



Republic of Ghana

MINISTRY OF LANDS AND NATURAL RESOURCES

GHANA LANDSCAPE RESTORATION AND SMALL-SCALE MINING PROJECT



**Updated
Strategic Environmental and Social Assessment (SESA)
Formalisation of Artisanal and Small-Scale Mining
in Ghana**

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LIST OF ACRONYMS

ADR	Alternative Dispute Resolution	GoG	Government of Ghana
AG	Attorney General	GRA	Ghana Revenue Authority
AIDS	Acquired Immunodeficiency Syndrome	GRDA	Ghana Railway Development Authority
AIMES	African Initiative on Mining, Environment and Society	GS	Ghana Standard
ALPs	Alternative Livelihood Projects	HIV	Human Immune Virus
AMs	Assembly Members	IA	Impact Assessment
AMSDA	Amansie South District Assembly	IGF	Internally Generated Funds
AR	Authorization for Ratification or Accession	ILO	International Labour Organization
ARG	A Rocha Ghana	IPs	Indigenous Peoples
ASGM	Artisanal and Small-Scale Gold Mining	LC	Lands Commission
ASM	Artisanal and Small-Scale Mining	LI	Legislative Instrument
ASMA	Abuakwa South Municipal Assembly	LUSPA	Land Use and Spatial Planning Authority
BMA	Bole Municipal Assembly	LVB	Land Valuation Board
BoG	Bank of Ghana	MCAS	Mining Cadastre Administration System
CBD	Convention on Biological Diversity	MDAs	Ministries, Departments, and Agencies
CBOs	Community-Based Organisations	MDF	Mineral Development Fund
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women	MELR	Ministry of Employment and Labour Relations
CHPS	Community-based Health Planning and Services	MESTI	Ministry of Environment, Science, Technology and Innovation
CHRAJ	Commission on Human Rights and Administrative Justice	METASIP	Medium Term Agriculture Sector Investment Plan
CIA	Cumulative Impact Assessment	MGR	Managing God's Resources
CLS	Customary Lands Secretariat	MIIF	Minerals Income Investment Fund
CM	Community Mining	MinCom	Minerals Commission
CMC	Community Mining Committee	MLGDRD	Ministry of Local Government, Decentralization, and Rural Development
CMS	Community Mining Scheme	MLNR	Ministry of Lands and Natural Resources
COCOBOD	Ghana Cocoa Board	MMDAs	Metropolitan, Municipal, and District Assemblies
COP	Code of Practice	MMIP	Multi-Sectoral Mining Integrated Project
CREMA	Community Resource Management Areas	MOFA	Ministry of Food and Agriculture
CSOs	Civil Society Organisations	MoGCSP	Ministry of Gender, Children and Social Protection
CSSVD	Cocoa Swollen Shoot Virus Disease	MoNS	Ministry of National Security
DAs	District Assemblies	MoU	Memorandum of Understanding
DCE	District Chief Executive	MP	Member of Parliament
DISEC	District Security Council	MSSCs	Mining Support Services Companies
DMCs	District Mining Committees	NGO	Non-Governmental Organisation
DO	Dissolved Oxygen	NTU	Nephelometric Turbidity Unit
DoC	Department of Children	OASL	Office of the Administrator of Stool Lands

DOC	Department of Co-operatives	ODS	Ozone-depleting Substances
DSWCD	Department of Social Welfare and Community Development	OHS	Occupational Health and Safety
EA	Environmental Assessment	ORC	Office of the Registrar of Companies
EHS	Environment, Health and Safety	PCU	Project Coordinating Unit
EI	Executive Instrument	PHMA	Prestea-Huni Valley Municipal Assembly
EIA	Environmental Impact Assessment	PMMC	Precious Mineral Marketing Company
EIS	Environmental Impact Statement	PNDC	Provisional National Defence Council
EITI	Extractive Industries Transparency Initiative	PPE	Personal Protective Equipment
EPA	Environmental Protection Agency	PU	Penalty Unit
ESAs	Environmentally Sensitive Areas	REDD	Reducing Emissions from Deforestation and Forest Degradation
ESCP	Environmental and Social Commitment Plan	RoW	Right of Way
E&S	Environmental and Social	RSA	Reclamation Security Agreement
ESMF	Environmental and Social Management Framework	SEA	Sexual Exploitation and Abuse
ESS	Environmental and Social Standard	SEP	Stakeholder Engagement Plan
FASDEP	Food and Agriculture Sector Development Policy	SESA	Strategic Environmental and Social Assessment
FC	Forestry Commission	SH	Sexual Harassment
FI	Financial Intermediary	SIM	Stakeholder Identification Matrix
FMPs	Forest Management Plans	SSM	Small-Scale Mining
FPIC	Free, Prior and Informed Consent	STIs	Sexually Transmitted Infections
GBV	Gender-Based Violence	TAs	Traditional Authorities
GDP	Gross Domestic Product	TRC	Technical Review Committee
GES	Ghana Education Service	TSS	Total Suspended Solids
GGSA	Ghana Geological Survey Authority	UMaT	University of Mines and Technology
GHEITI	Ghana Extractive Industries Transparency Initiative	UN	United Nations
GHG	Greenhouse Gases	UNCCD	United Nations Convention to Combat Desertification
GHS	Ghana Health Service	WACAM	Wassa Association of Communities Affected by Mining
GIS	Geographic Information System	WBG	World Bank Group
GLRSSMP	Ghana Landscape Restoration and Small-Scale Mining Project	WFCL	Worst Forms of Child Labour
GNASSM	Ghana National Association of Small-Scale Miners	WHO	World Health Organisation
		WRC	Water Resources Commission

EXECUTIVE SUMMARY

Introduction

The Ghana Landscape Restoration and Small-Scale Mining Project (GLRSSMP) addresses the challenges within Ghana's small-scale mining (SSM) sector, including illegal mining, environmental degradation, and socio-economic disparities. Building on the Government of Ghana's Multi-Sectoral Mining Integrated Project (MMIP) launched in 2017, the GLRSSMP, supported by the World Bank, adopts a holistic approach to restore degraded landscapes, formalize artisanal and small-scale mining (ASM), and promote sustainable mining practices.

While previous efforts like the PNDC Law 218 (1989) and the Mining Act (2006) introduced regulatory frameworks and designated SSM zones, challenges such as limited investigation of designated areas and overly bureaucratic licensing processes persist. Without intervention, unregulated mining would continue to exacerbate environmental degradation, health risks, and socio-economic concerns. Formalising the sector offers a viable solution to promote sustainability and mitigate the risks.

The project aims to achieve outcomes such as improved land management, formalized and accountable ASM, increased revenue for miners and farmers, and job creation through landscape restoration and alternative livelihoods. Core interventions include land-use planning, ASM formalization, degraded land restoration, and sustainable forest management. To address the environmental and social implications, a Strategic Environmental and Social Assessment (SESA) was initiated to guide implementation, ensuring the project aligns with environmental conservation and social well-being goals.

The objective of this assignment is to revise and finalize the draft SESA report, integrating supplemental analysis on key issues, including labour conditions, child labour, land acquisition, and safety, address remaining gaps in the baseline data, socio-economic impacts, and policy implications. This finalised SESA Report will provide actionable recommendations for sustainable ASM sector management, enabling World Bank clearance.

Policy, Legal, Regulatory and Institutional Framework

The PNDC Law 218 (1989) and the Mining Act (2006) introduced regulatory frameworks governing mining, which recognize only large-scale mining and SSM. The recent Community Mining Scheme (CMS) has, however, joined as a formal type of SSM in Ghana. The category of mining called "artisanal" though practised in Ghana since the 15th Century is, however, not known in the mining statutes; unfortunately, it has also in the recent past become synonymous with illegal mining or galamsey (used interchangeably in the report).

The position taken in this SESA assignment (consistent with the principal mining laws and to avoid possible confusion) is therefore to address licensed SSM and CMS as the established types of small-scale mining (besides large-scale mining). The concept of formalizing SSM

therefore refers to the three, namely: licensed SSM, CMS and galamsey/artisanal mining. It is after the formalization that the use of “small-scale mining” could give way or transition to the collective name: Artisanal and Small-Scale Mining (ASM). Thus, the use of “ASM” in this report is always regarding the future, as a product of the formalization process through this SESA assignment (unless otherwise adopted directly from the terms of reference for the assignment).

The GLRSSMP is prepared under the World Bank Environmental and Social Framework (ESF) which requires the Borrower to prepare a SESA in conformance with the requirements of the ESF, specifically the ESS1. The key policy and regulatory frameworks relevant to the SESA of the SSM sector have been reviewed and categorized under fourteen broad themes, as outlined below:

- 1) Environmental policies and related requirements;
- 2) Land policy and related requirements;
- 3) Minerals and mining policy and related requirements;
- 4) Minerals economic fund and programme;
- 5) Water resource protection policies and legislation;
- 6) Agriculture and tree crop policies;
- 7) Forest protection policy and legislations;
- 8) Local governance and chieftaincy legislation;
- 9) Labour, gender and security policies and related requirements;
- 10) Public health policy and legislation;
- 11) National environmental quality standards;
- 12) World Bank environmental requirements;
- 13) International conventions; and
- 14) Other organizational/institutional frameworks.

SSM Formalisation

The Project Coordinating Unit (PCU) for SSM at the Ministry of Lands and Natural Resources (MLNR) serves as the central coordinating body for all activities related to the formalization exercise. Its role is pivotal in ensuring that policies, strategies, and field-level actions align to promote sustainable and responsible mining practices. The SSM formalisation related subcomponents under the GLRSSMP components that are the focus for the SESA are shown below (Table 1), including the lead agencies responsible for implementing various activities.

Table 1 *Lead Agencies for SSM Related Activities Under GLRSSMP*

Component	Sub-Component	Activities	Lead Agencies
Component 1: Institutional strengthening for participatory landscape management	Subcomponent 1.3 Airborne geophysics and geological surveys	Reprocessing and interpretation of airborne geophysical data	GGSA MinCom
		Geological field surveys and analysis	GGSA MinCom

Component 2: Enhanced governance in support of sustainable ASM	Subcomponent 2.1: Regulatory strengthening and formalization of ASM	Update and revision of SSM policies, regulations and guidelines	MinCom
		Update of environmental framework, regulations and guidelines	EPA
		District-level SSM management support	MinCom
		Remote sensing technology for ASM mapping and monitoring	MinCom
		Heavy equipment monitoring	MinCom
		Strengthening environmental framework and monitoring	MinCom EPA
		Establish and strengthen an M&E System for ASM	MinCom PCU
		Multi-stakeholder engagement (consultations)	MLNR- PCU MinCom
		Outreach and awareness	MLNR- PCU MinCom
		Establishment of a one-stop-shop for all ASM permits	MinCom EPA WRC
		Mainstreaming ASM into GhEITI reporting	GhEITI
	Subcomponent 2.2: Training and technology transfer	Establishment and operation of an ASM incubation centre	UMaT
		Establishment and operation of an ASM demonstration centre	UMaT
		Update of the mineral cadastre to include ASM	MinCom
		Dissemination of improved technologies (direct smelting) to ASM operators	UMaT
		Women economic empowerment	UMaT
	Subcomponent 2.3: Traceability of ASM production and value addition	Establishment and strengthening of ASM mining cooperatives	MinCom PMMC
		Strengthening PMMC supply chains and marketing	PMMC
		Equipping and operation of the assay centre at PMMC	PMMC
Component 3: Sustainable crop and forest landscape management	Subcomponent 3.5: Reclamation of mined out sites and alternative livelihoods	Reclamation of abandoned ASM sites and waterways	MinCom FC WRC
		Alternative livelihood programmes	MinCom UMaT PMMC
Component 4: Project monitoring and knowledge management	Subcomponent 4.2: Project Management and Communication	Project Coordination	PCU

Baseline Conditions

The baseline information covered the following areas:

- 1) Mining in Ghana -
 - o Overview of gold mining in Ghana;
 - o Gold occurrence, mining distribution and scale;
 - o Gold extraction in SSM/galamsey;
 - o Reclamation;
 - o Gold production and price;
 - o Traceability and gold purchases;
- 2) Environmental and social aspects concerning mining –
 - o River systems and basins;
 - o Water quality findings in illegal mining areas
- o Land tenure;
- o Agriculture, forestry and cocoa;
- o Health and safety;
- o Social issues – child labour, socio-culture, economic, amenities and political
- 3) Observation from selected mining sites –
 - o Tontokrom community;
 - o Akyem Adukrom community;
 - o Dakrupe community; and
 - o Tarkwa Bremang community.

Four representative districts and respective communities were selected for investigation to reflect the mining industry in Ghana for the SESA assignment (Table 2). The districts from the Western, Ashanti, Eastern and Savannah regions represent the high rainforest, the forest, Deciduous Savanna, and the Dry Savanna Zones respectively. These represent the four major eco-vegetational zones in Ghana. The physical and social characteristics of the districts and communities may closely represent conditions in the respective eco-vegetational zones.

Table 2 District and Communities Investigated for the SESA

SESA Mining Community	District	Region
Tarkwa Bremang	Prestea- Huni Valley Municipal	Western Region
Tontokrom	Amansie South Assembly	Ashanti Region
Dakrupe	Bole Assembly	Savannah Region
Akyem Adukrom	Abuakwa South Municipal	Eastern Region

Public/Stakeholder Involvement

Stakeholders were consulted to ensure open, inclusive, and participatory involvement in the assessment processes, and for feedback on mining impacts and risks. Inputs were also sought on mitigations as well as recommendations for required action plans preparation for implementation.

The stakeholders engaged in the assessment process through face-to-face interviews, focused group discussions, questionnaire and virtual means included:

<ul style="list-style-type: none"> • GLRSSMP PCU – MLNR; • Minerals Commission (MinCom); • EPA – Head Office; • EPA – Western Region; • Water Resources Commission (WRC); • Forestry Commission (FC) <ul style="list-style-type: none"> – Forest Services Division (FSD); • Lands Commission (LC); 	<ul style="list-style-type: none"> • Abuakwa South Municipal Assembly; • Bole Municipal Assembly; • Tarkwa Bremang - <ul style="list-style-type: none"> o Traditional authorities/opinion leaders; o Women; o Miners; o Teachers; • Tontokrom -
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<ul style="list-style-type: none"> • Land Use and Spatial Planning Authority (LUSPA); • Office of the Administrator of Stool Lands (OASL); • Ministry of Employment and Labour Relations (MELR); • Ministry of Gender, Children and Social Protection – Department of Children (MoGCSP - DoC); • Ghana Geological Survey Authority (GGSA); • Department of Co-operatives (DOC); • Precious Minerals Marketing Company (PMMC); • Bank of Ghana (BoG); • Minerals Income Investment Fund (MIIF); • University of Mines and Technology (UMaT); • Prestea-Huni Valley Municipal Assembly; • Amansie South District Assembly; 	<ul style="list-style-type: none"> ○ Traditional authorities/opinion leaders; ○ Women; ○ Miners; ○ Teachers; • Dakrupe <ul style="list-style-type: none"> ○ Traditional authorities/opinion leaders; ○ Women; ○ Miners; ○ Teachers; • Akyem Adukrom <ul style="list-style-type: none"> ○ Traditional authorities/opinion leaders; ○ Women ○ Miners ○ Teachers
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Information Dissemination and Disclosure

The World Bank ESSs and the Ghana Environmental Assessment (EA) Regulations recognize the importance of open and transparent engagement with project stakeholders as an essential element of good practice. After approval of this SESA and other E&S instruments such as the Stakeholder Engagement Plan (SEP) and Environmental and Social Framework (ESMF), a public notice will be served through newspaper advertisement indicating where copies of the report could be accessed.

The final report will be distributed for public information in the records of the GLRSSMP PCU Office. The document will also be disclosed electronically on the World Bank Infoshop (e-library) and the project website.

Environmental and Social Challenges/Impacts and Recommendations

The key environmental and social challenges/impacts of SSM and illegal mining (galamsey) assessed, and the proposed recommendations to address the challenges, and thereby transition into formalized ASM are presented in Table 3 below.

Table 3 Environmental and Social Challenges and Recommendations

Challenges	Recommendation
<p>1) Deep-rooted and endemic interest in the Galamsey canker</p> <p>a. Galamsey is endemic in large sections of the country as a means of rural employment and livelihoods, with the economies of some rural communities dependent almost entirely on it.</p> <p>b. It is propped up by traditional authorities, political figures, etc. and attempts by successive governments to stamp it out never succeeded.</p>	<p>Converting Galamsey into formal ASM cooperatives for mass employment opportunities</p> <p>a. Strategic scheme converting the galamsey misfortune into dependable mass employment.</p> <p>b. Awareness campaign on galamsey conversion into formal, motivating mining venture, especially for the youth and women in rural mining communities.</p> <p>c. Eliminate the exploitative influences of our local people and communities and empower them to derive maximum benefits from mining labour.</p>

<ul style="list-style-type: none"> c. High-handed deployment of the military ended up with accusations of complicity and corruption, and not even ministerial committees on galamsey have escaped the label of corruption. d. The most recent audacious fight resulting in a 2-year ban of all SSM and introducing CMS yielded little. e. Galamsey appears on the ascendency with a rise in pollution level of major affected rivers. 	<ul style="list-style-type: none"> d. Formation of ASM cooperatives as the vehicle to transition into formal mining with guaranteed ownership by cooperative members. e. Redefined mandate of the Mining Support Services Companies as the functional backbone of the ASM cooperatives. f. EPA Regional/District offices to coordinate with the respective Mining Cooperatives for pollution prevention and land degradation
<p>2) Indiscriminate, try and error mining and land degradation</p> <ul style="list-style-type: none"> a. Thirteen (13) out of the 16 regions of Ghana are gold mineralized, and faced with rural poverty and unemployment, people sacrifice their conscience indulging in galamsey as a worthwhile alternative employment. b. The continually soaring high price of gold provides impetus for the degrading galamsey, as a tiny amount of gold extracted is a fortune. c. Destructive effects are without limits – forests (are mowed destroying biodiversity and removing the carbon sink for Greenhouse gas sequestration, etc.), water bodies polluted, and road, rail infrastructure, utility lines destroyed, etc. d. SSM generally do not fall under the requirement for reclamation and site restoration. 	<p>Delineating mineralized areas for ASM</p> <ul style="list-style-type: none"> a. The presence of gold deposits does not necessarily mean it must be mined, irrespective of the environmental, health and broader socio-economic consequences. b. The land/surface resources beneath which gold deposits occur may be equally important with no substitute for dependent communities, economies, cultures, biodiversity, etc. c. Extension of Reclamation Security Agreement (RSA) to SSM operations must be speeded up (to enable posting of reclamation bond). d. The MSSCs to be empowered to support ASM cooperatives with all reclamation requirements. e. BoG and MIIF could explore support to the ASM cooperatives by guaranteeing the RSA with EPA on behalf of the ASM cooperatives.
<p>3) Water resource degradation and pollution from SSM/Galamsey</p> <ul style="list-style-type: none"> a. Almost all the river basins in Ghana, apart from the Volta, suffer degradation and pollution by galamsey. b. Silt-laden run-off from galamsey sites end up in surface water bodies, polluting them. c. Mining directly in water bodies (including processing/washing of ore) affects aquatic ecosystem destroying aquatic biodiversity. d. Use of Mercury in gold extraction directly on rivers or by residual transport is a major concern, due to severe, adverse effects of heavy metals in the environment. e. Heavy metals introduced into rivers, streams, etc. (drinking water sources) was never imagined, hence standard water quality monitoring never takes them into account, thus, we might never know until we start suffering from their deadly effects. f. Expensive water supply treatment and in some cases shut down of treatment plants due to pollution. 	<p>Declaring water bodies/riparian areas “no-go areas” for ASM</p> <ul style="list-style-type: none"> a. Declare water bodies and their buffer zones as environmentally sensitive “no-go areas” in line with modified Schedule 5 of LI 1652 and the Buffer Zone Regulations (BZR). b. BZR and LI 1652 must provide for stiff sanctions including: i) forfeiture of property of offenders to the State, and ii) instant stoppage enforcement for a defined category of offences prior to required prosecution action. c. ASM operations must be subject to water discharge standards, requiring interception in recycling ponds. d. ASM operators prepare and implement watershed management plans as part of the water rights acquisition process.

<p>4) Gaping social and security challenges with SSM/Galamsey</p> <p>a. Laxed enforcement of the Code of Practice (operations, record keeping and reporting, health and safety), therefore no compliance.</p> <p>b. High cost of putting in place needed requirements, e.g. employing health and safety, other technical personnel, etc.</p> <p>c. Related problems include:</p> <ul style="list-style-type: none"> • Walls of pits caving in and falling on workers, • Landslides in heavy rainfall events, • Abandoned mine pits posing threat. • Transmission of communicable diseases (HIV/AIDS and STIs), • Poor records keeping, • Discharge of toxic waste into natural drainages. <p>d. Lack of clarity on exact roles and the relationships among the respective institutions in SSM sector on social support and regulatory mandate for effective discharge of responsibilities, enforcement, reporting and use of the expected outcomes.</p> <p>e. Social vices in SSM/galamsey communities include:</p> <ul style="list-style-type: none"> • Prostitution introduced in such rural communities, • Peddling and use of drugs, • Influx of migrants and foreigners and conflicts; • Use of children in mining as cheap labour, with basis in the cultural practice of children’s apprenticeship from parents and family vocations; • Gender based violence (GBV)/sexual exploitation and abuse (SEA)/sexual harassment (SH) cases may be to power disparity between genders, favouring men and economic dependence increasing vulnerability to exploitation and abuse. Lack of clear workplace policies creates limited awareness of gender rights, increasing abusive behaviours, while societal stigmatization could deter victims from reporting. With underlying strong cultural norms endorsing male superiority, violence against women may be accepted as normal, leading to shielding of offenders and settling matters at home, which obstruct the otherwise gender equality and women’s empowerment provisions of the National Gender Policy and the Affirmative Action Act. 	<p>Streamlined social regulatory framework and institutional arrangements</p> <p>a. Promotion of compliance in the ASM sector could include the following:</p> <ul style="list-style-type: none"> • Strict enforcement of the Code of Practice by MinCom relying on simplified reporting templates for ease of compliance. • Financial resource availability to the cooperatives through MSSCs and the intermediary participating local banks. • MSSCs taking up training responsibilities and other support services for the cooperatives. • Conserving water using settling ponds to recycle wastewater, rather than discharge into natural drainages. <p>b. Restructuring of social regulatory oversight to have DSWCD in lead monitoring and reporting role (spelt out mandate for DAs), while the other institutions play a collaborative role.</p> <p>c. Effective ASM regulatory stewardship and compliance with the various social regulations relying on the support from MSSCs.</p> <p>d. Children involvement in ASM addressed through promoting children education in mining communities by providing school feeding opportunities (through increased allocation of royalties to the relevant DAs for the purpose).</p> <p>e. There is need for sustained education through DSWCD to overcome the cultural practice of children’s apprenticeship used as an excuse to frustrate The Children’s Act and the Plan of Action for the Elimination of the Worst Forms of Child Labour in Ghana.</p> <p>f. The mainstreamed gender equality and women’s empowerment (by the policy and Affirmative Action Act) must be basis for enhanced training for the relevant departments under MoGCSP, MELR, and DSWCD of DAs to enhance skills/strategies.</p> <p>g. A minimum of 10% women representation on Mining Cooperatives to qualify for mining license</p> <p>h. Follow up with role re-definition for MoGCSP, MELR and DAs for systematic channelling of resources, enforcement and reporting.</p> <p>i. Ensure ASM workplace policies against GBV/SEA /SH with clear mechanisms for redress and making it an offence for a victim not reporting.</p>
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	<p>j. Embark on sustained community education with the DSWCD of DAs in the lead against the deeply rooted cultural norms and societal practices.</p>
<p>5) Farming land tenure insecurity and forest/cocoa landscape destruction</p> <p>a. Farming land tenancy arrangements are typically informal, favouring ready conversion of arable lands for galamsey with enticing monetary offers to chiefs.</p> <p>b. The practice progressively limits cultivable lands available for food production, threatening local food security, and exacerbating rural poverty of agricultural families.</p> <p>c. Rural subsistence farming could be at risk, especially in the mining communities, being labour intensive and less productive with the consequent effects of food shortages, high prices and poor nutrition, pushing more people into or turning farmlands into galamsey.</p> <p>d. Encroachment of cocoa farms, especially rehabilitated farms – with about 36.5Ha destroyed by galamsey.</p> <p>e. The Cocoa Swollen Shoot Virus Disease (CSSVD) could devastate an entire farm with low yield, thus requiring cutting down all trees and replanting, to fruit in about the fifth year of planting.</p> <p>f. Farmers are deprived of any economic gain for the no harvest period.</p> <p>g. Compensation paid is considered inadequate and could also delay.</p> <p>h. Labour intensiveness of cocoa cultivation renders it less competitive to galamsey, luring some farmers/landowners to offer their farmlands to galamsey operators for instant earnings.</p> <p>i. Despite SSM not allowed in forest reserves, galamsey is the single major threat to the policy for the conservation and sustainable development of forest and wildlife resources for the maintenance of environmental stability.</p> <p>j. The lenient penalty for galamsey offences attracting a fine not exceeding 500 PU, or imprisonment for a term not exceeding two years, or both, is an incentive for galamsey in forest reserves</p>	<p>Transparent documentation of land transactions for security of tenure</p> <p>a. TAs with the support of Lands Commission and OASL are required to establish Customary Lands Secretariats (CLSs) for management of lands.</p> <p>b. Mandate of CLSs include recording land interests and rights and accurate land transactions.</p> <p>c. Need to facilitate commencement of documenting local land transactions by developing simple templates for use by chiefs.</p> <p>d. Make farming lands in mining communities more productive through special extension support to turn subsistence agriculture into intensive cultivation and farm produce packaging with commercialization and market-driven growth in mind, for the sector to become competitive and lucrative.</p> <p>e. Awareness of chiefs must be raised on the documentation process to end the era of informal land transaction for the protection of tenant farmers.</p> <p>f. Pay competitive compensations to farmers to render cocoa farming equally lucrative.</p> <p>g. Provide extension support services for food crop cultivation in the rehabilitation cocoa farms.</p> <p>h. Prepare compensation (resettlement) Action Plan for each affected farmer, and farmers made to sign a legal documentation binding them not to divest their cocoa farms to galamsey.</p> <p>i. Put in place a mechanism for traceability of the farms and a system of monitoring.</p> <p>j. The penalty for galamsey offences in forest reserves should be reviewed and the Forests Protection Act (1974) accordingly amended to align with the “polluter pays principle” as provided for in Recommendation 9 below.</p> <p>k. The recommendation for the unbridled political interests in galamsey and interferences in the sector management rendering the Forests Protection Act (1974) inoperable is provided in Recommendation 7 below.</p>

<p>6) Foreign and illicit capital inflow and galamsey/artisanal mining capture</p> <p>a. The SSM (artisanal) sector reserved for Ghanaians is effectively captured by foreigners.</p> <p>b. Foreign capital inflow and other illicit sources fuel galamsey.</p> <p>c. Consequences - gold smuggling and negative economic effects and untraceable gold output/export.</p> <p>d. Unfair trade practices - out competing registered buyers in the purchase of gold.</p> <p>e. Foreign gold business interests consolidate their influence through corrupting local authorities, political figures and communities.</p> <p>f. Local people not only front them, but protect and defend them, sometimes against arrest.</p>	<p>Local financing sources for ASM operations</p> <p>a. Block foreign and illicit capital inflow with alternative local financing for ASM activities.</p> <p>b. Funds from central government (BoG) through intermediary participating Rural Banks to offer mining loans indirectly to ASM cooperatives through MSSCs.</p> <p>c. BoG's intervention to guarantee Reclamation Bond placement for ASM cooperatives.</p> <p>d. GGSA resourced to conduct prospecting to delineate mineable areas for ASM.</p> <p>e. Help retain capital and stimulate the local economy, leading to improving rural development</p> <p>f. Ensure traceability of total gold output and promote BoG's Domestic Gold Purchase Program.</p>
<p>7) Political interests in galamsey and interferences in the SSM sector</p> <p>a. Leadership of political parties and operatives turn to take interest in and/or urge their followers into galamsey, compromising the fight.</p> <p>b. Appointment of District Chief Executives (DCEs):</p> <ul style="list-style-type: none"> • Confounds objectivity in the galamsey fight, • Makes them liable to kotow to demands of powerful political actors, • Hinders DCEs' independence of thought, otherwise likely to lose favour and/or risk offending the appointing authority. <p>c. Mandate of the sector minister signing SSM licenses counters proper accountability arrangements.</p> <p>d. Potential source of delay but also denies aggrieved parties opportunity to appeal/complain against any unfairness or mistreatment in the licensing process, etc.</p>	<p>Transparent and coordinated institutional system for ASM governance</p> <p>a. Effective institutional collaboration arrangement (involving DAs, MinCom, EPA, WRC, with Traditional Authorities, and communities) for transparent and inclusive decision-making.</p> <p>b. Establish a complaint and reporting mechanism for whistle-blowers of any untoward interference.</p> <p>c. Make relevant constitutional changes to elect DCEs to make them account to the people and for environmental infractions, including galamsey in their areas of jurisdiction.</p> <p>d. Exclude the sector minister from signing ASM licenses by re-assigning the mandate to the Chief Executive of MinCom.</p> <p>e. The examples of EA Regulations (EPA) and the WRC Act make provision for appeals and complaints channelled to the sector minister for adjudication by any aggrieved person in the licensing process.</p>
<p>8) Cumbersome permit and license acquisition process</p> <p>a. Drawn-out sequential permit and license processes of the respective institutions – EPA, MinCom, WRC, FC, etc. is a demotivation for SSM operators, and no galamsey operators would be attracted to navigate it.</p> <p>b. It is the cause of illegality for some SSM re-application/license renewal, with the excuse of delays causing them to mine in unauthorized sites.</p>	<p>Simplified one-stop-shop licensing/permitting procedure</p> <p>a. Multiple sequential institutional approval processes could be overcome with a simplified, synchronised procedure agreed to by the institutions.</p> <p>b. Creation of a one-stop-shop licence and permit process to motivate prospective applicants.</p> <p>c. Elaborate awareness campaign carried out in all mining districts for ASM/galamsey operators to</p>

<p>c. Long travel distances for entity registration, licensing, permitting, including water rights at different centres and times is considered expensive.</p> <p>d. Lack of understanding of the various processes by prospective applicants.</p> <p>e. Absence of adequate information on/from applicants.</p>	<p>remove potential doubts while promoting smooth adoption and functioning of the one-stop-shop procedure.</p> <p>d. Testimonies by existing operators of the ease in the application process would motivate even sceptics also to roll on.</p> <p>e. Also, serve as a good advertisement of the improved ASM-official institutional working relationship as an attraction.</p>
<p>9) Laxed sanctions tacitly undermining effort to curb galamsey</p> <p>a. The amendment of Sections 81 and 99 of Act 703 (2006) by Act 900 (2015), and subsequent amendment under Act 995 (2019) significantly increased the penalties for engaging in galamsey, raising the term of imprisonment to 15–25 years and fines to 10,000–350,000 penalty units (PU).</p> <p>b. Despite the new punitive penalties, interest must also focus on the degradation and pollution and remedying the galamsey legacies of damage to the environment.</p> <p>c. Interest is focused more on “mineral theft”, neglecting the environment degradation, hence encouraging more galamsey, leaving legacies of environmental damage.</p> <p>d. Regulation 29 of LI 1652 (offences & penalty) is concerned about failure to comply with the EA Regulations but fails to consider actual environmental damage caused due to the failure to comply, e.g.:</p> <ul style="list-style-type: none"> • commencing development without Environmental Permit (EP), • disregarding EPA’s directives to register/obtain EP, • failure to conduct EIA/ESIA before commencing project, etc. with a fine not exceeding ₵2 million or imprisonment not exceeding a year or to both. • In the case of a continuing offence to a further fine not exceeding ₵200,000 for each day. <p>e. Given the gravity of environmental degradation and water pollution with heavy metals, e.g. mercury, and the dire health and socio-economic consequences, the sanction regime is a misnomer and does not respond to the public outcry.</p>	<p>Deterrent environmental sanctions and property forfeiture</p> <p>a. Apply the “polluter pays principle” (as advocated in the National Environmental Policy) as a tool in environmental governance of the ASM sector and reflect in appropriate sections of Act 703, LI 1652 and in the Ghana’s Mining and Environmental Guidelines.</p> <p>b. The practice of imposing administrative charges/fines on offending mining companies, e.g. in spillage of chemicals, may be challenged as arbitrary, in the absence of explicit legislative provisions.</p> <p>c. Provide explicit list of offences (including chemical/toxic waste discharge/spillage) and the method for estimating the environmental damage caused and the corresponding fines.</p> <p>d. Define a category of environmental emergency offences requiring instantaneous enforcement, where delayed stoppage of the offending action could lead to unmitigated consequences, e.g. discharge of mercury containing wastewater into drinking water sources.</p> <p>e. Where the offence attracts forfeiture of the property of the offender (found guilty) the prerogative of the court must be exercised.</p> <p>f. The above deterrent sanctions must be specified in Act 703 and LI 1652 amendments, the Ghana’s Mining and Environmental Guidelines and the Buffer Zone Regulations in preparation.</p>

<p>10) Low institutional capacity in Impact Assessment and management coordination</p> <p>a. The almost 380 active licenses as of November 2024, and about 750 SSM licenses last year (2023), represent just about 10% of all SSM activities (i.e. about 90% of all SSM is done illegally).</p> <p>b. Regularising the several hundreds of artisanal/galamsey (i.e. the 90% illegal mining) could easily overwhelm the regulatory institutions.</p> <p>c. Enforcement of regulations in SSM sector is hindered by weak collaboration of the key institutions, leading to fragmented oversight, regulatory overlaps and lack of synergy undermining effective management efforts.</p> <p>d. Underlying challenge is the lack of adequate institutional appreciation of the role of Impact Assessment (IA), and its potential contribution to sector decision-making and sustainability of actions, e.g.:</p> <ul style="list-style-type: none"> • the cumulative impacts of any contiguous SSM concessions are never accounted for leading to undesirable environmental and social consequences, and • the delineated/blocked out areas for SSM are not covered by Environmental and Social Management Framework (ESMF)/SESA in line with good Impact Assessment practice. <p>e. Some institutions perceive environmental issues outside their domain, and have nothing to do with IA, hence MinCom for instance, during mining licensing process would pause and advise applicants to submit Environmental Permit (from EPA only as evidence), presupposing that the outcome of the IA has no input to the mining license decision-making.</p> <p>f. The above, inadvertently impede inter-institutional confidence, corporation and sharing of intelligence on sector issues.</p>	<p>Strengthening capacity in IA and institutional arrangements</p> <p>a. Section 12 (3f) of the Local Governance Act 936 (2016) grants DAs the authority to manage human settlements and the environment in their areas.</p> <p>b. DAs are responsible for approving developments (which include mining), hence they must be part in approving ASM projects and to account for their environmental and social effects.</p> <p>c. The other institutions must play respective collaborating roles and jointly - licensing/permitting, monitoring, reclamation and site restoration.</p> <p>d. Benefits of effective institutional collaboration could maximize the application of scarce resources of the institutions.</p> <p>e. Formation of the ASM cooperatives would bring together large number of the youth, etc. into single entities, and so avoid the prospect of having several hundreds of individual applicants/licensed operators to overwhelm the institutions.</p> <p>f. The empowered MSSCs will effectively support and supervise ASM cooperatives, considerably reducing the regulatory enforcement functions of the institutions.</p> <p>g. Environmental and social assessment capacity building for the key institutions will be most essential to inform licensing and permitting decisions for sustainability, and to reinforce the need for collaboration.</p> <p>h. A good understanding of the principles of IA will enable, e.g.:</p> <ul style="list-style-type: none"> • blocked out areas for SSM to be subject to ESMF/SESA, while • Any group of contiguous ASM concessions will be subject to Cumulative Impact Assessment.
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Action Plans

Forty-one (41) actionable items were identified from the 10 main recommendations for formalizing ASM. The implementation of the Action Plans (Table 4) would involve some 5 ministries, 14 commissions, agencies and departments, besides DA stakeholders, traditional authorities, etc. The implementation timeframe is mainly short-term (70%) and medium-term (10), while 7 key actions (20%) are long-term (i.e. on-going after commencement). The indicative implementation budget of the of action plans is estimated at about \$900,000.00.

