reinforced using carefully arranged fresh timber supports.

As the pit depth increases, working conditions become increasingly difficult due to rising temperatures and reduced air circulation. To mitigate this risk, ventilators are installed to supply oxygen and improve airflow within the pits, thereby enhancing working conditions and reducing the risk of suffocation (see picture below for an example of a ventilator).

Once the miners reach the gold-bearing rock layer, a specialised group of workers known as "chiselers" takes over the process. They use chisels and hammers to

further break the fragmented rock into smaller, more manageable pieces. Then "Aloko boys" transport the broken material to the surface. The system is highly segmented, with a clear division of labour across different stages of production.

- **Surface Excavation ("Toface Method")**

This method involves stripping and removing topsoil, overburden, weathered rock, and other surface materials to access mineral deposits near the earth's surface.

Locally, miners refer to this technique as the "toface" method, a colloquial term derived from "top surface" that reflects its focus on surface-level excavation. The method was commonly observed in sites such as Dollar Power, Camp, and Tuntumba.

The process begins when "computer man", that is, the individual operating a gold detector, identifies a potential gold-bearing location on the surface. This initial detection is followed by the systematic removal of top-soil and overburden, which constitute the layers of soil and rock covering the underlying mineral deposit. Once the deposit is exposed, miners use simple tools such as shovels and hoes to extract the mineral-bearing material and transport it to designated processing sites, where it is washed, crushed, or otherwise processed to recover the gold.

- **Ore crushing and washing**

Ore crushing is the process of breaking large fragments of gold-bearing rock into smaller particles to liberate the valuable minerals embedded within the ore. Field observations showed that this practice is commonly undertaken at Dakrupe, where gold deposits are found in deep-seated rock formations (Figure 6). The nature of the deposits in this area requires more intensive mechanical and manual crushing to make the ore suitable for subsequent washing and mineral recovery.



Figure 6: Gold-bearing rocks

The gold-bearing rock is initially loosened by blasting with ammonia, after which miners undertake further manual breaking with hammers and metal pestles. The broken material is then subjected to additional crushing and grinding, as illustrated in Figure 7. Field observations indicate that, apart from Dakrupe, this method of ore processing is commonly practised across all the ASM sites visited in the study area, reflecting its widespread use as a standard technique for preparing gold-bearing material for extraction and recovery.



Figure 7: Grinding or Milling Site

The widespread use of ore crushing and washing is largely attributed to the availability of Changfan machines, which have significantly simplified the processing cycle and improved the efficiency of recovering free gold from ore. These machines have enhanced miners' capacity to process larger volumes of material in shorter timeframes, thereby increasing overall productivity.



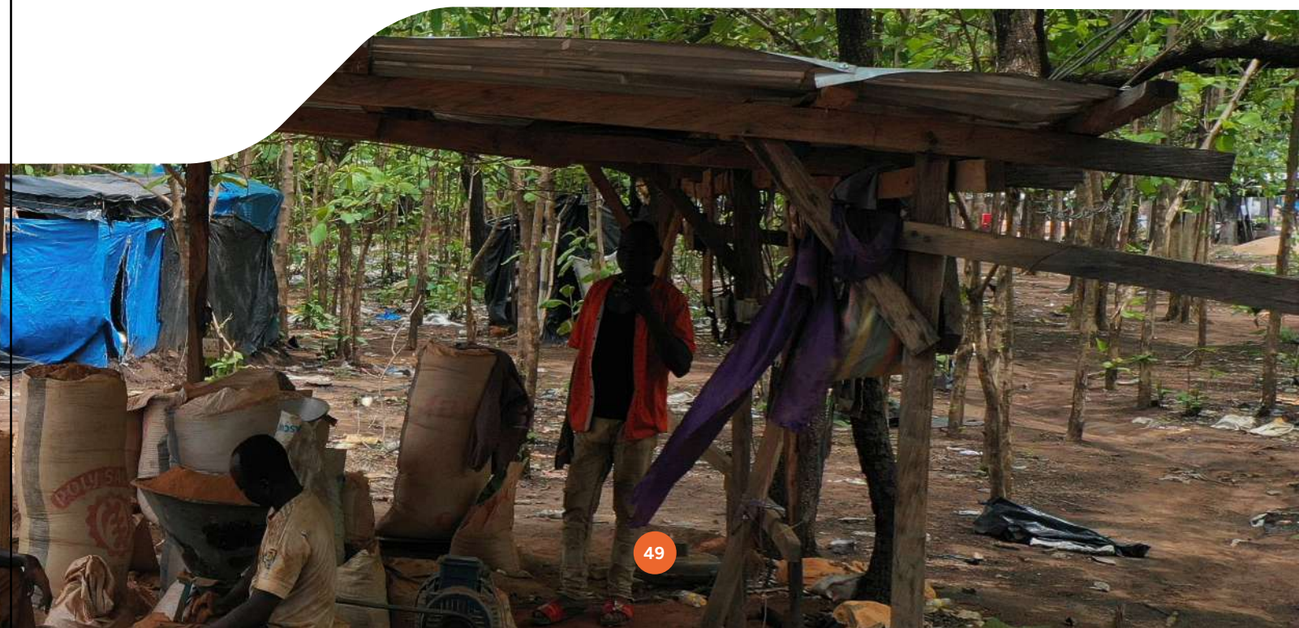
- **Alluvial mining**

Alluvial mining was common in communities along the Black Volta River (Figure 8), with notable sites including Kpali, Kulbi, and Vuvuu. In these areas, miners extract mineral-bearing sediments directly from the riverbed and process them to recover gold.

The process involves excavating or dredging sand and gravel from the riverbed, often with the assistance of Changfan machines to facilitate extraction. The excavated material is then washed with water to separate gold particles from surrounding sediments using gravity-based separation techniques.



Figure 8: Alluvial mining along the Black Volta River



- **Reprocessing of Tailings**

Reprocessing tailings was a common practice across all ASM sites visited. Locally referred to as “overs,” tailings consist of fine-grained waste materials that remain after ore has been crushed, milled, and washed to extract gold. These materials are typically deposited in heaps, ponds, or abandoned processing sites.

With this method, the discarded materials are recollected and subjected to further crushing or re-milling to liberate any remaining trapped gold particles that were not recovered during the initial processing stages. This secondary extraction process is widely used as a supplementary means of improving overall gold recovery from previously processed ore.



Children contribute to ASM activities alongside adults by reprocessing mine tailings

3.3.2 Objective 2: Governance of ASM Communities: A Multi-Level Governance Perspective

The discussion is organised around the study districts to reflect the contextual variations that characterise ASM activities within the study area. Initial stakeholder interactions revealed that significant governance variations exist among communities within the same district and across districts. Local histories, leadership structures, social relations, security dynamics, and resource endowments shape the unique governance characteristics of individual mining communities. Therefore, while broad governance patterns can be identified at the district level, important community-specific nuances remain. These contextual variations are

documented in greater detail in the individual community profiles provided in the appendices.The discussion is organised around the three study districts to reflect the contextual variations that characterise ASM activities within the study area. Initial stakeholder interactions revealed that significant governance variations exist among communities within the same district and across districts. Local histories, leadership structures, social relations, security dynamics, and resource endowments shape the unique governance characteristics of individual mining communities. Therefore, while broad governance patterns can be identified at the district level, important community-specific nuances remain. These contextual variations are documented in greater detail in the individual community profiles provided in the appendices.

To appreciate the district-specific governance arrangements, the subsequent sections discuss ASM governance on a district-by-district cases. The objective is to provide an understanding of the dominant governance arrangements within Bole and Sawla-Tuna-Kalba Districts. For the purpose of historical complexity, geographical linkages and administrative homogeneity, the Bole districts are discussed together independent of Sawla-Tuna-Kalba.

The Governance of ASM Activities in the Bole District

Officials from the Bole District Assembly indicated the establishment of the District Mining Committee (DMC) in line with the provisions of the Minerals and Mining Act (Act 703). It is a multi-stakeholder composition comprising the District Chief Executive, a representative of the Minerals Commission, a representative of the Environmental Protection Agency (EPA), traditional authorities, representatives of security agencies, and officials from other agencies (Table 10). In addition, the District Security Council (DISEC) serves as a key coordinating body, overseeing security operations related to illegal mining and responding to ASM-related conflicts and criminal incidents within the district. Together, these institutional arrangements constitute the principal governance framework for regulating ASM activities at the district level. The core functions of the DMC include monitoring ASM operations, facilitating dispute resolution, enforcing licensing compliance, and coordinating regulatory and enforcement activities.

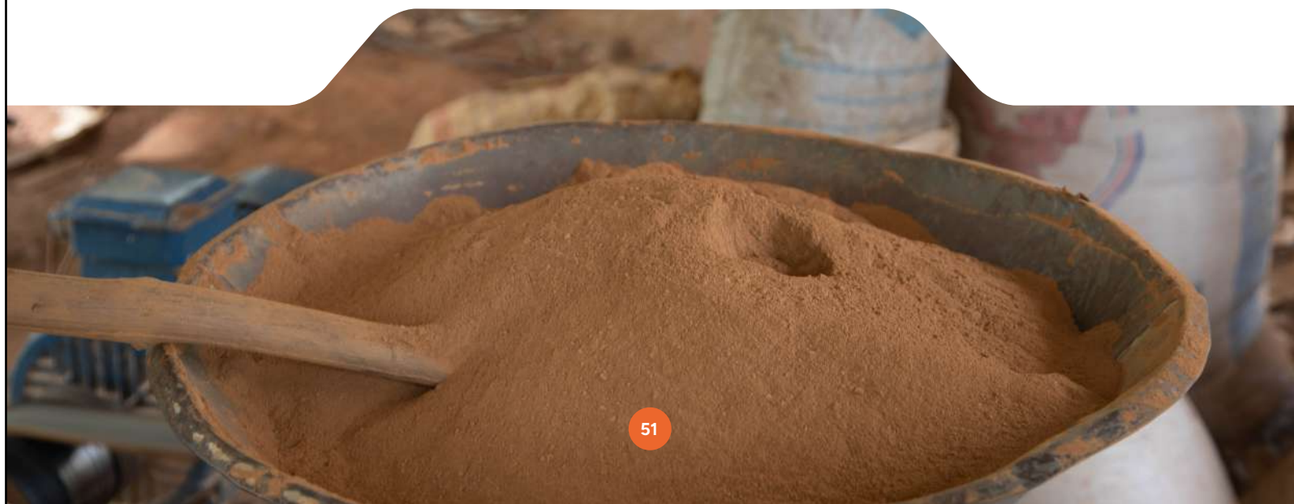


Table 10: District-level stakeholders and their functions in ASM governance

Stakeholder	Functions
Minerals commission	Licensing of ASM operations; monitoring mining activities; technical guidance; enforcement of mining laws
Environmental Protection Agency (EPA)	Environmental permitting; environmental monitoring; pollution control; reclamation
Water resources commission	Protection of rivers and water bodies; regulation of water use affected by mining
Forestry commission	Protection of forest reserves; monitoring illegal mining in forests
District assemblies	Local monitoring; enforcement of by-laws; community engagement; conflict management
District mining committee	District-level coordination of ASM governance (identified as existing but weak)
District security council	District security coordination
Ghana police service	Enforcement of mining laws; arrests; handling criminal cases
Ghana immigration service	Monitoring foreign participation in ASM
Blue water guards	Patrol and surveillance along river bodies, especially the Black Volta

Stakeholders consistently acknowledged that district-level state institutions have made meaningful strides in regulating ASM, particularly through sustained community engagement on legislation, policy implementation, licensing procedures, environmental monitoring, and enforcement. Yet, their overall effectiveness remains significantly hampered by persistent operational limitations and deep-rooted structural challenges.

To assess the relative significance of these constraints, stakeholders were asked to rank the identified challenges by severity, frequency of occurrence, and overall impact on institutional effectiveness, using a scale from 1 (most significant) to 6 (least significant). Table 11 presents the most pressing challenges confronting state institutions, which may require targeted short-, medium-, and long-term policy interventions.

Table 11: Challenges of state institutions in ASM governance

Rank	Challenge	Meaning assigned to each challenge
1	Political interference (the big man from Accra syndrome)	Undue influence from political actors or elites (often based in Accra) who intervene in local ASM regulation. Such interference often led to the shielding of illegal miners, reversal of enforcement actions, or pressure on regulators to relax sanctions, thereby undermining the rule of law and encouraging impunity.
2	Limited resources - vehicles, motorbikes, speedboats and life jackets	Regulatory and enforcement agencies often lack basic logistics needed for effective field monitoring.
3	Limited community trust/ understanding of institutional roles	Many mining communities do not clearly understand the mandates of agencies such as the Minerals Commission, EPA, or district authorities.
4	Interference from traditional/opinion leaders	Local chiefs and influential community figures usually intervene in ASM governance by sometimes protecting miners for economic or political reasons.
5	Fragmented coordination among agencies	ASM governance involves multiple institutions (e.g., Minerals Commission, EPA, Forestry Commission, Water Resources Commission, security agencies).
6	Weak enforcement	Even when laws and regulations exist, enforcement is often inconsistent due to corruption risks, capacity limitations, legal bottlenecks, or political pressure.

These challenges point to a wobbling governance system. The institutions are therefore able to address the needs of mining communities partially. The inability of the state institutions to function effectively may result in conflicts, as suggested in part by the “Do No Harm” framework.

Dividers (conflict drivers):

- Political interference undermines rule of law, creating perceptions of injustice and impunity that fuel grievances
- Limited community trust reduces cooperation with state institutions and increases reliance on self-help
- Weak enforcement creates impunity that encourages violence and resource grabbing
- Fragmented coordination enables forum shopping and regulatory avoidance

Governance gaps identified

The findings reveal significant governance gaps that continue to undermine the effective management of ASM in the communities. Three interrelated governance gaps emerged: limited trust in formal institutions, inadequate government support, and limited stakeholder participation (Figure 9). These governance deficiencies reinforce one another, contributing to weak institutional performance and increasing the risks associated with ASM activities.

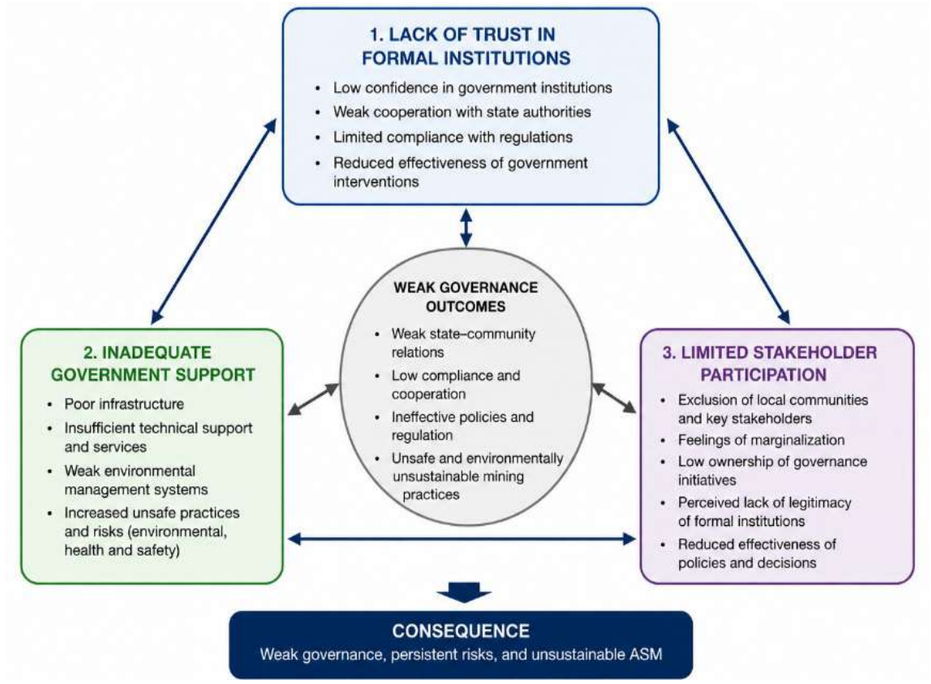


Figure 9: Interrelated Governance Gaps in ASM

The findings suggest that governance gaps in ASM are multidimensional and mutually reinforcing. Weak institutional trust, inadequate government support, and limited stakeholder participation collectively undermine effective governance, weaken state–community relations, and contribute to unsafe and environmentally unsustainable mining practices.