Table 4 *Implementable Action Plans from SESA Recommendations*

Recommendation	Key Action	Time Frame
1.0 Converting galamsey into formal ASM Cooperatives for mass employment opportunities	1) Strategic scheme converting galamsey into formal mass employment 2) Awareness campaign on galamsey conversion into formal mining ventures in communities, including youth and women 3) Formation of ASM Cooperatives 4) Mining Support Services Companies with new mandates	○ Short-term ○ Long-term ○ Short-term ○ Short-term
2.0 Delineating mineralised areas for ASM	5) Publishing reclamation requirements and extending RSA to ASM operations 6) Empowerment of MSSCs to provide full support on all aspects of reclamation to the Cooperatives 7) Empowerment of District Security Council	○ Short-term ○ Short-term ○ Short-term
3.0 Declaring water bodies/riparian areas “no-go areas” for ASM	8) Assert the prohibition of mining in water bodies/riverbeds/buffer zones with “no-go areas” in the modified Schedule 5 of LI 1652. 9) Buffer Zone Regulations providing stiffer sanctions including forfeiture of property of offenders. 10) Water Discharge Standards incorporating requirement for watershed management plans. 11) Ban of Mercury use in ASM.	○ Short-term ○ Short-term ○ Short-term ○ Short-term
4.0 Streamlined social regulatory framework and institutional arrangements	12) Promotion of compliance in the ASM sector through strict enforcement of the COP 13) Securing financial resource made available to MSSCs for the cooperatives through participating rural banks 14) Relying on the financial resources to MSSCs to pilot the COP requirements by some ASM operators. 15) Restructuring of social regulatory oversight for DSWCD to assume the lead monitoring and reporting role which must be spelt out DAs mandate, while the other institutions play a collaborative role. 16) Monitoring of children involvement in ASM and to report the culprits of child labour to the Police 17) Effective ASM regulatory stewardship and compliance with the various social regulations	○ Short-term ○ Short-term ○ Short-term ○ Short-term ○ Long-term ○ Long-term
5.0 Transparent documentation of land transactions for security of tenure	18) Facilitating quick commencement of documenting local land transactions to protect farmlands against galamsey 19) Use of the land transaction template as a pilot by some Chiefs 20) Competitive compensation to cocoa farmers. 21) Farmers of rehabilitated cocoa farms to sign contract not to divest their farms to galamsey.	○ Short-term ○ Short-term ○ Long-term ○ Long-term

<p>6.0 Local financing sources for ASM operations</p>	<p>22) Exploring BoG upfront investment of ASM operation through intermediary participating Rural Banks for mining loans (indirectly) 23) Funds lodged in the intermediary participating Rural Banks for disbursement to MSSCs for the direct purchases of services and goods 24) Resourcing GGSA to conduct prospecting and establish economic viability of delineated mineable areas for ASM 25) Feasibility discussion of BoG's proposed special Reclamation Bond placement guarantee for ASM Cooperatives with EPA. 26) Pilot of Reclamation Bond placement guarantee for an ASM applicant. 27) Traceability of gold output from ASM and promotion of BoG's DGPP.</p>	<p>○ Short-term ○ Long-term ○ Short-term ○ Short-term ○ Medium-term ○ Long-term</p>
<p>7.0 Transparent and coordinated institutional system for ASM governance</p>	<p>28) Establish transparent and inclusive decision-making process involving relevant institutions with Traditional Authorities, and communities 29) Establish a complaint mechanism for potential whistle-blowers to report any untoward interference or act 30) Advocate for changes in the law to elect DCEs and MCEs (no more appointed by the President) 31) Assign the mandate for signing ASM licenses to the Chief Executive of MinCom</p>	<p>○ Short-term ○ Short-term ○ Medium-term ○ Short-term</p>
<p>8.0 Simplified one-stop-shop licensing /permitting procedure</p>	<p>32) Finalization of agreement on modalities for a simplified, user-friendly procedure for approval (licensing and permitting) processes for ASM. 33) Awareness campaign in all mining districts for ASM/galamsey operators on the simplified licensing/ permitting procedure. 34) Creation of a one-stop-shop licence/permit process. 35) Pilot the one-stop-shop use by prospective ASM/galamsey applicants</p>	<p>○ Short-term ○ Short-term ○ Short-term ○ Medium-term</p>
<p>9.0 Deterrent environmental sanctions and property forfeiture</p>	<p>36) Applying the “polluter pays principle” as a tool in environmental enforcement and governance in the ASM sector. 37) Amending LI 1652 to incorporate charge-estimations for polluting offences under the “polluter pays principle”. 38) Incorporating same clauses in the Mining and Environmental Guidelines. 39) Amending LI 1652 to introduce new provisions granting power to EPA to cause instant stoppage enforcement of a class of polluting offences. 40) Amending the penalty clauses of LI 1652 to introduce category of offences warranting potential forfeiture of offenders’ property to the State.</p>	<p>○ Short-term ○ Medium-term ○ Short-term ○ Medium-term ○ Medium-term</p>
<p>10.0 Strengthening capacity in IA and institutional arrangements</p>	<p>41) Extending DAs development approval responsibility to include ASM licensing and sector management jointly with MinCom, EPA, and WRC. 42) Positioning DAs to account for the environmental and social issues relating to ASM activities and challenges jointly with the other institutions. 43) Extensive Impact Assessment capacity building for the key institutions to enable it inform sector policies and plans, as well as licensing/permitting decisions for sustainability. 44) Enabling the sector institutions create senior environmental positions/desks to become the pivot of collaboration.</p>	<p>○ Short-term ○ Short-term ○ Long-term ○ Short-term</p>

Key: Short-term = within a year / Medium term = within 3 year / Long-term = on-going

Risks to Implementation and Conclusion

The SESA report identifies the deep-rooted challenges and impacts of illegal mining/galamsey and SSM in Ghana. Galamsey persists due to its critical role in rural livelihoods, land tenure insecurity, and degradation of cocoa landscapes, compounded by foreign capital inflows, political interference, and weak governance structures. Environmental degradation, including land destruction and water pollution, alongside severe social and security challenges, underscore the urgency for reform. Efforts to formalize the sector have significant hurdles to surmount, with no easy fixes. Thus, this requires short and medium-term strategies to long-term ones, rather than the less informed demands for immediate cessation of galamsey.

The SESA report recommends empowering galamsey operators through the formation of ASM cooperatives supported by redefined Mining Sector Support Companies, streamlined licensing processes, local financing mechanisms, and enhanced environmental governance. Strengthening institutional capacity, enforcing stricter regulations, and assigning key roles to DAs in licensing, monitoring, and reclamation are critical. Constitutional and legislative reforms, such as electing DCEs and re-assigning the authority to sign ASM licenses to the head of MinCom, are also recommended. Delays in implementing these measures risk worsening the existing E&S burden, and security threats, but with strong political commitment, these strategies could pave the way for a sustainable and formalized ASM sub-sector.

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1.0 INTRODUCTION

1.1 Project Background

Ghana's small-scale mining (SSM) sector holds immense socio-economic promise but has historically grappled with a myriad of challenges, chief among them being illegal mining practices, environmental degradation, water pollution and social, safety and security risks, etc. In addressing these pressing issues, the Government of Ghana (GoG) in 2017 inaugurated the Multi-Sectorial Mining Integrated Project (MMIP) as a comprehensive blueprint to ensure sustainable contributions from the SSM sector to the national economy.

Drawing from priority interventions that were identified in the MMIP, the World Bank embarked on a complementary journey with the Ghana Landscape Restoration and Small-Scale Mining Project (GLRSSMP) with a much broader scope and a more pointed objective. This involved taking a holistic approach through targeted actions to address land degradation and in support of sustainable integrated landscape management and the formalization of SSM.

This initiative aspires to cultivate a conducive environment where artisanal and small-scale mining in Ghana can flourish in a manner that is orderly, safe, and environmentally sustainable. Central to the GLRSSMP's mission is the pivotal goal of addressing the pressing need to rejuvenate and restore degraded terrains to mirror their pristine state. Moreover, the project commits to imparting essential know-how and expertise, bridging the disparity between degraded areas and their full ecological restoration. It is important that in the end, the formalized ASM achieves its sustainability objectives to avoid any possible regressing to environment degradation that may again require separate future reclamation investments.

1.2 Project Justification

Attempts to regulate the general SSM sector in the past led to the enactment of laws including and starting with the PNDC Law 218 in 1989. However, there were still serious challenges with various entities who operated with impunity outside the legal framework. Efforts were made from the 2006 Mining Act to decentralize the administration of SSM by establishing district offices for the Minerals Commission (MinCom). In addition, areas were designated for SSM mining. Unfortunately, most of the 123 designated areas have so far not been subjected to intense investigation. These designated mining areas are also insufficient to meet demand for new ground for SSM. Furthermore, the licensing requirements are overly bureaucratic and far beyond the capacity of the average small-scale miner.

The no project scenario would mean that the country could continue to experience increased unregulated activity in the sector, causing severe social and environmental challenges with such illegal mining also called "galamsey" (a corrupted English expression for "gather them for sale"). With the depletion of the shallow, high-grade deposits, artisanal and small-scale miners and galamsey operators will continue to use heavy equipment to strip the overburden to access deep-seated ore bodies and therefore create severe environmental and social consequences. Also, they will continue to apply harmful ore processing methods, such as the

use of Mercury, causing damage to the health of communities, especially to infants. A viable alternative is to formalize the sub-sector to ensure sanity in ASM activities in the country.

1.3 Expected Outcomes

The project activities are expected to lead to the following outcomes:

- Improved and sustainable land management practices through investments in climate-smart agriculture, conservation, and restoration activities in production landscapes to promote sustainable food systems and agriculture value chains and boost green recovery of rural livelihoods in target areas;
- ASM formalization and accountability to ensure higher tax receipts from registered businesses and, a better retention of value addition from gold;
- Improved revenue for small-scale miners and cash crop farmers through investments in:
 - Training on the more efficient and less intrusive extraction methods to result in the creation of viable formal ASM enterprises, improving revenue and boosting income of small-scale miners; and
 - Improved crop production technologies and value addition interventions to boost revenues for the farmers.
- Job creation, through:
 - Opportunities within landscape restoration activities and reclamation of mined out areas; and
 - Alternative livelihoods opportunities for miners and farmers of target communities to help generate incomes that do not depend on unsustainable use of mineral and forest resources.

1.4 GLRSSMP Core Interventions and Components

With a view to enhancing integrated management, the project aims to place landscape and mining sector management on a trajectory that would transition from degraded landscapes, poverty, and low productivity toward one with high-productivity and resilient landscapes, livelihoods, and high economic returns. The project will focus on the following core interventions:

- Land-use planning for integrated landscape management to optimize land use;
- Formalization of SSM for sustainable mining;
- Restoration of degraded lands for agricultural productivity, and
- Strengthening of sustainable management of forest landscapes for biodiversity conservation and ecosystem services.

The project is designed around four components:

- Component 1: Institutional Strengthening for Participatory Landscape Management
- Component 2: Enhanced governance in support of sustainable ASM
- Component 3: Sustainable Crop and Forest Landscape Management
- Component 4: Project Monitoring and Knowledge Management

- Component 5: Contingent emergency response

1.5 SESA Context and Background

To better address the environmental and social (E&S) implications of GLRSSMP, the need arose for a meticulous Strategic Environment and Social Assessment (SESA). The primary intent behind the SESA for GLRSSMP is to comprehensively evaluate and provide actionable recommendations concerning E&S ramifications of the project's initiatives. This crucial document aims to guide the GLRSSMP, ensuring its operations align with best practices for environmental conservation and social well-being, ultimately leading the charge in redefining the contours of responsible ASM in Ghana.

The cumulative impacts of ASM can be significant and need to be well studied and managed to minimize the costs to local communities and the E&S costs to Ghana. The most significant E&S impacts from SSM are mainly in degradation of lands, forests and water bodies, pollution from hazardous materials, health impacts, security, and safety, and impacts on biodiversity. Key social impacts include land acquisition and conflict over land uses, labour conditions issues, social exclusion, risks of sexual harassment and exploitation, child labour risks, and conflict within and among communities over mineral resources. On the other hand, there are a number of positive impacts, which include employment, increased livelihood and household income, and related economic opportunities.

A SESA is beneficial to provide a sector-wide examination of potential impacts from SSM, leading to preparation of guidelines and procedures to improve not only the analytical aspects of project-specific activities but also identify the impact management approaches and measures that will be applied sector-wide.

Under component 2 of the GLRSSMP, a Draft SESA was prepared in fulfilment of requirements of the Project's Environmental and Social Commitment Plan (ESCP) during the project's preparatory phase. The Draft SESA which has received provisional clearance from the World Bank safeguards team was subject to further review and scrutiny in November 2022 and December 2023 and some gaps that warranted further attention were identified. These key gaps included the following:

- 1) The baseline situation needs to be more clearly defined at a national level rather than a specific community level;
- 2) Recommendations need to be expanded to cover more of the socio-economic issues associated with SSM;
- 3) Further analysis is required to identify the key E&S implications arising from proposed policy, legislative or regulatory reforms planned under the GLRSSMP;
- 4) Certain social issues such as land acquisition, child labour, security threats, safety and sexual assault/sexual harassment require further in-depth analysis;
- 5) The recommendations on possible environmental impacts (water pollution, land degradation, occupational health and safety (OHS) risks and possible hazardous waste) are not sufficiently elaborated even though the GLRSSMP project includes several

- activities that could be used for recommendations; and
- 6) The draft SESA process adopted ESIA approach rather than SESA approach.

1.6 Objective of the SESA Assignment

The primary objective of the assignment to address the gaps identified in the draft SESA, overhaul the whole assessment process and enhance the quality of the SESA to enable final delivery and clearance of the report. This final output of the consultancy is an updated and finalized SESA Report for submission to the World Bank for clearance.

1.7 Methodology

The PNDC Law 218 (1989) and the Mining Act (2006) introduced regulatory frameworks governing mining, which recognize only large-scale mining and SSM. The recent Community Mining Scheme (CMS) has, however, joined as a formal type of SSM in Ghana. The category of mining called “artisanal gold mining” though practised in Ghana centuries back that involved the use of simple implements, and did no recognizable harm to the environment is, however, not known/ recognized in the mining statutes. About two to three decades ago a new description was coined "gather them for sale" corrupted as "galamsey" to assume the name of that local practice of unregulated/illegal (artisanal) mining. Thus, illegal mining has become synonymous with Galamsey (used interchangeably) and has since the early 2000s assumed a monstrous and increasingly destructive character for the nation.

The formalization approach identified and assessed the key areas of E&S concern and the corresponding recommendations for resolving SSM/galamsey. The set of recommendations were subjected to stakeholder consultations (Appendices 3.1 and 3.3). Furthermore, the recommendations were developed into respective action plans with proposed expected implementation periods and outcomes for a validation workshop (Appendices 3.4 and 3.5) to seek further inputs and build necessary consensus, especially on the role of the respective institutions. The stakeholder validation workshop started with characterizing the types of SSM to help distinguish among in terms of gap identification and the requirements for consideration towards formalization.

Thirty (30) expanded regulatory areas (under legislation, institutional involvement/ requirements, Code of Practice, environmental compliance, social issues (child labour and gender issues), labour conditions and community health/safety and security, gold sale outlet, royalty and ground rent, mercury use, reclamation and restoration and public perception, etc.) were reviewed to characterize/evaluate the three types of SSM: licensed SSM, CMS and galamsey/artisanal mining in terms of their formalization status to facilitate an understanding of the challenges and for required recommendations. This led to the building of Table 1.1 that was instructive as the foundation in the whole SESA assignment.

Table 1.1 Characteristics of Formalization

	Small-Scale Mining Types (Characteristics)
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Regulatory Areas	Licensed SSM	Community Mining	Artisanal/Galamsey Mining
1) Legislative Framework	PNDC Law 218 (1989) Act 703 (2006)	Operational Manual (2021)	None
2) Mining License (MC)	Yes	Yes and No	No
3) Environmental Permit (EPA)	Yes	Yes	No
4) Water Rights/Use Permit (WRC)	Yes	Yes	No
5) Forestry Commission's involvement	Not Applicable	Not Applicable	Nil
6) District Assemblies' involvement	Token	Token	Nil
7) Institutional Collaboration	Marginal	Marginal	Not Applicable
8) Mechanization	Artisanal Semi-mechanized Fully mechanized	Artisanal Semi-mechanized Fully mechanized	Artisanal Semi-mechanized
9) Deployment of Mining Service Co.	Yes	Yes	Yes and No
10) Mining outside permitted areas	Occasional (Illegal)	No	Not Applicable
11) Wastewater discharge (permission)	Yes, but no permission	Yes, but no permission	Don't seek permission
12) Monitored by Sector institutions	Yes	Yes	No
13) Sale of Gold	Aggregators/PMMC	Aggregators/PMMC	Untraceable
14) Royalty/Ground Rent Payments	Do not pay	Do not pay	Not Applicable
15) Code of Practice (Health and Safety)	Partial	Partial	Poor
16) Deaths/Accidental	Rare	Rare	Occasional
17) Mine Pit collapse	Rare	Rare	Common
18) Mercury Use	Partial	Partial	Common
19) Employment Records (Keeping)	Partial	Partial	Nil
20) Contract Offer Letters	Nil	Nil	Nil
21) Management system/control	Limited	Limited	Free for all
22) Estimated Workforce/Population			Numerous/undetermined
23) Community, Health/Safety & Security	Partial	Partial	Poor
24) Child labour	Could occur	Could occur	Common
25) GBV & SEA/SH	Could occur	Could occur	Could occur
26) Reclamation Plans Preparation	Partial	Partial	Nil
27) Reclamation Bond Posting	Nil Documentation is 95% complete for bonding	Nil Documentation is 95% complete for bonding	Nil
28) Site Restoration Practice	Nil	Nil	Nil

29) Post-Reclamation Certification	Is a requirement	Is a requirement	Not Applicable
30) Public Perception/Sentiments	Mixed reaction	Politically tainted	Very bad, so ban it

The position taken in this SESA assignment (consistent with the principal mining laws and to avoid possible confusion) is therefore to address licensed SSM and CMS as the established types of small-scale mining (besides large-scale mining). The concept of formalizing SSM therefore refers to the three, namely: licensed SSM, CMS and galamsey/artisanal mining. It is after the formalization that the use of “small-scale mining” could transition into the collective name: Artisanal and Small-Scale Mining (ASM). Thus, the use of “ASM” in this report is always regarding the future, as a product of the formalization process from this SESA assignment.

The process for the adoption of ASM to replace SSM would require amendment of the Act 703 to explicitly mention “artisanal” in conjunction with SSM, which is partly an expected outcome of this SESA. Therefore, references throughout the SESA report use SSM with the licensed SSM in view, and CMS as linked to Act 703. Whenever “artisanal” is used in this report, it is in reference to its recent character of illegal mining or galamsey, until the process of formalization turns over the associated illegal attributes to become orderly, safe, and socially and environmentally sustainable.

1.8 Scope of Work

The scope of service includes:

- Reviewing the existing SESA report, comments received to date and remaining gaps,
- Completely overhauling the whole SESA report based on comprehensive stakeholder involvement and inputs and also relying on existing field data on selected communities and districts, and policy and regulatory review; and
- Submitting a final SESA Report ready for final clearance.

The SESA supplement will contain the following:

- 1) National baseline description of the ASM sector in Ghana, including key environmental and social issues associated with the sector.
- 2) Analysis of the environmental and social implications of planned policy / legal reforms under the project and propose mitigation measures for potential negative impacts;
- 3) Analysis around key ASM sector-related social issues particularly labour conditions, land acquisition, child labour, security threats, safety, and sexual exploitation and abuse (SEA) / sexual harassment (SH);
- 4) Expansion on the SESA report recommendations to ensure sufficient coverage of key social and environmental issues associated with the ASM sector in Ghana; and
- 5) Outcomes from a SESA stakeholder validation workshop to consider all recommendations and any other relevant issues raised by the World Bank.

1.9 Report Organisation

The SESA Report is organised into ten (10) main chapters as follows and preceded by an executive summary:

- 1) Chapter 1: Introduction;
- 2) Chapter 2: Policy, legal, regulatory and institutional framework;
- 3) Chapter 3: ASM formalisation;
- 4) Chapter 4: Policy and regulatory reforms under the mining component of the GLRSSMP;
- 5) Chapter 5: Baseline conditions;
- 6) Chapter 6: Public / stakeholder involvement;
- 7) Chapter 7: Environmental and social challenges/impacts;
- 8) Chapter 8: Recommendations to address challenges;
- 9) Chapter 9: Environmental and social action plans; and
- 10) Chapter 10: Risks to implementation and conclusion.

2.0 POLICY, LEGAL, REGULATORY AND INSTITUTIONAL FRAMEWORK

The key policy and regulatory frameworks relevant to the mining sector, particularly SSM as well as the institutions and requirements for E&S assessment and management have been reviewed under fourteen broad themes. These have been applied in the SESA process and appropriate recommendations made for sustainability of the formalization of ASM as follows:

1. Environmental policies and related requirements;
2. Land policy and related requirements;
3. Minerals and mining policy and related requirements;
4. Minerals economic fund and programme;
5. Water resource protection policies and legislations;
6. Agriculture and tree crop policies;
7. Forest protection policy and legislations;
8. Local governance and chieftaincy legislation;
9. Labour, gender and security policies and related requirements;
10. Public health policy and legislation;
11. National environmental quality standards;
12. World Bank environmental requirements;
13. International conventions; and
14. Other organisational/institutional frameworks.

2.1 Environmental Policies and Related Requirements

The environmental policies and related requirements reviewed included:

- Environmental Protection Act, 1994 (Act 490);
- Environmental Assessment Regulations, 1999 (LI 1652);
- National Environmental Policy, 2013; and
- National Climate Change Policy, 2013.

2.1.1 Environmental Protection Act, 1994

The Environmental Protection Agency Act, 1994 (Act 490) grants the Environmental Protection Agency (EPA) the mandate to ensure compliance with the Ghana Environmental Assessment (EA) Regulations. Additionally, the Agency is required to control and monitor the generation, treatment, and disposal of waste, including management of hazardous substances.

The Agency is also vested with the power to determine an ‘adverse effect on the environment’ or an activity posing ‘a serious threat to the environment or public health’, and to regulate and serve an enforcement notice for any offending or non-complying activity. The Agency is also required to monitor and verify compliance with permit conditions of approved developments.

Section 12 (1) mandates the Agency to require a proponent of an undertaking to conduct an environmental impact assessment (EIA). As a follow-up, Section 12 (2) indicates that where the Agency issues a notice under sub-section (1), it shall inform any organ or department of

government responsible for the issue of any licence, permit, approval or consent not to grant the licence, permit, approval or consent, unless otherwise notified by the Agency.

2.1.2 Environmental Assessment Regulations, 1999

The Environmental Assessment Regulations, 1999 (LI 1652) prohibit commencing an “undertaking” without prior registration and environmental permit. Undertakings are grouped into schedules to facilitate screening and registration in the EA system. The schedules include undertakings requiring registration and environmental permit (Schedule 1), Environmental Impact Assessment (EIA) mandatory undertakings (Schedule 2), and Schedule 5-relevant undertakings (i.e., proposals located in or near Environmentally Sensitive Areas) in Ghana.

In accordance with Regulation 23, any undertaking requiring a reclamation plan must post a reclamation bond based on the approved work plan for reclamation. Regulation 14 requires EIA for mining and other extractive industries that must include reclamation plans.

2.1.3 National Environmental Policy, 2013

The National Environmental Policy (NEP), 2013 presents a road map to address major environmental threats jeopardizing the natural and common resource base of the country and has integrated the most urgent environmental concerns of present time to provide clear strategies for overcoming existing hurdles. One of the operational principles of the policy is the Polluter Pays Principle, which stipulates that those responsible for environmental damage must be held liable for repairing harm caused to both physical and human environments. Furthermore, they are also accountable for covering the costs of preventive measures aimed at reducing or preventing further pollution and environmental damage.

2.1.4 National Climate Change Policy, 2013

The Policy is built on five systematic pillars: Governance and Co-ordination, Science, Technology and Innovation, Finance, International Cooperation, Information Communication and Education and Monitoring and Reporting. The objective of the Policy is to mitigate and ensure an effective adaptation in key sectors of the economy, such as agriculture and food security, natural resources management, energy, industry and infrastructure among others. The National Climate Change Policy Framework has three objectives: low carbon growth, effective adaptation to climate change, and social development.

2.1.5 Review Comments – Environmental Policies and Related Requirements

Amendment to Section 12 of Act 490 for Consistency with Schedules 1 and 2 of LI 1652

With enactment of LI 1652 in 1999, specifying undertakings requiring environmental assessment (EA) in Schedules 1 and 2, the requirements of Section 12 of Act 490 for the Agency to issue relevant notices in writing to proponents and government departments is superseded. This therefore requires an amendment to Section 12 of Act 490 (the parent Act) to be in consonance with the EA Regulations.

Posting of Reclamation Bond by ASM

Notwithstanding Regulation 23 of LI 1652, SSM and CMS have not been included in the requirement to post reclamation bonds. It is recommended that the LI 1652 be amended to explicitly mention SSM (or ASM) as also requiring to post bonds.

Designation of "no-go areas" for ASM

The following are recommended for designation as "no-go areas" for ASM in the list of environmentally sensitive areas in Schedule 5 of LI 1652:

- All areas declared by law as national parks, watershed reserves, wildlife reserves and sanctuaries including sacred groves;
- Areas which constitute the habitat of any endangered or threatened species of indigenous wildlife (flora and fauna);
- Areas of unique historic, archaeological, or scientific interests;
- Water bodies characterized by one or any combination of the following conditions
 -
 - Water tapped for domestic purposes;
 - Water within the controlled and/or protected areas;
 - Water which supports wildlife and fishery activities;
- Mangrove areas characterised by one or any combination of the following-
 - Areas with primary pristine and dense growth;
 - Areas adjoining mouth of major river system;
 - Areas near or adjacent to traditional fishing grounds; and
 - Areas which act as natural buffers against shore erosions, strong winds or storm floods

National Environmental Policy (NEP) Advocates for Polluter Pays Principle

The NEP advocates for the Polluter Pays Principle for those responsible for environmental damage such as galamsey to be held liable for repairing harm caused to both physical and human environments. Rather unfortunately, this principle is yet to be applied in Ghana's environmental governance.

Recommended to Convert NEP into a National Environmental Act

NEP would require an update to reflect Section 12 (2) of Act 490 into the policy to commit institutions to the E&S obligations associated with their sector decisions and permits and to account for them. It is recommended also to convert the policy into a National Environmental Act, so that institutions do not continue to be misled into thinking that environmental issues and requirements are only EPA's concerns, rather than national requirements that equally apply to all relevant institutions.

2.2 Land Policy and Related Requirements

The relevant policy and legislations in the land sector reviewed included:

- National Land Policy, 1999;
- Land Act, 2020 (Act 1036);
- Lands Commission Act, 2008 (Act 767);
- Land Use and Spatial Planning Act, 2016 (Act 925);
- Office of the Administrator of Stool Lands Act, 1994 (Act 481); and
- Office of the Administrator of Stool Lands Regulations, 2019 (LI 2377).

2.2.1 National Land Policy, 1999

The policy sets out a broad framework and guidelines for land administration and utilization, with the following objectives among others:

- Ensure socio-economic activities are in conformity with sustainable land use principles;
- Protect the rights of landowners and their descendants from becoming landless;
- Provide mechanism for minimization and resolution of land dispute; and
- Promote community participation and public awareness at all levels in sustainable land management and development practices to ensure the highest and best use of land.

2.2.2 Land Act, 2020

The Land Act, 2020 (Act 1036) aimed at consolidating the laws on land, with the view to harmonizing them to ensure sustainable land administration and management and effective land tenure. The Act provides for prompt payment of fair and adequate compensation for land acquisition. Section 9 of the Act designates chiefs, tendanas, clan heads, family heads, or any other authorities responsible for managing stool, skin, clan, or family lands as fiduciaries. They are obligated to perform their management duties for the benefit of the respective stool, skin, clan, or family and are held accountable in their fiduciary capacity.

Also, Sections 14 to 18 mandate stools, skins, clans, or families that own land to establish Customary Land Secretariats (CLSs) to manage their lands. These Secretariats are tasked with recording land interests and rights, as well as maintaining accurate and up-to-date records of land transactions within their jurisdiction. Additionally, CLSs are required to submit records of all documented transactions to the Lands Commission and the Office of the Administrator of Stool Lands on a quarterly basis.

2.2.3 Lands Commission Act, 2008

The Act establishes the Lands Commission to integrate the operations of public service land institutions to secure effective and efficient land administration and to provide for related matters. The objectives include promoting the judicious use of land, in accordance with sustainable management principles and the maintenance of a sound eco-system; and to ensure that land development is in conformity with the nation's development goals.

2.2.4 Land Use and Spatial Planning Act, 2016

The Act 925 (2016) establishes the Land Use and Spatial Planning Authority (LUSPA) to:

- Develop the capacities of District Assemblies (DAs) and other institutions for effective performance of their spatial planning and human settlement management functions;
- Ensure control of physical development in sensitive areas such as forest reserves, nature reserves, wildlife sanctuaries, green belts, coastal wetlands, water bodies and catchment areas, open spaces, and public parks; and
- Ensure the exploitative use of natural resources for agriculture, mining, industry, and other related activities do not adversely impact on human settlements.

Section 45 defines the planning area under the jurisdiction of LUSPA as the territory of Ghana, defined under the Constitution to include the land mass, air space, sub-terrain territory, marine space and reclaimed lands.

2.2.5 Office of the Administrator of Stool Lands Act, 1994

The Act 481 (1994) establishes the Office of the Administrator of Stool Lands (OASL) as enshrined in Article 267 (2) of the 1992 Constitution and it is responsible for the establishment of stool land account for each stool, collection of rents and the disbursement of such revenues.

In accordance with Section 7 (1) of the Act and clause (6) of Article 267 of the Constitution, 10% of the revenue accruing from stool lands shall be paid to the Office to cover administrative expenses and the remaining revenue disbursed in the following proportions by OASL:

- 25% to the stool through the traditional authority for the maintenance of the stool;
- 20% to the traditional authority; and
- 55% to the DA within the area of authority in which the stool lands are situated.

2.2.6 Office of the Administrator of Stool Lands Regulation, 2019

The OASL Regulations (LI 2377) establishes guidelines for a consultative process for the administration and development of stool lands and the coordination with other institutions such as the Forestry and the Minerals Commissions.

2.2.7 Review Comments - Land Policy and Related Requirements

Need to Accelerate Functioning of the Customary Land Secretariats

The establishment of CLSs to manage lands by chiefs, tendanas, clan heads, etc. and to submit records of all documented land transactions to the Lands Commission and OASL on a quarterly basis as required by Sections 14 to 18 of Act 1036 (Land Act, 2020) must be accelerated to start running. This is necessary to protect farmlands from galamsey capture.

Recommendation for DAs' Active Involvement in ASM Licensing and Management

Section 45 of Act 925 (LUSPA, 2016) indicates the planning area (under LUSPA as defined under the Constitution of Ghana) to include land mass, sub-terrain territory and reclaimed lands. The management of such areas falls under DAs' spatial planning and human settlement functions, which includes mining – hence the need for DAs to be active participants in ASM licensing and management, including reclamation and use of reclaimed lands.

2.3 Minerals and Mining Policy and Related Requirements

The relevant policy and legislation on minerals and mining activities reviewed included:

- The Constitution of Ghana, 1992;
- Minerals and Mining Act, 2006 (Act 703);
- Minerals and Mining (Amendment) Act, 2015 (Act 900);
- Minerals and Mining (Amendment) Act, 2019 (Act 995);
- Minerals and Mining Policy of Ghana, 2014;
- Artisanal and Small-Scale Mining Framework, 2015;
- Small Scale and Community Mining Operational Manual, 2021;
- Minerals and Mining (Licensing) Regulations, 2012 (LI 2176);
- Minerals and Mining (General) Regulations, 2012 (LI 2173);
- Minerals and Mining (Health, Safety and Technical) Regulations, 2012 (LI 2182);
- Minerals and Mining (Compensation and Resettlement) Regulation, 2012 (LI 2175);
- Minerals and Mining (Ground Rent) Regulations, 2018 (LI 2357);
- Minerals and Mining (Support Services) Regulations, 2012 (LI 2174);
- Minerals and Mining (Explosives) Regulations, 2012 (LI 2177);
- Minerals and Mining (Local Content and Local Participation) Regulations, 2020 (LI 2431);
- Minerals and Mining (Mineral Operations–Tracking of Earth Moving and Mining Equipment) Regulations, 2020 (LI 2404);
- Environmental Protection (Mining in Forest Reserves) Regulations, 2022;
- Multi-Sectoral Mining Integrated Project, 2017;
- Mercury Law, 1989 (PNDCL 217); and
- National Action Plan to Reduce and Where Feasible Eliminate Mercury Use in Artisanal and Small-Scale Gold Mining (ASGM) in Ghana, 2020.

2.3.1 The Constitution of Ghana, 1992

The Constitution of Ghana, 1992 is the supreme law to which all others must be consistent with. Article 36 (9) indicates that the state shall take appropriate measures needed to protect and safeguard the national environment for posterity; and shall seek co-operation with other states and bodies for purposes of protecting the wider international environment for mankind.

Article 257 (6) vests ownership of every mineral in its natural state in, under or upon any land in Ghana, rivers, stream or water courses, the exclusive economic zone and any area covered by the territorial sea or continental shelf in the President, on behalf of, and in trust for the people of Ghana.

Article 243 provides the appointment of District Chief Executive (DCE) by the President and approved by not less than two-thirds majority of members of the Assembly present and voting.

Articles 268 and 269 make provision for the protection of natural resources of the country. It gives power to Parliament under Article 269 (1) to provide for the establishment of a Minerals Commission, a Forestry Commission, Fisheries Commission and such other Commissions as Parliament may determine, which shall be responsible for the regulation and management of the utilization of the natural resources concerned and the co-ordination of the policies in relation to them.

2.3.2 Minerals and Mining Act, 2006

Section 1 of Act 703 (2006) vests the ownership of all minerals in its natural state in throughout the country, the exclusive economic zone and continental shelf in the President in trust for the people of Ghana. The Minister on behalf of the President and on the recommendation of the Minerals Commission may negotiate, grant, revoke, suspend or renew mineral rights in accordance with this Act (Section 5).

In accordance with Section 10 of the Act, a mineral right is granted to a body incorporated under the Companies Code of 1963 (Act 179), or under the Incorporated Private Partnership Act 1962 (Act 152), etc. Section 9 further stipulates that, regardless of any right a person may hold to land containing minerals, no individual may undertake a searching, reconnaissance, prospecting, exploration, or mining for minerals in Ghana unless granted a mineral right.

Section 17 requires a mineral right holder to obtain approvals or licenses under the Water Resources Commission Act, 1996 (Act 552) for activities such as obtaining, diverting, impounding, conveying, and using water from rivers, streams, underground reservoirs, or watercourses within the land covered by the mineral right. Additionally, under Section 18, the holder is required to obtain the necessary approvals and permits from the Forestry Commission and the EPA to safeguard natural resources, public health, and the environment.

Sections 82 to 99 of the Act apply exclusively to SSM. Section 83 outlines the qualifications for an applicant to obtain a SSM license as: being a citizen of Ghana, of at least 18 years old, and registered with the Commission in a designated area (Section 90(1)). Section 89 indicates that the Minister after consultation with the Commission is to designate an area for SSM operations. Section 92 empowers the Minister to appoint members for the establishment of a SSM Committee and to determine their tenure, as well as the terms and conditions of their appointment. The Committee is tasked with assisting the District Office in effectively monitoring, promoting, and developing mining within the designated area. Also, Section 96

gives small-scale miners the right to purchase from an authorized mercury dealer the quantities of mercury reasonable for their mining operations.