The field findings reveal the emergence of strong community-led governance structures within ASM communities in response to the shortcomings in formal governance systems as peace-promoting measures.

Connectors (peace factors):

- In response to shortcomings in formal governance systems;
- Provide dispute resolution and maintain order;
- Offers legitimate adjudication;
- Strong bond of economic interdependence among miners which creates incentives for cooperation.

Community-led governance structures in ASM communities

The field findings reveal the emergence of strong community-led governance structures within ASM communities in response to perceived shortcomings in formal governance systems. Participants consistently highlighted a lack of trust in state institutions, limited government support, and inadequate community involvement in decision-making processes affecting ASM operations. In response to these governance deficits, communities have developed alternative institutional arrangements that operate alongside, and in some cases independently of, statutory governance frameworks, as shown in Figure 10.

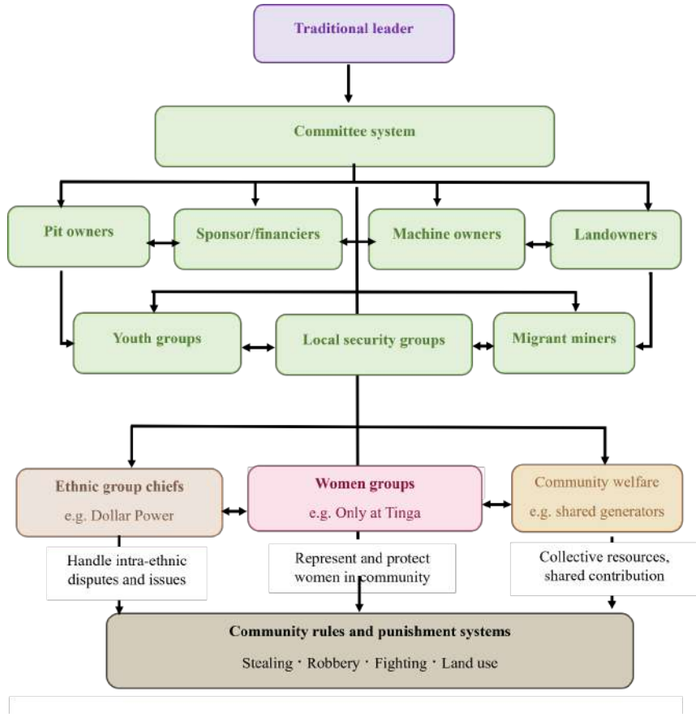


Figure 10: Community-led governance structure at ASM communities

From the governance perspective, these structures represent indigenous governance systems that have evolved to fill regulatory and administrative gaps left by formal institutions. Rather than functioning as temporary or informal arrangements, they have become established centres of authority responsible for regulating social relations, coordinating mining activities, managing conflicts, and maintaining order within mining settlements. The emergence of these community-led governance systems reflects the broader reality that governance in ASM communities is not exercised exclusively through state institutions (Table 12). Instead, authority is distributed among multiple actors operating within a plural institutional environment.

Table 12: Community-level stakeholders and their functions in ASM governance

Actor	Functions in Small-Scale Mining
Traditional leaders	Granting land access for mining, resolving disputes, performing spiritual rites, and mediating between miners and the government.
Committee system	Overseeing daily mining operations; allocating pits; enforcing rules; collecting levies; maintaining order.
Ethnic group chiefs	Handling intra-ethnic disputes, managing migrant miner conduct, preserving cultural norms, and liaising with the committee.
Pit/ghetto owners	Discovering mining sites and Controlling mining pits
Gang leaders	Employing workers, ensuring production targets, and maintaining safety at the pit level.
Sponsors/ financiers	Providing capital for equipment, labour, and explosives; taking a share of output; managing financial risk.
Machine owners	Supplying and operating crushers, excavators, and water pumps; charging service fees or output shares.
Youth groups	Providing manual labour, security patrols, and alerting committees to illegal activities or encroachment.
Local security groups	Enforcing community rules (e.g., theft, fighting); arresting offenders; handing over serious cases to police.
Pit workers/ Aloko boys	Work directly in the pits by digging, breaking stones, chiselling, pulling, etc.
Migrant miners	Following host community rules, paying daily or weekly fees, respecting ethnic chief authority, and contributing to welfare schemes.
Women leaders	Managing women-led activities (e.g., processing, cooking, trading); addressing gender-based disputes; promoting childcare and health.
Welfare Systems (e.g., Dollar Power, Tuntumba)	Running community generators, water pumps, or health funds; collecting monthly contributions; ensuring shared access to utilities.

These informal structures are not obstacles but functional governance realities. Strengthening their linkages with district assemblies, the Minerals Commission, and the Ghana Police Service can improve formalisation, reduce conflict, and enhance environmental and social outcomes in ASM communities. The findings further suggest that these governance arrangements have earned considerable respect among miners, traders, and residents. Unlike formal institutions, which are often perceived as distant or inaccessible, community governance structures maintain close relationships with local actors and are directly accountable to the populations they serve. This proximity enhances trust and encourages voluntary compliance with community rules and decisions.

From a governance perspective, one of the most notable outcomes of these locally driven arrangements is the promotion of spontaneous compliance and self-regulation. Community members generally adhere to locally established rules not out of fear of formal sanctions, but because they are perceived as legitimate, fair, and necessary for maintaining collective well-being. This form of normative compliance contributes significantly to social order, discipline, and cooperation within mining communities. The governance structures also perform important administrative and regulatory functions. They coordinate access to mining sites, oversee operational activities, mediate disputes, enforce community norms, and facilitate interactions among various stakeholder groups. In many instances, they serve as the primary institutions through which mining communities organise their economic and social affairs, thereby filling critical governance gaps in areas where state oversight is weak or absent.

From a theoretical standpoint, these arrangements exemplify hybrid governance systems in which customary authority, community participation, and locally developed rules coexist with formal statutory frameworks. Rather than replacing state institutions entirely, community-led governance structures operate within a complex landscape of overlapping authorities and jurisdictions. Their existence demonstrates how communities adapt to institutional deficiencies by creating governance mechanisms that are locally legitimate and functionally effective.

The authority hierarchy within these governance systems, as illustrated in *Figure 11*, reflects a structured and organised approach to community administration. Different actors and committees perform distinct functions, with authority distributed across multiple levels to ensure effective regulation, accountability, and dispute resolution. This hierarchical arrangement enables communities to manage a wide range of social, economic, and security issues while maintaining stability within mining sites.

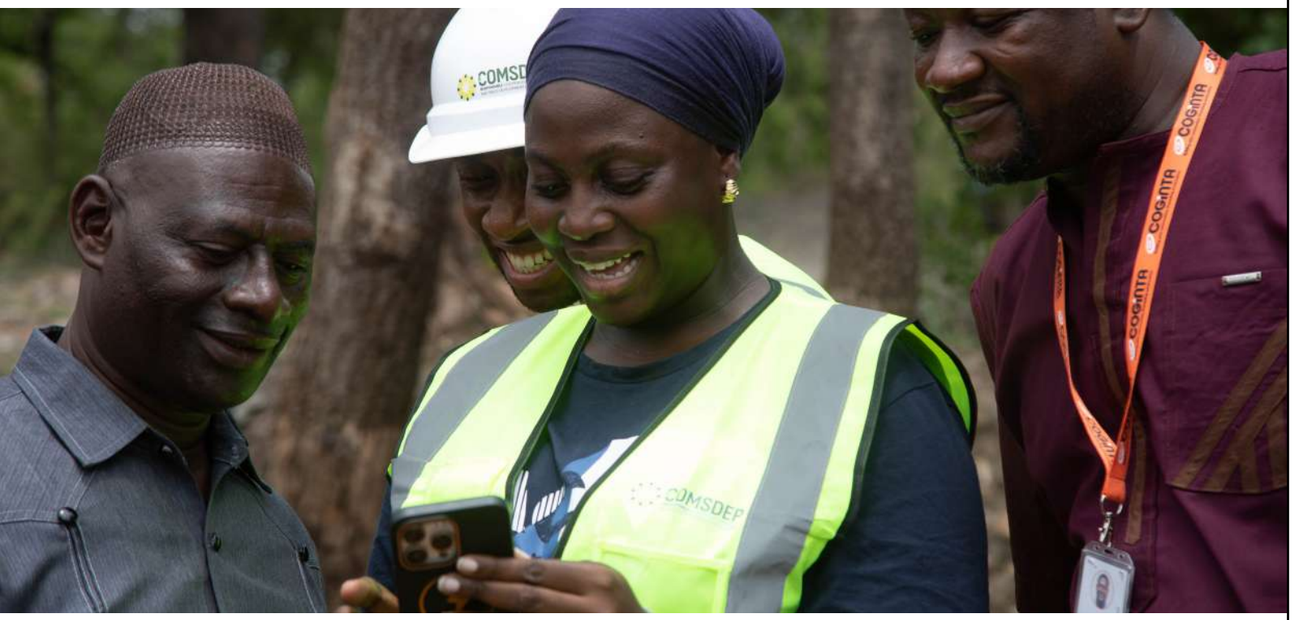


Figure 11: RCOMSDEP official verifying the coordinates of ASM sites

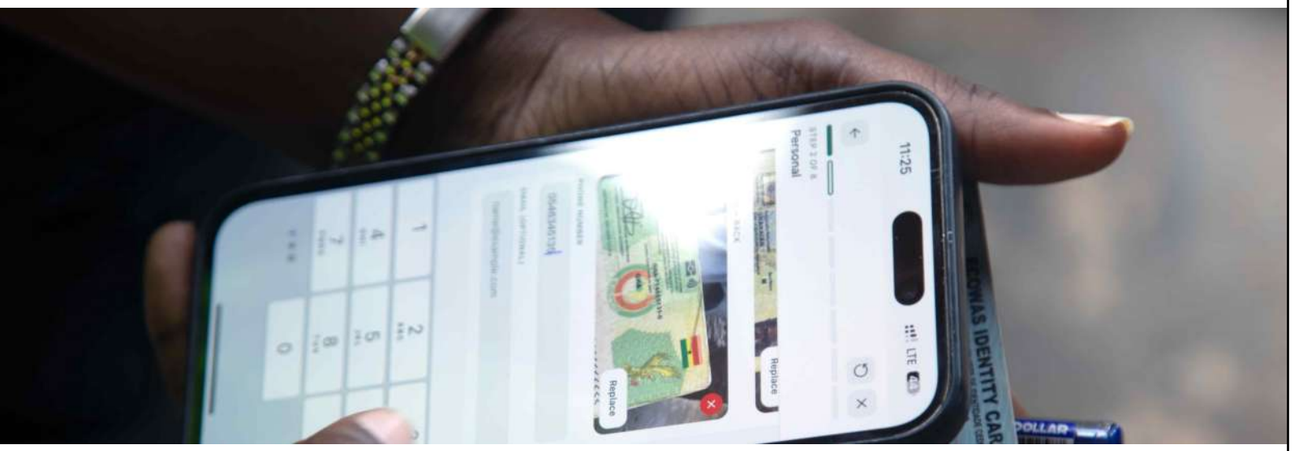


Figure 12: RCOMSDEP official verifying membership of Dua cooperative in Banda Nkwanta

Gender and social inclusion analysis of the community-led governance structures

The governance structures documented in ASM communities reflect significant gender and social inclusion gaps as shown in Table 13.

Table 13: Gender representation of the Community-led governance system

Governance level	Male representation	Female representation
Traditional leadership	Chiefs (apex authority)	None
Committee system	Dominated by men	Limited
Pit/gang leadership	Exclusively male	None
Sponsorship/finance	Exclusively male	None
Women leaders	Not applicable	Present but with limited power

Women experience systematic exclusion across multiple dimensions of artisanal and small-scale mining governance.

- Apart from Tinga where a woman was appointed to the committee level to represent the interest of women, there was not explicit examples from the rest of the communities
    - Again, women are not involved in the decision-making processes related site activities, land allocation and access to mining opportunities. At Dakrupe for instance, a key informant indicated that the tradition does not allow women to sit with men and take decisions.

Below are some of the excepts from the women groups during the FGD:

> *"We are not allowed to join them at the pit because some of them claim their protection does not allow them to touch women when working".*

> *"We are not part of those who take the decisions. Ours is to respect them because they are our husbands".*

> *"All we do is to buy the load from them and process, or you buy the 'overs' and process them. As you can see, when we finish processing, we have to sell it back to the men, there is no woman buyer".*



This situation limits their influence over the distribution and use of mineral resources.

- In terms of mining operations, women were involved in the surface excavation (toface) due to its relatively low technical requirements. The method is particularly reserved for women because it involves simple tools, minimal capital investment, and does not require advanced geological expertise. In addition, the method provides quicker access to mineral yields, enabling women involved in these activities to generate income within relatively short production cycles.
- *Another operational area being patronized by women is reprocessing of tailings (Figure 13). "I have been buying and washing overs for almost two years now since I got divorced. This one when you wash ten sacks and you are luck you can get three hundred cedis. Since we women are not allowed to go to site to buy load, this what we do for a living", a woman at Wakawaka. Wasing of tailings is predominantly undertaken by women due to its low capital requirements and minimal operational costs. In addition, the practice provides quicker returns on labour, enabling women engaged in the activity to generate income within relatively short timeframes.*



Figure 13: Women play a central role in reprocessing mine tailings to recover remaining gold

- Their participation in dispute resolution mechanisms is also constrained, reducing their ability to shape outcomes in conflicts that directly affect their livelihoods.
- Furthermore, women have limited involvement in the economic governance of the sector, particularly in areas such as sponsorship arrangements, equipment ownership, and access to capital, which restricts their economic empowerment and upward mobility within mining value chains. "*Our problem is that we are unable to access funding for our activities. No sponsor will want to give we the women money to expand our activities, we have to rely on our small-small profit to buy the load and process, they sponsors say that if they give us money, we will waste it because we are women, my brother is this fair*", they asked during FGD at Tinga. This situation existed in almost all communities. For dollar power and Dakrupe, the women only provided support services like selling food and water at the site without directly participating in the ASM activities
- Exclusion also extends to security governance, where informal security structures and community protection groups are male dominated, leaving women with little representation in decisions concerning safety, conflict management, and local security arrangements.

• Gaps Identified on Gender and Social Inclusion

The findings reveal substantial gaps in gender-disaggregated data within ASM communities. There was lack of data on:

- Age distribution;
- Community/country of origin;
- Level of exposure to hazards;
- Security risk exposure;
- Level of education;
- Actual number on site;
- Place of residence;
- Marital status/affiliation;
- Dominant ethnic groups;
- Health status;
- Social groupings;
- No recognized social protection for women was identified.

• Implications of the Identified Gender Data Gaps

The absence of comprehensive data on women's demographic characteristics, socio-economic status, occupational risks, and social protection limits the ability of government agencies and development partners to design evidence-based interventions that respond to the realities of women in ASM. The implications of the gaps include the following:

- Without gender-disaggregated data, women's needs are systematically excluded from national ASM policies, formalisation strategies, and peacebuilding frameworks.
- Interventions designed without understanding women's demographics, risks, and socio-economic profiles are likely to miss their targets or inadvertently reinforce existing inequalities.
- The absence of social protection and hazard exposure data ensures that women remain trapped in cycles of poverty, ill-health, and exploitation, undermining broader peace and development outcomes.
- Women are essential actors in community stability, yet the lack of data on their social groupings and affiliations prevents their meaningful inclusion in conflict prevention and mediation efforts.
- Without baseline data, it is impossible to measure progress, hold duty-bearers accountable, or track the effectiveness of gender-responsive interventions.

• Preference for alternative livelihood

- Women preference for alternative livelihood varied across ASM sites and the type of current livelihood activity.
- For on-sight women no alternative livelihood can match proceeds from ASM, whether directly or indirectly.
- For off-site women, any alternative livelihood should be as important as ASM. As one woman at Tinga puts it: *"we are the gold and the gold is us. No gold, no Tinga".*
- For women in Wakawaka and Tinga, farming was the least preferred alternative livelihood activity that would be welcomed.
- For women at Dollar Power and Tuntumba, empowerment means licensing ASM, and all livelihoods will be a matter of course.

• Youth characteristics/exclusion

- They constitute the primary labour force at the ASM sites, yet they remain largely excluded from key governance and decision-making processes.
- There is a lack of data in terms of:
  - Age Distribution;
  - Origin;
  - Level of exposure to hazards;
  - Security risk exposure;
  - Level of education;
  - Actual number on site;
  - Place of residence;
  - Dominant ethnic groups;
  - Health risk exposure;
  - Social groupings/networks;
  - No recognized youth-oriented protection for the youth.

In the context of ASM governance, security, and conflict dynamics, the exclusion of youth despite their centrality to the labour force has significant implications for both stability and effective regulation of the sector.

- The lack of disaggregated data on youth characteristics such as age, origin, education level, residence patterns, ethnic composition, and social networks further constrains the ability of regulators, community leaders, and security actors to design targeted interventions. This blind spot undermines effective risk management, particularly in relation to exposure to occupational hazards, health risks, and security vulnerabilities, all of which are likely to be unevenly distributed among youth groups depending on their roles and locations within ASM sites.
- From a conflict and security perspective, the absence of information on youth groupings and networks is particularly significant. When these networks are not understood or engaged, they can evolve into parallel power structures that compete with customary authorities, concession holders, or state regulators, thereby increasing the potential for tension and violent confrontation.

- The lack of recognised youth-oriented protection mechanisms also exposes young workers to exploitation, hazardous working conditions, and coercive recruitment into high-risk mining activities. It also perpetuates cycles of vulnerability and increases the likelihood of security incidents, including theft, disputes over earnings, and clashes between rival groups.

The exclusion of youth from ASM governance frameworks and the absence of granular data on their profiles create a critical governance gap. It weakens institutional capacity to anticipate and manage conflict risks, undermines occupational safety and social protection, and ultimately reduces the prospects for building more stable, inclusive, and well-regulated ASM communities.

- **Migrant characteristics/exclusion**
  - ASM site has migrants from Burkina Faso, Côte d'Ivoire, Mali, Nigeria, and other parts of Ghana who play a significant role in mining activities.
  - Majority of Sponsors are Mossi from Burkina Faso.
  - The Sponsors are usually not present at sites but work through local representatives.
  - Migrant miners are excluded and have limited opportunities to influence policies and practices that directly affect their livelihoods.
  - They are often scapegoated and blamed for local cultural infarctions, thus further exacerbating their social and economic insecurity and deepening tensions between host and migrant populations.
  - There are gaps in migrant data in terms of:
    - Age Distribution;
    - Country of Origin;
    - Level of exposure to hazards;
    - Security risk exposure;
    - Level of education;
    - Actual number on site;
    - Place of residence;
    - Dominant foreign language spoken;
    - Health risk exposure;
    - Social groupings/networks;
    - No recognised migrant-oriented protection for the youth.

- **Implications**
  - From a governance perspective, the exclusion of migrants and reliance on informal intermediaries weaken accountability, fragment authority, and undermines effective regulation of ASM activities. This results in weak oversight of labour practices, environmental compliance, and benefit-sharing arrangements.
  - From a security risk perspective, limited data on migrants and the absence of protection mechanisms increase their vulnerability to exploitation, unsafe working conditions, and unmanaged occupational and health risks. It also reduces the ability of authorities to anticipate and respond to emerging threats.
  - From a conflict perspective, exclusion, scapegoating, and perceptions of unequal benefit distribution, especially involving external sponsors, fuel mistrust between host and migrant communities. These tensions heighten the likelihood of disputes and localised violence, particularly under conditions of resource competition.

Overall, these dynamics collectively weaken ASM stability by undermining governance systems, increasing security vulnerabilities, and intensifying social conflict risks.

3.3.3 Objective 3: Security analysis and trans -boarder movement: a human security and border governance perspective

The District Securty Committee (DISEC) serves as the primary coordination platform for ASM-related security issues. DISEC meets regularly and provides a mechanism for responding to emerging threats. Key stakeholders who participated in the research were unanimous that logistics challenges have hampered field monitoring, creating a security vacuum in the mining communities.



Community-led security architecture in ASM mining communities

In many of the communities visited, formal security agencies and district-level security structures are either absent or unable to provide sustained security coverage due to the remoteness of the mining sites. Consequently, community members have established trusted informal security arrangements that function as the primary providers of security and order within mining settlements (Figure 14).



Figure 14: Community-based informal security personnel at an ASM site

Their emergence reflects a practical response to governance gaps and demonstrates the capacity of local communities to organise collective security in environments characterised by weak state presence. The primary responsibility of these community-based security structures is to:

- regulate mining activities, maintain peace, and protect both residents and economic assets within the mining communities.
- Their role extends beyond conventional security functions to encompass broader management of social order and community stability.
- routinely monitor activities within mining sites, intervene in minor disputes, and provide protection for miners, traders, and community members against criminal attacks such as theft and armed robbery.
- established multiple security posts at strategic entry and exit points, enabling them to monitor the movement of people, equipment, and goods.
- conduct regular patrols during both day and night. These patrols are intended to deter criminal behaviour, identify emerging threats, and respond swiftly to incidents.

- They rely on traditional and spiritual fortification practices, including charms, amulets, and other traditional protective objects for legitimacy and protection.
- From a human security perspective, such beliefs contribute to social legitimacy and reinforce public trust in their ability to maintain order.
- They possess firearms, including pump-action and single-barreled guns, which they use in the performance of their duties.
- They have little or no formal training from the police or other recognised security agencies.

The effectiveness of these informal security arrangements is largely attributed to their deep familiarity with local conditions and social dynamics. Because security personnel are typically drawn from the communities they serve, they possess detailed knowledge of local actors, social networks, conflict histories, and emerging threats. Their accessibility and embeddedness within the community further enhance trust and cooperation between residents and security providers.

Potential security threats and national security implications

a) Cross-border

The potential cross-border security issues identified were common within the ASM communities situated along border corridors. The issues identified have human security, borderland governance, and transnational security implications for Ghana. The key findings are discussed below:

1. Border disputes, territorial contestation, and community security

The location of Dollar Power, for instance, along the Ghana–Côte d'Ivoire border buffer zone, has experienced persistent disputes over territorial ownership and access to mineral resources. The ASM committee secretary summed up the situation:

> *"One of our biggest security issues here is the constant friction with the Ivorian security forces along the border. Because the boundaries aren't clearly marked, our miners and residents sometimes cross over into disputed areas while working. When that happens, the Ivorian authorities arrest and detain them. Some of our people have even been jailed over in Côte d'Ivoire. there was a time one of us was jailed for Ten years in Côte d'Ivoire. It took the intervention of the Ghana Boarder Commission to have the person released. It has created so much fear and panic for those of us living in this border area, and it's really ruining our relationship with our neighbors and making the whole community feel unsafe."*

From a border governance perspective, such disputes go beyond local disagreements over land. The reported confrontations demonstrate how resource competition can transform borderlands into zones of insecurity. The arrest and imprisonment of Ghanaian community members in Côte d'Ivoire further highlight the potential for local disputes to escalate into diplomatic incidents requiring state intervention.

From a human security perspective, these conflicts undermine the safety and livelihoods of border populations. Fear of violence, restricted access to mining areas, displacement, and uncertainty regarding land ownership directly threaten household income sources and community stability.

2. Manipulation of border markers and threats to territorial integrity

There were reports from participants of shifting boundary pillars and the destruction of trees serving as natural border markers by suspected Ivorians.

"The people are actually moving the boundary pillars and cutting down the trees we've always used as natural border markers. It's a deliberate move by some to push further into gold-bearing areas and expand their territory. Doing things like this just completely undermines the border agreements we have in place and challenges the legitimacy of the boundaries we've all recognized for years" (key informant at Dollar Power).

The manipulation of border indicators reflects a form of resource-driven territorial encroachment, where economic incentives motivate individuals and groups to alter physical markers of sovereignty. Beyond local disputes, these activities create conditions for interstate misunderstandings, heighten tensions between neighbouring communities, and complicate border management efforts.



Porous borders and unapproved entry points along the Black Volta corridor that facilitate smuggling, illegal migration, illicit mineral trade, and other transnational crimes.

3. Porous borders/unapproved entry points

The existence of numerous unapproved entry routes (Figure 15) along the Black Volta corridor, represents a significant border security concern. The unapproved routes can serve as a potential avenue for the expansion of the activities of transnational criminal networks.

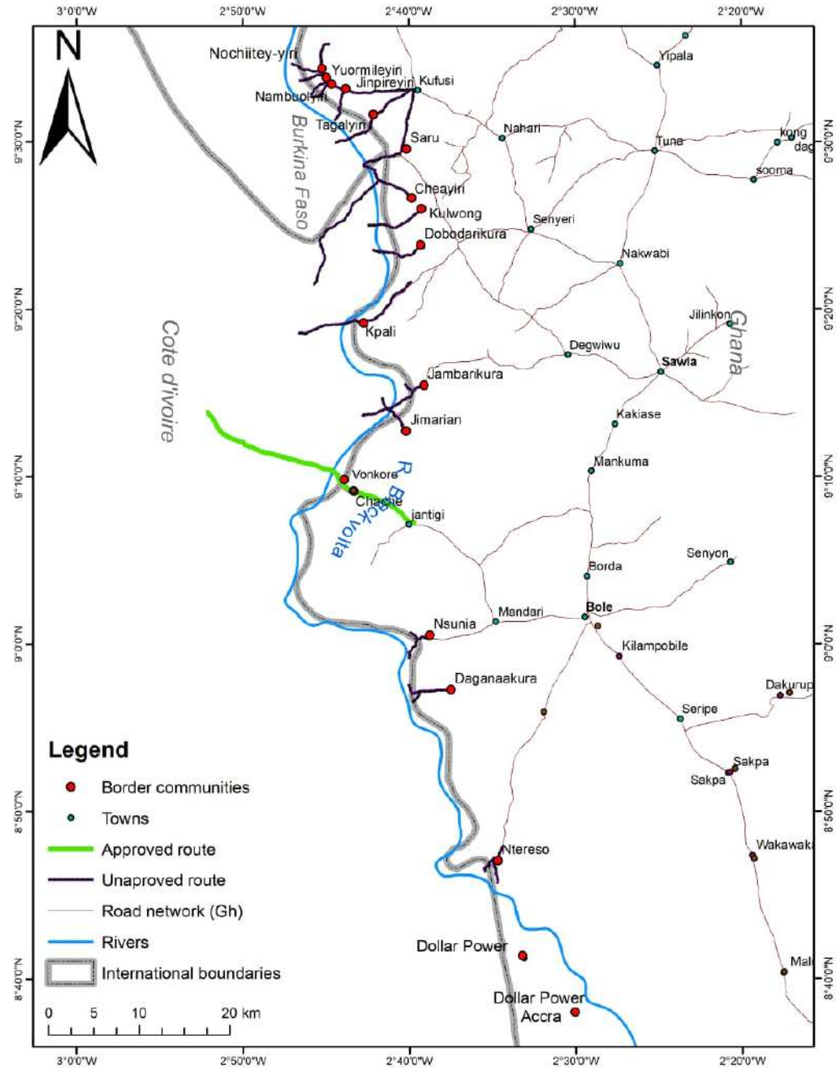


Figure 15: Approved and Unapproved Crossing Points

From a security governance perspective, porous borders can create opportunities for smuggling, illegal migration, human trafficking, and illicit trade in minerals. The use of canoes and remote crossing points limits security agencies' ability to monitor movements effectively, thereby creating governance gaps that criminal actors can exploit.

4. Migration Networks and Potential Risks of Extremist Infiltration

As indicated previously, the ASM communities have become important destinations for migrants. The concentration of transient populations within poorly regulated environments creates vulnerabilities that criminal and extremist networks may exploit. During one of the stakeholder engagements, the head of one of the security agencies indicated:

"Mining sites could create opportunities for infiltration and concealment by extremist actors. He continued, there were recent security incidents involving armed individuals whose presence generated local fears of terrorist infiltration. While subsequent investigations did not confirm terrorist involvement, the incidents highlighted vulnerabilities associated with remote mining locations".

From a transnational security perspective, the presence of migrants originating from countries experiencing insurgent activity raises concerns regarding potential extremist infiltration. The combination of weak monitoring systems, informal economic activities, and difficult terrain creates what security scholars describe as ungoverned spaces (Mabe, Owusu-Sekyere, and Adeosun, 2021). Such environments can inadvertently provide safe havens for extremist elements seeking to avoid detection while integrating into local economic systems.

5. Communication Deficits and Security Vulnerabilities

A major security challenge identified the remoteness of many ASM sites including Dollar Power, Kulbi, Vuvuu. These communities lacked reliable communication infrastructure. Poor telecommunications coverage significantly limits residents' ability to report suspicious activities, criminal incidents, or emerging security threats. One key informant at Dollar Power narrated the difficulties the communities go through with communication when he explained:

> *"Every single time we try to make a simple phone call, we are hit with exorbitant international roaming rates. We aren't even getting Ghana's communication signals out here; instead, our phones are constantly latching onto network signals broadcasting from neighbouring countries. It feels like we are being penalised financially just for trying to stay connected in our own community"*

From a security management perspective, communication systems serve as critical components of early warning and rapid response mechanisms. These communities thus operate beyond the routine surveillance capabilities of state institutions. Consequently, mining communities become attractive destinations for individuals seeking to evade formal controls and engage in illicit activities.

b) Other Security threats

1. Proliferation of Small Arms

There was evidence of the proliferation of small arms in some of the mining communities. Some miners who the key informant describes as pit sponsors were often seen with pistols on them which they claim was for self-protection. Interactions with some key informants at the district security level revealed that the proliferation of small arms constitute major risks in mining communities. One of them further indicated:

> *"Our primary intelligence fear is that a significant number of these foreign nationals originate from Burkina Faso, a nation currently grappling with active insurgencies. If we do not tighten border enforcement immediately, violent extremists and miscreants will exploit our numerous unapproved routes, weaponize the local arms trade, and destabilise the entire jurisdiction."*

The circulation of firearms is often associated with the emergence of organised criminal structures capable of enforcing control through intimidation and violence. From a national security perspective, the proliferation of small arms increases the lethality of conflicts, undermines public safety, and complicates law enforcement efforts.