2.3.3 Minerals and Mining (Amendment) Act, 2015

The Minerals and Mining (Amendment) Act, 2015 (Act 900) amended Sections 25, 99, 106, 107, and 110 of Act 703. Specifically:

- Section 25 was revised to state: "A holder of a mining lease, restricted mining lease, or small-scale mining licence shall, in respect of minerals obtained from its mining operations, pay royalty to the Republic at the rate and in the manner prescribed."
- Section 110 was amended by introducing paragraph (v) to subsection (2), following paragraph (u), to ensure the Minister for the purpose of giving effect to Act 703 prescribe the rate for royalty and the manner of royalty payments in respect of minerals".

2.3.4 Minerals and Mining (Amendment) Act, 2019

Minerals and Mining (Amendment) Act, 2019 (Act 995) amended Sections 81 and 99 of Act 703 and introduced Section 96A. Section 81 of Act 703 has been amended as follows:

- Section 81(1): Sections 82 to 98 shall apply exclusively to SSM.
- Section 81(2): This section addresses illegal SSM as well as other forms of illegal mining.

Although Section 99 on offences and penalties had previously been amended under the Minerals and Mining (Amendment) Act, 2015, it was further revised in this Act. The 2019 amendment significantly increased the penalties for engaging in illegal mining activities, raising the imprisonment term to 15–25 years and fines to 10,000–350,000 penalty units (PU). This marks a substantial change compared to the 2015 amendment under Act 900, which prescribed 5–20 years' imprisonment and fines of 2,000–300,000 PU.

Section 99 (3) states that a non-Ghanaian who undertakes a mining operation or facilitates the participation of any person in mining contrary to a provision of this Act commits an offence and is liable upon conviction to - a fine of not less than one hundred thousand PU and not more than three hundred and fifty thousand PU; a term of imprisonment of not less than twenty years and not more than twenty-five years; or both the fine and imprisonment. Also, Section 99 (4) states that where a non-Ghanaian who is liable on summary conviction under subsection (3) is a person liable to deportation under Section 35 of the Immigration Act, 2000 (Act 573), that non-Ghanaian shall, where sentenced to a term of imprisonment, serve the full sentence before deportation in accordance with subsection (3) of section 37 of Act 573.

The Minerals and Mining Act, 2006 (Act 703) defines mining operations as the mining of minerals under mining lease or restricted mining lease.

2.3.5 Minerals and Mining Policy of Ghana, 2014

The Mining Policy, 2014 has a section on environmental regulation of mining and the objective stated under this section is to achieve a socially acceptable balance, between mining and the

physical and human environment and to ensure that internationally accepted standards of health, mining safety and environmental protection are observed by all participants in the mining sector.

It mentions also that procedures for the assessment of applications will take into consideration inter-agency consultation. It will establish arrangements under which the Minerals Commission will consult with the EPA, the Forestry Commission, District Assemblies and other relevant departments and agencies during the evaluation of applications for mineral rights.

2.3.6 Artisanal and Small-Scale Mining Framework, 2015

The Artisanal and Small-Scale Mining Framework, 2015 establishes that the Artisanal and Small-Scale Mining (ASM) is subsumed under the Small-Scale Mining (SSM) even though the Minerals and Mining Act, 2006 refers to SSM. Therefore, this includes artisanal operators. The ASM Framework identified the issues relating to ASM and further established objectives and strategies to address issues identified in the ASM sub-sector.

2.3.7 Small Scale and Community Mining Operational Manual, 2021

The Small-Scale and Community Mining Operational Manual, 2021 was introduced to define acceptable standards and streamline SSM operations in Ghana. The manual outlines the structure and framework of the Community Mining Scheme (CMS), aiming to prevent a relapse into galamsey (illegal mining) and to address the negative impacts of the SSM subsector.

The CMS is a government initiative designed to combat illegal mining by encouraging residents of mining communities to engage in responsible, viable, and sustainable SSM under Act 703. The Scheme combines SSM in accordance with Act 703, and Tributer System in line with Regulations 493–506 of the Minerals and Mining (Health, Safety, and Technical) Regulations, 2012 (LI 2182).

2.3.8 Minerals and Mining (Licensing) Regulations, 2012

The Minerals and Mining (Licensing) Regulations, 2012 (LI 2176) provide a comprehensive framework for acquiring, managing, and regulating mineral rights in Ghana. It introduces a cadastral system to clearly define mineral rights using geographical coordinates and mandates the submission of detailed applications, including environmental and operational plans, for reconnaissance, prospecting, and mining activities. The regulations also establish a transparent process for recording applications in a Priority Register and outline the fees, documentation, and qualifications required for various mineral rights.

These Regulations further address the management of mineral rights through provisions for extensions, amendments, mergers, and transfers, ensuring compliance with established standards. Additionally, these Regulations aim to reduce conflicts by specifying procedures for resolving overlaps and disputes in mineral rights applications.

2.3.9 Minerals and Mining (General) Regulations, 2012

The Minerals and Mining (General) Regulations, 2012 (LI 2173) establish comprehensive technical and procedural requirements for mining, submit expatriate employment and Ghanaian training plans, procure goods and services locally, repair surface damage caused by reconnaissance and prospecting activities within 90 days, ensuring environmental restoration, among others – for large-scale mining.

2.3.10 Minerals and Mining (Health, Safety and Technical) Regulations, 2012

The Minerals and Mining (Health, Safety, and Technical) Regulations, 2012 (LI 2182) establish comprehensive guidelines to promote safe and efficient mining practices in Ghana. These regulations cover operating plans, emergency response procedures, environmental management, and occupational health and safety. It also mandates regular inspections, certification of workers, and the submission of detailed reports on accidents and dangerous occurrences. The Chief Inspector of Mines (CIM) is empowered to enforce these provisions, conduct inquiries, and issue improvement or prohibition notices when necessary.

Additionally, Regulation 473 requires a written permission from CIM to use mercury and also requires the use of a retort for SSM activities.

2.3.11 Minerals and Mining (Compensation and Resettlement) Regulation, 2012

The Minerals and Mining (Compensation and Resettlement) Regulations, 2012 (LI 2175) establish clear guidelines for compensating affected persons and resettling displaced inhabitants due to mining activities. These Regulations require mineral right holders to notify affected individuals and communities within 14 days of obtaining a mineral right and allow them to submit compensation claims within 60 days. These claims must detail the impact on land rights, the type of compensation sought, and supporting valuation information. Compensation must be negotiated fairly, covering loss of income, damage to crops or property, and disruption of socio-economic activities. If no agreement is reached, disputes are resolved by the Minister in consultation with Government Agency responsible for valuation of land or a decision by the High Court.

These Regulations also emphasize resettlement processes for communities displaced by mining operations, mandating prior consultations with local stakeholders and comprehensive resettlement plans. These plans should address land use, socio-economic conditions, and community development needs, ensuring alignment with local planning laws. A Resettlement Monitoring Committee oversees implementation, with costs borne by the mining leaseholder.

2.3.12 Minerals and Mining (Ground Rent) Regulations, 2018

The Minerals and Mining (Ground Rent) Regulations (LI 2317), 2018 stipulates the ground rent payable annually by a mineral right holder in respect of a cadastral unit of land. The type of mineral right include:

- Exploitation or mining rights with respect to mining lease or restricted mining lease;
- Exploitation or mining rights with respect to SSM licence; and

- Exploration rights with respect to reconnaissance licence, restricted reconnaissance licence, prospecting licence, and restricted prospecting licence.

2.3.13 Minerals and Mining (Support Services) Regulations, 2012

The Minerals and Mining (Support Services) Regulations, 2012 (LI 2174) classifies support service providers as Class A or Class B. A registered person who provides contract mining support services to a SSM licence holder is to give a notice of the provision of the services to the relevant District Office of MinCom and DA by submitting its certificate. A Class B support service provider means a person who is a Ghanaian and provides specific and exclusive services such as contract mining services for SSM, which include mining and processing of ore, reclamation revegetation and management of mining operations to a mineral right holder. Other Class B support services for SSM include ore haulage services, personnel transportation, and any other mining related services MinCom considers necessary.

2.3.14 Minerals and Mining (Explosives) Regulations, 2012

The Minerals and Mining (Explosives) Regulations, 2012 (LI 2177) establishes comprehensive standards for managing explosives in mining and related industries in Ghana. It outlines regulations concerning the conveyance, storage, manufacture, and usage of explosives, ensuring adherence to safety and environmental standards. The Chief Inspector of Explosives, supported by inspectors, has the authority to inspect sites, enforce compliance, and investigate accidents, etc. – for large-scale mining.

2.3.15 Minerals and Mining (Local Content and Local Participation) Regulations, 2020

The purpose of the Minerals and Mining (Local Content and Local Participation) Regulations, 2020 (LI 2431) include: promotion of job creation through the use of local expertise, goods and services, businesses and financing in the mining industry value chain and the retention of the jobs in the country; and achieving the minimum of local level and in-country spend for the provision of goods and services in the mining industry – for large-scale mining.

2.3.16 Minerals and Mining (Mineral Operations–Tracking of Earth Moving and Mining Equipment) Regulations, 2020

The purpose of the Minerals and Mining (Mineral Operations–Tracking of Earth Moving and Mining Equipment) Regulations, 2020 (LI 2404) is to provide for the registration and tracking of earth moving and mining equipment used in mineral operations and ensure that the earth moving and mining equipment are used only in the specific mineral right area that the earth moving and mining equipment is registered for. These Regulations apply to holders of mineral rights; mine support service providers specified in the Minerals and Mining (Support Services) Regulations, 2012 (LI 2174); dealers in earth moving and mining equipment; and any other person who uses earth moving and mining equipment in mineral operation.

2.3.17 Environmental Protection (Mining in Forest Reserves) Regulations, 2022

The Environmental Protection (Mining in Forest Reserves) Regulations, 2022 (LI 2462) guides mining operations in production areas of forest reserves. Regulation 13 of LI 2462 mandates that mineral rights holders to ensure mining activities are conducted in compliance with

approvals granted by authorized regulatory agencies. Under LI 2462, a mineral right includes a reconnaissance licence, prospecting licence, mining lease, restricted reconnaissance licence, restricted prospecting licence, or restricted mining lease, as defined by Act 703 – for large-scale mining.

2.3.18 Multi-Sectoral Mining Integrated Project, 2017

The overall Multi-Sectoral Mining Integrated Project (MMIP), 2017 development objective was to improve the management of artisanal and small-scale mining (ASM) in Ghana to ensure that its contribution to socio-economic development is felt within the mining communities through sustainable mining practices, minimising its negative impact on the environment and taking into consideration gender and child protection issues associated with artisanal and small-scale mining activities. The MMIP had the following five interrelated components: review and enforce the legal and regulatory regime; reclamation of degraded lands, dredged silted estuaries and waterways and free lands for agribusiness; implementation of social interventions to facilitate sustainable livelihood creation in mining communities; adaptation of technology to ensure efficient mining, processing, environmental and monitoring activities; and capacity building of ASM, regulatory institutions and project management.

The MMIP was to develop and implement sustainable livelihoods, called Alternative Livelihood Projects (ALPs). This was to train current and prospective artisanal miners in different skills development programmes. The aim here was to actively involve the local communities whose livelihood depend on the illegal mining activities in alternative income generating activities to help improve their living standards.

2.3.19 Mercury Law, 1989

In accordance with Section 2 of the Mercury Law, 1989, the Minister responsible for Trade may issue a licence authorising a person to import, possess, buy, sell, or deal in mercury within the Republic, subject to the conditions specified in the licence.

Section 4 of the Law provide for licensed small-scale gold miners to purchase from licensed mercury dealers a reasonable quantity of mercury that may be shown to be necessary for the purposes of their mining operations. Small-scale gold miners are also required to observe good mining practices in the use of mercury for carrying out mining operations.

2.3.20 National Action Plan to Reduce and Where Feasible Eliminate Mercury Use in Artisanal and Small-Scale Gold Mining Ghana, 2020

The overall objective of the National Action Plan is to reduce and where feasible, eliminate the use of mercury and mercury compounds in ASGM to protect human health and environment. The estimated national mercury reduction targets are as follows:

- 10% in 2025;
- 25% in 2030;
- 35% in 2040; and
- 50% in 2050.

2.3.21 Review Comments - Minerals and Mining Policy and Related Requirements

Position of DCEs Recommended to be Elective, Accountable to the District Electorate

Article 243 of the Constitution provides for the position of DCEs to be appointed by the President. It is, however, recommended for the DCE's position to become elective based on an individual's merit who would then be held accountable by the district electorate, not a sympathiser of the governing political party or the President.

This could help to avoid political interferences in future ASM governance, where DAs and DCEs are given a more central role in licensing and management of ASM operations; rather than the existing situation where DCEs readily succumb to political pressure to satisfy influential political figures or party actors, and therefore unable to join effectively in the galamsey fight.

Ceding the Authority of Signing ASM Licenses to the CEO of MinCom

It is recommended in this SESA for necessary amendment to Section 5 of Act 703 for the Minister to cede the authority of signing ASM licenses to the head of MinCom for proper lines of accountability, and, to offer an opportunity for appeal/complaint to the Minister by any aggrieved person. Other recommendations have also been made for the Act to be amended in accordance with Chapter 8.1 of this SESA report.

Need for Impact Assessment Capacity Building for all Sector Institutions

Section 18 requires a mineral right holder to obtain the necessary permit from EPA (and others), rather than requiring Impact Assessment (IA) at the early stages of the application for the benefit of IA input informing MinCom's licensing decisions. A recommendation to this effect is the need for IA capacity building for all sector institutions to properly appreciate the potential benefits of IA to MinCom, EPA and the other institutions, and so collectively require for it and utilise its outcomes.

Inter-agency Consultation Advocated for in the Mining Policy and Possible Relationship with Impact Assessment

The Mining Policy, 2014 refers to inter-agency consultation under which the MinCom will engage with the EPA, the Forestry Commission, DAs and others during the evaluation of applications for mineral rights. Such inter-agency consultation could fit well into the Impact Assessment system and as means to addressing the requirements of other agencies, and thus, avoid the multiplicity of institutional requirements that applicants would have to navigate sequentially.

Additional Deterrent Sanctions for Engaging in Galamsey

The amendment of Sections 81 and 99 of Act 703 by the Minerals and Mining (Amendment) Act 900 (2015) and the subsequent amendment under Act 995 (2019) significantly increased the penalties for engaging in illegal mining activities, raising the imprisonment term to 15–25 years and fines to 10,000–350,000 penalty units (PU).

Despite the punitive penalties, it is recommended further to apply the “polluter pays principle” (as advocated in the NEP) in ASM sector environmental governance. Besides the fines and imprisonment under the mineral and mining laws, an offender is also sanctioned under environmental degradation offences (in an amended LI 1652), which could require instant stoppage enforcement, estimated environmental damage/remediation fee and forfeiture of offender’s property to the State as deterrent.

“Artisanal and Small-Scale Mining” Remain Alien to the National Mining Statutes

The Artisanal and Small-Scale Mining Framework, 2015 introduces “artisanal” in conjunction with SSM (into ASM) for the first time, and postulates that ASM is subsumed under SSM, but immediately qualifies the argument that the Minerals and Mining Act, 2006 only refers to SSM. The fact that the Act 703 and other related mining laws refer to SSM is very instructive, and until the Act 703 is explicitly amended to mention “artisanal”, the use of ASM will remain alien to the national mining statutes and usage. It is hoped that the product of formalization of SSM, CMS and artisanal/galamsey would result in ASM (and accordingly amended in Act 703).

Failure of the Community Mining Scheme to Prevent a Relapse into Galamsey

The Small-Scale and Community Mining Operational Manual, 2021 introduced the CMS to encourage residents of mining communities to engage in responsible and sustainable SSM and to prevent a relapse into galamsey after the 2-year ban of all SSM in Ghana. The initiative was government driven. However, it did not deliver the full expected goals of stamping out galamsey, perhaps due to unrestrained partisanship, instead of pursuing the CMS formulation objectively through a SESA approach.

Minerals and Mining (Compensation and Resettlement) Regulations, 2012

For good practice, the Regulations must operate in the context of Impact Assessment. The processes prescribed do not pertain to good practice, e.g. that one must be a mineral right holder, and to notify affected stakeholders within 14 days of obtaining a mineral right, and shifting the responsibility to submit compensation claims (within 60 days) to the project affected persons (PAPs), etc. This is inconsistent with good practice Resettlement Action Plan where the proponent/applicant is responsible to identify and engage all PAPs/stakeholders from the start and to prepare all documentation ensuring fair and equitable compensation/resettlement, prior to issuance of necessary approvals. This needs a complete revision and amendment.

Amendment of Minerals and Mining (Support Services) Regulations to Expand the Functions of MSSCs to Comprehensively Support the ASM Cooperatives

Sections of the LI 2174 (2012) would need to be amended to enable the Mining Support Services Companies (MSSCs) to provide for and promote ASM with additional roles and responsibilities as recommended in Chapter 8.1 of this SESA report.

Recommendation to Ban use of Mercury in ASM Disregarding the Road Map of the National Action Plan

Recommendations have been made to consider amending the Minerals and Mining Act, 2006 (Act 703) and the Mercury Law, 1989 to expunge the clauses providing for the purchase and use of mercury in ASM in Ghana, in disregard of the road map for the National Action Plan. This is in view of the gross abuse of mercury use and the related dire health consequences, while there are available viable, safer and more efficient alternative recovery methods. Furthermore, the mercury in use appears to be all smuggled into Ghana, since no official import license issued from 2019.

2.4 Minerals Economic Fund and Programme

Minerals economic fund and programme reviewed included:

- Minerals Income Investment Fund (MIIF) Act, 2018 (Act 978);
- Minerals Development Fund Act, 2016 (Act 912); and
- Domestic Gold Purchase Programme, 2021.

2.4.1 Minerals Income Investment Fund Act, 2018

The Minerals Income Investment Fund Act, 2018 (Act 978) establishes MIIF to manage the equity interests of the Republic in mining companies, to receive mineral royalties and other related income due the Republic from mining operations, to provide for the management and investment of the assets of MIIF and for related matters. The MIIF is expected to disburse 20% of minerals income received (by MIIF) to the Minerals Development Fund (MDF). The mineral

royalties are assessed, collected and accounted for by the Ghana Revenue Authority in accordance with law and applicable Minerals Investment Agreements

2.4.2 Minerals Development Fund Act, 2016

The Minerals Development Fund Act, 2016 (Act 912), establishes the MDF to provide financial resources for the benefit of mining communities and related purposes. The Fund may be utilized to address the adverse impacts of mining on affected communities, support local economic development initiatives, and implement alternative livelihood projects for communities impacted by mining activities. Additionally, the Fund can be used to undertake projects that promote the growth and sustainability of the mining sector, among other objectives. The moneys received by the Fund from the mineral royalty payments made to the Ghana Revenue Authority is disbursed as follows:

- 50% allocated to the OASL and disbursed as prescribed by law;
- 20% allocated to the Mining Community Development Scheme;
- 4% allocated to supplement the mining operations of the Ministry;
- 13% allocated to supplement the mining operations of MinCom;
- 8% allocated to supplement the mining operations of GGSA; and
- 5% allocated for research, training and projects aimed at the promotion of sustainable development through mining of which 40% shall be allocated to GGSA.

2.4.3 Domestic Gold Purchase Programme, 2021

The Domestic Gold Purchase Programme (DGPP), 2021 sets the stage for Ghana to purchase gold as part of efforts to build its reserves. The programme will enable the Bank of Ghana (BoG) buy domestically produced gold from selected gold aggregators and mining firms and in local currency at the prevailing market price.

2.4.4 Review Comments - Minerals Economic Fund and Programme

Upfront Investment of BoG's Domestic Gold Purchase Programme Funds into ASM operations

Reliance on BoG's DGPP funds as local financing sources for ASM operations to curtail foreign and illicit capital inflow into the sector. This could also eliminate smuggling of Ghana's gold and ensure traceability of the total gold output from Ghana. The funds from BoG could be used as upfront investment through intermediary participating rural banks to offer mining loans to ASM cooperatives, etc. This would promote BoG's DGPP among other benefits.

2.5 Water Resource Protection Policies and Legislations

The relevant water related policies and legislation reviewed included:

- Water Resources Commission Act, 1996 (Act 522);
- National Water Policy, 2007;
- Riparian Buffer Zone Policy, 2013; and

- Water Use Regulations, 2001 (LI 1692).

2.5.1 Water Resources Commission Act, 1996

The Water Resources Commission (WRC) Act, 1996 (Act 522) establishes the Commission, to regulate and manage the utilization of water resources in Ghana, and for the co-ordination of any policy in relation to them. The Commission also plans towards the utilization, conservation, development, and improvement of water resources, initiate, control and co-ordinate activities connected with the development and utilization of water resources. The WRC is the institution that bears the mandate to issue water permits to small-scale miners.

2.5.2 National Water Policy, 2007

The National Water Policy, 2007 aims at an overall goal of sustainable development, management, and use of Ghana's water resources to improve health and livelihoods, reduce vulnerability while assuring good governance for present and future generations. The policy addresses relevant issues under water resources management, urban water supply and community water and sanitation. The policy objectives seek to:

- Minimize the pollution of water sources from poor environmental sanitation services;
- Support DAs to meet statutory obligations of providing services; and
- Ensure sustainability through effective community ownership and management facilities, active participation of women, public sector facilitation and private sector involvement.

2.5.3 Riparian Buffer Zone Policy, 2013

The Riparian Buffer Zone Policy, 2013 aims at ensuring all designated buffer zones along rivers, streams, lakes, reservoirs, and other water bodies are sustainably managed, as well as conserve, protect, restore, and maintain the ecology of such areas. It also seeks to establish vegetation in riparian buffer zones to improve water quality by controlling activities along the riverbanks and generally in catchments of surface water bodies.

2.5.4 Water Use Regulations, 2001

The Water Use Regulations, 2001 (LI 1692) enjoins all persons to obtain Water Use Permit from WRC for domestic, commercial and industrial water use among others. The Commission is also mandated to request for evidence that an environmental impact assessment or an environmental management plan has been approved by EPA before issuance of the Water Use Permit.

2.5.5 Review Comments – Water Resource Protection Policies and Legislations

Applying the Riparian Buffer Zone Policy within the Impact Assessment Requirements

The application of the Riparian Buffer Zone Policy could be within the Impact Assessment (IA) requirements for projects (under LI 1652), to ensure all designated buffer zones along rivers, reservoirs, and other water bodies are sustainably managed, as well as conserved, restored, and to maintain the ecology of such areas in the implementation of such projects

Mainstreaming the Water Use Permit and IA Requirements

Integrating the consideration of issuance of the Water Use Permit under the Water Use Regulations, 2001 (LI 1692) with the IA requirements (LI 1652) would enable WRC to benefit directly from the IA outcomes. This would also enable mainstreaming and integrating the various requirements for prospective applicants (for ease of doing business), rather than just WRC requesting for evidence that an EIA/ESIA or an EMP/ESMP has been approved by EPA.

2.6 Agriculture and Tree Crop Policies

The relevant agricultural and tree crop policies reviewed included:

- Food and Agriculture Sector Development Policy (FASDEP), 2002; and
- Tree Crops Policy, 2012.

2.6.1 Food and Agriculture Sector Development Policy, 2002

The Food and Agriculture Sector Development Policy (FASDEP I), 2002 was developed as a framework for the implementation of strategies to modernizing the agricultural sector. In 2006, the FASDEP was revised to FASDEP II to encourage the formation of inter-ministerial teams to ensure environmental sustainability in agricultural production systems. FASDEP II emphasizes the sustainable utilization of all resources and commercialization of activities in the sector with market-driven growth in mind and with emphasis on environmental sustainability.

2.6.2 Tree Crops Policy, 2012

The Tree Crops Policy, 2012 is to provide a comprehensive and holistic approach for the sustainable development of the tree crop sub-sector and for proper targeting of support to the tree crop value chains. The tree crops listed include cashew, citrus, cocoa, coconut, coffee, dawadawa, kola, mangoes, oil palm, rubber tree, and shea nuts. Others include acacia (Gum Arabic), avocado, baobab, and tamarind.

2.6.3 Review Comments – Agriculture and Tree Crops Policies

Food and Agriculture Sector Development Policy, 2002

Need to enhance the productivity of farmlands in mining communities through special extension support to turn subsistence agriculture into intensive cultivation and farm produce packaging with commercialization and market-driven growth in mind. This would help make the sector to become almost as competitive as galamsey and lucrative enough to attract the youth as an alternative livelihood source and employment.

Tree Crops Policy (2012)

Provide a holistic support for the sustainable development of the tree crop sector with emphasis on the cocoa sub-sector with disease resistant seedlings, short fruiting cycle and competitive and attractive purchase price. The provision of a monitoring system for farms in the cocoa landscape and payment of competitive compensation/resettlement for rehabilitated cocoa farms and contract signing with farmers against divesting their farms for galamsey.

2.7 Forest Protection Policy and Legislations

The relevant forest policy and legislations reviewed included:

- Ghana Forest and Wildlife Policy, 2012;
- Forests Protection Act, 1974 (NRCD 243); and
- Forests Act, 1927 (CAP 157).

2.7.1 Ghana Forest and Wildlife Policy, 2012

The policy aims at the conservation and sustainable development of forest and wildlife resources for the maintenance of environmental stability and continuous flow of benefits for the socio-cultural and economic goods and services derived by the present and for future generations, whilst fulfilling Ghana's commitments under international agreements and conventions. Two relevant objectives of the policy are to manage and enhance the ecological integrity of the forest, savannah, wetlands, and other ecosystems for the preservation of vital soil and water resources, conservation of biological diversity, and carbon stocks and to promote the rehabilitation and restoration of degraded landscapes to enhance environmental quality.

2.7.2 Forests Protection Act, 1974

The Forests Protection Act, 1974 (NRCD 243) outlines the functions of forest officers, specifies offences related to forest reserves and related matters. The Act stipulates that any person who engages in prohibited activities within a forest reserve without the written authorization of the relevant forest authority commits an offense and is liable, upon summary conviction, to a fine not exceeding 500 penalty units, imprisonment for a term not exceeding two years, or both.

2.7.3 Forests Act, 1927

The Forests Act of 1927, (CAP 157) establishes legal procedures for protecting forests, creating forest reserves, and managing related rights and responsibilities. It empowers the President, advised by the Forestry Commission, to designate lands as forest reserves, including government, stool, and private lands, when public interest necessitates their protection. The Act mandates the publication of proposed reserves in the gazette, specifying their location, reasons for designation, and appointing a Reserve Settlement Commissioner to address claims. Traditional authorities may enact by-laws to designate forest reserves within their jurisdiction, subject to presidential approval and notice requirements. Affected parties may appeal forest reserve judgments, and any changes must also be gazetted.

2.7.4 Review Comments - Forest Protection Policy and Legislations

Ghana Forest and Wildlife Policy (2012)

Galamsey is the single major and imminent threat to the policy for the conservation and sustainable development of forest and wildlife resources for the maintenance of environmental stability. Also, the continuous flow of benefits for the socio-cultural and economic goods and services derived by the present and for future generations, if the fast rate of forest destruction by galamsey is not curtailed with the urgency required.

Forests Protection Act (1974)

Despite that SSM is not allowed in forest reserves, it is rather unusual that galamsey should be registering its fast toll in our forests without the designated forest officers performing their restraining functions. Political interests and interferences affect the effective management and control systems. Also, the lenient penalty for offences of engaging in prohibited activities could only attract a fine not exceeding 500 PU, or imprisonment for a term not exceeding two years, or both, a clear incentive for galamsey in forest reserves.

2.8 Local Governance and Chieftaincy Legislation

The relevant local governance and chieftaincy legislation reviewed included:

- Local Governance Act, 2016 (Act 936); and
- Chieftaincy Act, 2008 (Act 759).

2.8.1 Local Governance Act, 2016

The Ministry of Local Government, Decentralization and Rural Development (MLGDRD) is responsible for the 16 administrative regions of Ghana. These regions are subdivided into 261 MMDAs. Section 12(3)(f) of the Local Governance Act, 2016 (Act 936), tasks the DAs with the development, improvement, and management of human settlements and the environment within their jurisdictions. Additionally, Section 91(1) mandates that any person undertaking physical development, including mining, must obtain a permit from the District through its Planning Authority. Section 81 (1) allows for the DAs to collaborate and co-operate with non-

decentralised departments, state-owned enterprises and public corporations operating in the district to ensure a co-ordinated approach to the development and management of the district.

The Act also empowers DAs under Section 181 to enact by-laws to support their functions and prescribe penalties for violations.

2.8.2 Chieftaincy Act, 2008

The Chieftaincy Act, 2008 (Act 759) recognises the institutions of the National House of Chiefs, Regional Houses of Chiefs, Traditional and Divisional Councils. The National House undertake the progressive study, interpretation and codification of customary law with a view to evolving, in appropriate cases, a unified system of rules of customary law.

2.8.3 Review Comments – Local Governance and Chieftaincy Legislation

Local Governance Act, 2016

DAs need to play an active role in the licensing and management of ASM activities in line with the mandate that any person undertaking physical development, including mining, must obtain a permit from the DA as the planning authority. The Act 936 also tasks DAs with the development, improvement, and management of human settlements and the environment within their jurisdictions. Thus, DAs must go beyond the token role in licensing to centre-stage actors and therefore also be accountable for and take the lead role in the fight against galamsey, in collaboration with other sector regulatory bodies, in accordance with Sections 12(3)(f) and 81(1) of the Act (Section 8.9).

Chieftaincy Act (2008)

Chiefs are the custodians of the land and mainly responsible for release of land for development activities, including farming and mining. To avoid loss of farmlands to galamsey activities, it is recommended that the roles of the Traditional Council/Authority, community stakeholders, and DAs be institutionalized and mainstreamed into the licensing and permitting process (as recommended in Chapter 8.7 of this report).

2.9 Labour, Gender and Security Policies and Related Requirements

The requirements and provisions for labour, gender and security identified included:

- National Gender Policy, 2015;
- Affirmative Action (Gender Equality) Act, 2024;
- Labour Act, 2003 (Act 651);
- Labour Regulations, 2007 (LI 1833);
- National Employment Policy, 2014;
- The Children’s Act, 1998 (Act 560);

- National Plan of Action Phase II (NPA2) for the Elimination of the Worst Forms of Child Labour in Ghana (2017-2021);
- Workmen’s Compensation Law, 1987 (PNDCL 187);
- Security and Intelligence Agencies Act, 2020 (Act 1030);
- Alternative Dispute Resolution, Act (Act 798);
- Data Protection Act, 2012 (Act 843); and
- Whistleblower Act, 2006 (Act 720).

2.9.1 National Gender Policy, 2015

The policy seeks to mainstream gender equality and women’s empowerment concerns into the national development process to improve the social, civic, economic and cultural conditions of the people of Ghana. Persons of interest under the policy include women and men, boys and girls, the vulnerable and people with special needs, persons with disability and the marginalized.

2.9.2 Affirmative Action (Gender Equality) Act, 2024

The objective of the Affirmative Action (Gender Equality) Act, 2024 is to ensure the achievement of gender equality in the political, social, economic, educational and cultural spheres of the society.

2.9.3 Labour Act, 2003

The purpose of the Labour Act, 2003 (Act 651) is to amend and consolidate existing laws relating to labour, employers, trade unions and industrial relations. The Act provides for the fair treatment of labourers to prevent discrimination of any sort, and the provision of special incentives to an employer who employs persons with disability. The provisions under Part XV (Occupational Health, Safety and Environment), of the Act explicitly prescribes the duty of an employer to ensure that every worker works under satisfactory, safe, and healthy conditions.

2.9.4 Labour Regulations, 2007

Labour Regulations, 2007 (LI 1833) states that an employer shall not engage a young person in work which involves manual lifting of loads (the weight of which exceeds twenty-five kilograms), the use of dangerous chemicals and substances and materials that emit radiation, or poisonous gases or fumes among others. It also states that an employer shall take appropriate measures to safeguard the health and safety of employees.

2.9.5 National Employment Policy, 2014

The National Employment Policy, 2014 indicates that the key source of demand for labour emanates from the productive sectors of the economy, namely, agriculture, industry, and service. One of the key strategies of the employment policy is to promote farm and non-farm rural employment through modernisation of agriculture, improving the productivity of farmers and contract farming arrangements, promoting effective linkages between farm and non-farm activities among others.

2.9.6 *The Children's Act, 1998*

The Act 560 (1998) seeks to reform and consolidate the law relating to children, to provide for the rights of the child, maintenance, and adoption, regulate child labour and apprenticeship, for ancillary matters concerning children generally, and to provide for related matters. Section 87 specifically states that “No person shall engage a child in exploitative labour”. According to the Act, labour is exploitative of a child if it deprives the child of its health, education, and development.

Section 90 states “The minimum age for the engagement of a child in light work shall be thirteen years”. Where light work constitutes work which is not likely to be harmful to the health or development of the child and does not affect the child’s attendance at school or the capacity of the child to benefit from schoolwork.

Section 91 states “The minimum age for the engagement of a person in hazardous work is eighteen years”. Work is hazardous when it poses a danger to the health, safety, or morals of a person. Hazardous work includes, going to sea, mining and quarrying, portage of heavy loads, manufacturing industries where chemicals are produced or used, work in places where machines are used and work in places such as bars, hotels, and places of entertainment where a person may be exposed to immoral behaviour.

2.9.7 *National Plan of Action Phase II (NPA2) for the Elimination of the Worst Forms of Child Labour in Ghana (2017-2023)*

The overarching principle upon which this second National Plan of Action for the Elimination of the Worst Forms of Child Labour in Ghana (NPA2) is conceptualized, designed and implemented is the promotion of the best interest of the child. NPA2 focuses on a set of priority actions and problems that need to be addressed urgently, and which can yield significant impact in the short to medium term. Major emphasis will be placed on preventive strategies against the Worst Forms of Child Labour (WFCL), without neglecting children already involved in the WFCL. The areas to receive priority attention include:

- Public awareness and advocacy for effective implementation of key policies in education, social protection, child development, rural economy and youth employment;
- Withdrawal of children below the age of 15 from child labour and the protection of working children aged 15 and above from exploitation and hazardous work; and
- Development of institutional capacities at all levels of government and within civil society to ensure the effective application of established procedures and protocols.

2.9.8 *Workmen's Compensation Law, 1987*

The Workmen’s Compensation Act, 1987 (PNDCL 187) holds employers responsible for the payment of compensation to workmen for personal injuries caused by accidents arising out and in the course of their employment. Where an employee sustains personal injury by accident arising out of, and in the course of employment, the employer is liable, subject to this Act, to pay compensation in accordance with this Act.

2.9.9 Security and Intelligence Agencies Act, 2020

The Act 1030 (2020) relating to the National Security Council, provides for the establishment of regional and district security councils, to specify and coordinate the activities of the agencies responsible for the security of the State and to protect and preserve the unity and stability of the State and to provide for related matters. The DCE of every district, act as the chairperson of the DISEC. The functions of the DISEC include to:

- Provide early warning signals to the Government of the existence or likelihood of a security threat to the district, the country or the Government;
- Take appropriate measures, in consultation with the National Security Council, to ensure peace in conflict areas in the district;
- Take measures to ensure peace building in, and unity and stability of the district; and
- Take immediate steps to ensure law and order and assist the affected population in the event of an emergency or a disaster in the district.

2.9.10 Alternative Dispute Resolution Act, 2010

The purpose of the Alternative Dispute Resolution (ADR) Act, 2010 (Act 798) is to provide for the settlement of disputes by arbitration, mediation and customary arbitration, to establish an Alternative Dispute Resolution Centre and to provide for related matters. The Act further defines Alternative Dispute Resolution as the collective description of methods of resolving disputes otherwise than through the normal trial process (Section 135). The ADR Act covers both domestic and international arbitration in Ghana and the enforcement of both domestic and foreign arbitral awards within the jurisdiction.

2.9.11 The Data Protection Act, 2012

The Data Protection Act, 2012 (Act 843) sets out the rules and principles governing the collection, use, disclosure and care for personal data or information by a data controller or processor. Data Protection Commission established by this Act is an independent statutory body to ensure and enforce compliance.

2.9.12 Whistleblower Act, 2006

The Whistleblower Act, 2006 (Act 720) establishes the framework for individuals to disclose information in the public interest regarding unlawful or corrupt practices. It provides protection against victimization for those who make such disclosures and establishes a Fund to reward such individuals. Additionally, the Act addresses related matters to ensure a comprehensive approach to promoting transparency and accountability. The disclosure of impropriety may be made to the Commission on Human Rights and Administrative Justice (CHRAJ), a chief, etc.

2.9.13 Review Comments - Labour, Gender and Security Policies and Related Requirements

Policies and Related Requirements Considered in ASM Formalization

The legs of formalisation considered in characterising the types of SSM - licensed SSM, CMS, and Galamsey/artisanal mining – for gap identification and the requirements to fulfilling formalization were based on the Labour Act 651; Labour Regulations, LI 1833; National Employment Policy; The Children’s Act 560; National Plan of Action Phase II for the Elimination of the Worst Forms of Child Labour in Ghana; National Gender Policy (2015); Affirmative Action (Gender Equality) Act (2024); and the Workmen’s Compensation Law (1987).

Child labour Issues and Culture Versus Legislation

The Children’s Act 560 (1998) and the NPA2 for the Elimination of the Worst Forms of Child Labour in Ghana (2017-2021) contain adequate measures to control child labour and related issues in Ghana. However, when it comes to implementation, the law and the Plan must contend with strong cultural practices such as child apprenticeship from parents or family vocations, etc. There is need for sustained education to overcome these bottlenecks.

National Gender Policy and the Affirmative Action to Address GBV

The provisions of the National Gender Policy (2015) and the Affirmative Action (Gender Equality) Act (2024) to mainstream gender equality and women’s empowerment in spheres of the society are commendable in addressing GBV and SEA/SH. This, however, has to contend against deeply rooted cultural values and practices and sometimes in the face of poverty. Thus, rather than own up offenders to face justice, they are often shielded and the matter settled at home. The offender is made to pay for the upkeep of the pregnancy or pay for the medical bills of the victim. This way, such offences continue to thrive in the communities. There is the need for sustained community education through the DSWCD of DAs as recommended in the SESA.

2.10 Public Health Policy and Legislation

The relevant policy and legislation for the general well-being, health promotion and safety of the public reviewed included:

- National Health Policy, Revised 2020; and
- Public Health Act, 2012 (Act 851).

2.10.1 National Health Policy, 2020

The National Health Policy (Revised 2020) works towards the achievement of healthy lives with the goal to promote, restore and maintain good health for all people living in Ghana. The objectives of the Policy are:

- To encourage the adoption of healthy lifestyles;

- To improve the physical environment; and
- To improve the socio-economic status of the population.

Under the objective of improving the physical environment, the policy aims to ensure Ghanaians have access to potable water, improved sanitation, clean air, and a reduction in exposure to harmful noise levels and hazardous substances.

2.10.2 Public Health Act, 2012

The Public Health Act, 2012 (Act 851) consolidates the laws relating to public health to prevent diseases, promote, safeguard, maintain and protect the health of humans and animals and to provide for related matters. This Act makes provision with respect to the protection of public health in Ghana and lays down rules relative to environmental sanitation. It further, among other things, provides rules relative to food vending and food-borne diseases, prohibits noxious or offensive practices that may cause damage to the lands or crops.

2.10.3 Review Comments - Public Health Policy and Legislation

Policies and Related Requirements considered in ASM Formalization

The Revised National Health Policy (2020) and the Public Health Act 851 (2012) were part of the important areas considered in characterising the types of SSM - licensed SSM, CMS, and Galamsey/artisanal mining – for gap identification and the requirements to fulfilling formalization.

2.11 National Environmental Quality Standards

The relevant environmental quality standards identified included:

- Ghana Standards Environment Protection-Requirements for Effluent Discharge (GS 1212:2019); and
- Ghana Standard on Health Protection - Requirements for Ambient Noise Controls (GS 1222:2018).

2.11.1 Ghana Standards Environment Protection-Requirements for Effluent Discharge

The Ghana Standard for Environment Protection – Requirements for Effluent Discharge (GS 1212:2019) require every undertaking to install pollution control system for treatment of effluent discharges from the operations, based on best available technology. In the absence of pollution control equipment, an undertaking shall implement measures to control pollution.

2.11.2 Ghana Standard on Health Protection - Requirements for Ambient Noise Controls

The Requirement for Ambient Noise Control, (GS 1222:2018) provides for maximum permissible levels of noise based on categorized zones as shown in Table 2.1. The standard also provides noise requirement for a construction site which includes:

- Erecting an acoustic barrier around construction sites; and

- Ensuring that the maximum noise level near the construction site does not exceed 66dB(A) Leq (5min) in areas other than industrial areas.

Table 2.1 Requirements for Ambient Noise Control

Zone	Permissible Noise Level in dB(A)	
	Day (6:00am-10:00pm)	Night (10:00pm-6:00am)
Residential Area	55	48
Educational and health facilities, offices, and law courts	55	50
Mixed used	60	55
Area with some light industry	65	60
Commercial Areas	75	65
Light Industry Areas	70	60
Heavy Industry Areas	70	70

2.11.3 Review Comments - National Environmental Quality Standards

Environmental Quality Standards

The provision of standard requirements for effluent discharge and noise control is to protect the environment and ensure the health and safety of the public in all applications. However, these standards are not being adhered to by the illegal miners (galamseyers). Hence, the ASM operations must be subject to water discharge standards requiring interception in recycling ponds, and to only discharge into the environment (where necessary), after ascertaining the effluent quality meets the discharge standards.

2.12 World Bank Environmental Requirements

The relevant World Bank requirements reviewed included:

- World Bank Environmental and Social Framework; and
- World Bank Group Environmental, Health and Safety (ESH) Guidelines for Mining.

2.12.1 World Bank Environmental and Social Framework

The Environmental and Social Standards (ESS) set out the requirements for Borrowers relating to the identification and assessment of environmental and social risks and impacts associated with projects supported by the Bank through Investment Project Financing. The standards and their core requirements are summarized in Table 2.2.

Table 2.2 World Bank Environmental and Social Safeguards

World Bank Safeguard Policy	Summary of Core Requirements
ESS 1: Assessment and Management of	ESS1 sets out the Borrower’s responsibilities for assessing, managing, and monitoring environmental and social risks and impacts associated with all stages of a project supported by the Bank

World Bank Safeguard Policy	Summary of Core Requirements
Environmental and Social Risks and Impacts	
ESS2: Labor and Working Conditions	ESS 2 recognizes how Borrowers can promote sound worker-management relationships and enhance the development benefits of a project by treating workers in the project fairly and providing safe and healthy working conditions. The standard clearly prescribes the minimum age of 14 years for a child to be engaged on the project and prohibits forced labour. It also promotes freedom of association
ESS3: Resource Efficiency and Pollution Prevention and Management	This ESS sets out the requirements to address resource efficiency and pollution prevention and management throughout the project life cycle since economic activity and urbanization often generate pollution to air, water, and land, and consume finite resources that may threaten people and ecosystem services.
ESS4: Community Health and Safety	ESS4 address the health, safety, and security risks and impacts on project-affected communities and the corresponding responsibility of Borrowers to avoid or minimize such risks and impacts, with particular attention to people who, because of their circumstances, may be vulnerable.
ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	This ESS emphasizes that involuntary resettlement should be avoided. Where involuntary resettlement is unavoidable, it will be minimized and appropriate measures to mitigate adverse impacts on displaced persons (and on host communities receiving displaced persons) will be carefully planned and implemented.
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	This ESS recognizes that protecting and conserving biodiversity and sustainably managing living natural resources are fundamental to sustainable development. It addresses sustainable management of primary production and harvesting of living natural resources and recognizes the need to consider the livelihood of project-affected parties, including Indigenous Peoples, whose access to, or use of, biodiversity or living natural resources may be affected by a project.
ESS7: Indigenous Peoples	Requires clearer definitions, and introduction of Free, Prior and Informed Consent (FPIC) in specified circumstances; protection of Indigenous Peoples (IPs) in voluntary isolation
ESS8: Cultural Heritage	This recognizes that cultural heritage provides continuity in tangible and intangible forms between the past, present and future. It sets out measures designed to protect cultural heritage throughout the project life-cycle.
ESS9: Financial Intermediaries	Recognizes that strong domestic capital and financial markets and access to finance are important for economic development, growth and poverty reduction. Financial intermediaries (FI) are required to monitor and manage the environmental and social risks and impacts of their portfolio and FI subprojects, and monitor portfolio risk, as appropriate to the nature of intermediate financing.
ESS10: Information Disclosure and Stakeholder Engagement	This recognizes the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice and grievance mechanism.

2.12.2 World Bank Group Environmental, Health and Safety Guidelines for Mining

The World Bank Group (WBG) Environmental Health and Safety (EHS) Guidelines is a technical reference document containing information on cross-cutting environmental, health and safety issues potentially applicable to the mining sector (i.e., underground and open mining, alluvial mining, solution mining and marine dredging). The Guidelines for Mining which prescribe performance levels and measures, are designed to be used together with the General EHS guidelines.

The guidelines provide a summary of EHS issues associated with mining activities (including ore processing facilities) which may occur during the exploration, development and construction, operation, closure and decommissioning, and post-closure phases, along with recommendations for their management.

2.13 International Conventions

The international requirements and conventions to which Ghana is a signatory, relevant to this SESA are presented in Table 2.3.

Table 2.3 Relevant International Conventions

Convention	Main Characteristics	Participation of Ghana
Labour Rights		
International Labour Organization Conventions (ILO)	<p>Minimum Age Convention The Minimum Age Convention, 1973 (No.138) states that the minimum age for admission to any type of employment or work which by its nature or the circumstances in which it is carried out is likely to jeopardise the health, safety or morals of young persons shall not be less than 18 years.</p> <p>Article 7 of the Convention states that national laws or regulations may permit the employment or work of persons 13 to 15 years of age on light work which is:</p> <ul style="list-style-type: none"> a) Not likely to be harmful to their health or development; and b) Not such as to prejudice their attendance at school, their participation in vocational orientation or training programmes approved by the competent authority or their capacity to benefit from the instruction received. <p>Worst Forms of Child Labour Convention The ILO Convention of Worst Forms of Child Labour, 1999 (No. 182) was acceded to by Ghana on June 13, 2000. The Convention charges all ratified members to provide effective and time bound measures to prevent the engagement of children in the worst forms of child labour. The Convention further defined worst forms of child labour to include engagement of children in works that are likely to affect their health, safety, or morals. According to the Worst Forms of Child Labour Recommendation (No. 190), the ILO provides the following guidelines for work considered unsafe for children, this includes work involving toxic chemicals or fumes, work taking place in direct sunlight, carrying heavy loads, work that involves the presence of dangerous animals or insects, etc.</p> <p>Forced Labour Convention Forced Labour Convention, 1930 (No. 29) advocates for the suppression of all forms of forced labour. This means that States ratified to this convention must not only criminalize and prosecute forced labour, but also to take effective measures to prevent forced labour and provide victims with protection and access to remedies, including compensation.</p>	<p>R= 6th June, 2011</p> <p>R=13th June, 2000</p> <p>R=20th May, 1957</p> <p>R= 14th March, 1973</p>
Child/Human Rights		
Convention on the Rights of the Child, 1989	Commitment to defend and guarantee the rights of children and to meet these commitments before the international community. States which are members of the Convention are required to develop and implement measures and policies which consider the best interests of the child.	R = February 5 th , 1990 S = February 5 th , 1990

Convention	Main Characteristics	Participation of Ghana
Convention on the Elimination of All Forms of Discrimination against Women (CEDAW, 1979)	The Convention defines the term "discrimination against women" as any distinction, exclusion or restriction made based on sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on a basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field.	S = July 17th, 1980 R = January 2nd, 1986
Public Health		
World Health Organisation (WHO)	WHO coordinate the world's response to health emergencies, promote well-being, prevent disease and expand access to health care by establishing international treaties, agreements and regulations to address global health challenges.	1958
Protection of Biodiversity		
Convention on Biological Diversity (CBD, 1992)	The Convention on Biological Diversity underlines those threats to biological diversity had increased everywhere in the world, mainly as a result of the continuing destruction of natural habitats. It has 3 main objectives, conservation of biological diversity, sustainable use of the components of biological diversity and fair and equitable sharing of the benefits arising out of the utilization of genetic resources.	R = August 29th, 1994 S = June 12th, 1992
International Plant Protection Convention	Aims to secure coordinated, effective action to prevent and to control the introduction and spread of pests of plants and plant products. The Convention extends beyond the protection of cultivated plants to the protection of natural flora and plant products. It also takes into consideration both direct and indirect damage by pests, so it includes weeds.	A = 22 Feb 1991
United Nations Convention to Combat Desertification (UNCCD)	The UNCCD, established in 1994, is the only legally binding framework set up to address desertification and the effects of drought. Its mission is to protect and restore land and ensure a safer, just and more sustainable future.	R = 27 December 1996
Climate Change		
UN Framework Convention on Climate Change (Rio, June 1992)	To stabilize the concentration of greenhouse gases in the atmosphere at a level that should prevent dangerous anthropogenic interference with the climate system. This level should be reached in sufficient time for ecosystems to adapt naturally to climate change, food production would not be threatened, and economic development could continue in a sustainable.	S = June 12th, 1995 AR = Sept 6th, 1995
The Montreal Protocol (1987)	The Montreal Protocol is a global agreement to protect the stratospheric ozone layer by phasing out the production and consumption of ozone-depleting substances (ODS).	S = 24 th February 1988
The Kyoto Convention 1997	<p>The Kyoto Protocol operationalizes the United Nations Framework Convention on Climate Change by committing industrialized countries and economies in transition to limit and reduce greenhouse gases (GHG) emissions in accordance with agreed individual targets. The Convention itself only asks those countries to adopt policies and measures on mitigation and to report periodically.</p> <p>The Kyoto Protocol is based on the principles and provisions of the Convention and follows its annex-based structure. It only binds developed countries and places a heavier burden on them under the principle of "common but differentiated responsibility and respective capabilities", because it recognizes that they are largely responsible for the current high levels of GHG emissions in the atmosphere. Ghana Signed the Kyoto principle on the</p>	3rd of May 2003
Chemical Usage		
Minamata Convention on Mercury	The Minamata Convention on Mercury is a global treaty to protect human health and the environment from the adverse effects of mercury.	Adopted on 10th October 2013.

Convention	Main Characteristics	Participation of Ghana
	Major highlights of the Minamata Convention include a ban on new mercury mines, the phase-out of existing ones, the phase-out and phase-down of mercury use in a number of products and processes, control measures on emissions to air and on releases to land and water, and the regulation of the informal sector of artisanal and small-scale gold mining. The Convention also addresses interim storage of mercury and its disposal once it becomes waste, sites contaminated by mercury as well as health issues	
Natural Resource Management		
Extractive Industries Transparency Initiative (EITI) Standard	<p>The EITI Standard is the global benchmark for transparency and accountability in the oil, gas, and mining sectors.</p> <p>As a framework for disclosure and multi-stakeholder oversight, the EITI Standard is designed to empower governments, industry and civil society to promote understanding of natural resource management; strengthen public and corporate governance and accountability; and provide the data to inform policymaking and debate.</p>	27 th September 2017
Signature = S; Ratification = R; Accession = A; Authorisation for ratification or accession = AR		

2.14 Other Relevant Organisational/Institutional Frameworks

Other relevant institutions and organisations who may, by virtue of their statutory mandates and functions, be integral to the SEA process include:

- Ministry of Lands and Natural Resources;
 - Minerals Commission;
 - Forestry Commission;
 - Ghana Geological Survey;
- Precious Mineral Marketing Company;
- University of Mines and Technology;
- Ghana Extractive Industries Transparency Initiative;
- Ministry of Employment and Labour Relations
 - Department of Cooperatives;
- Office of the Registrar of Companies;
- Ministry of Food and Agriculture;
 - Ghana Cocoa Board;
- Ministry of Gender, Children and Social Protection;
 - Department of Social Welfare;
 - Department of Children;
- Commission on Human Rights and Administrative Justice (CHRAJ);
- Ministry of Health;
- Ministry of Finance;
- Traditional Authorities/National House of Chiefs;
- Ghana National Association of Small-Scale Miners;
- Ghana Chamber of Mines;
- Community Management Areas;

- A Rocha Ghana;
- Third World Network-Africa (TWN-Africa); and
- African Initiative on Mining, Environment and Society (AIMES).

2.14.1 Ministry of Lands and Natural Resources

The Ministry of Lands and Natural Resources (MLNR) was established under Section 11 of the Civil Service Law, 1993 (PNDCL 327), and is mandated to ensure the sustainable management and utilization of the nation's lands, forests and wildlife resources as well as the efficient management of the mineral resources for socio-economic growth and development.

MLNR is the sector Ministry to which the Minerals Commission reports. It is also responsible for the promoting Ghana's minerals and mining sector. MLNR will serve on the Programme's Coordination and Management Committee to ensure integration with small scale mining projects and related activities and are therefore the host of the project.

Minerals Commission

The Mineral Commission (MinCom) is responsible for the regulation and management of the utilization of the mineral resources of Ghana and the co-ordination the policies in relation to them. The main functions of the MinCom include the following:

- Formulate recommendations of national mining policies and monitor their implementation
- Monitor the operations of all bodies or establishments with responsibility for minerals and report to the Minister;
- Receive and assess public agreements relating to minerals and report to Parliament;
- Secure comprehensive data collection on national mineral resources; and
- Perform such other functions as the Minister may assign to it.

The foremost responsibility of the MinCom is the administration of minerals rights. For this purpose, the MinCom maintains a cadastral system and a register of mineral rights. The various mining and mineral permits include reconnaissance license, prospecting license, mining lease, restricted mining lease and small-scale mining licence. Decisions regarding mineral rights are made by the Minister of Mining, but only upon the recommendation of the Minerals Commission.

The MinCom will be one of the institutions supporting the MLNR and the PCU in reviewing regulations and developing new guidelines to formalize the sector. This will aim to streamline processes, making it easier for ASM operators to obtain and process the necessary documentation for mine operations.

Forestry Commission

The Forestry Commission (FC) of Ghana is responsible for the regulation of utilization of forest and wildlife resources, the conservation and management of those resources and the coordination of policies related to them. The Forestry Commission comprises three main

divisions and two centres performing the functions of protection, development, management and regulation of the utilisation of forest and wildlife resources. These divisions and centres are - Timber Industry Development Division, Forest Services Division, Wildlife Division, Resource Management Support Centre and Forestry Commission Training Centre.

The Climate Change Directorate, established in 2007 as a directorate of the Commission has a mandate to manage forestry-sector initiatives related to climate change mitigation, including REDD+. It hosts the National REDD+ Secretariat and serves as the National REDD+ focal point.

The FC is a major stakeholder in the project and will collaborate with the Project Coordinating Unit to ensure that the necessary protocols regarding forest reserves are observed and all regulations are adhered to. The Forestry Commission is responsible for ensuring that no activity occurs within a reserve without proper authorization or a permit.

Ghana Geological Survey Authority

The Ghana Geological Survey Authority (GGSA) was established as an Authority of the Ministry of Lands and Natural Resources in accordance with Ghana Geological Service Act, 2016 (Act 928) to advise, promote and research on geoscientific issues concerning mineral resources, groundwater, environment, geo-hazards and land use planning to support sustainable economic development in Ghana. The GGSA will collaborate with the MinCom to implement the airborne geophysics and geological surveys sub-component of the GLRSSMP.

2.14.2 Precious Mineral Marketing Company

Precious Minerals Marketing Company (PMMC) is the authorised body, legally permitted to grade, assay, value, process buy and sell precious minerals and to license agents in Ghana. PMMC has extensive expertise and state of the art technology in determining the purity of gold, diamond and other precious metals. The PMMC will collaborate with the PCU and the MinCom (where necessary) to implement Component 2.3 of the GLRSSMP, which focuses on the traceability of ASM production and value addition.

2.14.3 University of Mines and Technology

The University of Mines and Technology (UMaT) was established under the University of Mines and Technology, Tarkwa Act, 2004 (Act 677), with the mission to provide higher education in mining, petroleum, technology, and related disciplines through effective teaching and learning. It aims to advance knowledge through active research and information dissemination while offering professional services to the mining and allied industries through extension activities.

UMaT hosts the Office of Research, Innovation, and Consultancy, which delivers efficient research, innovation, and consultancy services. Over the years, the university has conducted cutting-edge research in mining and technology, addressing mining, environmental, energy, and other socio-economic challenges in Ghana. As part of the project, UMaT will play a key role in implementing the training and technology transfer component.

2.14.4 Ghana Extractive Industries Transparency Initiative

The Ghana Extractive Industry Transparency Initiative (GHEITI) is the Ghana subset of the global initiative aimed at following due process and achieving transparency in payments by extractive industry companies to governments and government linked entities. The objectives of GHEITI include:

- Ensuring that extractive revenue and expenditure information is provided in a timely manner, in an accessible and comprehensible format.
- Promoting accountability and transparency in the management of resources derived from the extractive industries.

The GHEITI will ensure that ASM is mainstreamed into its reporting framework.

2.14.5 Ministry of Employment and Labour Relations

The Ministry of Employment and Labour Relations (MELR) was established by the Civil Service Act, 1993 (PNDC Law 327). The Ministry is mandated to formulate policies on employment and labour issues, develop sector plans, coordinate sector specific interventions, promote harmonious labour relations and workplace safety, promote the elimination of child labour, monitor and evaluate the implementation of policies, programmes and projects for accelerated employment creation for national development.

Department of Co-operatives

The Department of Co-operatives (DOC) operates under the MELR. It derives its powers for the performance of its duties from the provisions of the Co-operative Societies Act, 1968 (NLCD 252) and the Co-operative Societies Regulations (LI 604). Its mission is to facilitate the development of vibrant cooperatives and other group enterprises that can contribute positively to sustainable employment generation, poverty reduction and community development through capacity building, policy implementation, co-ordination, monitoring, evaluation and regulation. The functions of the Department of Co-operatives include:

- Sensitisation of the public on the importance of Co-operatives;
- Group formation and enterprise development;
- Registration/liquidation of Co-operative Societies; and
- Audit, inspection, enquiry and settlement of disputes.

2.14.6 Office of the Registrar of Companies

The Office of the Registrar of Companies (ORC) is a statutory entity entrusted with the registration of all types of businesses and provision of advisory services. With this mandate it serves as the repository of corporate information. The core functions of the ORC, as contained in the Companies Act, 2019 (Act 992) include registration of companies and educating the public engaged in business activities on the companies, partnership, business names and professional bodies.

2.14.7 Ministry of Food Agriculture

The Ministry of Food and Agriculture (MOFA) is the lead agency and focal point of the Government of Ghana, responsible for developing and executing policies and strategies for the agriculture sector within the context of a coordinated national socio-economic growth and development agenda. By means of a sector-wide approach, the Ministry's plans and programmes are developed, coordinated and implemented through policy and strategy frameworks. Hence, MOFA facilitated the preparation of the Food and Agriculture Sector Development Policy (FASDEP II) and the Medium Term Agriculture Sector Investment Plan (METASIP 2010-15).

Ghana Cocoa Board

Ghana Cocoa Board was established by the Ghana Cocoa Board Law (COCOBOD), 1984 (PNDCL 81) to replace the Ghana Cocoa Marketing Board existing before the commencement of this Act. Section 39 of the COCOBOD Law, 1984 (PNDCL 81) was amended in 2020 (Act 1035) to place the ministerial supervision of COCOBOD under the Minister responsible for Agriculture, to align with the government's policy of placing all agricultural commodities under the Ministry of Food and Agriculture. The objectives of the Board include:

- To encourage the production of cocoa, coffee, and shea;
- To initiate programmes aimed at controlling pests and diseases of cocoa, coffee, and shea;
- To purchase, import, undertake and encourage the manufacture of, and distribute and market inputs used in the production of cocoa, coffee, and shea;
- To undertake, promote and encourage scientific research aimed at improving the quality and yield of cocoa, coffee, shea, and other tropical crops;
- To establish or encourage the establishment of industrial processing factories for the processing of cocoa and cocoa waste into marketable cocoa products; and
- To promote the general welfare of cocoa, coffee, and shea farmers in the Republic.

2.14.8 Ministry of Gender, Children and Social Protection

The Ministry of Gender, Children and Social Protection (MoGCSP) was created by an Executive Instrument (EI) 1 in January, 2013 as a successor to the Ministry of Women and Children's Affairs. The primary objective for its establishment was to have a Ministry responsible for policy formulation, coordination and monitoring and evaluation of Gender, Children and Social Protection issues within the context of the national development agenda.

This will lead to the achievement of gender equality, equity, the empowerment of women and girls, promoting the survival and development of children, thus ensuring their rights. It will also ensure harmonizing social protection interventions to better target the vulnerable, excluded and persons with disability and integrate fulfilment of their rights, empowerment and full participation into national development.

Department of Social Welfare

The Department of Social Welfare is under the MoGCSP. It is responsible for assisting the Assembly to formulate and implement social welfare and community development policies within the framework of national policy.

The MoGCSP and the Department of Social Welfare will work with the project to ensure that women are not marginalized in project activities, gender mainstreaming is employed, and children are not used as labour force.

Department of Children

The Department of Children is responsible for implementing programmes and activities that affect children in Ghana. Its mandate is to promote the welfare and full integration of children into the national development process through advocacy, research, and various developmental projects. This aligns with Article 28 of the 1992 Constitution and the Children's Act, which require the government to protect and ensure the rights of children.

The Department's functions include collaborating and networking with Ministries, Departments and Agencies (MDAs), Metropolitan Municipal and District Assemblies, Non-Governmental Organisations (NGOs), and Community-Based Organisation (CBOs) to improve and enhance the socio-economic status and well-being of children.

2.14.9 Commission on Human Rights and Administrative Justice

CHRAJ has a broad mandate to protect universal human rights and freedoms, especially those vested in the 1992 Constitution, including civil, political, economic, social, and cultural rights. As the National Human Rights Institution of Ghana, the Commission has a duty to promote and protect fundamental human rights and freedoms in Ghana. Additionally, the Commission is entrusted with the responsibility of investigating complaints of violations of fundamental rights and freedoms, injustice, corruption, and abuse of power and unfair treatment of any person by a public officer in the exercise of his official duties.

2.14.10 Ministry of Health

Ministry of Health seeks to improve the health status of all people living in Ghana thereby contributing to Government's vision of universal health coverage and a healthy population. The goal of the health sector within the current Sector Medium Term Development Plan (is to ensure a healthy and productive population that continues to reproduce itself safely.

Ghana Health Service

The Ghana Health Service (GHS) is the agency of the Ministry of Health established to provide and prudently manage comprehensive and accessible health service with special emphasis on primary health care at regional, district and sub-district levels in accordance with approved national policies. The objectives of the service are to implement approved national policies for health delivery in the country, increase access to good quality health services, and manage prudently resources available for the provision of the health services.

The Health Ministry and the GHS will provide the necessary baseline health information for the project and continue to provide annual changes within the health of various project communities to ascertain if project activities are having an impact on the health of the community and advice on way forward.

2.14.11 Ministry of Finance

The Ministry of Finance is one of the Central Management Agencies of the Civil Service of Ghana established to formulate, implement, monitor, and evaluate macroeconomic, fiscal and financial policies for sustainable development. The finance ministry will be responsible for timely funds disbursement for this project.

2.14.12 Ministry of National Security

The Ministry of National Security (MoNS) formulates, coordinates, monitors and evaluates the implementation of security and intelligence policies through the deployment of skilled human resources and modern technology for stakeholders to enhance security, freedom of the citizenry and national development.

2.14.13 Ghana National Association of Small-Scale Miners

The Association started as a small group for small- scale miners which was formally launched nationwide in 2011 to cater for the needs of Small-Scale Miners in the country. Membership is open to any person or group of persons who are registered with the Minerals Commission as small-scale miner(s) and possess the relevant licences.

Currently, there is a National Executive Committee and also District Committees in all the ten (10) mining districts located at Wa, Bole, Asankragua, Tarkwa, Bibiani, Dunkwa, Konongo, Bolga, Oda and Assin Fosu. At the community level, there are zonal chairpersons who serve four to five communities.

2.14.14 Ghana Chamber of Mines

The Ghana Chamber of Mines is the main minerals industry association in Ghana. The Chamber is a voluntary private sector employers' association representing companies and organisations engaged in the minerals and mining industry in Ghana.

The Chamber represents the collective interests of companies involved in mineral exploration, production and processing in Ghana. Its activities are entirely funded by its member companies, which produce majority of Ghana's mineral output. The Chamber has represented the industry's interests since 1928. The chamber works to represent the Mining Industry in Ghana using the resources and capabilities of its members to deliver services that address members, government and community needs, in order to enhance development.

2.14.15 Community Resource Management Areas

The Wildlife Division of the Ghana Forestry Commission is currently utilising Community Resource Management Areas (CREMA) as the primary institutional mechanism for implementing collaborative sustainable natural resource management outside protected areas

in Ghana. The CREMA is regulated through the development of a constitution, bylaws and natural resource management plan which are created by the CREMA committees composed of elected community members, who work with the Wildlife Division and District Assembly to formulate the CREMA constitution, bylaws and natural resource management plan for each area. Following approval, the communities will receive a Certificate of Devolution, giving them the authority to sustainably manage their land and to apprehend illegal miners, bushmeat hunters and chainsaw operators.

2.14.16 *A Rocha Ghana*

Established in 1999, as Eden Conservation Society, A Rocha Ghana (ARG) has emerged as a committed environmental NGO providing practical conservation interventions aimed at contributing to the sustainable management of important ecological habitats and initiating programmes aimed at facilitating target community's ability to adapt to current trends in climate change and the impacts of a changing natural environment.

A Rocha works to contribute to the effective management of the earth's resources through sustainable and innovative actions. It also works to inspire and empower people to care for nature through advocacy livelihood improvement and inter-faith dialogue that hinges on research and education.

2.14.17 *Wassa Association of Communities Affected by Mining*

Wassa Association of Communities Affected by Mining (WACAM) is a premier community based human rights and environmental mining advocacy NGO in Ghana with a community-based focus. Formed in 1998, WACAM has worked to respond to the social, environmental and economic problems that had resulted from the increased mining investment of the third gold rush. It is focused on community mobilisation, organisation and rights-based education for empowerment, at the local, national, sub regional and international levels to influence practices changes.

Currently, WACAM is working in over ninety mining affected communities in Ghana. WACAM has worked to share its experiences with CSOs, community groups and intellectuals worldwide. WACAM employs the use of court room litigation, representation and negotiations for affected communities. WACAM has made a number of submissions to regulators as their contribution for policy change and have served on a number of organisations including the Extractive Industry Transparency Initiative (EITI) at the national and international levels.

2.14.18 *African Initiative on Mining, Environment and Society*

Established in 1999, African Initiative on Mining, Environment and Society (AIMES) is a Pan-African grouping of civil society organizations from 13 mineral-endowed African countries. Among AIMES' objectives is providing a common front for advocates working towards improving the governance of Africa's mineral economy, ensuring a more equitable and sustainable exploitation and contribution of the mineral sector to Africa's development. Thus, AIMES has been at the forefront of various African civil society initiatives aimed at optimizing

the minimal returns that mineral-endowed African countries make from their rich mineral resources.

It is recommended that CBOs and NGOs (such as A Rocha Ghana, WACAM and AIMES) dedicated to protecting the environment and supporting mining communities be consulted by the Project Coordinating Unit (PCU) and actively involved in the decision-making processes for project activities.

2.15 Licencing and Permitting Procedure

The procedure for obtaining permits and licensing from the various agencies for SSM operations are presented below.

2.15.1 Procedure for Obtaining SSM Mining Licence

The procedure for obtaining a SSM mining licence in accordance with the Minerals and Mining (Licensing) Regulations, 2012 is presented in Table 2.4.

Table 2.4 Procedure for acquiring SSM Licence

No:	Activity	Responsible Authority/ Person	Remarks
1	Identify an area for mining and prepare site plan	Applicant	
2	Complete application form and submit with attachments to MinCom	Applicant	
3	Pay application fee, gazetting and pre-licensing fees	Applicant	
4	Conduct inspection and official search	MinCom	
5	Acknowledgement of receipt of application	MinCom	Within 10 days
6	Submit application for publication at relevant DA	MinCom	Within 21 days
7	Return recommended application to MinCom	DA	Within 10 days
8	Write to applicant to apply for Environmental Permit	MinCom	
9	Submit EPA Permit to MinCom	Applicant	
10	Issue Offer Letter to applicant	MinCom	
11	Pay Ground Rent to Administrator of Stool Lands	Applicant	
12	Sign Agreement at MinCom	Applicant	
13	Forward Agreement to Minister for signature	MinCom	Within 60 days
14	Submit Stamp signed Agreement to Land Valuation Board (LVB)	Applicant	Within 5 days
15	Stamp signed Agreement	LVB & High Court	
16	Send photocopies of Agreement to MinCom	Applicant	
17	Acquiring Operating Permit from Inspectorate Division of MinCom	Applicant	

2.15.2 Procedure for Obtaining Environmental Permit

In line with Environmental Assessment Regulations (LI 1652), the process for obtaining an environmental permit for a SSM operation is presented in Table 2.5.

Table 2. 5 Procedure for Acquiring SSM Environmental Permit

No	Activity	Responsible Authority/ Person	Remarks
1	Complete relevant application Form Small and Medium Scale Mining (SSMI1)	Applicant	
2	Submit completed application form with attachments to EPA	Applicant	
3	Assess proposed site and review application information	EPA	Within 25 days
4	Communicate outcome of screening decision to applicant	EPA	
5	Issue invoice to applicant for payment, if approved	EPA	
6	Applicant pays permit fees within 3 months*	Applicant	
7	Environmental permit issued to applicant	EPA	Within 20 days

2.15.3 Procedure for Acquiring Water Use Permit

In with the Water Use Regulations, 2001 (LI 1692) the procedure for obtaining water use permit is presented in Table 2.6.

Table 2. 6 Procedure for Obtaining Water Use Permit

No	Activity	Responsible Authority/ Person	Remarks
1	Complete application form (per Schedule A of the LI 1692)	Applicant	
2	Submit completed application Form with relevant documents, and administrative and processing fees to WRC	Applicant	
3	Acknowledge receipt of application form	WRC	Within 10 days
4	Conduct investigation to ascertain if the proposed use of the water is in line with water use policies and plans, etc.	WRC	
5	Publish notice of the application in the Gazette and mass media	WRC	
6	Conduct public hearing (if needed)	WRC	
7	Water Use Permit issued to the applicant	WRC	
8	Publish the fact of the permit in the mass media	WRC	

3.0 ASM FORMALISATION

3.1 Project Overview

The SESA focused on the ASM formalisation-related subcomponents under the GLRSSMP components, which are highlighted in Table 3.1 and elaborated on in the subsequent sections.

Table 3.1 ASM-Related Subcomponents

GLRSSMP Components	Subcomponents
Component 1: Institutional strengthening for participatory landscape management	Subcomponent 1.3: Airborne geophysics and geological surveys
Component 2: Enhanced governance in support of sustainable ASM	Subcomponent 2.1: Regulatory strengthening and formalization of ASM
	Subcomponent 2.2: Training and technology transfer
	Subcomponent 2.3: Traceability of ASM production and value addition
Component 3: Sustainable crop and forest landscape management	Subcomponent 3.5: Reclamation of mined out sites and alternative livelihoods
Component 4: Project monitoring and knowledge management	Subcomponent 4.2: Project monitoring

3.2 Subcomponent 1.3: Airborne Geophysics and Geological Surveys

Activities under this subcomponent would include:

- Reprocessing and interpretation of airborne geophysical data; and
- Geological field surveys and analysis.

This subcomponent will support geological investigations to analyse geomorphological trends and interlinkages between different land and resources uses. These investigations will inform the trade-offs between competing land uses as well as the feasibility of land restoration. Moreover, investigations will also identify economically viable mineral reservation areas for small-scale miners.

About 150 areas covering 5,400km² have been blocked out and designated for ASM. However, there is the need to conduct detailed geological investigations to ensure the areas are viable and to reduce the associated land degradation before licensing prospective applicants. Currently, only nine of these areas have been explored and those that proved positive have been demarcated to small-scale miners. About 1,500 km² of ASM areas will be prospected geologically over the period of the project.