2. Armed Robbery and Economic Volatility

ASM communities are vulnerable to armed robbery due to the concentration of high-value minerals, cash-based transactions, and limited law enforcement presence. The presence of gold and liquid cash makes miners, traders, and sponsors attractive targets for criminal groups. There was evidence from the key informant interviews with a DISEC member and corroborated during a focus group discussion at Tinga for instance, that women miners and gold buyers have been the target of armed robbers. One security guard at one of the ASM sites explained that apart from financial losses, armed robbery undermines community confidence, discourages investment, and creates a climate of fear that disrupts economic activities. He further explained that the frequent attacks are the reason why some community members have purchased pistols for self-protection. This situation contributes to the broader proliferation of weapons within mining areas.

3. Narcotics, Substance Abuse, and Social Disorder

Drug abuse emerged as a significant social and security concern within some ASM communities. The widespread use of narcotic substances contributes to theft, violent behaviour, interpersonal conflicts, and reduced productivity among miners. From a human security perspective, substance abuse erodes social capital and community cohesion while increasing public health risks. The resulting behavioural problems place additional pressure on informal governance systems and often serve as catalysts for broader criminal activities within mining settlements.

4. Gambling and Socioeconomic Instability

The prevalence of gambling within ASM communities reflects the availability of disposable cash and the speculative nature of mining livelihoods. While often viewed as a recreational activity, excessive gambling can generate significant social and economic consequences. Loss of income through gambling contributes to indebtedness, household instability, and interpersonal conflicts. In some cases, financial desperation resulting from gambling losses may incentivise theft, fraud, and other forms of criminal behaviour. Consequently, gambling functions as both a social and economic risk factor within mining communities.

5. Syndicated Youth Gangs and the Collapse of Traditional Governance

The formation of youth gangs represents another significant security challenge within the ASM communities. These groups often emerge in response to competition over access to mining opportunities and the weakening of traditional social control mechanisms. From a governance perspective, youth gangs constitute alternative centres of power that may challenge the authority of community leaders and local conflict resolution structures. Their involvement in extortion, violent disputes, illegal mining operations, and criminal enterprises undermines social cohesion and increases insecurity. The emergence of such groups also reflects broader socioeconomic frustrations among young people, suggesting that security responses alone may be insufficient without complementary interventions aimed at improving livelihoods, employment opportunities, and community inclusion.

These findings suggest that ASM along the borders evolve into strategic security spaces where issues of border management, resource governance, organized crime, economic security, and potential extremist infiltration intersect. The national security implications therefore extend beyond environmental degradation and illegal mining to encompass broader concerns regarding territorial integrity, state authority, social stability, and regional security.

Conflict Typologies in ASM Communities and Their Governance Implications

This section presents the conflicts identified and their implications. The conflicts identified reveal a complex interplay between resource competition, institutional overlap, and fragile informal governance systems. Table 14 provides in detail the conflicts identified and their implications.

Table 14: Conflict typologies, drivers, hotspots, and their implications

Conflict typology	Description/drivers	Hotspot	Governance implications	Human security implications
Inter-community resource conflicts	Competition over ownership and access to gold-bearing land arising from overlapping customary boundaries	Conflicts reported between Wakawaka–Sakpa and Banda Nkwanta–Nouyiri.	Demonstrates weak coordination between customary and statutory land administration systems	Threatens community safety, disrupts livelihoods, weakens social cohesion, and increases the likelihood of violent communal clashes.
Conflict between ASM miners and Large-Scale Mining (LSM) firms	Statutory licenses granted to LSM companies' conflict with customary land ownership and long-standing ASM operations.	Tuntumba, Camp, Cluff and Dollar Power	Reveals governance deficits in licensing transparency, stakeholder consultation, inter-agency coordination, and procedural legitimacy	Creates livelihood insecurity through displacement, loss of mining investments, fear of state coercion, and heightened risks of violent confrontation.
Conflict between miners and forest guards	Illegal mining activities around forest reserves lead to confrontations with enforcement officials.	Reported in Banda Nkwanta, Wakawaka, and Dollar Power,	Reflects weak enforcement capacity, inadequate surveillance of protected areas, and limited institutional authority to prevent illegal mining	

Conflict resolution mechanisms in ASM communities: a conflict sensitivity perspective

The ASM communities exhibit a plural legal order where customary authority, informal institutions, and state law overlap. From a conflict sensitivity framework, these arrangements can be understood not only as governance responses but also as mechanisms that either mitigate or exacerbate tensions depending on how they are applied.

Informal sub-institutions (connectors)

Minor disputes are typically resolved by gang leaders, ethnic group heads, and ghetto owners. These actors derive legitimacy from social embeddedness and proximity to disputants. Their role as "living law" institutions provide rapid, context-sensitive dispute resolution that prevents escalation. As connectors, they sustain everyday peace by reinforcing trust and social cohesion at the micro level.

Hybrid committees (bridging institutions)

When disputes escalate, resolution shifts to community committees that blend customary norms with semi-formal rules. These hybrid institutions act as connectors by coordinating fragmented authorities and maintaining order in the absence of state oversight. However, they can also function as dividers if dominated by elite sponsors or pit owners, thereby excluding women and youth from decision-making.

Cultural and Moral Infractions (Spiritual Governance)

Cases involving violations of indigenous moral-religious norms (e.g., mining on sacred days, public indecency) are adjudicated by chiefs through ritual cleansing and appeasement ceremonies. These practices are meant to restore metaphysical balance and reinforce cultural cohesion. Yet, from a conflict sensitivity perspective, they risk becoming dividers if sanctions are applied selectively or perceived as biased against particular groups.

Operational disputes (functional governance)

Committees regulating mining practices—such as pit allocation and labour coordination—represent adaptive governance hybrids. They function as connectors by filling regulatory gaps and reducing operational disputes. However, weak enforcement or favouritism can transform them into dividers, fueling resentment and intra-community conflict.



Ad hoc adjudicatory committees (institutional bricolage)

Joint committees formed by chiefs and ASM regulatory bodies (e.g., in Tinga) illustrate institutional bricolage, combining elements of customary and formal governance. These adaptive mechanisms are connectors when inclusive, but dividers when they reinforce patronage networks or marginalise vulnerable groups.

Theft and Escalation to State Systems (Nested Legal Orders)

Theft-related cases highlight the interface between customary and formal systems. Initial adjudication occurs within community committees, but unresolved cases escalate to police authorities. This nested pathway demonstrates cooperation between legal orders, a connector that strengthens legitimacy. However, inconsistent state responses or corruption can undermine trust, turning the state into a divider.

Punitive sanctions (coercive customary practices)

Practices such as whipping and banishment in communities like Tinga and Dollar Power reflect coercive customary sanctions. While effective in deterring misconduct, they raise human rights concerns and risk deepening grievances. From a conflict sensitivity lens, these sanctions are dividers that may perpetuate cycles of violence and exclusion.

The reliance on informal justice systems within the ASM communities reflects a broader legal pluralist governance arrangement, in which multiple normative orders coexist and collectively regulate social life. In this context, traditional authority structures, community-based committees, and locally developed rules constitute the primary architecture of conflict management, operating alongside but often more prominently than formal state legal institutions. These findings illustrate that informal governance structures function as central pillars of social order and conflict regulation, rather than peripheral substitutes for state law. They embody a living legal system in which legitimacy is continuously produced through practice, social recognition, and enforcement capacity. This reinforces the broader theoretical insight that in plural legal environments, effective governance is not monopolised by the state but distributed across multiple, interacting systems of authority.

ASM in the Sawla-Tuna Kalba (STK) district

- **Nature of mining activities**

ASM in STK is an emerging phenomenon and takes place along the Black Volta. Characteristically, the activity is widespread among the communities along the Black Volta, unlicensed and undertaken by unrecognized groups. Major communities identified Kpali, Kulbi, and Vuvuu.

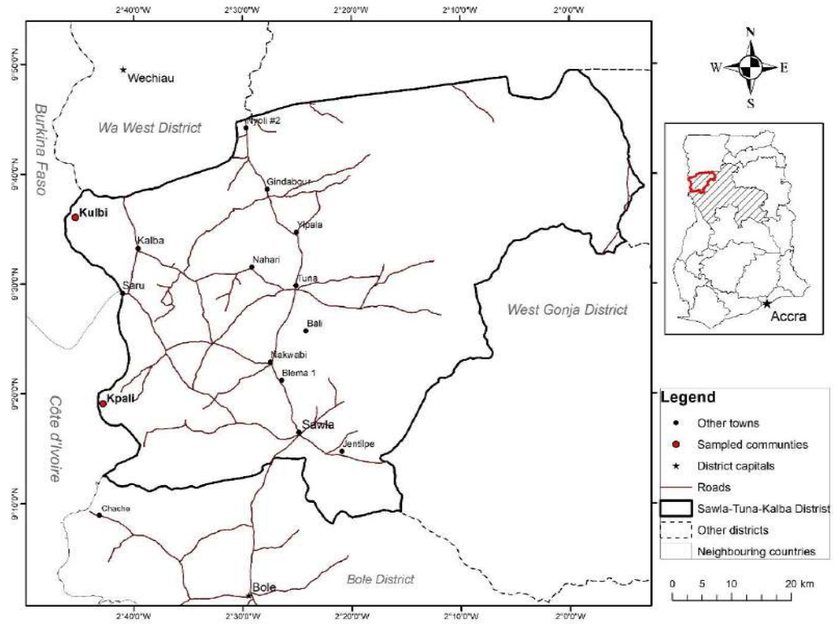


Figure 16: Map of Ghana showing mining communities at STK

The governance of ASM activities in the STK

The ASM sites in the district operate illegally, beyond the oversight of law enforcement, district authorities, and distant from nearby communities. The most striking finding is the absence of a governance framework at the district level to regulate ASM activities. This was confirmed through interactions with district administrators and corroborated by records from state institutions mandated to oversee ASM operations. As a result, regulatory authority has effectively shifted from formal state institutions to informal power holders such as site bosses and financiers. This shift has heightened risks of environmental crime, facilitated cross-border illicit activities, and exacerbated social conflicts. The implications of each finding are presented in Table 15.

Table 15: Implications of governance of ASM in the Sawla-Tuna-Kalba district

Finding	Direct implication
No formal governance check at district level	No enforcement of mining laws, no health/safety inspections, no environmental monitoring, and no collection of mineral revenue or royalties.
No informal governance structure at ASM sites	No traditional authority, no site-level dispute resolution, no work safety norms, and no internal rules
ASM sites work in secret spaces on the BV and at night	Night operations increase mercury use (hidden from view), accidents (poor light), and make monitoring nearly impossible.
ASM done on the blind side of the law (including MinCom and EPA)	Regulatory agencies have no situational awareness. Illegal mining (galamsey) becomes the default, and any future legalization effort would lack baseline data.
Blue Water guards in operation	The Blue Water Guards operate in STK and the District Assembly is aware of their existence but rarely collaborates with other agencies except the police. This points to weak coordination and weak mining governance architecture in the STK.
ASM is not organized	No worker protections, no bargaining power, no safety gear, and no responsible mineral supply chains. Also means no cooperative model that could transition to legality.
ASM workers are mostly not community members but outsiders	Local communities see no direct economic benefit but bear all environmental costs (polluted water, degraded land). High risk of inter-communal violence between locals and migrant miners.

Security risk at ASM sites

The field evidence reveals the absence of formal security architecture for regulating and monitoring the Artisanal and Small-Scale Mining sector in the district. The only notable security intervention identified was the occasional operations of the Blue Water Guards, a specialized community-based environmental protection force established by the Ministry of Lands and Natural Resources in collaboration with the Minerals Commission. The Guards are trained by the Ghana Navy and mandated to combat illegal mining activities and protect major water bodies from pollution and environmental degradation.

Interviews with a key informant from the Blue Water Guards indicated that the unit is expected to provide round-the-clock surveillance of water bodies, monitor illegal mining activities, and report security threats to the Ghana Navy Command Centres and the Minerals Commission for rapid response. However, the informant noted that the Guards have been unable to effectively execute these responsibilities due to severe logistical constraints. In particular, they lack essential operational resources such as speedboats, drones, and other surveillance equipment required for effective monitoring and enforcement activities.



Working in partnership with the police, the Blue Water Guards monitor vulnerable river systems, helping to safeguard water resources through surveillance, intelligence gathering, and coordinated response to illegal mining.



The informant explained: *"Those engaged in illegal mining are very good swimmers and they also operate motorized boats, which enable them to escape whenever they see us approaching. We do not even have a hand-paddled canoe, let alone a speedboat. How do we arrest these people?"*

This account highlights the significant resource gap that undermines the effectiveness of the Blue Water Guards and limits their capacity to deter illegal mining activities.

The interaction further revealed that despite these challenges, the Guards have demonstrated their potential effectiveness when adequately supported. The informant cited an intelligence-led operation conducted on 10 January 2026 along the Black Volta near the Kpali community. During this operation, the Guards successfully disrupted illegal mining activities and dismantled four Changfan machines along with several other pieces of mining equipment used by the operators. According to the informant, such successes demonstrate that with adequate logistical support and operational resources, the Blue Water Guards could play a more effective role in safeguarding water bodies and enforcing regulations within the ASM sector. The implications of these security risks are discussed in Table 16.

Table 16: ASM security risk and their implication at STK

Security risk	Security implications for Ghana
ASM is undertaken by strangers without identification of their origin	The presence of unidentified miners poses serious national security concerns, as it creates opportunities for criminal networks, arms trafficking, money laundering, and organised crime to flourish.
Threat to the survival of the Black Volta	The degradation and pollution of the Black Volta threaten one of Ghana's critical transboundary water resources. This has implications for water security, biodiversity conservation, agricultural production, hydroelectric sustainability, and regional cooperation with neighbouring countries sharing the Volta Basin.
Threat to communities along the Black Volta	Mining-related environmental degradation exposes communities to water contamination, and health risks. These conditions can trigger displacement, deepen poverty, and increase social tensions and local conflicts over access to safe water and productive land.
Points of infiltration for insurgents	The porous nature of mining areas and unapproved routes along border communities creates potential entry points for violent extremist groups and insurgents operating within the West African sub-region.

Security risk	Security implications for Ghana
Loss of livelihood to fishing communities	The destruction and pollution of the Black Volta negatively affect fishing activities, resulting in unemployment, reduced household incomes, food insecurity, and social vulnerability among riparian communities. Such economic hardship can increase youth involvement in illegal activities and social unrest.
Water security issues downstream	Pollution and sedimentation of the Black Volta affect downstream users who depend on the river for domestic use, irrigation, livestock, and industrial activities.
Gold produced is not captured in the national accounting system	The smuggling and underreporting of gold production lead to significant revenue losses for the state through tax evasion and illegal trade.

The governance vacuum and the limited security arrangements collectively demonstrate that ASM activities STK and along the Black Volta Basin extend beyond environmental concerns and constitute a multidimensional national security challenge. The issues affect human security, border security, economic security, environmental security, and state governance capacity and could contribute to state fragility, deepen local grievances, and expose Ghana to transnational criminal and extremist activities within the West African sub-region.

District comparison matrix: Bole and Sawla-Tuna-Kalba Districts

Table 17 shows the District Comparison Matrix based on the empirical findings from Bole Districts and the Sawla-Tuna-Kalba (STK) District. The comparison draws directly from the field findings, governance analysis, and community engagements.

Table 17: Comparative analysis of ASM governance and security in Bole and Sawla-Tuna-Kalba Districts

Indicator	Bole District	Sawla-Tuna-Kalba (STK) District
Scale of ASM activities	Extensive ASM activities across approximately 22 mining communities with varying stages of formalisation.	A smaller number of ASM communities with mining permit.
Dominant mining methods	Predominantly underground (ghetto) mining, surface (“toface”) mining, ore crushing and washing. Higher level of mechanisation in some communities.	Mainly alluvial-based mining along the Black Volta.
Licensing status	Mixed. Communities such as Tinga and Dakrupe possess licences while many others remain unlicensed but are undergoing formalisation.	Predominantly informal with no indications of licensing progress.
Governance structure	More interaction with District Assembly, chiefs and regulators due to larger concentration of mining sites.	Little institutional oversight by Blue Water guards.
Major resource conflicts	High incidence of inter-community land disputes, conflicts between ASM operators and large-scale mining firms, intra-gang disputes, and conflicts with forest guards.	No documented inter-community disputes.
Relationship with large-scale mining companies	Highly conflictual.	No large-scale mining companies.
Security threats	Land conflicts, violent confrontations, theft, illegal possession of weapons, migrant influx, destruction of property, and confrontations with security agencies.	Cross-border migration, porous borders, environmental crimes, and emerging climate-security risks associated with the Black Volta corridor.
Cross-border dynamics	Presence of migrant miners from Burkina Faso, Côte d’Ivoire, Mali and Nigeria.	Cross-border activities exist but not as intense as in the Bole District.
Environmental risks	Land degradation, abandoned pits, deforestation, destruction of farmlands,	Greater threat to the Black Volta Basin through riverbank mining, sedimentation, water pollution and ecosystem degradation.
Gender dynamics	Women predominantly engaged in tailing washing, load buying and complementary services.	No evidence of women’s participation.
Livelihood dependence	ASM is a major livelihood source supporting miners, transporters, food vendors, equipment owners and service providers.	ASM affects fishing, making livelihoods more vulnerable to climatic variability.
Human security concerns	High risk of violent conflict, displacement, livelihood loss, occupational accidents, and declining trust between communities and the state.	Human security concerns centre on environmental degradation, water insecurity, climate-related livelihood vulnerability, and transboundary insecurity.
Priority governance challenges	Formalisation of mining, resolution of concession disputes, improved licensing transparency, strengthening community participation, conflict resolution and institutional coordination.	Cross-border governance, integrated water resource management, environmental protection, climate-security planning, and enhanced border surveillance.
Overall governance profile	Characterised by high-intensity ASM activity, relatively advanced formalisation efforts, but more frequent governance failures and conflict due to the density of mining operations.	Characterised by geographically concentrated, environmentally sensitive ASM operations where governance challenges are increasingly linked to transboundary resource management and climate-security concerns.

Peacebuilding, mediation, and social cohesion initiatives in the three districts

The research reviews past and ongoing peacebuilding, mediation, and social cohesion programmes within the ASM communities to ascertain the good practices and identify challenges. The aim was to understand lessons from such initiatives to guide future programmes of such nature. Table 18 presents some of the peacebuilding, mediation, and social cohesion programmes undertaken in the districts.

Table 18: Past and ongoing peacebuilding, mediation, and social cohesion programmes in the districts

Agency & project	Key activities in the savannah region	Peacebuilding & social cohesion focus	Date / year of implementation
COGINTA Ghana **PEACE PROTECT Project** **(Funded by the EU)**	• Supported the Savannah Regional Peace Council to establish Local Peace Committees in border hotspots. • Built/renovated Local Peace Centres and commissioned a Community Police Post in Dakurupe. • Donated motorcycles to the Ghana Police Service for community policing visibility. • Strengthened 29 Customary Land Secretariats with equipment and training.	• Preventing Violent Extremism (PVE) & Land Governance: Strengthened local frameworks to resolve micro-conflicts (land, chieftaincy, and resource disputes) before they could be exploited by transnational armed groups. • Built a civil-security trust in mining and border zones.	**January 2024 – January 2026 (Two-year cycle, recently concluded)**
COGINTA Ghana **EU for a Secure Ghana**	• Validating security hotspot areas using context-specific data collection. • Consolidating regional conflict indicators (including the Sahel spillover and farmer-herder tensions). • Expanding Local Peace Council (LPC) structures directly into vulnerable local mining and border communities.	• Institutional Consolidation: Building on PEACE PROTECT to integrate women's organisations, traditional authorities, and Forcibly Displaced Populations (FDPs) into the peace architecture, ensuring inclusive, community-driven violence prevention.	**March 2026 – February 2029 (Active/Ongoing €7M initiative)**
Savannah Regional Peace Council (SRPC) **(Supported by UNDP & USAID)**	• Set up 12 inter-ethnic mediation committees in Bole and 5 in Sawla-Tuna-Kalba. • Trained 50 women from 8 communities in early-warning reporting. • Facilitated dialogues between border residents (e.g., Chache, Donkorkura) and security forces.	• Grassroots Mediation: Eradicating mistrust between localized state security agencies and border-zone mining communities to build a reliable early-warning pipeline.	**Ongoing (Council reconstituted for new term in June 2025)**
UK-Ghana Gold Programme (UKGGP)	• Engaged stakeholders in the Bole District regarding formal ASM licensing. • Supports the District Security Council (DISEC) to monitor illegal mineral pathways and smuggling.	• Resource Governance: Minimizing structural conflict drivers by mapping supply chain transparency and reducing law enforcement friction with small-scale miners.	**Active / Ongoing**
NORTHCODE Ghana **(In partnership with Coginta/EU & Conciliation Resources)**	• Launched the "Leaders of Today Not Tomorrow" project establishing Schools' Peace Clubs. • Organized stakeholder workshops in Damongo to manage farmer-herder mediation.	• Inclusive Cohesion: Mainstreaming marginalized ethnic minorities (like Fulbe pastoralist youth) into resource governance to counter radicalization pathways.	**October 2022 – Ongoing (With active sub-grants extended through 2026)**



3.4 Good practices, key lessons and gaps in ongoing peacebuilding, mediation, and social cohesion programmes

Traditional mediation structures remain predominantly patriarchal. Despite bearing the brunt of ASM-related disruptions — including economic displacement, sexual violence, and labour exploitation — women and youth are consistently excluded from high-level resolution processes. Their meaningful inclusion is essential for comprehensive and sustainable peace outcomes.

GOOD PRACTICES

1. **Infrastructure-led trust building**

Pairing abstract peace dialogues with tangible infrastructure—such as the construction of Local Peace Centers and the Dakurupe Community Police Post under Coginta's PEACE PROTECT project—has dramatically increased local confidence. This approach has transformed the perception of security from an aggressive external force into a visible, localized public service, fostering greater community ownership and trust.

2. **Strengthening customary land secretariats**

By supplying equipment to Customary Land Secretariats, Coginta directly addressed the structural root of ASM friction: vague land demarcation. Empowering *Tindanas* (traditional earth priests) with proper record-keeping systems has effectively limited dual-allocations of mining concessions, reducing a major source of inter-community disputes.

3. **Participatory land-use planning**

Engaging MMDAs in the Bole and Sawla-Tuna-Kalba districts to manage spatial planning has enabled the clear mapping of boundaries between mining, agricultural, and grazing lands. This preventative measure has curbed illegal encroachment and reduced farmer-herder and miner-farmer conflicts.

4. **Integrated Livelihood and Peace Frameworks**

Pairing community dialogues with economic resilience tools—such as Village Savings and Loan Associations (VSLAs)—has reduced the financial desperation that fuels illegal mining (*galamsey*) and vulnerability to recruitment into illicit networks. Anchoring peacebuilding in tangible economic benefits has enhanced community buy-in and sustainability.

5. **Alignment with Traditional Governance Structures**

Interventions that directly empower chieftaincy institutions and customary governance systems enjoy higher local trust and legitimacy. Given that formal court systems are often slow or inaccessible to rural miners, traditional mediation

remains the preferred first-line dispute resolution mechanism, making its integration into peacebuilding efforts essential for sustainability.

6. **Strengthened early-warning systems**

The distribution of motorcycles to Local Peace Committees and police, combined with the establishment of local "Peace Champions," has significantly improved response times to violent escalations in remote mining encampments. This enhanced mobility and visibility has strengthened community-led early-warning and rapid de-escalation capabilities.

LESSONS LEARNED

1. **ASM as an economic reality, not merely a crime**

Criminalizing informal miners without offering viable alternative livelihoods consistently drives conflict underground. Sustainable peace requires viewing ASM as a developmental opportunity that demands formalization and support, rather than relying solely on aggressive enforcement measures.

2. **Insecurity attracts external exploitation**

The high influx of undocumented migrant miners and displaced persons into the Savannah Region's gold-rich enclaves heightens community vulnerability. Without robust community-policing integration, ASM hubs risk becoming financial engines for transnational crime and extremist elements operating across the borderlands.

3. **Exclusion of vulnerable demographics from mediation**

Traditional mediation structures remain predominantly patriarchal. Despite bearing the brunt of ASM-related disruptions – including economic displacement, sexual violence, and labour exploitation – women and youth are consistently excluded from high-level resolution processes. Their meaningful inclusion is essential for comprehensive and sustainable peace outcomes.

GAPS AND CHALLENGES

1. **Coordination strain in multi-actor border environments**

Operating in complex border areas with multiple actors' places significant strain on overstretched public institutions. While the new EU for a Secure Ghana program aims to address this through unified National Workplans, a persistent gap remains in effectively linking community-level early warning indicators to the national counter-terrorism architecture.

2. Proliferation of illicit small arms

The widespread availability of illegal small arms in districts such as Bole remains a major roadblock to peace. Local mediation efforts are continuously undermined, as minor disputes over mining pits can rapidly escalate into armed confrontations.

3. Weak institutional linkages

A glaring disconnect persists between grassroots peace platforms and formal state law enforcement. Localized agreements reached through traditional dialogue often lack the binding legal authority needed to deter powerful, politically connected mining sponsors, rendering many informal resolutions unenforceable.

4. Mistrust and historical grievances

Chieftaincy factionalism and deep-seated ethnic land disputes foster an environment of entrenched mistrust in parts of the Savannah Region. This tribal and political polarisation makes it exceedingly difficult to establish neutral, universally respected Local Peace Committees in active mining zones.

DOLLAR POWER (SINDI KURA) IN CONTEXT

Dollar Power is singled out for discussion because the community provides a critical look at the complex relationship between mining, border security, and state-led peacebuilding. The community is along the international boundary line between Ghana and Côte d'Ivoire and serves as a vivid case study for peacebuilding and social cohesion frameworks.

Sovereignty and boundary destruction

Popularised around 2005 when Ghanaian miners moved in to displace Ivorian former rebels exploiting the local gold deposits, the population expanded rapidly to several thousand settlers. Because the area was rich in gold, unregulated mining operations physically destroyed the international boundary pillars and the historic teak trees planted in 1973 to mark the Ghana–Côte d'Ivoire border.

National strategic vulnerability

The illegal mining settlement grew inside a highly sensitive environmental zone (the Bui Wildlife Protection Zone) and directly alongside the Black Volta River. In recent years, the Bui Power Authority (BPA) explicitly warned that unregulated mining operations and the influx of transient cross-border populations at Dollar Power posed a severe threat to the **Bui Power Generating Station (Bui Dam)**, acting as a potential hub for illicit arms trafficking, banditry, and southern migration of violent extremism from the Sahel.

Peacebuilding and mediation interventions

Joint border reaffirmation and infrastructure Integration

Led by the Ghana Boundary Commission (GhBC) in collaboration with Ivorian counterparts, this intervention involved the construction of a 24-kilometre feeder road from Ntereso to Dollar Power. In an interview with a key informant, the road serves a dual purpose: *"it enables regulatory and security forces, including the Ghana Armed Forces and Immigration, to patrol the border effectively, while physically reconnecting an isolated mining community to the formal Ghanaian state and judicial system, thereby reducing grievances linked to state neglect".*



Forward operating base at Bui enclave

The Bui Power Authority has established a military Forward Operating Base near the dam enclave to support security operations in Dollar Power. Unlike sweeping military raids that terrorize communities, this base serves as a stabilizing, preventative anchor. It provides the security architecture needed to protect

Lessons learned and good practices from Dollar Power

Infrastructure as a peace tool

In hyper-isolated mining enclaves, social cohesion cannot be achieved through dialogue alone when communities remain physically cut off from state services. Building roads and communication infrastructure reduces the "ungoverned space" dynamic that transnational armed groups exploit, thereby reinforcing state presence and legitimacy.

Co-management with traditional authorities

Engaging the local chief (Sindiwura) to advocate for boundary protection and the restoration of border pillars demonstrated that traditional structures are willing partners in state security, provided they receive assured legal mining rights and essential infrastructure such as schools and hospitals in return.

Remaining gaps

Environmental flashpoints

Despite this intervention, mining along the Black Volta River remains a significant concern. Environmental mediation has yet to provide.

Early warning systems, monitoring and social cohesion in ASM communities

The ASM communities studied exhibit complex social, economic, and governance dynamics characterised by competing claims over mineral resources, land ownership disputes, migrant-host community interactions, and weak monitoring and regulatory oversight. These conditions create multiple sources of tension that have the potential to escalate into violent conflict if not effectively managed these were evident at Wakawaka and Sakpa' Banda Nkwanta, Nouyiri, and Kulbi. Within such contexts, Early Warning and Early Response (EWER) systems and social cohesion should not be viewed as separate interventions but as mutually reinforcing pillars of conflict prevention, community resilience, and sustainable peacebuilding.

The study found that informal early warning mechanisms exist but not in a formal system. They are largely embedded within community-led governance structures. Local governance committees, traditional authorities, youth leaders, and other influential actors play critical roles in monitoring emerging disputes, identifying security threats, and facilitating dispute resolution. These actors often serve as the first point of contact when conflicts arise over mining pits, land access, resource ownership, theft, or interpersonal disputes. Their close proximity to community members enables them to detect governance breaches, emerging grievances, and conflict triggers at an early stage.

However, despite the existence of community focal persons and informal monitoring arrangements, the study found no structured or institutionalised early warning and early response system within the ASM communities. Reporting mechanisms remain largely informal, ad hoc, and dependent on personal networks rather than clearly defined reporting channels and response protocols. Consequently, the effectiveness of existing early warning arrangements depends heavily on the quality of social relationships, trust, and communication among community members and local leaders. This limits the ability of communities and formal institutions to systematically analyse, document, and respond to emerging conflict risks.