The GGSA and the MinCom will lead the survey, interpretation and mapping activities in close collaboration with relevant agencies including land administration and environmental protection authorities. A central data hosting system will be implemented to facilitate access for District Mining Committees (DMCs) and other interested stakeholders. The main outputs

for Subcomponent 1.3 will include geoscientific data, comprising digital mapping tools and geographic information system (GIS) layers for digital maps and interpretations of survey data.

3.3 Subcomponent 2.1: Regulatory Strengthening and Formalization of ASM

Activities under this subcomponent would include the following:

- Update and revision of ASM policies, regulations and guidelines;
- Update of environmental framework, regulations and guidelines;
- District-level ASM management support;
- Remote sensing technology for ASM mapping and monitoring;
- Heavy equipment monitoring;
- Strengthen environmental framework and monitoring;
- Establish and strengthen a Monitoring and Evaluation (M&E) system for ASM;
- Outreach, awareness and multi-stakeholder engagement;
- Establish a one-stop-shop for all ASM permits; and
- Mainstream ASM into Ghana Extractive Industries Transparency Initiative (GHEITI) reporting.

The outputs will include a revised legal and regulatory instrument to align with the evolving dynamics of the ASM sector. Activities will also aim to promote broad stakeholder consultations in the drafting of legal and regulatory instruments required for ASM formalization and modernization. To complement the development of strong environmental impact legislation, policy dialogues will also engage stakeholders on community-centred forest risk mitigation incentives. The subcomponent will also support community outreach, public education, and awareness creation on the revised ASM regulatory framework to foster understanding and full compliance with sector guidelines. This will help strengthen resource and environmental governance in the ASM sector.

Additionally, a modernized mineral cadastre system will be developed to facilitate the registration of all types of mineral licenses, ranging from small-scale to large-scale operators. This system will incorporate GIS-based software to accurately map and locate license holders, enhancing transparency and efficiency in license management.

The subcomponent will also finance modernization of the licensing system to allow registration of SSM license holders as well as inclusion of a new medium-scale license category. An important objective under this subcomponent will be to facilitate women's access to mineral licenses to promote female entrepreneurship in ASM, as restrictions in access to land for mining have been raised as a specific concern during project consultations. Technical solutions will also be developed to enable decentralized registration at the regional and district offices. This will require the acquisition of both software and hardware as well as training of MinCom officials and the DMCs. This formalization will contribute to better enforcement of protected forest areas and enhanced riverbank protection as well as mitigate forest degradation.

The FC and EPA will be equipped with digital monitoring and reporting systems. Again, capacity building will be provided to officers in the FC, the EPA, and the MinCom to monitor and manage impacts from ASM. The areas to be considered in the capacity building programme include:

- Water management;
- Management of hazardous products and waste;
- Community consultation; and
- Health and safety, and mine rehabilitation.

The subcomponent will also finance stakeholder dialogues on mainstreaming ASM into the EITI framework, following up on work undertaken in the preliminary Scoping Study on the Incorporation of ASM into the Ghana EITI (2015).

3.4 Subcomponent 2.2: Training and Technology Transfer

Activities under this subcomponent would include the following:

- Establishment and operation of an ASM incubation centre;
- Establishment and operation of an ASM demonstration centre;
- Update of the mineral cadastre to include ASM; and
- Dissemination of improved technologies (direct smelting) to ASM operators.

The subcomponent will support establishing an ASM business support centre (Incubation Centre) to provide advisory, training, and technical services for ASM business as well as the establishment of a pilot centre of excellence (Mining Demonstration Centre) demonstrating best practice ASM processes. The scope of services envisaged under this activity will include:

- Mercury-free processing;
- Training on enterprise skills and forming business entities;
- Regulatory compliance;
- Environmental management and mine rehabilitation, technology transfer;
- Health and safety; and
- Social responsibility.

Key areas of collaboration will include developing ASM reporting guidelines and templates, tightening public disclosure requirements under the Minerals and Mining Act, and strengthening accessibility of ASM data through upgrades to the mining cadastre. Capacity-building support to ASM operators as well as district mining officers of the MinCom, EPA Regional and Area officers, and members of the DMCs will be incorporated to enable them to discharge their duties effectively and efficiently. Training of ASM operators will include aspects of climate-smart and forest-smart mining, such as reduction and management of mine waste, reduced clearance of vegetation, post-mining restoration of degraded land, and capacity building of the small-scale miners on natural/climate risk and disaster response.

3.5 Subcomponent 2.3: Traceability of ASM Production and Value Addition

Activities under this subcomponent would include:

- Establishment and strengthening of ASM mining cooperatives;
- Strengthening PMMC supply chains and marketing; and
- Equipping and operation of the assay centre at PMMC.

An elaborate outreach and training campaign will be supported to inform and educate ASM operators about the trading patterns and registration procedures for producers and merchants. It is also envisioned that clusters and cooperatives of miners will be developed; these will require training to simplify ASM operators' access to the trading networks.

This subcomponent will aim to establish multi-stakeholder partnerships to strengthen ASM supply chains and improve market access to ASMs for greater value creation. The project will also invest in strengthening traceability of ASM output as a means to increase profit retention and enhance benefit-sharing of the value created. The activity will improve awareness of the forest impacts associated with ASM supply chains and support strategies to minimize forest risks in ASM production, supply chain, and market standards and mechanisms. It will reduce the demand for fuelwood as it will incentivize artisanal and small-scale miners to switch amalgamation and mineral processing to formal processing centres which are more energy efficient. This will replace home-based amalgamation using fuelwood to more efficient technology used by the PMMC.

3.6 Subcomponent 3.5: Reclamation of Mined Out Sites and Alternative Livelihoods

Activities under this subcomponent would include:

- Reclamation of abandoned ASM sites and waterways; and
- Alternative livelihood programmes.

The subcomponent aims to promote reclamation and rehabilitation of mined-out areas and prevent forest loss due to mining. The project will also set up demonstration sites of appropriate rehabilitation approaches for some selected abandoned mine sites as part of the integrated landscape management plans and forest management plans (FMPs), with a total area of approximately 2,000ha. The objective of the activity would be to create awareness of rehabilitation and economic potentials of abandoned mine sites among relevant stakeholders and promote adoption of these practices.

The project will also promote alternative livelihoods to mining, to boost income generation and income diversification in the mining communities. It will support baseline studies to tailor support to existing demand and design, and deliver skills-based training, to enable a comprehensive livelihoods strategy.

3.7 Subcomponent 4.2: Project Monitoring

Activities under this subcomponent would consist of project and environmental and social (E&S) risk management and monitoring, including:

- Ensuring training and backstopping of implementing agencies on adequate implementation of required E&S provisions;
- Regular and ad-hoc monitoring;
- Ensuring timely receipt of reports from implementing agencies; and
- Compiling semi-annual reports to the Bank on E&S risk management, as part of regular semi-annual reports (as required by the Financing Agreement).

3.8 Institutional Responsibilities

The PCU (SSM) at the MLNR serves as the central coordinating body for all activities related to ASM formalization. Its role is pivotal in ensuring that policies, strategies, and field-level actions align to promote sustainable and responsible mining practices.

Table 3.2 outlines the lead agencies responsible for implementing various activities under the ASM-related subcomponents. Additionally, Table 3.3 categorizes the key activities for the formalization of ASM according to their respective regions and districts.

Table 3.2 Lead Agencies for ASM Related Activities Under the GLRSSMP

Sub-Component	Activities	Lead Agencies
Airborne geophysical and geological surveys	Reprocessing and interpretation of airborne geophysical data	GGSA MinCom
	Geological field surveys and analysis	GGSA MinCom
Regulatory strengthening and formalization of ASM	Update and revision of ASM policies, regulations and guidelines	MinCom
	Update of environmental framework, regulations and guidelines	EPA
	District-level ASM management support	MinCom
	Remote sensing technology for ASM mapping and monitoring	MinCom
	Heavy equipment monitoring	MinCom
	Strengthening environmental framework and monitoring	MinCom EPA
	Establish and strengthen an M&E System for ASM	MinCom PCU
	Multi-stakeholder engagement (consultations)	MLNR-PCU MinCom
	Outreach and awareness	MLNR-PCU MinCom
	Establishment of a one-stop-shop for all ASM permits	MinCom EPA WRC
Mainstreaming ASM into GHEITI reporting	GHEITI	

Training and technology transfer	Establishment and operation of an ASM incubation centre	UMaT
	Establishment and operation of an ASM demonstration centre	UMaT
	Update of the mineral cadastre to include ASM	MinCom
	Dissemination of improved technologies (direct smelting) to ASM operators	UMaT
	Women economic empowerment	UMaT
Traceability of ASM production and value addition	Establishment and strengthening of ASM mining cooperatives	MinCom PMMC
	Strengthening PMMC supply chains and marketing	PMMC
	Equipping and operation of the assay centre at PMMC	PMMC
Reclamation of mined out sites and alternative livelihoods	Reclamation of abandoned ASM sites and waterways	MinCom FC WRC
	Alternative livelihood programmes	MinCom UMaT PMMC
Project Management and Communication	Project Coordination	PCU

Table 3.3 Project Locations

Region	Project District	Major Activities
Ashanti	Amansie South	<ul style="list-style-type: none"> • Geological investigation • Training of ASMs
	Amansie Central	<ul style="list-style-type: none"> • Geological investigation • Training of ASMs • Establishment of DMC
	Atwima Nwabiagya North	<ul style="list-style-type: none"> • Geological investigation • Training of ASMs
	Asante Akim Central	<ul style="list-style-type: none"> • Establishment of DMC • Training of ASMs • Renovation of District office of MinCom
	Obuasi	<ul style="list-style-type: none"> • Establishment of DMC • Training of ASMs
	Adansi South	<ul style="list-style-type: none"> • Establishment of DMC • Training of ASMs
Central	Assin North	<ul style="list-style-type: none"> • Geological investigation • Training of ASMs • Establishment of DMC • Renovation of district office of MinCom
	Twifo-Atti Morkwa	<ul style="list-style-type: none"> • Geological investigation • Training of ASMs
	Upper Denkyira West	<ul style="list-style-type: none"> • DMC establishment • Training of ASMs
Western	Tarkwa Nsuem	<ul style="list-style-type: none"> • ASM demonstration centre • Renovation of district office

		<ul style="list-style-type: none"> • Training of ASMs • Establishment of DMC
	Prestea Huni-Valley	<ul style="list-style-type: none"> • Geological investigation • Training of ASMs • Establishment of DMC
	Wassa Amenfi West	<ul style="list-style-type: none"> • Geological investigation • Training of ASMs • Establishment of DMC
	Wassa Amenfi East	<ul style="list-style-type: none"> • Establishment of DMC • Training of ASMs
Western North	Atwima Nwabiagya	<ul style="list-style-type: none"> • Geological investigation • Training of ASMs
	Sefwi Bibiani-Anhiaso Bekwai	<ul style="list-style-type: none"> • Geological investigation • Establishment of DMC • Training of ASMs
Eastern	Birim North	<ul style="list-style-type: none"> • Establishment of DMC • Training of ASMs
	Abuakwa South	<ul style="list-style-type: none"> • Reclamation of mined-out areas
	Atiwa East	<ul style="list-style-type: none"> • Reclamation of mined-out areas
	Atiwa West	<ul style="list-style-type: none"> • Reclamation of mined-out areas
Savanna	Bole	<ul style="list-style-type: none"> • ASM incubation centre • Geological investigation • Training of ASMs • Establishment of DMC
North East	Mamprugu Moagduri	<ul style="list-style-type: none"> • Establishment of DMC • Training of ASMs
Upper East	Talensi	<ul style="list-style-type: none"> • Geological investigation • Establishment of DMC • Training of ASMs
	Bawku West	<ul style="list-style-type: none"> • Geological investigation • Establishment of DMC • Training of ASMs

4.0 POLICY AND REGULATORY REFORMS UNDER THE MINING COMPONENT OF THE GLRSSMP

The proposed policy and regulatory reforms under the mining component of the GLRSSMP are:

- Ghana’s Mining and Environmental Guidelines, 2024;
- Water Resources Commission (Control of Waste and Discharge and Management of Water Quality) Regulations, 2024; and
- Water Resources Commission (Riparian Buffer Zones) Regulations, 2024.

4.1 Ghana’s Mining and Environmental Guidelines, 2024

4.1.1 *Rich Content of the Mining and Environmental Guidelines*

The draft Ghana’s Mining and Environmental Guidelines is rich in content, and very comprehensive, identifying and providing all the essential elements that constitute potential impacts for the various types of mining as well as exhaustive mitigation instructions and provisions to address these potential significant impacts, including health and safety, water access/supply disruptions, compensation, etc.

The guidelines also provide the ingredients for engaging landowners and lawful occupants of the land. This section, however, must rather appropriately refer to or give regard to all stakeholders, not only landowners and lawful occupants (who are only a section of the stakeholders).

4.1.2 *Introduction of the Offset Principle in Mining Sector Environment Management*

The responsibility of the MLNR for policy development and ensuring “efficient management of the nation’s mineral resources and promote their judicious exploration, exploitation and processing with minimal damage to the environment, for optimal benefit to society”. The phrase “with minimal damage to the environment” could be substituted with “for environmental sustainability through applying the principle of offset to mitigate any potential damage to environmental resources”.

4.1.3 *Introduction of no-go Areas for Mining Sector Projects*

Introduction of “no-go areas” as modification to the Environmentally Sensitive Areas list to the Schedule 5 of LI 1652 and accordingly adopted into the Mining and Environmental Guidelines.

4.1.4 *Collaboration and Coordination in Preparing the Mining and Environmental Guidelines*

It is indicated that the draft Ghana’s Mining and Environmental Guidelines has been prepared by the EPA, but that cannot be an accepted good practice, since the guidelines are meant to be used and serve the interest of all the relevant institutions, who must therefore be actively involved in a collaborative effort and for common outcomes acceptable for use by all the institutions. The preparation of the guidelines can be an opportunity to bridge the unfortunate

institutional operations in silos, and to evolve a new regime of effective collaboration and coordination.

Under “Challenges” in Section 1.5 of the report, “Weak coordination and collaboration among the regulatory institutions” is identified among a “number of challenges in addressing environmental management of the mining sector.” The preparation of the guidelines is a wonderful opportunity to start addressing this significant challenge, therefore, further action towards completion of the report must be made to involve the other institutions.

4.1.5 Mine Effluent Discharge Requirements

In Sub-section 2.1.4 - Shaft/Decline Construction and Dewatering states that:

- “The company shall not dewater an old mine-working (shaft, adit, decline, etc.) into the natural drainage unless a prior water quality analysis has shown that the water meets EPA mine effluent discharge requirements”.
- This appears to be WRC’s mine effluent discharge requirements, but working in conjunction with EPA, but not EPA’s.
- In the spirit of building strong institutional collaboration and for the pursuit of national interest, this may be regarded as national mine effluent discharge requirements, not necessarily credited to any specific institution.

4.1.6 Preceding the Licensing/Permitting Decision Processes with Stakeholder Consultations

In Section 2.0, under Exploration Stage (Mine Planning & Environmental Protection/Management) provides that:

- When exploration is carried out in a forest reserve, the Company, in addition to an Environmental Permit and a Prospecting Licence, shall obtain from the Forestry Commission a Right of Entry Permit; and
- To undertake exploration in a Wildlife Reserve, the prospective company in addition to the above requirements, and prior to the start of fieldwork, should consult the Wildlife Division of the Forestry Commission to determine the entry requirements.

Sub-section 2.1.1 (Role and Responsibility of a Company Undertaking Exploration) requires that: “At least 14 days before the commencement of field exploration activities, a company representative is expected to meet the appropriate landowner or lawful occupants of the land”.

All the above presuppose that the decision to engage or consult with the landowners/occupier follows after a valid Reconnaissance or Prospecting License / Environmental Permit have been granted. This represents perhaps an inverted procedure to good practice. An initial assessment carried out in the Environmental Assessment Form 1 or SSM1 requires that stakeholder consultations must first be conducted on the issues listed in the guidelines with the landowners and other stakeholder involvement prior to consideration for Exploratory license.

Such initial consultations with stakeholders (presents an environmental overview for the institutions, e.g. Wildlife and Forestry Commission) and serves a useful basis for consideration if at all the project could go forward – collectively (including Forestry Commission’s decision for the grant of Right of Entry Permit). This must be desired approach rather than the proposed independent approach that serves only the narrow interests of the respective institutions, and where a blame could easily be apportioned to one institution as the cause of possible delay.

Under Sub-section 2.2 Mining Stage, also reflects the same challenge, where the acquisition by Mineral right holders is without prior environmental assessments consideration, nevertheless providing guidance and instructions to apply to meeting environmental and social mitigation requirements at a later stage.

4.1.7 Potential Opportunity for Integration of Institutional Requirements

Under Registration of Undertakings – Sub-section 3.2.1 – the completion of Form EA1 (Initial Environmental and Social Assessment of mining undertakings), just like other undertakings, requires consultation with stakeholders and evidence of it provided. Identification of sensitive areas – environmentally (including water, forest and wildlife), socially (including socio-economic), culturally, etc. are all required to be addressed to facilitate the screening decision. This offers an opportunity to integrate the various requirements at the registration stage, such as inclusion of concession map, operation method, reclamation and abandonment proposals, compensation proposals, etc. (for MinCom) and water rights permit requirements (for WRC), and forest and wildlife implications and issues (for FC), etc. This also has the potential advantage of the institutions taking their respective decisions/actions simultaneously and saving the proponent/applicant time, rather than the existing concurrent, independent drawn-out processes. Furthermore, screening visits to the proposed project sites could be done collaboratively with the relevant institutions (not only EPA) for their respective action/decisions within a specified timeframe.

4.1.8 Levels of Environmental Assessment for Mining Sector Undertakings

In Table 1 (Mining Projects and Level of Environmental Assessment), it is specified that Mining Policy formulation/development requires SESA. It also indicates that the designation of areas (blocked out) for small-scale mining requires SESA, but in some cases an Environmental and Social Management Framework (ESMF) may, however, be preferred. It is therefore recommended that the types of mining undertakings requiring SESA or ESMF should be specified for the sake of clarity. Also to address effectively the potential cumulative effects of granting of group of contiguous SSM concessions (within a given area) could be included in the requirements for Cumulative Impact Assessment (CIA). It would be essential, however, besides defining the types of undertakings requiring SEA or ESMF to provide guidance or template to simplify and ease the preparation of SEA, ESMF and CIA for mining undertakings.

4.1.9 Collaborative holding of Public Hearing

The holding of Public Hearing (Sub-section 3.2.8) - as part of the review of the draft EIS, the Agency may hold a Public Hearing on the undertaking. The decision to hold a Public Hearing should be collective and taken at the EIA/Technical Review Committee (TRC) meeting, with

all the key sector institutions represented. This must be held for the benefit of guiding the institutions to take their respective decisions after coming to a collective review position. This will require some slight administrative modifications to the legislative instrument for environmental assessment (LI 1652) to provide appropriately for the mining sector.

4.1.10 Environmental Management Plans and Annual Environment Reports

The Sub-section 3.2.11 on Annual Environment Report and Environmental Management Plan should address the requirements of the other institutions as well, not only EPA, and the reports prepared by the operators/companies shared with all relevant institutions for their review and necessary actions.

4.1.11 MMDAs Omitted from the Stakeholder List and Training Requirements

Among the key social challenges identified as sources of concern is land use conflict, and that land in Ghana is the main source of livelihood for majority of people, and mining creates land use conflict between companies and their stakeholders. Also, the desire for the involvement of mining and fringe communities in the management of mineral and related natural resources, and the call for utilization of mineral royalties at the local level have been intensifying, as well as the other significant social and cultural challenges identified. The District Assemblies (DAs) are the local governing bodies to handle all the above issues. Under Section 12(3)(f) of the Local Governance Act, 2016 (Act 936), DAs are tasked with the development, improvement, and management of human settlements and the environment within their jurisdictions. Additionally, Section 91(1) mandates any person undertaking physical development, including mining, to obtain a permit from the District through its Planning Authority.

Despite the above, the identification of primary and secondary stakeholders covers all the key institutions and ministries, including the Ministry of Local Government, Decentralisation, and Rural Development (MLGDRD), but the DAs are completely omitted. This must be corrected, and stakeholders training needs assessments must cover also the sector institutions, the ministries as well as the Metropolitan, Municipal and District Assemblies (MMDAs).

Provision for Gender issues, which the DAs are better positioned to handle are not covered in the guidelines.

4.2 Water Resources Commission (Control of Waste and Discharge and Management of Water Quality) Regulations, 2024

4.2.1 Enhancement of Penalty for Grievous Offences

A person who discharges waste into a water resource without a waste discharge permit commits an offence and is liable on summary conviction to a fine of not less than three hundred penalty units and not more than seven hundred penalty units or to a term of imprisonment of not less than one year and not more than two years or to both.

The penalties must include an enforcement requiring immediate cessation of certain defined irrecoverable damaging types of waste discharges, e.g. Mercury containing waste, and forfeiture of the offender's property to the State for a defined set of offences as deterrent.

4.2.2 Publication of Notice of Application

1. The Commission shall, within ten days after receipt of an application -
 - Acknowledge receipt of the application;
 - Publish on the official website of the Commission, in the Gazette and in at least one daily newspaper of national circulation, a notice
 - Stating the purpose of the application;
 - Inviting objections from the public to be submitted to the Commission within thirty days after the date of the publication; and
 - An objection made in response to a notice under sub-regulation (1) shall be submitted, in writing, to the Commission unless otherwise specified in the notice.

Where the project/activity to which the waste discharge application relates is already a subject of ESIA, with equal publication of notices served, this requirement of publication of notice may be suspended, since it could be superfluous.

4.2.3 Hearings by the Commission

1. (Where the Commission receives an objection from the public in respect of a notice of application published pursuant to Regulation 5, the Commission shall hold a hearing in respect of the application.
2. The Commission shall, for the purposes of holding a hearing, collaborate with the -
 - Environmental Protection Authority; and
 - District Assembly concerned.

To avoid holding double Public Hearing on the same project or aspect of it, LI 1652 could be modified to incorporate public objections with respect to waste discharge application in the list of conditions that could trigger Public Hearing, so that it is held only once.

4.2.4 Grant of Waste Discharge Permit

Under grant of permit, the Commission shall, on approval of the application issue the applicant with a Waste Discharge Permit as set out in the Second Schedule.

The name of the permit "Waste Discharge Permit" may perhaps conflict with an existing type of permit issued by the EPA for the discharge of other waste types. It is important therefore to engage EPA to arrive at a suitable name for the permit.

4.2.5 Provision of Appeals to the Board

Appeals provision to the Board and for the Board to adjudicate on appeals may not seem to inspire confidence in the regulations. Using the example of provisions in the Environmental Assessment Regulations, an appeal against EPA's action or inaction is decided by a committee

constituted by the Minister responsible for the Environment. The appeals provision has instructions on the composition of the committee and timelines for their action to report back to the Minister.

Equally, the regulations could require the Board to constitute a committee that would adjudicate on appeals and complaints and advise the Board of its decision for implementation by the Board.

4.3 Water Resources Commission (Riparian Buffer Zones) Regulations, 2024

4.3.1 Enhanced role the District Assemblies must be Accompanied with Capacity Building

Role of DAs specifies that a “District Assembly shall enact, where appropriate, specific by-laws declaring riparian buffer zones as “protected areas” to ensure the conservation of unique riparian areas, including sacred groves and stream beds in their respective localities. Under designation of a riparian buffer zone, the Commission shall ensure that:

- The riparian buffer zone is permanently reserved with the consent of a District Assembly; and
- The riparian buffer zone is incorporated into the local land-use plans of a District Assembly.

4.3.2 Under Management of a Riparian Buffer Zone the Following are Indicated

- 1) The Commission shall include specific limitations on alteration of the natural conditions in the riparian buffer zone;
- 2) Without limiting sub-regulation (1), the Commission shall restrict the following..., except with the prior written approval of the Commission:
 - Clearing or grubbing of existing vegetation;
 - Clear cutting of vegetation or trees;
 - Soil disturbance practices including grading and striping;
 - Filling or dumping of waste;
 - The use, storage or application of
 - Pesticides;
 - Herbicides;
 - Fertilizers; and
 - Conversion of existing established vegetation from majority native to majority exotic species.

Mining must specifically be included in the list.

4.3.3 Enhancing Penalties for Offences

- 3) “A person who contravenes a provision of this regulation commits an offence and is liable on summary conviction to a fine of not less than penalty units and not more than penalty units or to a term of imprisonment of not less than and not more than or to both”.

Riparian buffer zone ensures the protection, maintenance and improvement of biological diversity and enhancement of ecosystem functioning. Where evidence of significant damage is proven, the requirement for immediate cessation cannot wait, and subsequent forfeiture of the offender's property to the State for a defined set of offences. These requirements must be included for certain damaging, irrecoverable types of activities.

4.3.4 Watershed Management Plan Requirement

There could also be the requirement for watershed management plan – for activities adjoining buffer zones, as a preventive measure.

5.0 BASELINE CONDITIONS

5.1 Introduction

The baseline information on gold mining in Ghana, with a focus on artisanal and small-scale gold mining (ASGM), and observations from visited mining areas, encompasses the following key areas:

- 1) Mining in Ghana -
 - Overview of gold mining in Ghana;
 - Gold occurrence, mining distribution and scale;
 - Gold extraction in SSM/galamsey;
 - Reclamation;
 - Gold production and price;
 - Traceability and gold purchases;
- 2) Environmental and social aspects concerning mining –
 - River systems and basins;
 - Water quality findings in illegal mining
- Land tenure;
- Agriculture, forestry and cocoa;
- Health and safety;
- Social issues – child labour, socio-culture, economic, amenities and political
- 3) Observation from selected mining sites –
 - Tontokrom community;
 - Akyem Adukrom community;
 - Dakrupe community; and
 - Tarkwa Bremang community.

5.2 Mining in Ghana

5.2.1 Overview of Gold Mining in Ghana

Ghana is well endowed with substantial mineral resources, the major ones being gold, diamonds, manganese and bauxite. Gold, however, is the predominant mineral produced, accounting for over 90% of all mineral revenues annually over the past two decades.

In 2023, Ghana was ranked as Africa's largest gold producer and the 10th largest globally, with gold production rising from 3.7 million ounces in 2022 to 4 million ounces in 2023 (i.e. 8.3% increase in production); and the sector accounted for 8.8% of domestic revenue, 8.6% of total government revenue and about 8.1% of GDP (including quarry). The production growth was driven primarily by the expansion in the output of small-scale gold mining (Ghana Chamber of Mines, 2024). Except in 2004 when it was (briefly) overtaken by the cocoa sector, the mining sector has become the highest gross foreign exchange earner from 1991 to date (Minerals Commission, 2015, Ghana Chamber of Mines, 2024).

The historical development of the mining sector, particularly gold mining, dates to pre-colonial times (15th Century), with indigenous mining practices playing a crucial role in the economic and social life as a major occupation, especially of the Akan people. Indigenous mining methods, largely artisanal, involved washing and panning for alluvial gold along rivers, as well as shallow-pit surface mining and deep-shaft mining. Men and women participated in the seasonal search for gold in areas such as the Birim Valley and the Pra and Ankobra rivers (Ofosu-Mensah E, 2011).

During the late 19th century, multinational mining companies gained control over the gold mining industry, with the British, Portuguese, and Dutch traders heavily involved in gold trading (Ofosu-Mensah, 2011). By the early 20th century, large mining firms, such as the Ashanti Goldfields Corporation, dominated the sector (Minerals Commission, 2021). Despite the introduction of large-scale mining, traditional mining retained its vigour.

In 1986, the Minerals and Mining Law (PNDC Law 153) was enacted to promote and regulate the orderly development of the sector. The Small-Scale Gold Mining Law (PNDC Law 218), the Mercury Law (PNDC Law 217) and the Precious Minerals Marketing Corporation Law (PNDC Law 219) were passed in 1989 to regularise small-scale gold mining (SSGM), use of mercury in SSGM, and provide official marketing channels for substantial increase in the production of gold in SSM sector (Ministry of Lands and Natural Resources, 2014). The Minerals and Mining Act, 2006 (Act 703), was enacted to revise and consolidate the laws relating to minerals and mining.

In the late 20th and early 21st centuries, SSGM gained prominence, contributing significantly to the economy from 2.2% in 1989 to 35.4% in 2014 - nearly 1.5 million ounces – and by 2018, accounted for 43.1% of total production, up from 22.6% in 2010 (Minerals Commission, 2020). This accelerated growth was, however, attended by widespread environmental degradation, including deforestation, river pollution, and land destruction caused by illegal mining activities, commonly referred to as “galamsey” leading to the imposition of a ban on SSM in 2017. The ban was lifted in 2019 with the introduction of the Community Mining Scheme (CMS) to curb the galamsey, while encouraging local people in mining communities to undertake responsible, viable and sustainable mining.

5.2.2 Gold Occurrence, Mining Distribution and Scale

In Ghana, gold occurs primarily in two main types of deposits: lode (vein) and placer (alluvial) deposits. The lode deposits are typically found within Precambrian greenstone belts that traverse the country in areas such as Obuasi, Bibiani, Prestea, Konongo, and Nadowli, while alluvial deposits are associated with river systems and weathered rock. Large deposits of placer gold also occur along the terraces, floodplains, channels and riverbeds of the Offin, Pra, Ankobra, Birim and Tano Rivers, where large Birimian and Tarkwaian gold deposits have experienced several episodes of erosion and subsequent deposition. Figures 5.1 and 5.2 show the geological map of Ghana and the rivers in Ghana associated with placer gold deposits respectively.

**GHANA GEOLOGICAL SURVEY AUTHORITY
GEOLOGY AND MINERAL OCCURRENCE MAP OF GHANA**

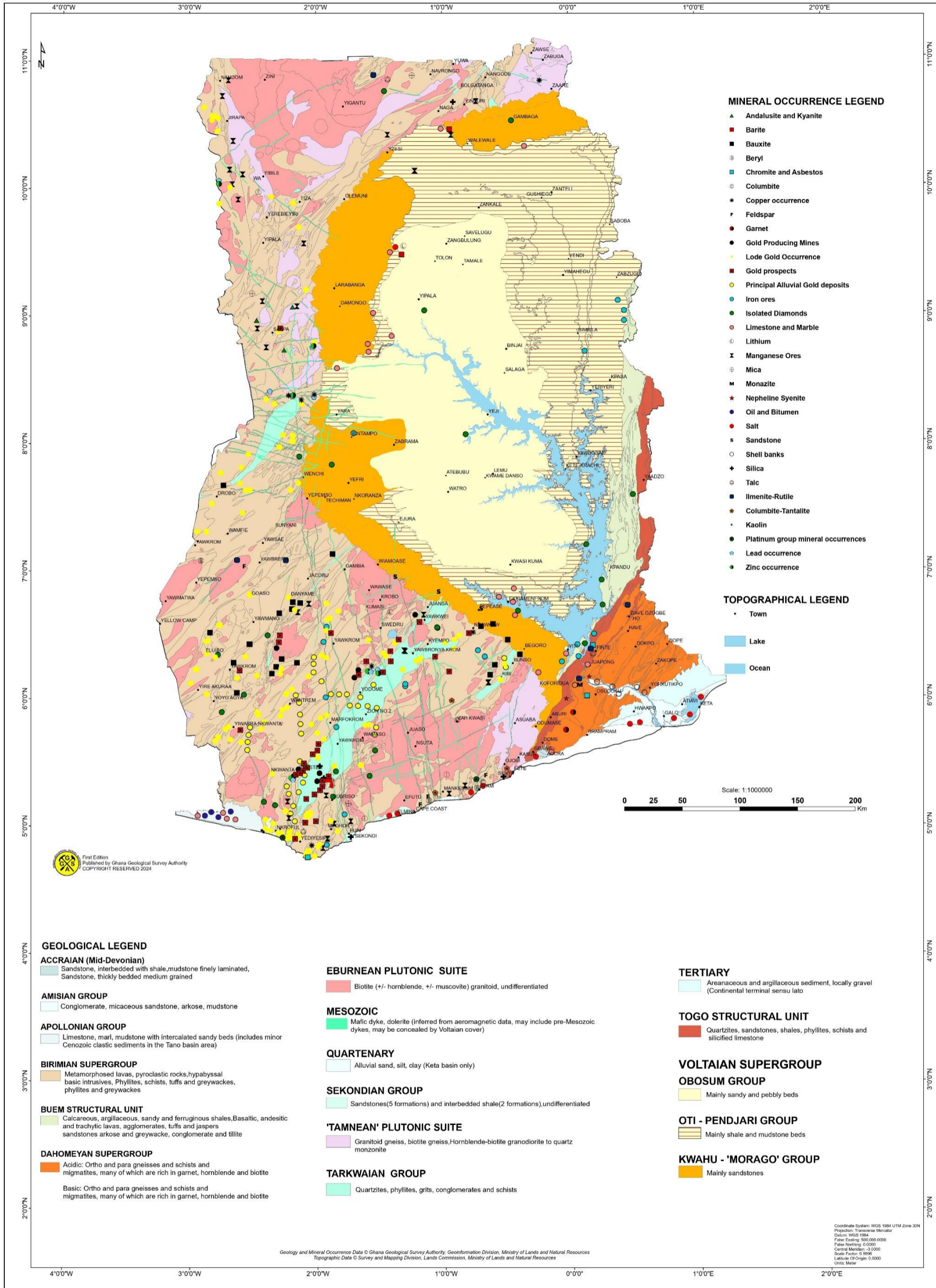


Figure 5.1 Geology and Mineral Occurrence Map of Ghana Showing the Gold Deposited Area
Source: Ghana Geological Survey Authority, 2024

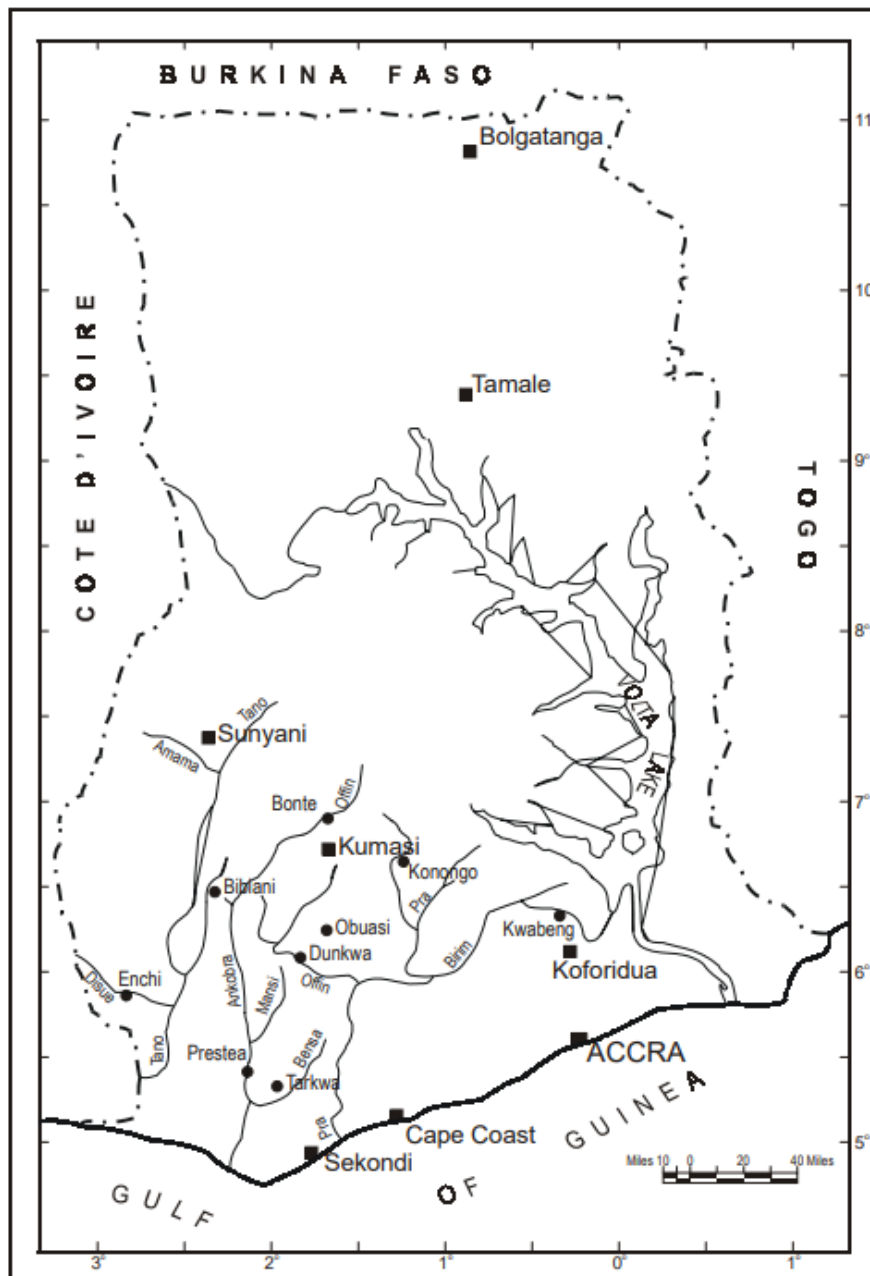


Figure 5.2 Rivers in Ghana Associated with Placer Gold Deposits

Source: IIED and WBCSB, 2002

Out of the 16 regions of Ghana, large scale and small-scale gold mining (SSGM) is undertaken in 13, excluding Greater Accra, Volta, and Oti Regions (Figure 5.3). There are 13 established mining district centres located close to mining areas, to provide technical extension services and training in health and safety, environmental sustainability, etc.