Again, data is the foundation of any effective early warning and early response system as it enables communities, governments, and peacebuilding actors to detect emerging threats, understand conflict trends, predict escalation, and take preventive action before violence occurs. The findings reveal that there is lack of data in all the ASM communities regarding threats and conflict situation.

With regard to social cohesion, the findings reveal significant variations between vertical and horizontal dimensions of social cohesion. Vertical social cohesion, which reflects the relationship between mining communities and state institutions, remains relatively weak. This is evidenced by the limited presence of government agencies in many ASM communities, inadequate service delivery, and low levels of trust in regulatory and enforcement institutions. Community members frequently

expressed perceptions of political interference, selective enforcement of mining regulations, and corruption among some public officials. These perceptions have weakened the legitimacy of state institutions and contributed to a governance deficit in which many miners rely more on informal governance structures than formal regulatory systems.

In contrast, horizontal social cohesion, the relationships among individuals and groups within ASM communities was generally stronger. The study found evidence of strong social networks, collective identity, mutual support systems, and shared economic interests among miners and community members. Feelings of belonging, social inclusion, and interdependence were particularly evident within mining groups and community-based organisations. These social bonds often serve as important mechanisms for cooperation, dispute resolution, and collective action.

The existence of community governance committees, miners' associations, and traditional leadership structures provides important platforms for strengthening social cohesion and promoting peaceful coexistence. These institutions facilitate dialogue, foster community participation, and create opportunities for addressing grievances before they escalate into larger conflicts. As a result, they constitute critical social infrastructure for peacebuilding and conflict prevention within ASM communities.

Notwithstanding these positive attributes, the study identified significant challenges relating to social inclusion and participation in governance processes. Women, youth, migrant miners, and other socially marginalised groups remain underrepresented in decision-making structures despite their substantial contributions to ASM production and local economies. Their exclusion from governance and conflict-resolution processes limits their ability to influence decisions that directly affect their livelihoods and wellbeing.

The findings further suggest that social exclusion constitutes an important driver of grievances and potential conflict within ASM communities. Evidence from the field indicates that governance structures that deliberately incorporate women, youth, and migrant populations into mining committees and community leadership arrangements are more likely to promote inclusive decision-making, strengthen community ownership of governance processes, enhance trust among stakeholders, and improve the effectiveness of conflict management mechanisms.

Overall, the study demonstrates that strengthening social cohesion and establishing structured community-based early warning systems are critical prerequisites for improving conflict prevention, enhancing governance effectiveness, and promoting sustainable peace within ASM communities. Future interventions should therefore focus on institutionalising Early Warning and Early Response mechanisms, strengthening state-community relations, and promoting inclusive governance arrangements that ensure meaningful participation of women, youth, migrants, and other marginalised groups in ASM decision-making processes.

• Political economy of security governance

The security vulnerabilities identified in the study are not merely operational deficiencies but are deeply embedded in broader political economy dynamics that shape governance outcomes in the mining communities.

• Resource allocation failures

The observed inadequacies in security provision—particularly the shortage of operational assets such as vehicles, speedboats, and communication equipment—reflect strategic political choices regarding resource allocation rather than absolute scarcity. In practice, security provisioning appears to prioritise short-term, highly visible enforcement exercises over the sustained development of institutional capacity. This pattern is consistent with political incentives that favour demonstrable "action" in the short term, often at the expense of long-term effectiveness, preparedness, and resilience within security institutions.

• Parallel security authority

A significant development within the study areas is the emergence of community-led security groups, some of which are reportedly armed. These formations are symptomatic of gaps in state security provision and reflect the increasing monetisation of protection services. While these groups partially fill the security vacuum, their proliferation introduces several governance risks, including weakened accountability structures, heightened potential for violent escalation, erosion of the state's monopoly over the legitimate use of force, and the possible evolution of protection rackets. Their existence thus represents both an adaptive community response and a structural challenge to formal security governance.

• Transnational security economies

The security landscape is further complicated by transnational dynamics associated with migration from neighbouring conflict-affected states, porous border regimes, and largely unregulated gold trading networks. These conditions collectively contribute to the formation of a transnational security economy characterised by illicit financial flows that sustain criminal networks, smuggling corridors that facilitate trafficking activities, weak regulatory oversight that enables money laundering, and the involvement of foreign financiers operating outside formal accountability frameworks. These factors significantly complicate domestic security governance and enforcement efforts.

• Implications for policy

The analysis suggests that effective security interventions must extend beyond conventional enforcement approaches to address the underlying political economy that sustains insecurity. Key policy directions include the establishment of sustainable and predictable resource allocation mechanisms for security agencies, moving beyond episodic or symbolic deployments; the structured integration and regulation of community-based security groups rather than their outright suppression; stronger oversight of transnational financial flows linked to extractive activities; and broader governance reforms aimed at addressing systemic institutional weaknesses rather than merely treating their symptomatic manifestations.

• Conflict Sensitivity and Do No Harm Analysis of Security Interventions

The security dynamics identified in this study necessitate a conflict-sensitive approach to intervention design and implementation. Without such an approach, well-intentioned enforcement measures may inadvertently exacerbate existing tensions.

• Potential negative impacts of enforcement interventions

Conventional enforcement strategies carry identifiable risks within the study context. Forced evictions involving police or military personnel often generate community anger, resistance, and potential retaliatory actions while also disrupting livelihoods. The confiscation of mining equipment was interpreted as state-sanctioned theft, thereby intensifying grievances against authorities. In addition, heavy-handed enforcement approaches in the communities entrenched mistrust between communities and the state, thereby undermining cooperation and long-term compliance.

• Conflict-sensitive approaches

To mitigate these risks, enforcement strategies should incorporate conflict-sensitive modalities. Prior engagement with affected communities can build trust and create space for dialogue, thereby reducing resistance. The application of graduated enforcement mechanisms such as issuing warnings prior to punitive action – can reduce perceptions of arbitrary state power. Furthermore, rather than suppressing community-based security groups, structured integration into formal oversight frameworks may enhance cooperation and reduce parallel authority structures. Finally, ensuring transparency, procedural fairness, and consistency in enforcement actions is critical for strengthening institutional legitimacy.

- **Do No Harm Principles Applied**

The application of a Do No Harm framework to security interventions requires five key considerations. First, a thorough understanding of the conflict context is essential to anticipate how interventions may interact with existing tensions. Second, analysis of social "connectors" and "dividers" should inform intervention design, with emphasis on strengthening community cohesion mechanisms while addressing sources of fragmentation such as injustice and impunity. Third, continuous monitoring and evaluation should be institutionalised to assess whether interventions are mitigating or exacerbating conflict dynamics. Fourth, affected communities should be actively engaged in the design and implementation of interventions to ensure relevance and legitimacy. Finally, interventions must be carefully structured to avoid the creation of new grievances, with particular attention to fairness, transparency, and procedural justice in enforcement processes.

3.5 Conclusion - Political Economy, Conflict Sensitivity, and Social Exclusion Analysis of ASM Governance in Bole and Sawla-Tuna-Kalba Districts

The governance of Artisanal and Small-Scale Mining (ASM) in the Bole and Sawla-Tuna-Kalba (STK) districts is shaped by a complex political economy in which power, resources, and authority are unevenly distributed among formal state institutions, customary authorities, and informal community actors. Rather than reflecting a coherent regulatory system, ASM governance emerges as a contested arena in which competing interests negotiate access to mineral resources, control revenue streams, and influence enforcement outcomes. This produces a fragmented governance landscape characterised by both cooperation and conflict among multiple actors operating across different scales.

From a political-economic perspective, ASM governance is structured by asymmetries in power and resource access across three interdependent levels. At the macro level, national institutions such as the Ministry of Lands and Natural Resources, Minerals Commission, Environmental Protection Agency (EPA), Water Resources Commission, Forestry Commission, and the Ghana Police Service hold formal regulatory authority. However, their capacity to exercise this authority is constrained by limited logistical resources, institutional fragmentation, and political interference, which collectively weaken enforcement consistency and create opportunities for elite capture and selective application of rules.

At the meso level, district governance structures such as the District Mining Committee (DMC) and District Security Committee (DISEC) function as intermediary coordination platforms. However, their effectiveness is shaped by local power relations, bureaucratic bottlenecks, and dependency on central government

directives. These institutions often operate within politically sensitive environments where enforcement decisions are influenced by patronage networks, electoral considerations, and competing development priorities, thereby limiting their autonomy and responsiveness.

At the micro level, community-based actors—including chiefs, youth groups, mining sponsors, pit owners, gang leaders, women's groups, and informal security providers—exercise substantial de facto control over mining operations. These actors derive authority not only from customary legitimacy but also from control over land access, labour, capital, and local enforcement mechanisms. In many cases, they function as gatekeepers of economic opportunity, reinforcing localized systems of resource distribution that are embedded in broader patterns of social and economic exclusion.

From a conflict-sensitive governance perspective, the study reveals that the weakening of formal regulatory institutions has contributed to the emergence of alternative governance arrangements that simultaneously stabilize and destabilize local mining systems. While these arrangements provide immediate mechanisms for coordination, dispute resolution, and security provision, they also generate new fault lines of conflict, particularly where access to mining resources is uneven or perceived as unfair. The absence of inclusive decision-making structures has intensified grievances among marginalized groups, including migrant miners, women, and economically disadvantaged youth, thereby increasing the risk of latent and overt conflict.

The findings further demonstrate that formal governance systems are widely perceived as exclusionary and detached from local socio-economic realities. Miners report prolonged licensing procedures, bureaucratic inefficiencies, limited access to technical support, and minimal participation in regulatory decision-making. From a social exclusion perspective, these barriers systematically disadvantage smaller operators and informal miners, effectively pushing them into unregulated spaces where they are further exposed to enforcement actions and economic precarity. This exclusion reinforces a dual system in which formal compliance is accessible only to those with financial and political capital, while others remain embedded in informal and often criminalized arrangements.

In response to these structural exclusions, community-led governance systems have evolved as adaptive institutions that fill governance gaps left by the state. These systems are anchored in customary authority and reinforced by socio-economic networks that regulate access to land, allocate mining pits, enforce informal rules, and manage local disputes. Although these institutions enjoy high levels of social legitimacy due to their embeddedness in everyday life, they are also shaped by unequal power relations that privilege certain actors – particularly chiefs, sponsors, and local elites – over more vulnerable groups. This dynamic reflects a political economy of local extraction in which authority is closely tied to control over economic rents.

The governance system observed in the study areas reflects a form of legal and institutional pluralism in which statutory regulations, customary norms, and informal rules coexist but are not harmonized. This pluralism generates governance ambiguities, particularly regarding accountability, enforcement authority, and benefit distribution. While it enables operational continuity in ASM activities, it simultaneously creates spaces for contestation, rent-seeking, and regulatory arbitrage, thereby undermining long-term institutional coherence.

The security dimension of ASM governance further illustrates these political economy dynamics. The limited presence and operational capacity of formal security agencies have created conditions for the emergence of informal and community-led security structures. These include youth groups, vigilante networks, and ad hoc patrol systems that regulate access to mining sites, manage disputes, and protect mining assets. From a conflict-sensitive perspective, these arrangements function as both stabilising and risk-generating mechanism. While they enhance immediate local security and reduce petty crime, they operate outside formal accountability frameworks and are susceptible to politicisation, coercion, and escalation of violence, particularly in contexts of resource scarcity and contested authority.

Overall, ASM governance in the Bole and Sawla-Tuna-Kalba districts can be understood as a politically embedded and socially stratified system in which formal institutions retain legal authority but limited practical control, while informal institutions exercise effective but unevenly distributed governance power. The absence of effective coordination between these systems reflects deeper political economy constraints, including institutional fragmentation, uneven resource allocation, and entrenched social hierarchies. These dynamics collectively reinforce exclusion, weaken accountability, and constrain the emergence of a coherent and inclusive ASM governance framework capable of supporting sustainable formalisation.

3.6 Improving ASM governance: towards a metagovernance model

The findings suggest that improving ASM governance requires moving beyond state-centred approaches towards a collaborative governance framework that integrates formal institutions, customary authorities, community organisations, miners, and civil society actors into a shared governance arrangement. The study therefore proposes the adoption of a metagovernance system, which is a set of mechanisms, institutions, principles, and processes through which different governance arrangements are coordinated, guided, regulated, and steered toward common goals. Metagovernance is not another institution; it is the system that will steer and coordinate all key actors toward a common goal. The grounding of the proposal is that ASM activities involve many actors who influence governance frameworks and that a meta-governance system would not replace these actors.

Instead, it would:

1. Define their roles,
2. Establish coordination platforms,
3. Create information-sharing mechanisms,
4. Monitor compliance,
5. Resolve conflicts,

Align actions toward sustainable mining and community security.

A meta-governance system would function as the overarching framework that will coordinate:

- State security institutions,
- Regulatory agencies,
- Traditional authorities,
- Community governance structures,
- Mining associations,
- Women and youth groups,
- Migrant miners, and
- Early Warning and Early Response (EWER) mechanisms.

The objective is to create an integrated governance architecture that manages the political economy of mining, addresses security threats, coordinates stakeholder actions, and promotes sustainable and peaceful ASM development. The following will be the significance of adopting a metagovernance system:

1. A strong metagovernance system will help to reduce institutional fragmentation by fostering collaboration and clarifying roles and responsibilities among agencies and stakeholders that may otherwise operate in isolation.
2. Metagovernance will also enhance accountability by establishing clear oversight, monitoring, and reporting structures that promote transparency and responsible decision-making. By creating platforms for dialogue, negotiation, and dispute resolution, it contributes to the prevention and management of conflicts before they escalate into broader security challenges.

3. A robust metagovernance system will promote inclusive participation by creating opportunities for traditionally marginalized groups, including women, youth, and local communities, to contribute meaningfully to governance processes. In contexts characterized by complex security dynamics, such ASM communities, it will improve security governance through enhanced information sharing, coordinated responses, and collaborative problem-solving among state and non-state actors.

4. Ultimately, by integrating economic, social, environmental, and security considerations within a coherent governance framework, metagovernance will facilitate sustainable development and support long-term peace, stability, and resilience. The conceptual framework for the proposed metagovernance system is shown in appendix 4.

Key Takeaway: Sustainable ASM governance cannot be achieved through a linear top-down approach alone. The future of ASM governance lies in a collaborative and co-created governance model that combines the legal authority of state institutions with the legitimacy, knowledge, and adaptive capacity of community-led governance systems. Such an approach offers the greatest potential for improving accountability, enhancing environmental stewardship, reducing conflict, strengthening security, and promoting responsible ASM formalisation.

3.7 What must be done: a security governance approach

To strengthen security in ASM communities, interventions should focus on building an integrated security governance system rather than relying solely on enforcement operations.

• Short-term actions

1. The district assemblies should **e**stablish security and peace coordination platforms for multiple actors involved in peacebuilding and mediation programs to reduce duplication, strengthen institutional linkages, enable rapid information sharing and integrate community early warning signals into district security response.

2. The district security councils should map all ASM communities, conduct security audits, and integrate environmental and security data to identify vulnerabilities and conflict hotspots.

3. The district security councils should establish permanent, well-resourced security outposts in high-risk mining communities and border corridors to serve as hubs for intelligence gathering, patrol coordination, and rapid response.