Mining operations, as defined by the Minerals and Mining Act, 2006 (Act 703) are categorised into large-scale and small-scale mining. Large-scale mining refers to operations that cover large areas (above 25.2 acres) and involve substantial capital investment and high mechanisation in open-pit and/or underground mining, extensive ore processing methods, etc. They are typically controlled by multinational companies.

MINERALS CONCESSION MAP OF GHANA

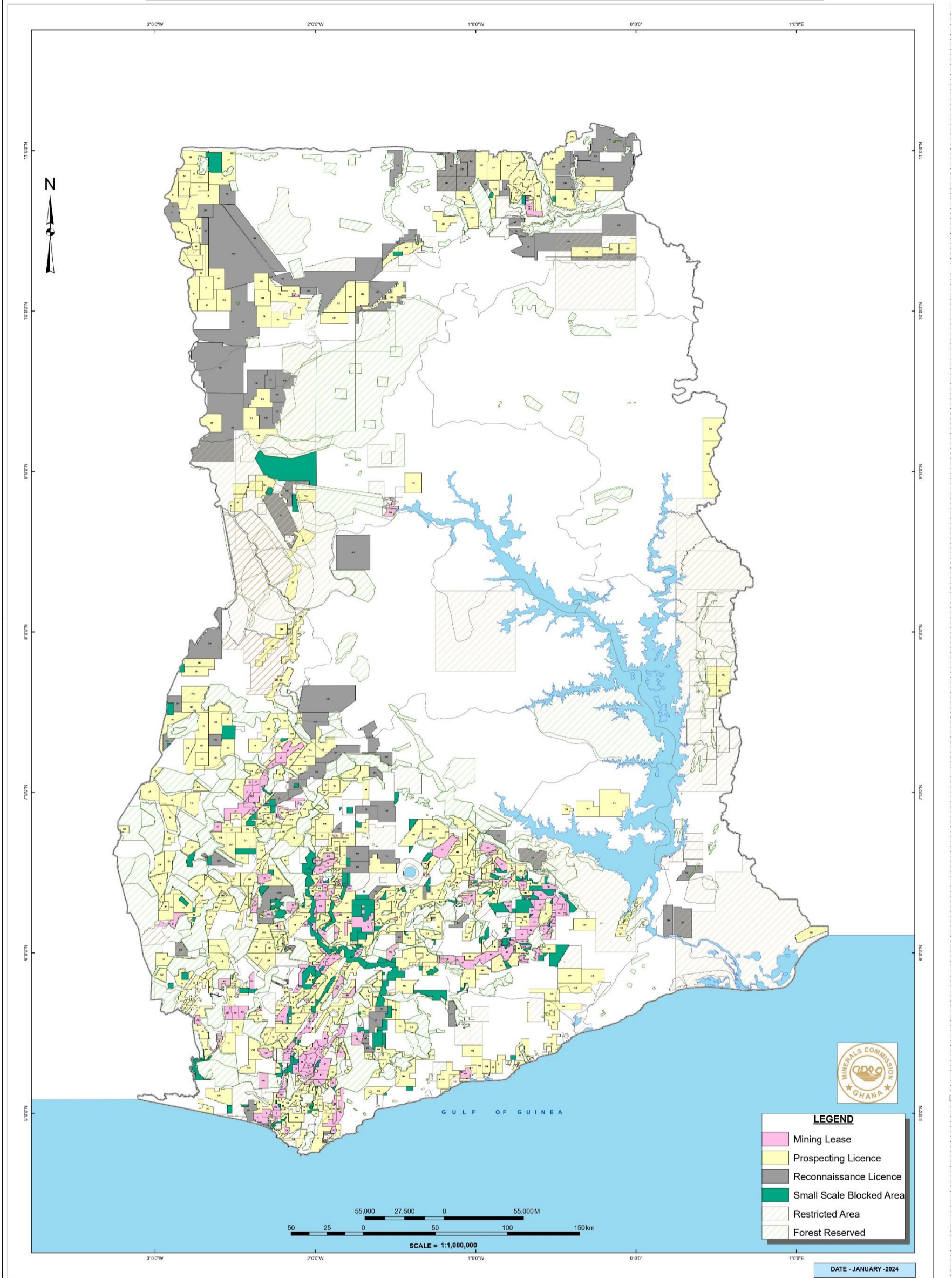


Figure 5.3 Mineral Concession Map of Ghana
Source: Minerals Commission, 2024

The other category of mining defined by Act 703 is SSM which principally refers to licensed SSM. The other types of SSM include CMS, and Artisanal Mining/Galamsey discussed below.

a) *Small-Scale Mining (Licensed)*

Small-scale mining is restricted to only citizens of Ghana, 18 years and above, and covers an area of up to 25.2 acres. The licence is granted to a person, group of persons, co-operative society, registered enterprise/venture (sole proprietorship) or limited liability company for not more than 5 years and may be renewed on expiry. The law also indicates the Minister in consultation with the Commission is to designate areas for SSM operations. About 200 blocks of various sizes have therefore been designated for SSM across the country.

They are usually fully or semi-mechanised or artisanal where rudimentary tools such as spades, pickaxes, chisels, and pans, which are used for digging, crushing, and panning are used.

b) *Community Mining Scheme*

The Community Mining Scheme is a form of SSM as defined in the Community and Small-Scale Mining Operational Manual (2021), also exclusive to Ghanaians. This is presently implemented in all the country's mining regions. Its key characteristics are as follows:

- It is community-based;
- Operates as a SSM in line with Section 81-99 of Act 703;
- Can also be operated under large-scale mining lease in line with the tributer system;
- Governed by a code of practice as stated in Regulations 475 and 515 of the Minerals and Mining (Health, Safety and Technical), Regulations, 2012 (LI 2182); and
- Supervised by a Community Mining Oversight Committee.

c) *Artisanal Gold Mining*

The passing of the laws related to SSM in 1989, invariably rendered the traditional artisanal mining by the local people now an illegal activity, due to the annexation by new players, who without regard cause extensive environmental damage to natural resources and infrastructure. Thus, the once artisanal mining has now become synonymous with the notorious (unregistered and unlicensed) mining activity referred to as galamsey (a corrupted form of the expression 'gather and sell'). Galamsey activities operate in any possible area such as forest reserves, water bodies, sacred and culturally significant areas, residential zones, etc.) and pay less or no attention to human rights (Owusu-Nimo et al., 2018).

There is a history of foreigners, especially from neighbouring West African countries, settling in mining communities since independence (Nyame et al., 2009) but the recent 'gold boom' in Ghana has quickened the pace of immigration of foreigners, including the Chinese, into gold mining areas indulging in illegal mining/galamsey. At the height of Chinese involvement in 2012 and 2013, almost 50,000 Chinese nationals migrated to Ghana to engage in SSM (Crawford et al, 2016).

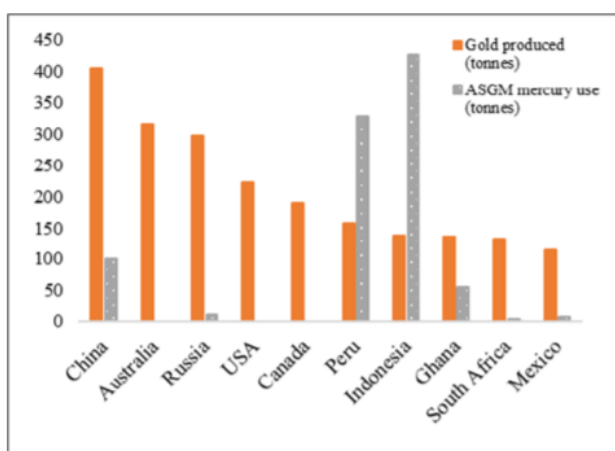
In 2017, the Minerals Commission estimated that there were about one million small-scale miners in Ghana. This includes a wide range of people whose livelihoods are directly connected to the sector (miners, supervisors, processors, and managers). The interest in SSGM/galamsey has risen in recent years and this can be attributed to:

- The relatively high gold price which makes marginal gold deposits economical for the small-scale miners/galamseyers;
- The perception that mining is more lucrative than other small-scale poverty alleviation/reduction ventures; and
- The dwindling livelihood choices in the country, especially in the mining communities (Minerals Commission, 2021).

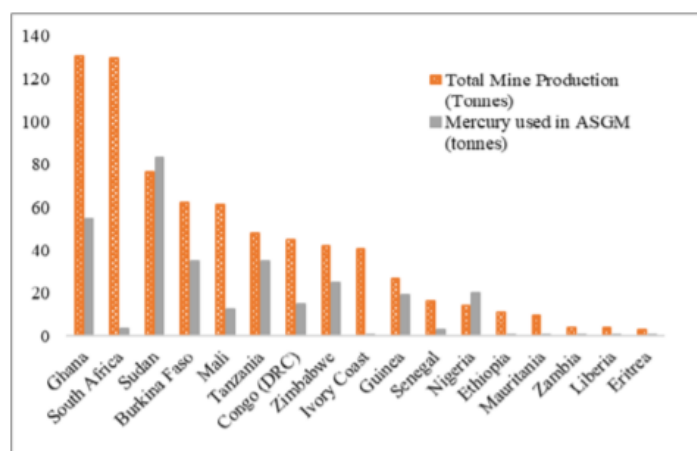
According to the Minerals Commission, at the end of 2023, there were about 750 licensed SSM operators in the country. Currently (as of November 2024), there are about 380 active licenses, and the decline is a result of expired licenses which have not been renewed. However, 90 out of every 100 SSM are conducted illegally i.e., operate without the required licences (Appendix 3.1.1).

5.2.3 Gold Extraction in SSM/Galamsey

ASM involves a range of mining methods depending on the type of deposit and where it occurs. Aryee (2003) categorised mining methods in Ghana into shallow alluvial, deep alluvial and hard rock mining, based on the ore type being extracted. The amount of mercury used in ASM is directly related to characteristics of gold production, specifically the types of gold deposits exploited, and the methods used to extract gold from the ores. The estimated mercury usage in the ASM sector ranges between 27.5 and 82.5 tonnes, with a mean of 55 tonnes, representing close to half of the total gold produced in the country (AMAP/UN Environment, 2019). Among the top ten gold-producing countries worldwide, Ghana is the fourth country that uses a significant amount of mercury (Figure 5.4a). In Africa, Ghana ranks second, behind Sudan in mercury use (Figure 5.4b).



(a) Top 10 Gold Mining Countries in the World



(b) Top 17 Gold Mining Countries in Africa

Figure 5.4 Top Gold Mining Countries and their Average Annual Mercury Use in ASGM

Source: AMAP/UN Environment 2019; The Ghana Chamber of Mines 2019

Mercury is used in SSGM/galamsey mining to extract gold in Ghana. The Mercury Law, PNDCL 217 legalised the purchasing of mercury for gold recovery from authorised dealers. The Ministry of Trade and Industry issues licences for the importation of mercury while the EPA grants clearance permits. The Customs Division of the Ghana Revenue Authority (GRA) with the Minerals Commission and the EPA's Chemicals Control and Management Centre are to ensure the importer has a licence, and imports are within the approved amounts. However, the quantity of mercury used in SSM/galamsey appears more than what is in the official import records, as indicated during the engagement with EPA that there are no official records of importation of mercury since 2019, pointing to possible large-scale mercury smuggling into the country.

The University of Mines and Technology (UMaT) has developed a direct smelting kit called 'sika bukyia', where gold is extracted at high temperatures, aside the use of mercury. The government in 2021 approved and procured a mercury-free mineral processing technology 'gold-catcher' for small-scale and community mining programmes to create sustainable jobs and protect the environment (Graphic Online, 2021). The technology is said to improve gold recovery by more than 90% and save the environment from toxic mercury contamination.

5.2.4 Reclamation

The guidelines for SSM require miners to conduct concurrent reclamation of their mining sites. However, only a few miners have done reclamation of their concessions (Appendix 3.1.1) after mining. The large majority do not do any reclamation. For instance, the sites visited in the Tontokrom, Akyem Adukrom and Tarkwa Bremang mining communities had abandoned water-filled pits as part of the ugly mining legacy.

5.2.5 Gold Production and Price

Gold production from small-scale mining increased steadily from 2000, peaking between 2016 and 2018 at over 2 million ounces annually. Production declined sharply after 2019 before a slight recovery in 2023. Despite the ban from 2017 – 2018, production remained high, suggesting the possibility of the gold coming from illegal mining operations.

Gold prices rose steadily from 2000 to 2011, peaking at over \$1,800 per ounce. After a dip between 2012 and 2015, prices climbed steadily, reaching around \$2,000 per ounce by 2023. The trends in gold prices and gold production generally correlate, with rising prices incentivising increased production. However, there are notable divergences, particularly between 2017 and 2018. The gold production from ASGM and gold price trend (2000 - 2023) is presented in Figure 5.5.

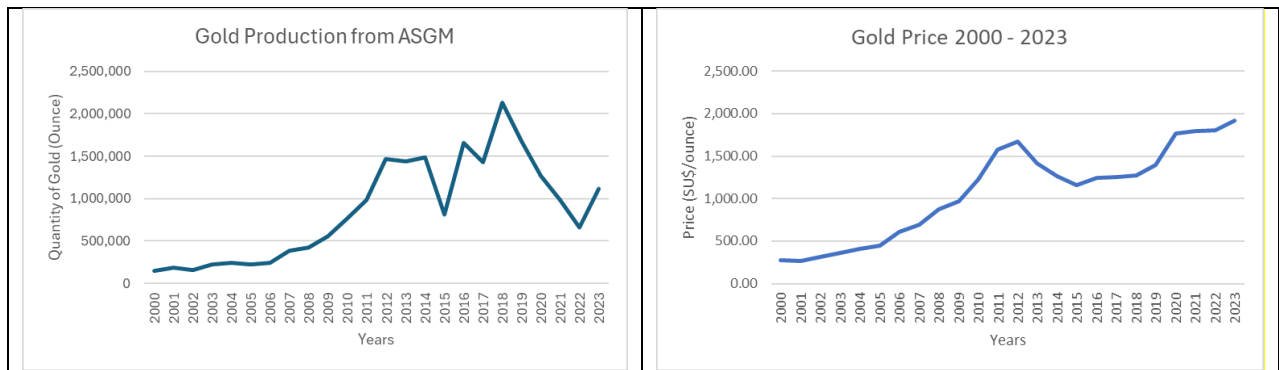


Figure 5.5 Gold Production from ASGM and Gold Price Trend (2000 - 2023)

Source: Minerals Commission, 2015, Bank of Ghana, 2024

5.2.6 Traceability and Gold Purchases

According to the PPMC, small-scale miners often prefer to sell their gold to foreign buyers, attracted by the more competitive rates these buyers offer. Unlike the designated local buyers, foreign buyers consistently adjust their rates upwards, making them more attractive, but unfortunately aiding gold smuggling. As a result, gold export records from international sources show higher outputs (from Ghana) compared to local data. This discrepancy is largely attributed to widespread smuggling activities, with gold illegally routed through countries like Burkina Faso to destinations such as Dubai.

The Bank of Ghana (BoG) launched the Domestic Gold Purchase Programme in June 2021 to strengthen Ghana's foreign reserves by purchasing domestically mined gold. This programme allows BoG to buy unrefined gold (dore gold) from aggregators and mining firms, paying in local currency at the prevailing market rate. The acquired gold is refined to international standards and added to the nation's reserves.

A significant focus of this programme is to create opportunities within the SSM sector by providing these miners with a reliable, fair-price buyer in BoG. This could drive formalization within the sector by incentivizing small-scale miners to adopt environmentally sustainable practices, shift away from illegal trade networks, and access formal gold markets. Through this initiative, BoG also aims to improve the SSM sector governance and compliance standards, potentially reducing the sector's environmental and social issues.

In 2024, BoG announced that over \$5 billion worth of gold reserves had been accumulated under the programme since its inception, bringing the country's total gold reserves to 73 tonnes, up from 8.77 tonnes as of June 2024 (Myjoyonline, 2024).

5.3 Environmental and Social Aspects Concerning Mining

5.3.1 River Systems and Basins

Ghana is drained by three (3) main river systems comprising the Volta, South-Western and Coastal River Systems. The Volta River system in Ghana occupies nearly two thirds (70%) of the land area of Ghana, followed by the South-Western (22%) and the Coastal (8%). The Volta River System includes the Black and White Volta River Basins, Oti River and the Lower Volta,

including Lake Volta. The South-Western system consists of the Bia, Tano, Ankobra and Pra Basins whereas the Coastal system is made up of the Ochi-Amisshah, Ochi-Nakwa, Ayensu and Tordzie/Aka rivers and the Densu Basin (Water Resources Commission, 2023)

a) Pra Basin

The basin spans approximately 22,106km² with its drainage network comprising the main Pra and its major tributaries: Birim, Anum, and Offin Rivers and their tributaries. It constitutes a major source of water supply to communities within the basin. The Offin sub-basin is the main source of water supply to Kumasi and its environs, through two reservoirs at Barekese and Owabi. While the major tributaries are perennial, mining and other human activities are degrading the surface water resources. The basin contains most of the large cocoa growing areas in the Eastern, Ashanti, and Central regions but also has a high concentration of gold mining activities and other minerals. Challenges in the basin include rapid forest loss, erosion, flooding and high sediment transport due to mining and infrastructural development (Water Resources Commission, 2024).

b) Ankobra Basin

The basin covers an area of 8,403km² spanning 11 districts in three regions. It is relied upon for domestic consumption, irrigation, and mining activities (including gold, manganese, bauxite and diamond). The main challenges facing the basin include illegal mining and pollution from indiscriminate discharge of untreated mine effluents, clearing of forests for mining, erosion due to the removal of vegetative cover, and high sediment loads in water bodies (Water Resources Commission, 2024).

c) Tano Basin

The basin has total catchment area of about 15,000km² and traverses four administrative regions: Bono, Ahafo, Ashanti, and Western regions. The basin has its source within the forest in Pooyem, 4km from Techiman, and flows roughly north-south into the sea. Its main tributaries are the Abu, Amama, Bo, Disue, Soro, Atronie, Sabom, Gaw, Kwasa, Sumre, and Totua. About 93% of the drainage area is within Ghana whilst the remaining 7% is in the Cote d'Ivoire. The basin constitutes a major source of domestic water supply and for irrigation but suffers from the effects of mining and industrial activities.

d) Densu Basin

The Densu Basin has an area of 2,490km² and spans three regions: Central, Eastern and Greater Accra regions. The river takes its source from the Atewa Ranges near Kibi and flows for 116km into the Weija Reservoir, which supplies water to about half of the Accra Metropolitan Area. There are about 18 fish species in the Densu and the Weija Reservoir. The most fished species, however, are Tilapia and Mudfish. Mining, including sand winning and quarrying in and around the basin is one of the challenges confronting the basin (Water Resources Commission, 2024).

e) Black Volta Basin

The Black Volta Basin is one of the major transboundary sub-basins of the Volta River System that stretches from the north to the south through Mali, Burkina Faso, Ghana and Cote d'Ivoire, and from the west to the east, Burkina Faso, Cote d'Ivoire and Ghana. Tain and Poni Rivers are the main tributaries. The Ghana portion of the basin covers an area of 18,384km² constituting 14% of the basin. Mining activities have been rampant within the basin, especially in the Upper West Region. Major towns in the basin rely on the water supplied by the Ghana Water Company Limited whilst most rural communities, rely on groundwater. The main challenges of the basin include illegal mining, deforestation, siltation of the water bodies, and flooding, among others (Water Resources Commission, 2024).

f) White Volta Basin

The White Volta River Basin is one of the four main sub-basins of the Volta River system and spans Togo, Burkina Faso and Ghana. Its drainage area is about 50,000km² covering 20% of Ghana's total land area. The basin and its main tributaries, the Red Volta (Nazinon) and the Kulpawn/Sissili Rivers take their sources in the central and northeastern portions of Burkina Faso. Water is used for a variety of purposes in the domestic, agricultural and industrial sectors. Large and medium-scale irrigation systems in the White Volta Basin can be found in the Tono (Kasina-Nankana District), Vea (Bongo District) and Bontanga (Tolon-Kumbungu District) localities.

5.3.2 Water Quality Findings in Illegal Mining Endemic Regions

Water sampling conducted in 2018 at 50 stations within 9 galamsey endemic regions in Ghana, namely: Ashanti, Eastern, Western, Central, Bono, Ahafo, Northern, Upper East and Upper West regions, all located within the three River Systems observed below (International Journal of River Basin Management, 2021).

- **Total Suspended Solids** (TSS) concentrations ranged from 4.00 to 3615mg/L, with 50% of the sampled waters exceeding the WRC guideline limit of 100mg/L. Communities that recorded high TSS levels included Akim-Oda on the Birim River, Twifo-Praso on the Pra River, Wassa Akropong and Prestea on the Ankobra River, Dunkwa-on-Offin and Antoa Krom on the Offin River, and Buipe on the Black Volta, with the Ankobra Basin recording the highest TSS levels.
- **Water colour** values ranged from 10.0 to 3750 Hz, with only 12% (6 out of 50 sites) values falling within the WRC guideline range of 0–15 Hz.
- **Turbidity** levels, exceeding the WRC guideline of 0–5 NTU, ranged from 12 NTU to 4645 NTU, with the highest value recorded at Ayiem on the Ankobra River.
- **Dissolved oxygen** (DO) concentrations ranged from 2.56 to 12.2 mg/L. Only four stations, Sefwi-Denyasi on River Tano (2.91mg/L), Nobekaw on River Tano (2.56 mg/L), Tanoso on River Tano (4.02mg/L), and Konongo-Odumasi on River Anum (4.67mg/L) had DO values below the stipulated minimum of 5.0mg/L by WRC for freshwaters (WRC, 2003b).

- **Iron** levels were consistently high, exceeding the WRC guideline of 0.3 mg/L, with concentrations ranging from 0.630 to 30.0mg/L.
- **Mercury** concentrations in the water column ranged from <0.001–0.004 mg/L, exceeding the WRC guideline value of 0.001mg/L at three stations; Asiakwa, Antoa Krom (Manso) and Pwalugu. Mercury levels in sediment were notably high, with Anyinam on the Birim River recording the highest concentration of 2.26mg/kg, far above the maximum background limit of 0.051mg/kg.
- **Manganese** was another metal whose concentrations in sediment exceeded the background value of 400mg/kg at seven stations.
- **Lead** was detected in sediment at Dunkwa-On-Ofin and Beposo Bridge but it is only the levels at Dunkwa-On-Ofin that recorded a value of 548mg/kg above background value of 17mg/kg.

The study confirmed that SSM/galamsey gives rise to pollution of water bodies with the potential to increase water treatment costs and reduce the aesthetic and recreational values of the rivers (International Journal of River Basin Management, 2021). The adverse effects on the aquatic ecosystem and function as well as habitats, including bottom-dwelling communities, are severe.

Mercury, for instance, can be remobilised from sediments as a result of physical processes like diffusion or sediment resuspension (Beldowski et al., 2009; Ramalhosa et al., 2006). Mercury exposure to the foetus in the womb can adversely affect a baby's growing brain and nervous system. It also has harmful effects on the central nervous system, digestive system and kidneys (WHO, 2020).

5.3.3 Land Tenure

The lack of strong customary land ownership systems and lack of formal land registration processes make it easier for small-scale miners to encroach on farmlands. Spatially, it has been identified that most mineralised lands as far as land ownership and mining operations are concerned, fall largely within lands under customary or private ownership (Siaw et al., 2023). Customary tenancies, under Section 7 of the Lands Act, 2020, is a common practice where communal landowners, chiefs, and private landowners lease out portions of land for tenure to farmers on various terms ranging from months to years. This interest in land is created by contract by a stool or skin, or an allodial, customary law freehold or usufructuary interest holder with the agreement to pay rent or share of the produce of a farm. These interests are required to be registered and documented with the Customary Land Secretariat. Farmers without legal land documentation face challenges in protecting their land from being acquired for mining.

The SSM operators secure access to land through either formal licensing from the Minerals Commission or informal arrangements with traditional or customary land-owning groups through agreements with families, clans, skins and chiefs, who are usually the allodial landowners (Siaw et al., 2023). In some cases, customary landowners, their relatives or representatives also engage in galamsey on their land. Through such relationships, mineral-

rich lands are frequently traded between local landowners and galamsey operators or interested groups outside the official legal arrangement. Such informal arrangements not only perpetuate illegal mining but also contribute significantly towards the proliferation of galamsey in many areas in Ghana and hindering efforts to stamp it out.

The prevalence of galamsey in Ghana's Central Region, particularly in Assin North, Mfantseman and Gomoa West, has jeopardized the cocoa and wood sectors. Mining activities in districts like Kwahu West, Birim Central and Atiwa have led to a loss of biodiversity in the Eastern Region's forests and wildlife habitats, while soil degradation poses a significant threat to local agriculture. The Upper East Region, with districts such as Bawku West, Bongo and Builsa North, has experienced soil degradation and the loss of fertile land.

5.3.4 Agriculture, Forestry and Cocoa

Ghana's land mass is divided into 7 agroecological zones: Guinea Savannah, Sudan Savannah, Transitional Zone, Deciduous, Moist Evergreen, Wet Evergreen and Coastal Savannah. The characteristic of the agro-ecological zones is presented in Figure 5.6.

Zone	Area (1000 ha)	Rainfall (mm/yr)	Length of growing season (days)	Dominant land use systems	Main food crops
Rain forest	750	2200	Major season: 150 - 160 Minor season: 100	Forest, plantations	Cassava, plantain, maize, oil palm
Deciduous forest	740	1500	Major season: 150 - 160 Minor season: 90	Forest, plantations	Cocoa, cassava, plantain, maize, oil palm
Transition Zone	6630	1300	180 - 200	Annual food and cash crops	Maize, cassava, yam, taro (cocoyam), plantain, groundnut, cowpea, maize
Guinea savannah	14,790	1100	180 - 200	Annual food and cash crops, livestock	Sorghum, maize, groundnut, millet, yam, cowpea, maize
Sudan Savannah	190	1000	150 - 160	Annual food crops, livestock	Millet, sorghum, cowpea, groundnut, yam, maize
Coastal savannah	580	800	Major season: 100 - 110 Minor season: 50	Annual food crops	Cassava, maize

Figure 5.6 Characteristics of Agro-ecological Zones in Ghana

1) Agriculture

About 57 % of the country's total land area is classified as agricultural land area, of which 24.4 % is under cultivation. According to the World Bank, in 2022, 39.74% of the labour force in Ghana was employed in the agricultural sector. The principal agricultural produce in the country includes industrial crops (cocoa, oil palm, coconut, coffee, cotton, kola, rubber, cashew, shea, soya bean), starchy staples, cereals and legumes and fruits and vegetables.

Agricultural productivity relies heavily on access to quality land and water. However, in mining operation communities, the quality of agricultural land is rapidly declining, primarily due to illegal mining activities (EPA, 2016). Soil degradation caused by these mining activities is a significant contributor to low food productivity (Ocansey, 2013).

Abandoned pits become breeding grounds for mosquitoes increasing the incidence of malarial which affects the health status of the farmers and their ability to produce food crops and reducing production of farmers (Amoah-Frimpong, 2013).

2) Forest

As of May 2023, 34 out of the country's 288 forest reserves have been affected by illegal mining, resulting in the degradation of approximately 4,726.2 ha of forest land, accounting for about 1.2% (Arkins, 2024). The forest reserves affected by illegal mining activities are presented in Table 5.1 below.

Table 5.1 Forest Reserves Affected by Illegal Mining

Region	Forest District	Forest Reserve	Total Area of Reserve	Area confirmed destroyed in affected compartments (ha)	% of Forest Area Destroyed	Status
Ashanti	Nkawie	Jimira	6,000	6.22	0.1	Yellow
		Tano offin (South)	20,282	14.45	0.1	Yellow
		Offin Shelterbelt	6,023	53.96	0.9	Yellow
		Asenanyo	22,792	221.6	1.0	Yellow
	Bekwai	Oda River	16,400	421.11	2.6	Red
		Denyau	1,200	69.70	1.2	Yellow
		Bosomtwe Range	7,900	9.62	0.1	Yellow
		Apramprama	3,500	1,729.32	49.4	Red
		Subin Shelterbelt	2,300	87.21	3.8	Red
		Supuma	2,500	36.62	1.5	Yellow
Mankranso	Desiri	15,100	35.84	0.2	Yellow	
Western	Asankrangwa	Tonton	14,600	23.63	0.2	Green
		Fure River	15,800	60.16	0.4	Yellow
		Totua	6,400	1.84	0.03	Green
	Tarkwa	Nueng South	11,300	96.08	0.9	Yellow
		Bonsa River	16,100	40.55	0.3	Yellow
	Takoradi	Subri River	58,800	14.54	0.02	Yellow
Western North	Bibiani	Anhwiaso East	12,400	112.64	0.9	Yellow
		Afao Hills	3,500	17.56	0.5	Yellow
		Upper Wassaw	10,100	1,532.58	15.2	Yellow
	Enchi	Tano Anhwia	15,300	10.57	0.1	Yellow
		Tano Nimore	20,600	15.00	0.1	Green
LEGEND						
Red	Active site, difficult to control due to either large numbers of illegal miners, violent armed miners or large numbers of excavators. Military support is required.					
Yellow	Medium difficulty. Generally, non-violent illegal miners. With the use of RRT, will be effectively brought under control.					
Green	Situation is generally under control by the Forest Services Division local management					

Source: Ministry of Lands and Natural Resources, 2023

3) Cocoa Landscape

Cocoa is currently cultivated in 8 regions of the country: Ashanti, Eastern, Western, Western North, Ahafo, Bono, Bono East and Volta Regions. Ghana remains the second largest producer of cocoa in the world (after La Cote d'Ivoire) producing 812,000MT (2018/19); 771,000MT (2019/20); 1,047,000MT (2020/21); 683, 000MT (2021/22); and 656,000MT (2022/23) seasons. The crop has widely been described as the mainstay of Ghana's economy given its

continuous contribution to strengthening Ghana's gross foreign exchange reserves. For instance, in 2021 alone, cocoa contributed about GHS3.1 billion (\$533 Million) to the country's Gross Domestic Product (GDP), accounting for over 10% of the country's GDP (COCOBOD, 2024). It is estimated that cocoa production covers an arable land area of 1.2 million hectares spread across 64 cocoa districts (COCOBOD Strategy & Research Dept., 2022). Ghana's cocoa sector is touted for supporting the livelihoods of millions of people in the commerce, services and industrial sectors of the economy, thus, making the cocoa industry a pillar of Ghana's economic development drive (COCOBOD, 2024).

Illegal Mining on Cocoa Landscape

The rampant threat of galamsey continues to wreak unimaginable havoc on Ghana's cocoa landscape. From Wassa Akropong in the Wassa Amenfi East District of the Western Region to Akwatia in the Kwaebibirem District in the Eastern Region, the level of devastation of productive cocoa farms as a result of galamsey activities is a tearjerker (COCOBOD, 2024). Galamsey has consequently contributed largely to the unfortunate sharp decline in Ghana's cocoa production as witnessed in recent times. Hundreds of hectares of productive cocoa farms are razed daily (COCOBOD, 2024). About 36.5 hectares of rehabilitated cocoa farms have been reportedly destroyed by galamsey (Graphic Online, 2023). Over 2,000 hectares of cocoa farms in the Ashanti Region have been destroyed due to galamsey (Myjoyonline, 2024). In addition to the direct destruction of cocoa trees with insufficient to no financial compensation, cocoa is also affected by the polluted water used for irrigation, and the lack of labour who favour mining over working in the cocoa plantations (Boateng et al., 2014). Gold mining is favoured as it can provide quick profit compared to poorly paid seasonal cocoa activity. Second, the pollution from galamsey is reported to affect cocoa yield as farmers observe the early fall of immature pods, wilting, and yellowing of leaves in plantations close to mined areas (International Journal of Applied Earth Observation and Geoinformation, 2017).

5.3.5 Employment and Labour Issues

At the end of 2023, producing member companies of the Ghana Chamber of Mines directly employed 12,674 people. This included 12,588 local employees and eighty-six (86) expatriates. Expatriates accounted for 0.7% of the industry's direct workforce, while the remaining 99.3% were Ghanaians. The employment information of members of the chamber from 2005 -2023 is presented in Figure 5.7.

The exact number of persons engaged in illegal mining activities is unknown, however, it is estimated that about 300,000–500,000 Ghanaian artisanal miners work without an official license or illegally and they have contributed about \$ 461.1 million to Ghana's economy since 1989 (Tschakert, 2009).

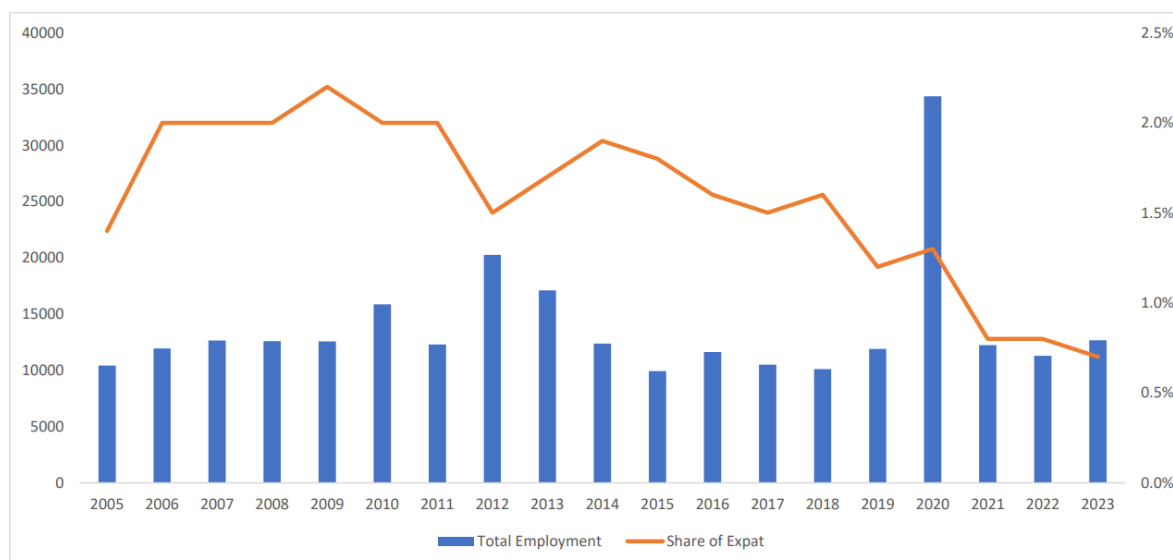


Figure 5.7 Employment by Ghana Chamber of Mines Members

5.3.6 Health and Safety

Numerous health and safety risks associated with small-scale and illegal mining in Ghana have been documented over the years. Cases of pit collapses are among the most frequently reported incidents, often leading to tragic fatalities or severe injuries for miners (Ocansey, 2013). Additionally, abandoned pits filled with water have caused drowning accidents, particularly among children who venture into these hazardous areas (EPA, 2016). In 2011 alone, it is estimated that some 300 illegal miners died across the country (Alhassan, 2014).

The usage of personal protective equipment (PPE) such as helmets or hardhats, dust masks, machine guarding shields, safety glasses, gloves, work boots, etc., which are less popular options for minimising occupational hazards, tends to be relegated and largely non-existent among these miners (Stephens, 2017).

Studies on galamsey communities reveal a significant occurrence of respiratory infections among those involved, either directly or indirectly, in illegal mining activities (Alhassan, 2014). In the Ashanti Region towns of Konongo and Odumase, over 100 individuals, predominantly galamsey workers, succumbed to a peculiar lung disease between 2010 and 2013. Medical professionals linked this condition, identified as chronic obstructive airway disease, to mercury exposure resulting from galamsey practices (Daily Graphic, 2013c).

5.3.7 Social Issues – Child Labour, Socio-culture, Economic, Amenities and Political

Illegal small-scale gold mining significantly impacts education and public health within affected communities. The sector employs a substantial child labour force, contributing to high rates of absenteeism and school dropouts. The promise of quick financial gain from mining often entices children, diverting their focus from education and long-term development. In some instances, this decision is made with the tacit support of parents, further exacerbating the problem and undermining future opportunities for the youth (Alhassan, 2014).

Despite ASM being the cornerstone of the local economies of mining communities, providing employment and economic opportunities to thousands, mining sites also face high levels of violence and drug abuse, driven by the stress of the environment and the transient workforce. Drug abuse often becomes a coping mechanism, further undermining the community's social fabric and threatening the well-being of miners and their families (Diama, 2024).

Sometimes some politicians openly engage in galamsey without facing the law due to corruption (Teschner, 2012). Evidence even exists that politicians and chiefs receive bribes from foreign miners especially the Chinese to fund political campaigns during elections (using the 2012 election as a case study) (Abdulai, 2017; Crawford & Botchwey, 2017).

The Ghana Railway Development Authority (GRDA) has highlighted the devastating effects of galamsey activities on the ongoing Takoradi Port–Huni Valley railway project (Figure 5.8). These illegal mining activities involve indiscriminate excavation along the right-of-way (RoW), leading to soil erosion and encroachment on the railway construction area. This encroachment risks damaging rail tracks, bridges, and tunnels. Additionally, the actions of illegal miners are causing project delays and incurring extra costs for cleanup and repairs, potentially exceeding the allocated budget and timeline (GRDA, 2023).

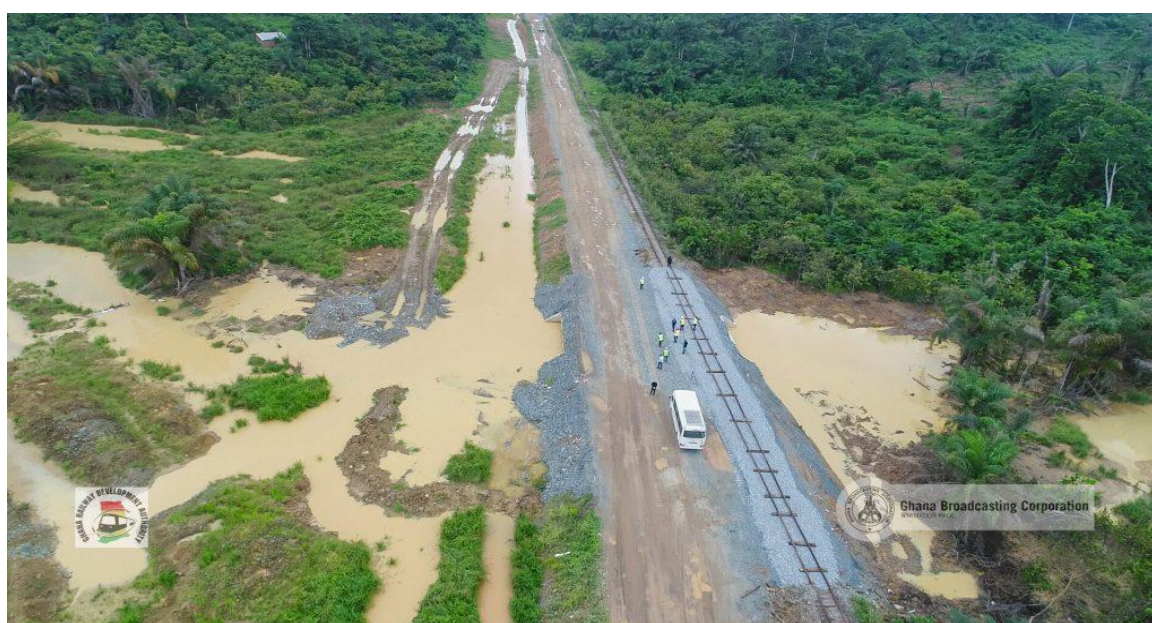


Figure 5.8 *Illegal Mining Activities Along the Takoradi Port–Huni Valley Railway Project RoW*

Source: Ghana Railway Development Authority, 2023

In 2014, it was reported that galamsey activities destroyed about 2km stretch at Womasi of the Dunkwa-Kumasi railway line with two bridges and a watercourse diverted, and similarly at Kokotenten (Figure 5.9). On the Dunkwa-Awaso section, galamsey caused closure of the rail line to the Abura Township (Figure 5.10).



a) Womasi



b) Near Kokotenten

Figure 5.9 Galamsey Effects on Rail line (Womasi) and Bridge (Near Kokotenten)



Figure 5.10 Closed Rail Line to Abura Undermined by Galamsey

5.4 District and Communities Investigated for the SESA

The representative districts and communities selected for investigation to reflect the mining industry in Ghana for the SESA visited in April – June 2020 are shown in Table 5.2. The four districts selected from the Western, Ashanti, Eastern and Savannah Regions represent the high rainforest, the forest, Deciduous Savanna and the Dry Savanna Zones respectively. These represent the four major eco-vegetational zones in Ghana. The physical and social characteristics of the districts and communities may closely represent conditions in the respective eco-vegetational zones.

Table 5.2 Districts and Communities Investigated

SESA Mining Community	District	Region
Tarkwa Bremang	Prestea- Huni Valley Municipal	Western Region
Tontokrom	Amansie South Assembly	Ashanti Region
Dakrupe	Bole Assembly	Savannah Region
Akyem Adukrom	Abuakwa South Municipal	Eastern Region

The community selection by the Project Coordinating Unit (PCU) was purposive and represents the ecological, cultural and social characteristics of the country in general. They are also active mining communities, experiencing all types of mining. Mining community, for purposes of this report is operationally defined as a settlement near a mine in which ASM is the main economic activity practiced by both indigenes and foreigners or migrants. Mining

communities are usually 200m to 5km away from a mine. A mining community could have a large mine such as Obuasi where mining is very organized or a small mine as is found in Kyebi. In such communities, it is possible to find individuals using rudimentary tools like hoes and axes searching for gold on their own without any formal structure or organization.

5.4.1 Tontokrom Community

Tontokrom community is located in the Amansie South District of the Ashanti Region. The area is predominantly made up of Ashantis. However, due to mining activities, there has been an influx of other ethnic groups such as Ewes, Dargati and Kokomba.

The community's main economic activities are mining and farming, with farmlands for crops such as cocoa and plantain commonly cultivated. About 70% of Tontokrom's population is involved in mining, of which 30% are women. The community's land is overseen by the chief and elders, but families and individuals also have land ownership and can lease it out for mining purposes.

Tontokrom houses three defunct mines with a concession of about 75 acres., as well as Asanko Gold Mines. Alluvial mining is also widely practised. Two illegal open mining pits were identified during field visits - one abandoned and the other still in operation. Mining is usually done in gangs of 20 to 100 people, with women participating both individually and/or as part of gangs. However, women in these gangs earn only one-third of what their male counterparts make. While children are not formally employed by mining gangs, they often scavenge for gold in mined-out areas. Miners are paid daily wages but receive no additional benefits. Abandoned pits filled with water and leftover equipment were also observed (Figure 5.11).



Figure 5.11 Mined-out Pits

The Konkrom River with its tributaries such as Twiwaa, and Bogu were polluted due to galamsey. As a result, the town now relies on mechanized boreholes for its domestic use. Tontokrom has four public primary/junior high schools and four private schools, a health center, and a public toilet.

The community has experienced clashes between its youth and Asanko Gold Mines over resource claims, with notable incidents occurring in July 2023 and March 2024. The most recent clash resulted in the tragic deaths of three people (Citi Newsroom, 2024).

5.4.2 Akyem Adukrom Community

The community is located between Asiakwa and Abuakwa on the Asiakwa-Kyebi Road in the Abuakwa South Municipality of the Eastern Region. Its inhabitants are predominantly Akuapems.

The local economy revolves around mining, farming, and trading, with most of the mineable land allocated as a mining concession to a SSM company, Managing God’s Resources (MGR). MGR has, however, allocated sections of the concession to the community to mine. The mine owned by MGR is an open pit mine, but it has since been abandoned (Figure 5.13). Miners are paid daily wages but do not receive any additional benefits or protections.



Figure 5.12 Layout of the Akyem Adukrom Community and Relative Location of Mining Areas

The town is ruled by a chief and his elders, who pledge allegiance to the Okyenhene and the Akyem Traditional Council. It is drained by the Birim River and its tributaries, including Subri, Adamsu, Korankye, and Anumnsu. The Birim River has been polluted as a result of galamsey. The community has 3 boreholes for domestic water supply, 1 primary school, 1 JHS, 1 community-based health planning and services (CHPS) compound and 6 churches.



Figure 5.13 Abandoned Mined-out Open Pit

5.4.3 Dakrupe Community

Dakrupe is a mining community located off the Bole-Bamboi Road at Siripi in the Bole District of the Northern Region. The people are mainly Gonja. The town is governed by the Chief Imam, who is assisted by a group of elders. Frequent meetings are held to identify community challenges and resolve grievances. The people of Dakrupe pay allegiance to the Gonjawura (overlord of the Gonja people).

About 80% of the population is engaged in mining, while the remaining 20% is involved in farming and petty trading. Income generated from mining is often reinvested into other business ventures. The primary source of water for the community is borehole.

Land in Dakrupe is communally owned. If an individual wishes to use land for farming or building a house, they approach their clan head, who allocates a portion to them. However, for mining purposes, individuals must seek land from the chairman of the community mining committee, who then allocates a portion for use. Although payment for mining land is not required, the community receives a token of one bag of ore for every ten bags produced. Land already in use can be transferred from generation to generation, but only to males, as women are not permitted to own land.

The community holds a community mining license and operates an underground mine, which has moderate adverse effects on the environment. A community mining committee and a

special task force have been established to supervise and monitor mining activities. This task force regularly inspects mining pits to ensure safety and regulate mining operations.

While women are involved in post-mining activities, they are not represented on the community mining committee. The women believe that having a representative would be ineffective, as final decisions rest with the men.

Dakrupe has developed a community fund from mining proceeds, which has been used to implement various development projects. These include providing an ambulance service for medical emergencies, resourcing the local security office, constructing a three-classroom primary school block, recruiting pupil teachers to support Ghana Education Service (GES) staff, and establishing a scholarship fund for brilliant students. The community also strictly prohibits children from participating in mining activities.

5.4.4 Tarkwa Bremang Community

Tarkwa Bremang is a mining community in the Prestea Huni-Valley Municipality of the Western Region, where about 70% of the population is of Wassa ethnicity, 20% are Fantes, and the remaining 10% belong to other ethnic groups such as Dargarti, Ewe, and Krobo.

The community is governed by a divisional chief who rules with the assistance of a council. The council consists of 13 family or clan heads, a Tufuohene (advisor), and a queen mother. The divisional chief pays allegiance to the Wassa Fiase Traditional Council.

Land ownership in Tarkwa Bremang follows a stool land system, where land is communally owned under the custodianship of the chief. However, individuals can claim full ownership (private land), and families can also own a land, which is passed down from generation to generation (family land). Due to this landownership structure, companies or individuals seeking to mine often contact private landowners directly. This arrangement has, however, led to the abandonment of mining sites without reclamation, as miners are not bound by any agreements to restore the land after mining.

The Ankwoa River, a tributary of the Ankobra River, is the closest major water body to the community. Prior to the onset of mining activities, the community depended on the water body for both domestic and agricultural purposes. However, the community's primary water source is now boreholes. Mining is the primary economic activity for about 80% of the population, of which 30% are women. Alluvial mining is commonly practiced, with miners working in gangs ranging from 5 to 50 people. The miners are paid daily wages but receive no additional benefits.

Women typically use simple tools for mining, which, while labour-intensive, causes less environmental damage. They work independently and keep the profits they earn. Although children are not formally engaged in mining, they sometimes visit mining sites after work is completed to scavenge for gold. Additionally, some women cook for miners, while traders benefit from increased sales due to the mining activity.

During the field visit, four illegal open pits and abandoned excavators were observed. The community has four primary and junior high schools, one private clinic, a CHPS compound and a community centre.

6.0 PUBLIC / STAKEHOLDER INVOLVEMENT

6.1 Purpose of Stakeholder Engagement

Stakeholders were engaged as required by good environmental assessment (EA) practice in line with the Ghana EA Regulations and the World Bank ESS10. The engagements helped to engender openness and transparency in eliciting stakeholder contribution, which was beneficial in informing project challenges, recommendations and action plan preparation.

6.2 Classification of Stakeholders

The stakeholders identified for engagement were categorised into government ministries and agencies, local government, research institutions and other stakeholders from representative mining communities. Table 6.1 catalogues the identified stakeholders under various categories.

Table 6.1 Classification of Stakeholders

Categories	Stakeholders
Government Ministries and Agencies	<ul style="list-style-type: none"> • GLRSSMP Project Coordinating Unit (PCU) – Ministry of Lands and Natural Resources (MLNR) • Minerals Commission (MinCom) • EPA – Head Office • EPA – Western Region • Water Resources Commission (WRC) • Forestry Commission (FC) • Lands Commission (LC) • Land Use and Spatial Planning Authority (LUSPA) • Office of the Registrar of Companies (ORC) • Office of Administrator of Stool Lands (OASL) • Ministry of Employment and Labour Relations (MELR) • Ministry of Gender, Children and Social Protection – Department of Children (MoGCSP-DoC) • Ghana Geological Survey Authority (GGSA) • Department of Co-operatives (DOC) • Precious Minerals Marketing Company (PMMC) • Bank of Ghana (BoG) • Mineral Income Investment Fund (MIIF)
Research Institutions	<ul style="list-style-type: none"> • University of Mines and Technology (UMaT)
Local Government	<ul style="list-style-type: none"> • Prestea-Huni Valley Municipal Assembly (PHMA) • Amansie South District Assembly (AMSDA) • Bole Municipal Assembly (BMA) • Abuakwa South Municipal Assembly (ASMA)
Representative Mining Communities	<ul style="list-style-type: none"> • Tarkwa Bremang <ul style="list-style-type: none"> ○ Traditional Authorities/Opinion Leaders ○ Women ○ Miners ○ Teachers

	<ul style="list-style-type: none"> • Tontonkrom <ul style="list-style-type: none"> ○ Traditional Authorities/Opinion leaders ○ Women ○ Miners ○ Teachers • Dakrupe <ul style="list-style-type: none"> ○ Traditional Authorities/Opinion Leaders ○ Women ○ Miners ○ Teachers • Akyem Adukrom <ul style="list-style-type: none"> ○ Traditional Authorities/Opinion Leaders ○ Women ○ Miners ○ Teachers
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6.3 Stakeholder Notifications and Engagement Planning

In identifying issues for engagement, the initial prospective stakeholder list was matched against the main components of the project, as well as potential impacts and baseline areas in a Stakeholder Identification Matrix (SIM). Appendix 1 presents the SIM used to help highlight which areas to elicit inputs from stakeholders.

The key stakeholders identified were notified to participate in the engagement programme through engagement notification letters (Appendix 2). A formal introduction was made MLNR to stakeholders, introducing the proposed project and requesting their involvement in the consultative engagement process. The contact details of key persons for consultation were taken to enable follow-up and confirmation of suitable proposed meeting dates. After the notification and confirmation of appointment with stakeholders, a team of consultants conducted the consultations with the various stakeholders on the scheduled meeting days and times. The initial round of engagement for preparing the Draft SESA was conducted between April and June 2020, and targeted representative mining districts and communities. However, the engagement for finalizing the SESA Report focused on Ministries, Departments, and Agencies with vested interests and responsibilities in the mining sector. These engagements were held between September and November 2024.

6.4 Stakeholder Engagement Highlight

The highlights from the respective engagement with stakeholders have been provided in Table 6.2, with the full engagement outcomes in Appendix 3. These outcomes informed the assessment of risks and impacts as well as the SESA implementation plan.

Table 6.2 Stakeholder Engagement Highlights

Stakeholders	Key Highlights
GLRSSMP PCU - MLNR	<ul style="list-style-type: none"> • The terms “ASM” and “SSM” are used interchangeably in different jurisdictions. In Ghana, the Minerals and Mining Act categorizes mining into

	<p>large-scale and SSM. However, SSM is referred to as ASM on a global scale, which is why the term ASM was used in project documentation.</p> <ul style="list-style-type: none"> • The project seeks to facilitate a transition for informal miners (illegal miners) into the formal sector by minimizing challenges, such as high turn-around time in the acquisition of license. Hence, a recommendation was made to automate the licensing procedure and also set up the one-stop-platform for license acquisition, where all the regulatory agencies responsible (MinCom, EPA and WRC) for issuing permits for the small-scale will be enrolled onto so they can all have access and work concurrently on the application before it gets to the Minister for MinCom, thereby reducing the turn-around time. • As part of these improvements, the Minerals Commission’s Mining Cadastre Administration System (MCAS) has been upgraded, and the WRC is now integrated into the system. EPA integration is still pending, and efforts are underway to integrate the Minister's Office as well, although this has not yet been achieved. The platform will streamline the application process, making it accessible to miners regardless of their location. • Interventions under the project which have been implemented by MinCom: <ul style="list-style-type: none"> ○ Establishment of the remote sensing technology to support monitoring; and ○ Tracking of movement of heavy equipment. • The project has inaugurated about 88 DMCs across the mining areas in the country. The DMC consists of: Traditional Authorities, DCE, EPA Officer, Inspectorate Officer, MinCom District Officer. This platform is to give them the opportunity to participate in the management of SSM activities in the area. However, following their inauguration, the DMCs have struggled to function effectively due to a lack of resources. To address this, PCU is providing support to enable the DMCs to hold meetings, conduct monitoring activities and planning sessions.
MinCom	<ul style="list-style-type: none"> • Small-scale mining in Ghana is legally defined based on – <ul style="list-style-type: none"> ○ Concession size – not exceeding 25.2 acres; ○ Nationality – applicant(s) must be Ghanaian; and ○ Age – applicant(s) must be least 18 years old. • ASM formalisation sits on “3 legs”, i.e. Regulation, Licensing and Operational Processes. • For every 100 small scale mining activities, 90 are conducted illegally.
EPA – Head Office	<ul style="list-style-type: none"> • EPA has in total 18 Regional Offices and Area Offices in some mining hotspot regions. • The regional and area officers are mostly the ones that start the EA process for the issuance of environmental permits and also conduct monitoring at the mining sites. • Small-scale gold miners are the most offenders and cause most of the environmental menace. • EPA is able to conduct effective monitoring for the large-scale mines than the small-scale mines because the small-scale mines outnumber the large-scale mines. There are about 400 active small-scale licences. • Prosecutions are mostly the last resort for non-complying miners. But some measures for non-compliance include enforcement notices with stated timelines and administrative charges applicable. • Some of the SSM work outside their concessions indicated in the mineral license and that is considered as illegal mining because the mining license and environmental permits given to the miners are site specific. • Galamsey operators are encroaching on designated mining concessions belonging to both the small-scale miners and the large-scale miners.

	<ul style="list-style-type: none"> • It is only the large-scale mining companies that are currently required to pay reclamation bond. A process has however been initiated to require the small-scale miners to also pay the bond. This process is, however, 95% done and a Reclamation Security Agreement (RSA) developed. Some limitations of the RSA include: <ul style="list-style-type: none"> ○ Measuring the extent of degradation for small scale miners; and ○ Acceptance of bonds from the various banks due to high-risk nature. • Having the one stop permitting platform will allow for effective M&E (i.e. identifying which licenses are currently being processed or approved). • It would be necessary for the Geological Survey Authority to partner with Minerals Commission to provide “blocked out areas” earmarked mining activities and should be subjected to SESAs. These will further guide the zoning of mining activities within the area depending on the type of mining and processing techniques.
<p>EPA – Western Region</p>	<ul style="list-style-type: none"> • The Minerals Commission designates areas for SSM, but miners sometimes discover that their permitted sites lack sufficient mineral resources. As a result, they tend to abandon these sites and seek out unpermitted areas for mining activities. • EPA issues an environmental permit only after a miner has obtained a mining lease or SSM licence and the prescribed timeline for an environmental impact assessment is 90 days. • Miners are required to submit a reclamation plan along with other necessary documents when applying for an environmental permit. However, they are not able to implement the plan, as they do not appreciate its purpose. • Mining Support Services Companies (MSSC) can take charge of land clearing, topsoil preservation, excavation, and the development of mining and reclamation plans. However, the permitting regime needs to be revised to formally include the MSSC involved with cooperatives, making them accountable for any issues or concerns that arise. • MSSC should also take on the responsibility of training cooperatives/miners on implementing and following through with reclamation plans. • Each mining site should employ at least one qualified mining engineer with the necessary technical experience and a relevant bachelor’s degree or membership in the Ghana Institute of Engineers. This ensures sound operations and environmental protection. • Mining cooperatives that lack an in-house mining engineer can also engage the services of a MSSC for technical assistance.
<p>WRC</p>	<ul style="list-style-type: none"> • The GLRSSMP is currently funding the WRC to pilot local water governance project where the community gets to be involved in the management of water resources. WRC have conducted some initial identification and are set to inaugurate committees. As part of the committee structures, a Chief or an Influential Person in the community will be designated as a patron to lead the committees. • The GLRSSMP has initiated the development of a one-stop permitting platform. This platform will allow all regulatory bodies with the mandate to issue permits to access and track permit decisions made by each entity. By providing a centralized system, the platform aims to enhance collaboration among regulatory agencies, streamline the permit issuance process, and improve overall transparency and efficiency in decision-making. • Both Côte d'Ivoire and Ghana have raised concerns about the transboundary pollution of the Tano and Bia Rivers caused by illegal mining activities (galamsey) occurring in both countries. However, the River Basin Authority has limited capacity to address the pollution of these transboundary rivers because of the high security risks involved. Many of the illegal miners are

	armed with weapons, such as guns, making it dangerous for regulatory bodies to intervene effectively in these areas.
FC	<ul style="list-style-type: none"> • There are about 283 to 286 forest reserves including – national parks, resource reserves such as Sha Hills. Also, about 5000Ha of area scattered across the various forest reserves are degraded by illegal mining activities. • Small Scale Mining is not accepted in any of the Forest Reserves by law (LI 2462). Additionally, surface mining is not permitted in forest reserves, but underground mining is. • The FC has a rapid response team trained and armed to address security threats. • The FC lacks the skills and capacity to effectively supervise and monitor mining activities in forest reserves. • Two FC staff members were shot and killed last year.
LC	<ul style="list-style-type: none"> • The interests of both the landowner and the farmer should be formalized and registered with the LC to ensure the protection of both parties. Registering these lands will deter the TAs from giving the lands out for illegal mining activities. • A Customary Land Secretariat is also required to submit records of each recorded transaction to the Lands Commission and the Office of Administrator of Stool Lands every three months. • The Lands Commission are now working on the Regulations for the Lands Act, 2020 and may include it a system that will capture the “Abunu” and “Abusa” land tenure system.
LUSPA	<ul style="list-style-type: none"> • Payments related to mineral rights are typically paid to the MinCom, which does not serve as an incentive for the MMDAs to actively engage in the mineral rights process. Therefore, it is essential for MMDAs to receive a share of the licensing fees and charges associated with mineral rights to encourage their active involvement. • The process of granting mineral rights should follow a bottom-up approach, beginning with the involvement of local authorities. This should include active participation from the chiefs and the respective MMDAs. This approach will ensure that all relevant stakeholders at the local level are engaged from the outset, promoting transparency and inclusiveness in the mineral rights process. • Additionally, there needs to be a regulatory framework that will make it obligatory for the MMDAs to be part of the mineral rights process. • MinCom gives the mineral right for concessions and the District Planning Authority/MMDAs permits any physical development in their jurisdiction (Local Governance Act, 2016 (Act 936).
ORC	<ul style="list-style-type: none"> • Measures such as reduced tax obligations can promote formalization of ASM. • Targeted sensitization campaigns can guide miners through the registration process and emphasize its benefits. • The ORC has regional offices across the country and also goes to communities to offer registration services for interested applicants.
MELR	<ul style="list-style-type: none"> • The Labour Department, as part of its mandate, carries out workplace inspections to ensure adherence to the Labour Act, 2003 (Act 651). • Labour inspections are not widespread and as such could be strengthened by providing the department with the necessary resources and enhancing the capacity of its staff.
GGSA	<ul style="list-style-type: none"> • The World Bank provides funding to support to the GGSA to conduct geo-physical surveys, geo-chemical soil sampling, geological mapping for delineated for small-scale mining blocked out areas (prospective gold deposit areas). Currently, the GGSA is working on 5 to 6 block-out areas. • The Gold Purchase Programme is challenged by low gold production levels among SSM operators. This issue stems from the lack of sufficient improved

	geological data, which hinders their capacity for efficient gold extraction. Additionally, a significant portion of the gold is lost due to the reliance on trial-and-error mining techniques.
MoGCSP-DoC	<ul style="list-style-type: none"> • Poverty and parental neglect are the primary drivers of child labour in mining areas. • Educational campaigns can help raise awareness about the dangers and long-term consequences of child labour in mining communities • District Assemblies should introduce and enforce by-laws to discourage child involvement in mining.
DOC	<ul style="list-style-type: none"> • Before commencing the process of registering a cooperative, interested parties/members are first provided with training and sensitization on the structure and functions of a cooperative. • Designated leaders of the DOC are required to provide education to their members on the requirements and operations of a cooperative. • The DOC assists cooperatives in establishing their by-laws which incorporate issues on child labour, gender-based violence, etc., to guide the operations the cooperatives. The by-laws are also developed with inputs from the DMC.
OASL	<ul style="list-style-type: none"> • Chiefs can play a crucial role in putting a stop to galamsey since they are the customary custodians of the land. • With the exception of a few, the majority of traditional authorities (TAs) are involved in illegal mining activities within their jurisdiction. • TAs should be involved in the mining rights or lease process as this can hold them accountable as key stakeholders in ensuring compliance with regulations and environmental standards in mining operations.
PMMC	<ul style="list-style-type: none"> • It is estimated that SSM contributes approximately 40% of the total gold production in the country, making a significant input to the economy. • The PMMC previously financed SSM companies with loans to support their operations. However, this practice was discontinued due to miners failing to repay the loans and insufficient funds from the company's internally generated funds (IGF). In 2021, PMMC incurred a loss of approximately 10 million cedis due to unpaid loans from SSM operators. • Currently, the Bank of Ghana (BoG) serves as the primary financier of the PMMC, enabling it to do gold purchases from various mining companies. • SSM operators tend to sell their gold to foreign buyers due to the more competitive rates they offer (always adjusting the rates higher compared to the designated local buyers. • Gold export records from international sources indicate higher outputs than local data, primarily due to rampant smuggling through illegal routes such as Burkina Faso to Dubai, among others. • PMMC has reduced the rates of the gold-catcher machines to promote use of mercury-free ore processing by SSM operators.
BoG	<ul style="list-style-type: none"> • BoG expressed surprise that the SESA for the ASM sector formalization is local initiative, because they have always been concerned and exploring ways to deal with issues of illegal mining/galamsey and indicated the willingness to join in the discussion on the way forward for this important subject. • The BoG representatives (on the Gold Desk) requested for a write up to enable them substantively take the matter up to their superiors, but they were rather requested to participate in the planned stakeholder validation workshop to enable interaction with other key players such as MinCom, MIIF, PMMC, EPA and MDF.
MIIF	<ul style="list-style-type: none"> • MIIF has initiated an incubator programme to support SSM operations by: <ul style="list-style-type: none"> ○ Providing capital for plant and machinery. ○ Offering pre-production capital.

	<ul style="list-style-type: none"> ○ Supplying guidelines to help structure business operations effectively. ● SSM operators are legally obligated to pay 5% royalties, though this has been discounted to 4.5%. These royalties can be reinvested into mining communities via the MDF.
UMaT	<ul style="list-style-type: none"> ● UMaT has a consultancy unit that provides capacity-building and other training opportunities for SSM operators. ● UMaT could also be included in any future planned capacity building programmes, especially on ESIA and SESA and other related E&S subject areas for capacity enhancement of its professionals. This would enable them offer credible consultancy services in such areas.
Prestea-Huni Valley Municipal Assembly	<ul style="list-style-type: none"> ● The uncoordinated administration of land between traditional authority and district assembly created room for disputes as lands were allocated by the government institutions without adequate consultation with the relevant stakeholders including chiefs. ● Water bodies are polluted by the high concentrations of mercury and oils used by miners.
Amansie South District Assembly	<ul style="list-style-type: none"> ● Gold mining is more lucrative compared to cocoa farming and timber production. Individuals are selling their agricultural land to miners, resulting in the community losing fertile farmland. ● The bureaucracy involved in obtaining a mining permit makes it cumbersome for miners.
Bole Municipal Assembly	<ul style="list-style-type: none"> ● The Assembly does not undertake monitoring and supervision of small-scale mining activities. It is also not involved in land reclamation by any entity. ● Mining concessions are not incorporated in the Medium-Term Development Plan. ● The Assembly can play an important role in reducing child labour, human immune virus (HIV) infection rate and teenage pregnancy rate by carrying out effective sensitization in mining communities on the effects of these social issues.
Abuakwa South Municipal Assembly	<ul style="list-style-type: none"> ● The role of the Assemblies in the licensing process is currently minimal. However, when issues of illegality arise within a given area, the jurisdictional Assembly is often the first to be blamed. Due to the sidelining of Assemblies in the licensing procedure for mining activities, many mining entities are reluctant to fulfil essential local-level requirements, such as obtaining business permits, paying property rates, and acquiring stickers for their operating excavators. ● The DMCs should be established by the DA rather than the MinCom, with the Assemblies having oversight responsibility for the functions of the DMCs. ● The Assembly can generate revenue by issuing permits, such as business operating permits and property rates, as well as stickers for operating excavators to mining entities. These funds can then be used to support the activities of the DMCs. ● The Head of the Environmental Health and Sanitation Unit should be actively involved in any licensing regime related to environmental matters. This ensures they can provide input on potential environmental impacts, particularly those arising from mining activities. Their involvement grants the District Chief Executive (DCE) the authority to hold them accountable for their responsibilities, unlike the EPA officer, over whom the DCE/MCE has no direct authority. ● The licensing regime should begin with the Assemblies to ensure proper oversight and compliance with local regulations.
Tarkwa Bremang -	

<ul style="list-style-type: none"> • Traditional Authorities/Opinion Leaders 	<ul style="list-style-type: none"> • All the waterbodies in the community have been contaminated, resulting in the loss of aquatic organisms. • Illegal mining has worsened the flooding occurrences in the community due to alterations in the natural course of the Ankwao River.
<ul style="list-style-type: none"> • Women 	<ul style="list-style-type: none"> • Mining activities have led to an increase in upper respiratory tract infections and other diseases.
<ul style="list-style-type: none"> • Miners 	<ul style="list-style-type: none"> • Most of the miners have little technological know-how regarding responsible mining. • The chiefs tolerate illegal mining because they are sometimes involved.
<ul style="list-style-type: none"> • Teachers 	<ul style="list-style-type: none"> • The severity of floods has increased due to alterations in the natural course of rivers. During such disasters school children miss days of school, and sick people have to be carried through the floodwaters because the roads become unmotorable
<p>Tontokrom –</p> <ul style="list-style-type: none"> • Traditional Authorities/Opinion Leaders 	<ul style="list-style-type: none"> • The leadership of the community is ready to work according to government regulations for community mining to succeed. • Some parents face considerable pressure to pay school fees and provide for their children's needs. Children from families facing such difficulties are sometimes compelled to engage in mining activities.
<ul style="list-style-type: none"> • Women 	<ul style="list-style-type: none"> • Women are ready and willing to benefit from alternative livelihood training and small loans to start other trades if they can no longer mine. • Formalized mining may empower more women to take better care of their families as they may earn money directly and indirectly from mining.
<ul style="list-style-type: none"> • Miners 	<ul style="list-style-type: none"> • Most of the surface water sources have been heavily polluted. • Many children have become truants. They roam from site to site, and when they find an unattended area, they start surface mining.
<ul style="list-style-type: none"> • Teachers 	<ul style="list-style-type: none"> • The attendance rate is poor. In a class of about 50 children, only a third of the students show up during school hours.
<p>Dakrupe –</p> <ul style="list-style-type: none"> • Traditional Authorities/Opinion Leaders 	<ul style="list-style-type: none"> • Although children are not allowed to go to mining sites, some children still end up at the sites because they do not appreciate the importance of education (i.e., they feel schooling is a waste of their time and they would rather want to get some money).
<ul style="list-style-type: none"> • Women 	<ul style="list-style-type: none"> • Women are often paid less than the initially agreed upon rate.
<ul style="list-style-type: none"> • Miners 	<ul style="list-style-type: none"> • Some individuals have suffered severe injuries and even death due to collapsed pits or falling stones while working in dug pits.
<p>Akyem Adukrom –</p> <ul style="list-style-type: none"> • Traditional Authorities/Opinion Leaders 	<ul style="list-style-type: none"> • The open pits are mostly filled with stagnant water, breeding mosquitoes that lead to an increase in malaria cases.
<ul style="list-style-type: none"> • Teachers 	<ul style="list-style-type: none"> • Some students disrespect their teachers and parents because they relatively earn quite a lot of money from mining activities.

6.5 Validation Workshop

A national validation workshop was held on 15th October, 2020, to validate the outcomes of initial findings and recommendations in the draft SESA Report. The workshop was attended by representatives of the project's implementing agencies (MinCom, EPA, FC, WRC), MLNR, representatives of the Ghana National Association of Small-Scale Miners (GNASSM), representatives of CSOs in Mining, a Traditional Authority (TA), a Local Government

representative and staff of the GLRSSMP-PCU. The outcomes for the initial validation workshop are presented in Appendix 3.4.

Subsequently, a final validation workshop was held on 3rd December, 2024, at the Central Hotel to validate the outcomes of the national stakeholder consultations (which was conducted for Ministries, Departments, and Agencies) for the finalisation of the SESA Report. The outcomes of the final validation workshop is presented in Appendix 3.5.

6.6 Information Dissemination and Disclosure

The World Bank ESSs and the Ghana EA Regulations recognize the importance of open and transparent engagement with project stakeholders as an essential element of good practice. After approval of this SESA and other E&S instruments such as the Stakeholder Engagement Plan (SEP) and ESMF, a public notice will be served through newspaper advertisement indicating where copies of the report could be accessed.

The final report will be distributed for the records of the GLRSSMP PCU Office for public information. The document will also be disclosed electronically on the World Bank infoshop (e-library) and the project website.

7.0 ENVIRONMENTAL AND SOCIAL CHALLENGES/IMPACTS

The environmental and social challenges/impacts assessed were based various stakeholder inputs on perceived impacts associated with the project and specialized knowledge of the consultant. The ten key challenges assessed for the SSM sector and associated illegal mining/galamsey are:

- 1) Deep-rooted and endemic interest in the galamsey canker;
- 2) Indiscriminate, try and error mining and land degradation;
- 3) Water resource degradation and pollution from SSM/galamsey;
- 4) Gaping social and security challenges with SSM/galamsey;
- 5) Farming land tenure insecurity and forest/cocoa landscape destruction;
- 6) Foreign and illicit capital inflow and galamsey/artisanal mining capture;
- 7) Political interests in galamsey and interferences in the SSM sector;
- 8) Cumbersome permit and license acquisition process;
- 9) Laxed sanctions tacitly undermining effort to curb galamsey; and
- 10) Low institutional capacity in Impact Assessment and management coordination.