4. The district assemblies and traditional authorities should strengthen intelligence gathering and early warning systems by building structured community-security partnerships.

5. ASM site leaders, youth groups, and women's associations should be trained to report incidents through secure channels, ensuring early detection and timely response to emerging threats. These should be driven by disaggregated data for evidence-based planning.

• Medium-Term Actions

1. The district security councils should formalise collaboration with community security groups through structured training, official registration, and oversight mechanisms. This will enhance accountability and reduce parallel security structures.

2. The district security councils should establish community security and peace committees directly linked to DISEC. These committees should include chiefs, youth leaders, women's groups, and miners' representatives to provide inclusive platforms for dialogue, mediation, and conflict prevention.

3. The district security councils and national security agencies should develop cross-border security cooperation mechanisms with Côte d'Ivoire and Burkina Faso. These mechanisms should strengthen intelligence sharing, facilitate coordinated joint patrols, and reinforce transboundary dialogue to prevent resource-driven disputes and enhance early response capacity.

4. The Minerals Commission should improve licensing efficiency by streamlining procedures, reducing bureaucratic delays, and increasing transparency. This will reduce incentives for illegality, build trust with communities, and promote responsible ASM formalisation.

• Long-Term Actions

1. The district security councils should adopt a collaborative security governance model that integrates state agencies, traditional authorities, mining associations, youth groups, women's groups, and community security actors. This model should institutionalise inclusive participation and balance power relations in ASM governance.

2. The Ministry of Defence and National Security Secretariat should strengthen the existing borderland security strategy specifically tailored for ASM corridors in the Savannah Region. This strategy should address cross-border infiltration, smuggling, and environmental vulnerabilities while reinforcing state legitimacy in frontier governance.

3. The district assemblies should create a comprehensive ASM database on the following:

   - Actual number of people on site,
   - Age Distribution,
   - Country/Community of origin,
   - Level of exposure to hazards,
   - Security risk exposure,
   - Level of education,
   - Place of residence,
   - Dominant ethnic groups/nationalities,
   - Dominant foreign/local language spoken,
   - Health risk exposure,
   - Social groupings/networks,
   - No recognised migrant-oriented protection for the youth.

   The absence of granular data on women and miners' profiles creates a critical governance gap. It weakens institutional capacity to anticipate and manage conflict risks, undermines occupational safety and social protection, and ultimately reduces the prospects for building more stable, inclusive, and well-regulated ASM communities.

4. The Ministry of Employment and Labour Relations, in partnership with the district assemblies and civil society organisations, should invest in livelihood diversification, vocational skills training, and social protection programmes. These initiatives could reduce dependency on ASM, address socio-economic drivers of insecurity, and provide sustainable alternative livelihoods for the youth and women.



4. CONCLUSION

This diagnostic assessment has provided the first integrated evidence base on artisanal and small-scale mining (ASM) governance, security, and conflict dynamics in the Bole and Sawla-Tuna-Kalba districts of Ghana's Savannah Region. By combining spatial mapping, institutional analysis, and community-level evidence, the study has addressed four critical policy gaps: the location and characteristics of ASM sites; the effectiveness of existing governance arrangements; the nature of security threats and conflict drivers; and the opportunities and good practices that can inform future interventions.

The findings demonstrate that ASM in the Savannah Region is far more than an environmental or livelihood issue. It represents a complex governance challenge in which weak institutional coordination, political interference, limited enforcement capacity, and fragmented regulatory responsibilities have allowed largely informal mining systems to flourish. In response, communities have developed their own governance, security, and conflict-management arrangements that enjoy local legitimacy and maintain a degree of order where state presence is limited. While these locally driven systems provide important foundations for governance, they remain largely informal and exclude key groups, particularly women, youth, and migrant miners. Sustainable ASM governance will therefore depend on strengthening — not replacing — community institutions while improving the effectiveness, accountability, and coordination of state agencies.

The assessment further shows that the expansion of ASM along the Black Volta and the international borders with Côte d'Ivoire and Burkina Faso has introduced new dimensions of insecurity that extend beyond illegal mining. Cross-border migration, mineral smuggling, organised criminal activity, land disputes, environmental degradation, and the potential exploitation of poorly governed border spaces collectively elevate ASM from a sectoral management issue to one with important implications for human security, border governance, and national stability. These interconnected risks cannot be effectively addressed through enforcement operations alone but require preventive, coordinated, and conflict-sensitive governance approaches.

At the same time, the study demonstrates that ASM remains an important source of employment, income, and local economic development. Existing community leadership structures, customary conflict-resolution mechanisms, social cohesion, and locally developed governance practices provide valuable assets upon which future formalisation efforts can be built. These represent practical opportunities for designing interventions that are locally legitimate, socially inclusive, and more likely to achieve sustained compliance than externally imposed approaches.

The overarching policy message emerging from this assessment is clear: sustainable ASM governance cannot be achieved through top-down regulation or security enforcement alone. The greatest opportunity lies in adopting a collaborative meta-governance approach that brings together state institutions, district authorities, traditional leaders, community governance structures, security agencies, civil society organisations, women, youth, and mining associations within a coordinated governance framework. Such an approach would improve institutional coordination, strengthen environmental stewardship, enhance conflict prevention and border security, support responsible formalisation, and promote more inclusive participation in decision-making.

This assessment therefore provides not only a diagnostic baseline for the Gold for Good Project but also a practical evidence base for rethinking ASM governance in Ghana's northern borderlands. Its findings offer policy makers and development partners a clear pathway for transforming ASM from a persistent governance and security challenge into a driver of peaceful, inclusive, and sustainable local development.



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APPENDICES

APPENDIX 1: ASM REGULATORY AUTHORITIES

KEY INFORMANT INTERVIEW GUIDE

Tick the Agency:

- ☐ Forestry Commission
- ☐ Water Resource Commission
- ☐ Minerals Commission

- **SHORT BACKGROUND QUESTIONS (to record context)**
  1. Official title and responsibilities (brief): _____
  2. What is your catchment area?
  3. How long have you worked in the Savannah Region? [_____] years
  4. Key internal units/teams you oversee (or work closely with): _____

- **Overview of Artisanal Mining in the Study Area**
  1. Do you know when the activities of artisanal started in your catchment area?
  2. When did artisanal mining become prominent in your catchment area?
  3. What are the main minerals being extracted?
  4. What factors are influencing the activities of artisanal miners in your catchment area?
  5. What trend have you observed in recent years? [growth, decline, changes in methods]
  6. How would you describe the current state of artisanal mining in your operational area?

- **Mandate and Role**

1. Can you describe the Water Commission's mandate and principal responsibilities in the Savannah Region regarding artisanal and small-scale gold mining (ASM)?
2. How is that mandate operationalized at the regional level?

- **Regulatory Framework & Implementation**

1. What laws and policies regulate artisanal mining?
2. How are the national mining laws and policies applied to artisanal mining in the Savana Region?
3. How effective are these regulations in practice?
4. What licensing or registration processes exist for ASM operators here, and how effectively are they implemented? Can you walk me through the licensing procedure?
5. What strategies does MC adopt to manage and monitor the artisanal activities at the local level?
6. How effective are the strategies your outfit deploys to manage and monitor artisanal miners' activities in your catchment area?
7. What are the main challenges the Commission faces in regulating and monitoring ASM here? (e.g., operational, legal, financial, or political)
8. How do these challenges affect your operations?

- **Monitoring, data & evaluation**

1. What data does the Commission collect about ASM, and how is it used?
2. Have you implemented any specific programme(s) or intervention in relation to artisanal mining? If yes, what is it? If No, why not?
3. How do you monitor the interventions being used to manage the artisanal mining activities? In your district?
4. What challenges does MC encounter in its quest to manage the artisanal mining activities?
5. How do you evaluate the impact of regulation or projects targeted at ASM?

- **Inter-agency collaboration & coordination**

1. Which agencies and local authorities do you routinely work with on ASM issues?
2. Describe how coordination works in practice (information-sharing, joint operations, MoUs).
3. Are there overlaps between the MC and other Institutions in regulating ASM activities in the region? Probe for the areas where overlaps occur.
4. Are there gaps in coordination and collaboration?

- **Relationship with miners and communities**

1. How would you describe the Commission's relationship with artisanal miners and mining associations in the region?
2. Does the Commission run any outreach, education, or capacity-building activities for miners?
3. Are foreigners also engaging in artisanal mining in your catchment area?
4. What role(s) do foreign nationals play in artisanal mining?
5. Which communities are most affected by the activities of artisanal miners?
6. What can be done effectively to manage the negative effects of artisanal mining?

- **Socio-Economic Contributions**

1. How does artisanal mining affect local communities?
2. Are there issues related to displacements, conflict, or inequality in the mining communities?
3. What is the impact of ASM on vulnerable groups (women, children, youth, PWDs)?
4. How does ASM contribute to employment and livelihoods?

- **Opportunities and Best Practices**

1. Are there successful interventions or programs you can highlight?
2. What opportunities exist to improve sustainability in ASM?
3. What risks lie ahead?
4. How can technology or training improve the operations of ASM?

- **Future outlook & recommendations**

1. Looking ahead 3–5 years, what are your expectations for ASM and the Commission's role?
2. What policy changes would you recommend?
3. How can the government better support responsible artisanal mining?
4. What role should communities and traditional authorities play?
5. Practical recommendations for researchers or policymakers?

DISTRICT CHIEF EXECUTIVE/DISTRICT ASSEMBLY OFFICIAL

- **Section 1: Security Threats & Local Governance Context**

1. How would you describe the overall security situation related to ASM in your district?
2. What types of threats or challenges are most prevalent (conflict, crime, environmental risks)?
3. Can you describe recent incidents of insecurity or conflict linked to mining?
4. How do these challenges compare to other development or security issues in the district?
5. Are there observable patterns (e.g., locations, timing, seasonal trends)?

- **Section 2: Actors, Networks & Local Dynamics**

1. Who are the key actors involved in ASM activities in your district?
2. Are there organised groups or influential actors shaping mining activities?
3. What role do migrants or outsiders play in ASM-related activities?
4. Are there linkages between ASM and cross-border dynamics?
5. How do these actors interact with local authorities and communities?

- **Section 3: Governance, Coordination & Capacity**

1. What role does the District Assembly play in regulating or managing ASM activities?
2. What actions or interventions have been implemented to address ASM-related issues?
3. How effective is coordination between:
    - District Assembly
    - Security agencies
    - Traditional authorities
4. What challenges affect enforcement or governance (e.g., logistics, political pressure, resource constraints)?
5. Are there adequate institutional capacities (staff, funding, tools)?
6. How is information or intelligence shared across institutions at the district level?

- **Section 4: Community Engagement, Policy Gaps & Way Forward**

1. How do communities engage with the District Assembly on ASM-related issues?
2. Are there challenges in reporting or responding to community concerns?
3. What are the major governance or policy gaps affecting ASM management?
4. What practical steps are needed to improve:
    - security
    - regulation
    - community outcomes
5. What role should the District Assembly play going forward?
6. What support (national, regional, partners) is needed?

SECURITY AGENCIES

(Police, Military Task Force, Immigration, Blue Water Guards)

- **Section 1: Security Threats**
  1. What types of security threats do you encounter in relation to ASM?
  2. Can you describe recent incidents of crime or conflict linked to ASM?
  3. What forms of illegal activity are most common (e.g., smuggling, armed groups, illegal trade)?
  4. How serious are these threats compared to other security issues in the region?
  5. Are there patterns in how and when these incidents occur?
- **Section 2: Actors, Networks and Cross-Border Dimensions**
  1. Who are the main actors involved in ASM-related insecurity?
  2. Are there organised groups or networks involved?
  3. What role do outsiders or foreign nationals play? (if any)
  4. Are there cross-border linkages in these activities?
  5. How do these actors operate and coordinate? (probe for all possible linkages)
- **Section 3: Operations, Capacity and Collaboration**
  1. What actions has your agency taken to address ASM-related insecurity?
  2. What operational challenges do you face (logistics, terrain, resistance, political interference)?
  3. Do you have adequate personnel and equipment?
  4. How effective is collaboration with other agencies?
  5. What challenges affect joint operations?
  6. How is intelligence gathered and used in your operations?
  7. Role-Specific Probes:
     - Police: What challenges arise in investigation and prosecution of ASM-related crimes?
     - Military: What risks do you face during enforcement operations?
     - Immigration: What challenges exist in monitoring cross-border movements?

- **Section 4: Community Relations and Improvement Areas**
  1. How do communities interact with your agency?
  2. Do you receive cooperation or resistance from local populations?
  3. How are security concerns reported to you?
  4. Are responses timely and effective?
  5. What improvements are needed to strengthen enforcement?
  6. What practical changes would make your work more effective?

ENVIRONMENTAL PROTECTION AUTHORITY

1. Can you mention some of the communities where artisanal small-scale mining is done in this region?
2. Do you know when the activities of artisanal mining started in your catchment area?
3. When did artisanal mining become prominent in your catchment area?
4. What factors are influencing the activities of artisanal miners in your catchment area?
5. What role does your institution play in the management of the activities of artisanal miners?
6. Have you implemented any specific programme(s) or intervention in relation to artisanal mining?
7. If yes, why?
8. If No, why not?
9. What laws/regulations in your institution are used to govern the activities of artisanal miners?
10. What strategies does your institution adopt to management the artisanal mining activities?
11. How does your institution collaborate with other stakeholders to manage the activities of artisanal?
12. How effective are the strategies your outfit deploy to manage artisanal miners' activities in your catchment area?
13. How do you monitor the interventions/strategies being used to manage the artisanal mining activities. In your district?

14. What challenges does your institution encounter in your quest to manage the artisanal mining activities?
15. Are foreigners also engaging in artisanal mining in your catchment area?
16. What role(s) do the foreigner nationals play in artisanal mining?
17. Which communities are most affected by the activities of artisanal miners?
18. Are there any interventions to tackle the affected community?
19. What should be done effectively to manage the negative effects of artisanal mining?
20. Are there health implications associated artisanal with artisanal mining in your catchment area?
21. How do you enforce the guidelines/regulation about artisanal?
22. Looking ahead 3–5 years, what are your expectations for ASM and the Commission's role?
23. Practical recommendations for policymakers?

CSOs in Artisanal and Small-Scale Mining Space

- **Section A: Background Information**

1. Name of Organization (Optional): _____
2. Position of Respondent: _____
3. How long have you worked on ASM-related issues?
4. What is the main focus of your organization regarding ASM?
    - Environmental protection
    - Human rights
    - Community development
    - Advocacy
    - Research
    - Livelihood support
    - Other (Specify)
5. Which regions/districts does your organization operate in?

- **Section B: General Understanding of ASM Governance**

1. How would you describe the current state of ASM governance in Ghana?
2. In your opinion, what are the major challenges affecting ASM governance in Ghana?
3. How effective are existing ASM laws and policies in addressing illegal mining activities?
4. Are current ASM policies responsive to the needs of mining communities? Please explain.

- **Section C: Effectiveness of Government Institutions**

Minerals Commission

1. How effective is the Minerals Commission in regulating ASM activities?
2. How efficient is the licensing process for small-scale miners?
3. What challenges affect the Commission's implementation of ASM laws?

Environmental Protection Agency

1. How effective is the EPA in monitoring environmental impacts of ASM?
2. Are environmental regulations adequately enforced in mining communities?
3. What challenges hinder environmental protection in ASM areas?

Water Resources Commission

1. How effective is the Water Resources Commission in protecting water bodies affected by ASM?
2. What is your assessment of institutional responses to water pollution caused by mining?

Security Institutions

1. How effective are security agencies in combating illegal mining?
2. What are the main weaknesses in enforcement operations against illegal mining?
3. To what extent does political interference affect enforcement?

District Assemblies and Local Authorities

1. How involved are local authorities in ASM governance?
2. Are local communities adequately consulted in ASM-related decisions?
3. What role do traditional authorities play in ASM governance?

- **Section D: Institutional Coordination and Governance**
  1. How well do government institutions coordinate in implementing ASM laws and policies?
  2. Are there overlaps or conflicts in institutional responsibilities?
  3. What gaps exist in institutional collaboration?
  4. How can coordination among institutions be improved?

- **Section E: Environmental and Social Impacts**
  1. What major environmental impacts of ASM have you observed?
  2. How effective have government interventions been in addressing:
     - Land degradation
     - Water pollution
     - Deforestation
     - Mercury pollution
  3. What social challenges are associated with ASM in mining communities?
  4. Has ASM contributed to conflicts or insecurity in the areas where you work?
  5. Have you observed the involvement of foreign nationals in illegal mining activities? If yes, what are the implications?

- **Section F: Community Participation and Human Security**
  1. To what extent are local communities involved in ASM governance?
  2. How effective are public education and awareness programmes on ASM laws?
  3. Are vulnerable groups (women, youth, farmers) considered in ASM policy implementation?
  4. How has ASM affected livelihoods and human security in mining communities?

- **Section G: Transparency and Accountability**
  1. How transparent are ASM licensing and enforcement processes?
  2. Is corruption a major challenge in ASM governance? Please explain.
  3. How accountable are government institutions to local communities?
  4. What mechanisms exist for reporting misconduct or illegal mining activities?

- **Section H: Recommendations**
  1. What reforms are needed to improve ASM governance in Ghana?
  2. How can government institutions become more effective in implementing ASM laws and policies?
  3. What role should NGOs and civil society play in strengthening ASM governance?
  4. What policy recommendations would you suggest for sustainable ASM management?

APPENDIX 2

COMMUNITY-LEVEL KEY INFORMANT INTERVIEW GUIDE

Category of Participants (tick one)

☐ Youth Leader ☐ Miners Leader ☐ Women Leader

- **Section A: Background Information**

Name of community:

District:

Respondent ID:

Age:

Educational background:

Role in women's group:

How long have you lived in this community?

- **Section B: Livelihoods and Economic Activities**
  - What are the main livelihood activities of women in this community?
  - How has ASM affected women's livelihoods?
  - Are women directly involved in mining? In what roles?
  - Has mining improved or worsened household income?
  - What challenges do women face in earning income?
  - Are there alternative livelihood opportunities?
- **Section C: Social Impacts**
  - How has mining affected family and community relationships?
  - Are there changes in social behavior due to mining?
  - Has migration affected the social structure?
  - Are there issues such as crime or social vices?

- **Section D: Cultural Impacts**
  - Has mining affected local traditions or customs?
  - Are there changes in land use practices?
  - How are traditional authorities involved?
  - Are cultural sites affected by mining?
- **Section E: Health Impacts**
  - What are the common health issues affecting women?
  - How has mining affected water quality and sanitation?
  - Are there reproductive or maternal health concerns?
  - Is there access to healthcare services?
  - Are there occupational health risks?
- **Section F: Environmental Impacts**
  - What environmental changes have you observed?
  - How has mining affected farmland and food production?
  - Are water bodies affected?
  - Are there efforts to restore degraded land?
- **Section G: Education**
  - How has mining affected children's education?
  - Are children involved in mining activities?
  - Are school attendance and performance affected?
  - What challenges do girls face in education?
- **Section H: Gender and Inclusion**
  - Do women participate in decision-making related to mining?
  - What barriers limit women's participation?
  - Are there support systems for women?
  - How are vulnerable groups affected?

- **Section I: Conflict and Safety**
  - Have there been disputes or violence linked to mining?
  - What are the main causes of these conflicts?
  - Are there conflicts involving women?
  - Are young people involved in ASM or related activities?
  - Does unemployment or poverty contribute to these conflicts?
  - Are there safety concerns for women?
  - How are the conflicts resolved?

- **Section J: Recommendations and Future Outlook**
  - What are the main challenges facing women?
  - What support do women need?
  - What recommendations do you have for improving conditions?
  - What are your expectations for the future?

CHIEFS/TRADITIONAL AUTHORITIES-ASM COMMUNITIES

Land, Authority & ASM Governance

- Who holds customary ownership of land in this community, and how are land rights allocated?
- How do miners (artisanal or small-scale) gain access to land in your area? Please describe the process.
- What roles do chiefs, family/clan heads, or land committees play in land allocation?
- What customary rules or norms regulate mining activities on customary land?
- Are there formal or informal arrangements involved (e.g., payments, agreements, rituals)?
- Have there been recent changes in land allocation practices since mining began?
- Are there conflicts over land ownership, boundaries, or control?
- How are such land-related disputes handled?

- **Security, Conflict & Social Dynamics**
  - What types of conflicts arise from mining activities in this community?
  - Have there been incidents of violence, crime, or insecurity linked to mining?
  - Who are the main actors involved in these conflicts (locals, migrants, youth groups, etc.)?
  - What role do outsiders or migrants play in these dynamics?
  - What usually triggers these conflicts (e.g., land disputes, unpaid compensation, environmental damage)?
  - How do these conflicts affect community stability and social relations?
  - How has mining influenced social behaviour, traditions, or cultural practices?
  - Are there social problems associated with mining (e.g., youth behaviour, alcohol use, prostitution, family tensions)?

- **Impacts of ASM (Economic, Environmental & Health)**
  - How has mining affected livelihoods and household incomes in this community?
  - Who benefits most from mining, and how are these benefits distributed?
  - What environmental changes have you observed since mining started (land, water, vegetation)?
  - Are there health issues linked to mining activities?
  - What coping strategies do community members use to deal with these impacts?

- **Section 4: Governance, Response & Future Directions**
  - How do traditional authorities manage or regulate mining activities?
  - What challenges do you face in enforcing customary rules?
  - How well are local rules enforced?
  - How do you collaborate with government institutions or security agencies?
  - Are there tensions between traditional authorities and state actors?
  - How are mining-related disputes typically resolved?
  - What roles do chiefs, elders, and formal institutions (e.g., police, courts) play?

- Which external actors (government, NGOs, companies) engage with the community on mining issues?
- What kind of support do you receive, and what additional support is needed?
- What practical actions would you recommend to:
    - reduce conflict and insecurity?
    - improve benefits from mining?

FOCUS GROUP DISCUSSION GUIDE

ASM COMMUNITIES

District:

Community:

Date:

Category of Participants (tick one):

☐ **Youth Group** ☐ **Miners Group** ☐ **Women Group**

Number of Participants:

Facilitator:

- **Section 1: Security Experiences & Perceptions**
    - How has mining affected safety in this community?
    - What kinds of security problems do people face here?
    - Have there been incidents of: Violence? Theft or robbery? Disputes related to mining?
    - Who is most affected by these problems (youth, women, migrants, etc.)?
    - Compared to the past, is the situation getting better or worse? Why?
    - Can you give specific examples?
    - When do these incidents usually occur?

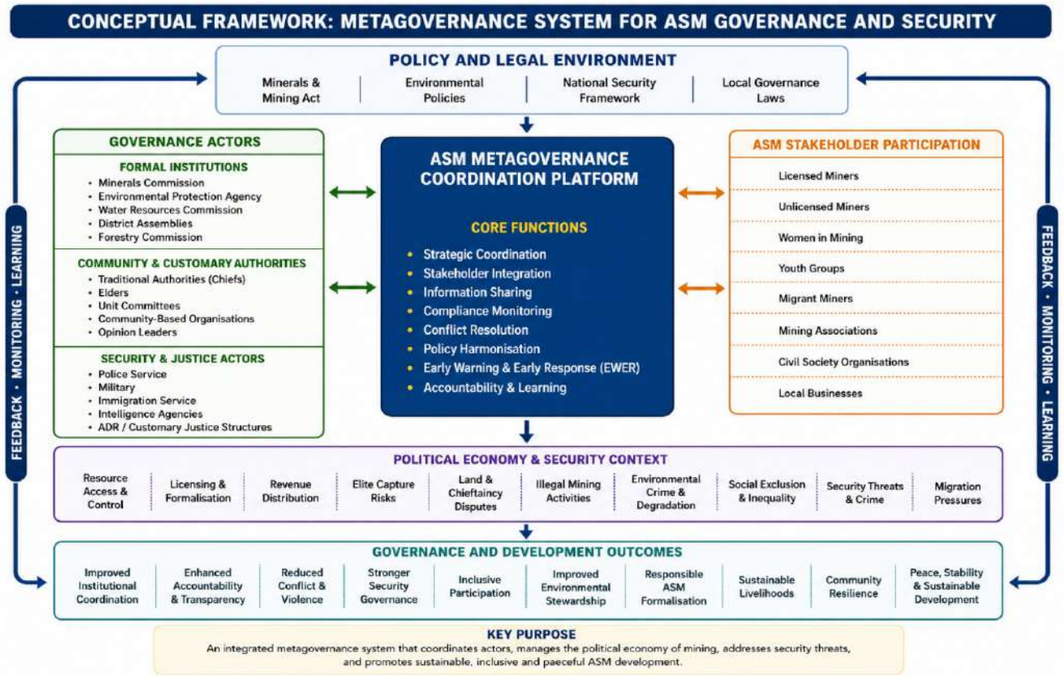
- **Section 2: Conflict & Actors**
    - What types of conflicts are common in this community?
    - Are these conflicts related to mining activities?
    - Who are usually involved in these conflicts? Local residents? Outsiders or migrants? Youth groups?
    - What are the main causes of these conflicts?
    - Are there tensions between different groups (e.g., locals vs outsiders)?
    - Probes:
        - What happens when conflicts occur?
        - How serious are these conflicts?

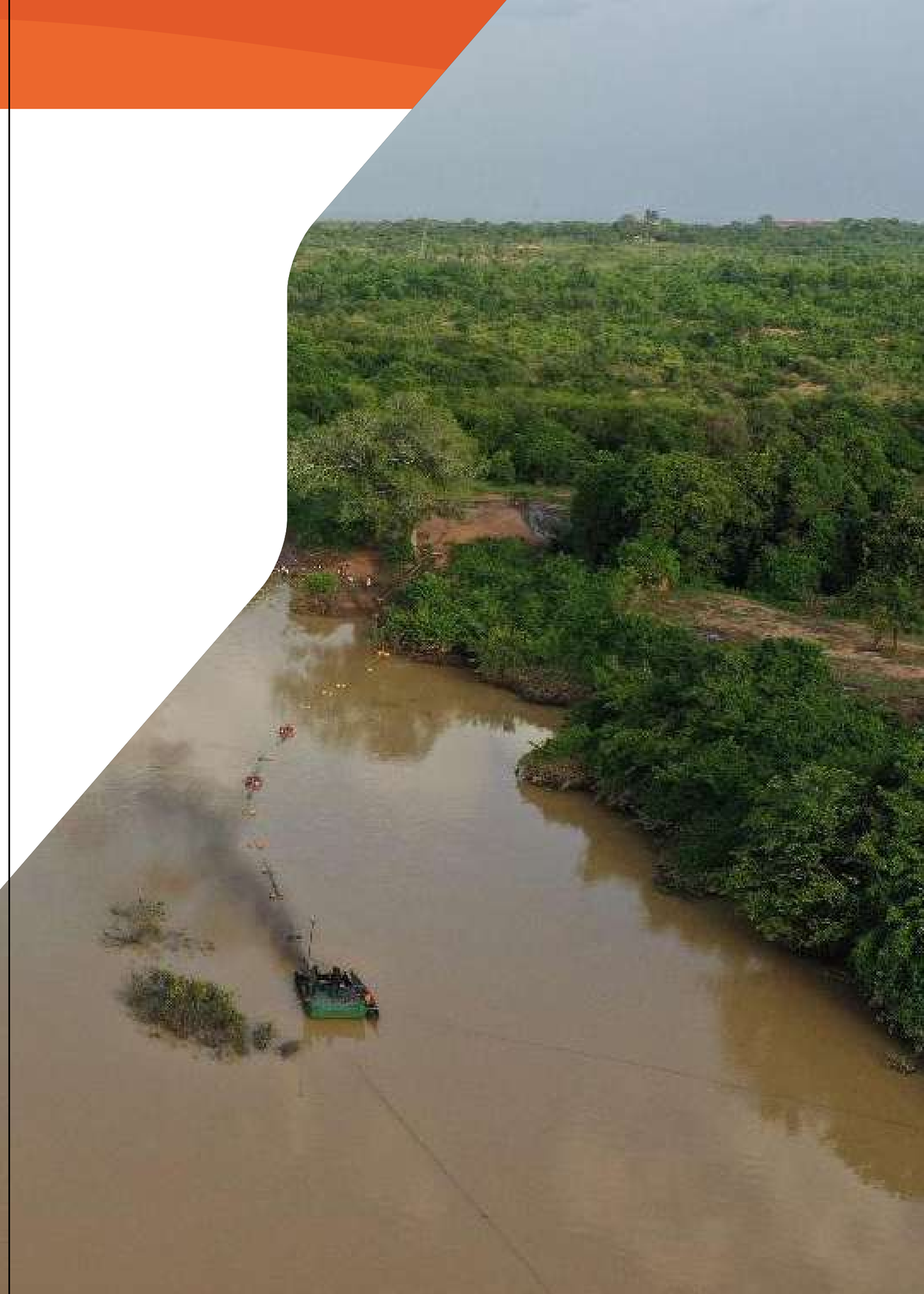
- **Section 3: Locations & Patterns**
    - Where do most security problems or conflicts occur?
    - Can you identify specific places: Mining sites? Rivers/forest areas? Border areas?
    - Why do these places experience more problems?
    - Are there times when these problems increase (e.g., certain seasons, nights)?

If possible, ask participants to describe or sketch locations
This will support your GIS/spatial mapping later

- **Section 4: Responses, Reporting & Solutions**
    - How do people in this community respond to security problems?
    - Who do you report issues to? Chiefs? Police? Community leaders?
    - Are responses from authorities effective?
    - Do people trust security agencies? Why or why not?
    - What challenges exist in reporting or resolving issues?
    - What should be done to improve safety in this community?
    - What role should:
        - Government play?
        - Traditional leaders play?
        - Community members play?
    - What practical changes would make the biggest difference?
    - Is there anything important we have not discussed?
    - Do you have any final suggestions?

Appendix 4: Metagovernance conceptual framework







ABOUT COGINTA

Coginta is a non-governmental organisation incorporated under Swiss law and recognised as being of public benefit, which works to promote economic and social development by addressing the structural causes of instability, poverty and exclusion. Its work lies at the intersection of local governance and security, conflict prevention, natural resource management and socio-economic development, recognising that these aspects are closely interlinked and essential to social stability and cohesion. Coginta has its headquarters in Geneva and country offices in Burkina Faso, the Central African Republic, Chad, Côte d'Ivoire, the Democratic Republic of Congo, Ghana, Guinea, Mozambique, Niger and Senegal.

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