7.1 Deep-Rooted and Endemic Interest in the Galamsey Canker

Galamsey is woven into the fabric of a large section of Ghanaian society and the interest in the practice has a rather long history and is deep-rooted. After centuries of practise where artisanal mining constituted a normal part of the livelihoods of local people, the practise increasingly assumed a destructive character, becoming a main occupation in many rural mining communities about the 1980s. The passing of the laws related to SSM in 1989, rendered artisanal mining an illegal activity, now synonymous with the dreadful and infamous galamsey.

Galamsey is practised in many and sometimes by whole communities, propped up by traditional authorities, public officials, and political figures. For instance, surveys carried out in the selected mining sites showed that:

- In Tontokrom (Amansie South District, Ashanti Region), the main economic activity is mining with about 70% of the population involved;
- In Akyem Adukrom (Abuakwa South Municipality, Eastern Region), the local economy revolves around mining (and farming and trading) to the point that sections of the concession of a mining company - Managing God's Resources - has been allocated to the community to mine;
- In Dakrupe (Bole District, Savanna Region), about 80% of the population is engaged in mining; and
- In Tarkwa Bremang (Prestea Huni-Valley Municipality, Western Region), mining is the primary economic activity for about 80% of the population.

Land is an important resource for any community in Ghana, and chiefs are typically the custodians of the land. Thus, without their consent no parcel of land could be released for any development or activity, including mining. For examples, in Tontokrom, the land is overseen

mainly by the chief and elders, though families and individuals also have land ownership and can lease it out for mining. Akyem Adukrom is ruled by a chief and his elders, who pledge allegiance to the Akyem Traditional Council. The Dakrupe town is governed by the Chief Imam, who is assisted by a group of elders and the people pay allegiance to the Gonjawura. In Tarkwa Bremang a Divisional Chief rules with the assistance of a council consisting of 13 family or clan heads, a Tufuohene (advisor), and a queen mother, and pay allegiance to the Wassa Fiase Traditional Council.

Galamsey is now virtually out of control. The Minerals Commission estimates that only about 10% of SSM activities are conducted legally, which is to say about 90% of all SSM activities operate illegally or are galamsey operations.

Attempts by successive governments to stamp out illegal mining have never succeeded. Not even the recurring military deployment into the galamsey areas have helped the situation. The most recent and audacious attempt to fight galamsey led to the unprecedented 2-year ban of all SSM in Ghana (2017 to 2018), the introduction of the Community Mining Scheme, and provision of alternative livelihoods opportunities, but could never tame galamsey. It is considered a lucrative venture, due perhaps to the high price of gold, hence not comparable to any other means of livelihood.

It looks impracticable to effectively confront or attempt to arrest almost a whole community or many of the youth in a community involved in galamsey. That perhaps explains why in most fights against galamsey the military involved just aim at flushing out the operators from the operational areas. These illegal operators, however, return once the areas are considered safe enough to continue their operations, even after damage to their operational equipment. It may therefore be only delusive to imagine that just calling for “stop galamsey now” (Figure 7.1) would simply wish it away.



Figure 7.1 *The Coalition Against Galamsey*

Source: GHANAIAN Times, October 4 2024.

7.2 Indiscriminate, Try and Error Mining and Land Degradation

Mineral deposits occur in most parts of Ghana, including almost all forest reserved areas and river basins. Thirteen (13) out of the sixteen (16) regions of Ghana are mineralized with gold.

The high price of gold which continues to soar partly fuels the galamsey adventure. The price of gold peaked at over \$1,800 per ounce in 2011, and climbed steadily, reaching around \$2,000 per ounce by 2023. This makes even the smallest amount of gold won translate into a fortune, hence the rather indiscriminate, try and error mindless mining everywhere, with destructive effects. In the face of poverty and unemployment of the youth, and the general dwindling livelihood choices in many mining communities, people are pushed into galamsey, despite the dangers it presents.

These galamsey operators welcome and working for or with these unscrupulous financiers, whose interest is only in the gold but do not care about the damage inflicted on the Ghanaian environment by their actions. For instance, foreigners, especially from neighbouring West African countries, have settled in mining communities since independence to engage in galamsey, however, a recent rush of foreign immigrants, including the Chinese indulging in galamsey has been phenomenal. At the height of Chinese involvement in 2012 and 2013, almost 50,000 Chinese nationals migrated to Ghana.

The effects and nature of degradation caused by galamsey are almost limitless – attacking forests or water bodies, roads or rail infrastructure or utility lines, etc. Thus, galamsey is considered typically synonymous with land and resource degradation. In the selected mining communities surveyed, Tontokrom had an abandoned open mine pit filled with water and leftover equipment (Figure 7.2), Akyem Adukrom also had an abandoned open mine pit (Figure 7.3), while in Tarkwa Bremang there were four illegal open pits and abandoned excavators.



Figure 7.2 *Abandoned Mined-out Pits at Tontokrom*



Figure 7.3 *Abandoned Mined-out Pits at Akyem Adukrom*

In terms of degradation in forest reserves, 34 out of 288 forest reserves have been affected, covering a forest area of 4,726.2ha out of the total area of 392,714.81ha. This constitutes about 1.20% of the reserved forest area affected. Examples of degradation in the Apamprama Forest Reserve (Ashanti Region) and the Tano Nimiri Forest Reserve (Western North Region) are shown in Figures 7.4 and 7.5 respectively.



Figure 7.4 *Section of degraded Apamprama Forest Reserve*



Figure 7.5 *Section of degraded Tano Nimiri Forest Reserve*

Galamsey destroyed about 2 km stretch at Womasi of the Dunkwa-Kumasi railway line with two bridges and a watercourse diverted, and similarly at Kokotenten. On the Dunkwa-Awaso section, galamsey caused the closure of the rail line to the Abura Township.

Galamsey operators often encroach on designated mining concessions belonging to both the small-scale and large-scale miners causing considerable degradation without reclamation. Gold Fields Ghana Limited (GFGL), Tarkwa, and AngloGold Ashanti Iduapriem (AAI) have expressed their concerns regarding the escalating activities of illegal miners within their concessions, indicating that “these unlawful operations represent a significant threat to their investments.” Hence, the emphasis on the need for a “unified field response” (Ghanaian Times, October 1, 2024).

Licensed SSM and Community Mining operations have not been conclusively included in the reclamation requirements and the posting of bonds. Without these, the SSM sector would continue to account significantly for mining-associated land degradation.

7.3 Water Resource Degradation and Pollution from SSM/Galamsey

Almost all the river basins in Ghana suffer degradation and pollution from galamsey. Wastewater from galamsey activities and silt-laden runoff end up in surface water bodies, and, soil erosion contributes to water pollution by transporting sediments into these resources. Mining directly on water bodies/in riverbeds and processing/washing of the ore in rivers cause direct siltation turning the water turbid from suspended soil particles.

The Pra Basin contains most of the large cocoa growing areas in the Eastern, Ashanti, and Central Regions but also has high concentration of gold mining activities. Challenges in the basin include rapid forest loss, erosion, flooding and high sediment transport due significantly to mining. The Ankobra Basin suffers from illegal mining and pollution from indiscriminate discharge of untreated mine effluents, clearing of forests for mining, erosion due to the removal of vegetative cover, and high sediment loads in the Ankobra and its tributaries.

The Tano Basin traverses the Bono, Ahafo, Ashanti, and Western Regions with about 93% of the drainage area within Ghana and the remaining 7% in the Cote d’Ivoire. Despite constituting a major source of potable water supply, the transboundary Tano River suffers from the effects of mining, among others. The Black Volta Basin is a major transboundary sub-basin of the Volta River System stretching through Mali, Burkina Faso, Ghana and Cote d’Ivoire (from north to south), and Burkina Faso, Cote d’Ivoire and Ghana (from the west to east). Illegal mining activities are rampant within the 14% of the Ghana portion of the basin (18,384 km²), especially in the Upper West Region.

Water quality monitoring was conducted in 2018 in 9 galamsey endemic regions - Ashanti, Eastern, Western, Central, Bono, Ahafo, Northern, Upper East and Upper West – for 50 stations within the three River Systems. The results showed that 50% and 100% of the sampled water exceeded the WRC guideline limits for TSS and Turbidity respectively, while only 12% of the

stations fell within the guideline range for water colour. Also, four stations out of the 50 had Dissolved Oxygen values below the guideline. Iron levels were consistently high. Lead and Manganese concentrations detected in sediments exceeded the background value at the Dunkwa-on-Ofin station and seven stations respectively.

Mercury concentrations in the water column exceeded the guideline value at 3 stations - Asiakwa, Antoa Krom (Manso) and Pwalugu, with levels in sediment notably high at Anyinam on the Birim River (concentration of 2.26mg/kg above the maximum background limit of 0.051mg/kg). Mercury remobilisation from sediments can result from physical processes like diffusion or sediment resuspension. Mercury exposure to the foetus in the womb can adversely affect a baby's growing brain and nervous system. It also has harmful effects on the central nervous and digestive systems, and the kidneys. There have been recent reported cases of babies in mining areas born with deformities, including multiple limbs, no genitals and eyes not well developed due to Mercury exposure (in water bodies) in the Western North Region (Bibiana), Central, Ashanti and Western regions (JoyNews, 2023).

The use of mercury in the gold extraction process directly on water courses or by residual transport is a major source of concern. Other heavy metal pollutants from mining sources including cadmium and arsenic have severe adverse effects on the environment. The significant threat of heavy metal pollution is that these chemical species were never expected to be present in our water sources (rivers and streams), therefore the standard monitoring regimes of water treatment plants never included them, hence their presence is not readily established, yet we have no option than to drink from these sources.

The study confirmed that SSM/galamsey gives rise to pollution of water bodies with the potential to increase water treatment costs and reduce the aesthetic and recreational values of the rivers (Internation Journal of River Basin Management, 2021). The adverse effects on the aquatic ecosystem and function as well as habitats, including bottom-dwelling communities, are severe.

The Ministry of Trade and Industry issues licences for the importation of mercury while the EPA grants clearance permits. The Customs Division of the Ghana Revenue Authority (GRA) with the Minerals Commission and the EPA's Chemicals Control and Management Centre are to ensure the importer has a licence, and imports are within the approved amounts. However, the quantity of mercury used in SSM far exceeds the recorded official imports. During the engagement with EPA, it was indicated that there are no official records of importation of mercury since 2019, pointing to possible large-scale mercury smuggling into the country.

7.4 Gaping Social and Security Challenges with SSM/Galamsey

The social, health and safety regulatory issues of concern are addressed in relation to the Code of Practice for Small-Scale and Community Mining, while social and security threats, superstition, lawlessness and violence are considered as related to galamsey/illegal mining.

Disregard for Code of Practice by Small-Scale and Community Mining

The disregard for the Code of Practice for SSM and CMS activities in this section focuses on mining operations, health and safety, record keeping and reporting and other social issues (including child labour, and gender-based violence (GBV)/sexual exploitation and abuse (SEA)/sexual harassment (SH) which equally apply to galamsey situations). Reclamation and mine site restoration also have no binding requirements. Some challenges arise from the lax enforcement of the Code of Practice, allowing operators to have their own way. The high cost of putting structures in place for these requirements, including employing health and safety and other technical personnel, could also be a contributory factor. Consequently, some of the problems encountered include:

- Walls of pits caving in, falling on workers;
- Landslides during heavy rainfall events;
- Discharge of waste substances into natural drainages, even the mining or washing of ore in water bodies;
- Transmission of communicable diseases like HIV/AIDS and STIs; and
- Poor records keeping and display of permits on mine notice boards.

The use of child labour as a source of cheap labour as well as truant children miners are a major source of concern in mining communities. Despite provisions in The Children's Act, the National Plan of Action II for the Elimination of the Worst Forms of Child Labour in Ghana, the Labour Act and other international laws that contain adequate provisions to control child labour and related issues in Ghana, the implementation of these laws must contend with strong cultural practices such as child apprenticeship from parents or family vocations, etc. This may serve as hindrance to their effective enforcement. The institutional obligations for the child labour subject also appear diffused with overlapping mandates, and minimal results.

The GBV/SEA/SH cases are due to a varied interplay of factors including individual, relational, societal, and institutional factors. Power disparity between genders, often favouring men over women, and economic dependence increase vulnerability to exploitation and abuse, especially in rural areas where women lack financial autonomy. The lack of clear workplace policies against GBV/SEA/SH and means of seeking redress create limited awareness of gender rights, and can result in increasing abusive behaviours, while societal stigmatization and shame could deter victims from reporting or seeking help.

The adequacy of provisions of the National Gender Policy (2015) and the Affirmative Action (Gender Equality) Act (2024) to mainstream gender equality and women's empowerment in all spheres of the society are no guarantee of effective enforcement. The cultural systems and norms tending to endorse male superiority and female subordination, tend to accept violence against women, as normal, and thus, perpetuating the impunity of perpetrators. Therefore, these problems are rife in many mining communities, despite the policy and the Act. The deeply rooted cultural norms and sometimes in the face of poverty, offenders are shielded and never face justice, with matters settled at home.

Abandoned mined pits pose serious threat - children and others accidentally lose their lives falling in pits in some SSM/galamsey communities (Amankwah, 2013). Dunkwa-on-Offin, for instance, recorded a catastrophic event on 27 June 2010, where over 100 people got buried in a mining pit (Aboka et al., 2018). Other social challenges include prostitution and the introduction of sex trade in such rural communities by the attraction of quick money, the influx of migrants and foreigners and potential social conflicts, as well as the peddling and use of drugs in these communities. These represent grave threats to proper upbringing of children, who abandon school for SSM/galamsey in such mining communities.

Multiple institutions appear to have SSM sector social regulatory mandate and support, such as the Ministry of Employment and Labour Relations, Ministry of Gender and Social Protection, Inspectorate Division of MC, and the Department of Social Welfare and Community Development (DSWCD) of DAs. However, there is a lack of clarity on the exact roles and the relationships among the respective institutions for effective discharge of responsibilities, enforcement, reporting and use of the expected monitoring outcomes. For instance, the Abuakwa South Municipal Assembly indicated that despite the minimal role played by the DA in the licensing process, whenever issues of mining illegalities arise, the MC reports to the DA expecting the District Security Council to act. The DA, however, only put a cover letter to the report from MC and passed it on to the Ghana Police.

Social Vices, Security threat, Superstition, and Lawlessness in Galamsey Areas

Some galamsey areas are characterized by social vices, lawlessness and impunity laced with superstition - a worrying security concern. In some communities, violence is met by those who openly oppose galamsey. In Sefwi Akontombra (Western North Region) the youth protested against galamsey, setting ablaze the equipment and structures of the operators, but met with gunshot firing reprisal attack leading to injuries to three protesters (Citi Newsroom, 2024).

The violent encroachment on official concessions of both SSM and large-scale is a major source of conflict. The case of Tontokrom (Amansie South District), where the community experiences clashes between its youth and the Asanko Gold Mines over resource claims is an example, with notable incidents in July 2023 and March 2024. The most recent clash resulted in the tragic deaths of three people (Citi Newsroom, 2024). Violence could also perhaps arise from the presence of criminal networks often with different groups competing for control over mining sites. These operators are usually armed against government regulators and other “intruders”. Mining communities may be vulnerable and suffer social injustice, due to the absence of law enforcement and ineffective local governance (Ambaah S.K, 2024).

Many galamsey operators believe in superstition, with some holding a notion that shedding blood at a mine site usually leads to higher gold yield, hence there is no feeling of loss of colleagues even at the collapse of mine pits. Many resort to spiritual means in the search for gold, while others perpetrate murder, with reports of the Police rounding up some of them:

- Two illegal miners at Amantem near Tarkwa arrested in 2010 for offering a 5-year-old boy for ritual murder to enable them win more gold (Ghana News Agency, 6 November 2010);
- A series of murders involving five bodies attributed to galamsey by residents of Wassa Japa (Western Region) in 2012 (Daily Guide, 24 July 2012); and
- A 35-year-old illegal miner arrested at Asiakwa (Eastern Region) in March 2013 for attempting to offer his 6-year-old nephew to a fetish priest for ritual purposes.

Despite the several social ills characterizing these mining communities, there are flourishing industries supporting mining, such as artisans fabricating mining equipment, Mercury trading and allied businesses, and others operating gold buying businesses in Gold Kiosks. The risk of the formalization program potentially excluding these local industries is a source of concern.

7.5 Land Tenure Insecurity of Farmlands and Forest/Cocoa Landscape Degradation

Land tenure insecurity regrettably exposes farmers to injustice with respect to farmland losses while favouring galamsey operators. On the other hand, Ghana's cocoa landscape faces a major threat to galamsey capture, especially cocoa farms and farmlands under rehabilitation from the Cocoa Swollen Shoot Virus Disease (CSSVD) infestation.

The ready conversion of arable lands to ASM operations, especially galamsey is a common and disturbing practice. Farmlands are often made available to farmers by chiefs, who are usually the custodians of the land. Thus, most farmers conduct their agricultural activities as tenant farmers based on various verbal arrangements and sharing systems such as the "abunu" or "abusa" agreements. The "abunu" sharing system is where the farm proceeds at harvest is shared equally between the farmer and the chief/landowner. In the "abusa" sharing the farmer takes two-thirds (2/3), while the chief/landowner takes a third (1/3) of the proceeds.

Often the farmer is at the mercy of the chief, who wields a lot of power, being typically the custodian of the land without whose consent no parcel of land could be released for any activity. For example, in the selected mining communities surveyed, the land is overseen in Tontokrom by the chief and elders mainly, which is like Akyem Adukrom. In Tarkwa Bremang a Divisional Chief rules with the assistance of a council. The rulership of these communities mainly implies overseeing the land, which perhaps is the most notable economic resource for any community.

The agricultural land tenancy arrangements are traditional and informal and therefore could be prone to abuse and perpetration of injustice, especially to the less educated women farmers. Thus, once a galamsey operator approaches a chief with an enticing offer for the land, the chief could readily agree, forcing out the farmer and releasing the land for galamsey. The practice progressively limits the cultivable lands available for food production, in place of widespread mining and degraded lands. The situation could threaten local food security and exacerbate rural poverty of agricultural families.

The cocoa industry faces a serious threat from galamsey encroachment, including cocoa farms rehabilitated under a national program, where about 36.5Ha of rehabilitated farms were reportedly destroyed by galamsey (COCOBOD, 2023). Factors accounting for farmers/landowners offering their lands for galamsey include the devastating effects of the CSSVD on farms and associated economic losses from the declined yield of moribund cocoa trees and low productivity and profitability. Also, the labour intensiveness of cocoa cultivation renders it less competitive to galamsey, which readily lures some farmers/landowners to offer their farmlands to galamsey operators for quick or instant earnings.

The CSSVD could affect an entire farm and reduce yield, depriving farmers and landowners of due economic benefits. Worst of all, the affected farms require cutting down all trees and replanting, to fruit in about the fifth year of planting. Farmers/landowners are deprived of any economic gain for these no harvest period. Although compensation is paid, it is inadequate and could be delayed. Coupled with the rehabilitation process, the farmer may be confronted with enormous normal financial challenges that could compel farmers to give out their farmlands, including the rehabilitated farms for galamsey.

The 4.8 billion Ghana Cedis National Cocoa Rehabilitation Program by COCOBOD would completely go to waste if cocoa farmlands are lost to galamsey. Also, the almost 2 billion dollars of foreign exchange cocoa generates annually could be lost to Ghana.

Despite that SSM is not allowed in forest reserves, it is a single major threat to the policy for the conservation and sustainable development of forest and wildlife resources for the maintenance of environmental stability. Its fast rate of forest destruction is alarming. Political interests and interferences affect the effective management and control systems under the Forests Protection Act (1974). Also, the lenient penalty for galamsey offences that only attract a fine not exceeding 500 PU, or imprisonment for a term not exceeding two years, or both, is clearly an incentive for galamsey in forest reserves.

7.6 Foreign and Illicit Capital Inflow and Artisanal Mining Capture

The SSM sector reserved for Ghanaians is to some extent captured by foreigners. Galamsey especially is controlled principally by foreigners and other politically connected actors. The dynamism of the sector is fueled by foreign capital inflow and other illicit sources. For instance, it is estimated that at the height of Chinese involvement in galamsey in 2012 and 2013, there were almost 50,000 Chinese immigrants in Ghana. The effect of this influence is detrimental to the national interest, by way of unbridled gold smuggling and its negative economic consequences as well as hindering traceability of the gold output in Ghana.

The heavy machinery and other sophisticated mining equipment introduced by these foreign and other interests and deployed result in mind-boggling environmental devastation and pollution of water resources. The trade practices of these financiers involved outcompete the registered buyers, offering higher purchase prices for the gold, thus, outwitting the accredited

local gold buyers. The embarrassing effect is that international records of gold output and exports from Ghana are often higher than our national records.

The illicit foreign gold business operators are responsible for propping up galamsey through corrupting influences over local authorities, political figures, and communities, consolidating the illegal practice. The local people turn to front for these foreigners, protect and defend them within their communities, thus, sometimes making any arrest attempt for an offence almost impossible.

It is estimated that SSM contributes approximately 40% of the total gold production in the country, making a significant input to the economy, according to PMMC. The PMMC previously financed SSM companies with loans to support operations. However, this practice was discontinued in 2021 due to failure of miners to repay the loans, making PMMC incur a loss of approximately 10 million cedis (in default loan repayments). Funds for SSM operations therefore dried up as PMMC did not have enough internally generated funds (IGF) to support SSM operators, leaving them at the mercy of foreign financiers.

Currently, the Bank of Ghana (BoG) serves as the primary financier of the PMMC, enabling it to do gold purchases from various mining companies. The PMMC is considering signing a MoU with MIF and MinCom to define their respective roles as intermediary bodies in supporting SSM operators.

7.7 Political Interests in Galamsey and Interferences in Sector Management

Political interests in SSM and interferences in the administration and enforcement of mining and environmental regulations are major sources of concern, militating against effective governance of the sector. The state's inability to confront illegal small-scale mining reveals power relations that shield the true perpetrators (Crawford & Botchwey, 2016). Most chiefs and politicians; including ministers of state, Members of Parliament (MPs), Assembly members (AMs) and other elite parties in mining communities behave like “one” as they are unresponsive to the illegal mining complaints because they all benefit from such activities (Adbulia, 2017). They may also urge their subjects or constituents into galamsey, in the face of unemployment and their inability to create job openings for their followers and constituents.

This situation then opens the floodgates for public officials at the district and national levels to take advantage and also get involved in galamsey in one way or another. The chiefs become willing collaborators, maximising the benefits that can be derived, while the local people, especially the youth, provide the required labour, assuming that it is all legitimate with the blessing of eminent political figures. This is one key process for the spread of galamsey throughout the mineralised regions/areas in the country. The dividends are very high because the associated environmental degradation is not accounted for, and the externalities become major cost liabilities and ugly environmental legacies for the nation.

Political interferences often complicate SSM sector management and compromise any effective fight against galamsey. It affects the morale of the regulatory institutions, rendering them largely impotent and cowered. Unfortunately, some of the public officials get compromised and become active participants in the galamsey.

The mandate of the sector minister (Ministry for Lands and Natural Resources) as provided for in the Act 703, section 5 (1) to give the final approval (signing) of SSM licenses does not support proper accountability arrangement and political insulation. Besides being a potentially significant source of delay (for a busy Minister), it could also completely deny the opportunity to appeal or to seek redress in case of unfair treatment in the licensing decision or decision process of an aggrieved applicant or license holder. Unfortunately, the provision of the authority for approving licenses by the Minister could be used as a political weapon against perceived opponents.

7.8 Cumbersome License and Permit Acquisition Processes

The long-drawn out license and permit acquisition processes (of the respective institutions – MinCom, EPA, and WRC, etc.) sequentially is a demotivation for SSM operators and those seeking renewal of their expired licenses, and clearly no galamsey operator would be interested in it. The procedures are presented in Tables 2.4 to 2.6 in Chapter 2.

Besides being time-consuming and expensive for the operators, who may have to travel long distances to registration centres; and for the licensing and permitting processes, there could be as well a lack of understanding of the various processes by the prospective applicants. There may also be the absence of adequate information on/from applicants to provide on the forms (due perhaps to limited educational background) for the respective institutional decision maker.

According to MinCom, at the end of 2023, there were about 750 licensed SSM operators in the country. Currently (as of November 2024), there were about 380 active licenses, and the decline in number is attributed to expired licenses which have not been renewed. The cumbersomeness of the procedures is largely responsible for the wholesale failure to renew expired licenses. These expired license holders who continue to mine, often at different locations, add to the growing mass of galamsey operators. It was disclosed during engagement with MinCom that almost 90 out of every 100 SSM are conducted illegally i.e., operate without the required licences. The high turn-around time in the acquisition of licenses and permits clearly accounts for this to a large extent.

7.9 Laxed Sanctions Tacitly Undermining Effort to Curb Galamsey

The sanction provisions for minerals and mining offences and environmental degradation are not deterrent enough to support the fight to stamp out galamsey. For instance, in the Minerals and Mining Act 703, penalties prescribed in Sections 81 to 99 were rather lenient for offences in carrying out SSM operation without a license (galamsey). The amendment of Sections 81 and 99 of Act 703 (2006) by Act 900 (2015), and subsequent amendment under Act 995 (2019) significantly increased the penalties for engaging in galamsey. This raised the term of

imprisonment to 15–25 years and fines to 10,000–350,000 penalty units (PU); from the original minimum fine of 1,000 PU or imprisonment for a term not more than 3 years or both. It is now furthermore punitive for foreigners who engage in galamsey.

Despite the new punitive penalties, interest perhaps focuses more on “mineral theft” rather than probing the source of the mineral (where it was mined), and the potential damage to the environment in the process of the illegal mining. Thus, the non-deterrent sanctions, as far as the cost to remedying the galamsey legacies of degradation are not passed on to the galamsey operators, these offenders are more encouraged to continue taking the risk. Furthermore, the difficulty associated with arrest of a whole gang of galamsey operators in the act, for ease of prosecution often leads to just flushing out the operators. Also, the evidence of culpability of people who may claim innocent of being galamsey actors despite their presence at such sites.

Equally, Regulation 29 of LI 1652 (offences and penalty) is concerned about the failure to comply with the EA Regulations but fails to consider the actual damage caused to the environment owing to the failure to comply, in the first place. The offences and penalties include:

- a. *commencing development without an Environmental Permit (EP);*
- b. *disregarding EPA’s directives to register/obtain an EP; and*
- c. *failure to conduct the required EIA/ESIA before commencing project implementation, etc. with a fine not exceeding ₵2 million or imprisonment for a term not exceeding one year or to both. In the case of a continuing offence to a further fine not exceeding ₵200,000 for each day of the offence.*

Given the gravity of environmental degradation and wanton pollution of water bodies with heavy metals including mercury, and the dire public health and socio-economic consequences, the sanction regime appears a misnomer. The public outcry against galamsey saboteurs is legitimate but the nature of sanctions imposed on offenders to deter them are not commensurate. For instance, if our determined campaign against galamsey is only aimed at flushing operators from their workplaces on water bodies and forests, etc. only to return to continue their reckless acts as the campaign moves to other places, then nothing is achieved. This unfortunately is the cyclical situation at hand.

7.10 Low Institutional Capacity in Impact Assessment and Coordination

There are about 380 active licenses this year (as of November 2024), while last year (2023) recorded about 750 licenses for SSM. The number appears large enough, considering resource availability and the human capacity to effectively monitor and regulate the sector and conditions attached to the license and permits issued. It is noted, however, that the numbers may represent just about 10% of all SSM activities in Ghana. In other words, about 90% of all SSM was indicated by MinCom as conducted illegally.

Thus, assuming that the ASM formalization exercise is even 50% successful in regularizing, that could add several hundred artisanal/galamsey operators to the existing SSM license holders

which could easily overwhelm the regulatory institutions. It is to avoid this situation that the ASM cooperatives formation is recommended, so that the regularized artisanal/galamsey operators do not come as individual applicants but in groups of at least 20 member-cooperatives for ease of sector management.

Enforcement of regulations in Ghana’s SSM sector is hindered by weak collaboration among key institutions – MinCom, EPA, WRC and FC, as well as the sidelining of DAs. The role of DAs in the licensing process is minimal, however, when issues of mining illegalities arise the jurisdictional DA is often the first to be blamed, according to the Abuakwa South Municipal Assembly. The Bole Municipal Assembly indicated that DAs are not involved in monitoring and supervision of SSM activities, neither are they involved in land reclamation issues in their areas. Poor coordination leads to fragmented oversight, regulatory overlaps and gaps in enforcement. Lack of synergy and potential sharing of intelligence on sector issues undermine efforts to manage the sector effectively.

The underlying challenge could be traced to the lack of institutional knowledge and adequate appreciation of the role of Impact Assessment, and its contribution to sector agency decision-making and sustainability of actions. Some may even reason that the environment is someone else’s responsibility, that perhaps has nothing to do with them. This is clearly seen in the licensing process, where MinCom at stage 7 (Table 7.1) now requests the applicant to apply for and submit to MinCom an environmental permit from EPA, pre-supposing that the “environment” falls outside MinCom’s domain.

Table 7.1 *Licensing Process for SSM*

No.	Activity
1	Complete application form, etc. and submit to MinCom
2	Pay application, gazetting and pre-licensing fees
3	MinCom conducts inspection and official search
4	MinCom acknowledges receipt of application
5	MinCom submit application for publication at DA
6	DA returns recommended application to MC
7	MinCom writes to applicant to apply for Environmental Permit and submit the EPA Permit to MinCom
8	MinCom issues offer letter to applicant
9	Pay Ground Rent to Administrator of Stool Lands
10	Sign Agreement at MinCom
11	MinCom forwards Agreement to Minister for signature
12	Submit Stamp signed Agreement to LVB & High Court
13	Send photocopies of Agreement to MinCom
14	Acquire Operating Permit from Inspectorate Division of MinCom

Furthermore, the cumulative impacts of any contiguous SSM concessions are always unaccounted for leading to undesirable environmental and social consequences. This happens

all the time, especially where the blocked-out areas are shared among number of SSM operators, yet the regulatory institutions just look on.

The Minerals and Mining Act, 2006 (Act 703) also provides that the Minister consults with the Commission to designate areas for SSM operations. About 200 blocks of various sizes have therefore been designated for SSM across the country. Unfortunately, however, no Strategic Environmental and Social Assessment (SESA) or Environmental and Social Management Framework (ESMF) has been considered as necessary condition in establishing and approving such areas for prospective SSM.

The lack of in-depth Impact Assessment (IA) knowledge of the institutions has perhaps inadvertently impeded inter-institutional confidence, corporation and sharing of intelligence, and could be the main obstacle against the effort to establish the one-stop-shop system of sector licensing/permitting procedure. There is for instance, an obvious discrepancy between the number of MincCom SSM licences and SSM environmental permits issued by EPA - an indication of institutions that could be working at cross-purposes. According to MinCom, 750 licenses were recorded in 2023 and 380 active licenses as of November 2024. EPA on the other hand, issued 77 environmental permits in 2023 and 90 in 2024 as of November (Table 7.2). This could possibly allow some SSM operators to evade the requirements of one another, typically the environmental assessment regulations/environmental permit.

Table 7.2 *Environmental Permits for SSM (2014 – 2024 November)*

Year	No of Env. Permits	Remarks	Year	No of Env. Permits	Remarks
2014	8		2020	60	
2015	173		2021	82	
2016	38		2022	80	
2017	54		2023	77	
2018	0	Ban on SSM	2024	90	
2019	73		Total	735	

8.0 RECOMMENDATIONS TO ADDRESS CHALLENGES

The environmental and social recommendations for the challenges assessed and its aligning project components are presented in Table 8.1.

Table 8.1 Recommendations and Aligning Project Components

No	Recommendations	Components/Subcomponents
1	Converting galamsey into formal ASM cooperatives for mass employment opportunities	<ul style="list-style-type: none"> • Subcomponent 2.3: Traceability of ASM production and value addition
2	Delineating mineralised areas for ASM	<ul style="list-style-type: none"> • Subcomponent 1.3: Airborne geophysics and geological surveys; and • Subcomponent 3.5: Reclamation of mined out sites and alternative livelihoods
3	Declaring “no-go areas” for ASM on or near water bodies	<ul style="list-style-type: none"> • Subcomponent 2.1: Regulatory strengthening and formalization of ASM; and • Subcomponent 2.2: Training and technology transfer
4	Streamlined social regulatory framework and oversight for ASM	<ul style="list-style-type: none"> • Subcomponent 2.1: Regulatory strengthening and formalization of ASM
5.	Transparent documentation of land transactions for security of tenure and forest/cocoa landscape protection	<ul style="list-style-type: none"> • Subcomponent 2.1: Regulatory strengthening and formalization of ASM
6	Local financing sources for ASM operations	<ul style="list-style-type: none"> • Subcomponent 2.3: Traceability of ASM production and value addition; • Subcomponent 3.5: Reclamation of mined out sites and alternative livelihoods; and • Subcomponent 1.3: Airborne geophysics and geological surveys
7	Transparent and coordinated institutional system for ASM governance	<ul style="list-style-type: none"> • Subcomponent 2.1: Regulatory strengthening and formalization of ASM
8	Simplified one-stop shop permitting procedure	<ul style="list-style-type: none"> • Subcomponent 2.1: Regulatory strengthening and formalization of ASM
9	Deterrent environmental sanctions and property forfeiture	<ul style="list-style-type: none"> • Subcomponent 2.1: Regulatory strengthening and formalization of ASM; and • Subcomponent 2.2: Training and technology transfer
10	Strengthening capacity in Impact Assessment and institutional coordination	<ul style="list-style-type: none"> • Subcomponent 2.1: Regulatory strengthening and formalization of ASM; and • Subcomponent 2.2: Training and technology transfer

8.1 Converting Galamsey into a Formal ASM Co-operatives for Mass Employment Opportunities

Objective: To help illegal miners develop interest in and attracted to sustainable mining

A strategic and comprehensive approach to creating motivating opportunities for organised mass rural employment in mining, especially for the youth and women into large mining cooperative groupings could hold the answer to formalising galamsey. The cooperative members would have the guaranteed ownership of the mining ventures as a motivation. They would also be empowered with financial resources through a redefined Mining Support Service Companies (MSSCs) with new mandate to provide extensive support to the ASM cooperatives, including facilitating:

- Registration of the ASM cooperatives including drafting of by-laws;
- One-stop-shop licensing and permitting process;
- Access to mining and processing equipment;
- Access to loans on behalf of the cooperatives; and
- Training and supervisory functions for the cooperatives, etc.

Thus, individual members of the cooperatives would have full benefits for their labour, and no longer exploited as previously by their foreign financiers and other illicit sponsors. At the community level, certain benefits could accrue that would serve as enough incentive to exercise a communal interest and protection of their land resource. The example of Dakrupe (one of the surveyed mining communities) is a case of community mining with aspects worth improving upon for emulation by the MSSCs, such as below.

- For mining purposes, the Community Mining Committee (CMC) allocates land for use.
- Although payment for mining land is not required, the community receives a token of one bag of ore for every ten bags produced.
- The CMC and a special task force are established to supervise and monitor mining activities.
- The task force:
 - Regularly inspects mining pits for safety and regulates mining operations; and
 - Strictly prohibits children from participating in mining activities.
- An established community fund from mining proceeds is used to implement various development projects, including ambulance services for medical emergencies; constructing of primary school building; and establishing a scholarship fund for brilliant students.

Communal participation and release of land as equity could also serve a mutual interest of the community and the cooperatives. Adopting such approach, among others could turn interests around and the misfortune of galamsey into opportunities for lucrative rural employment, without the otherwise exploitative influences at the hands of financiers and sponsors.

The Minerals and Mining Act, 2006 (Act 703) is recommended for amendment for provisions of formalizing of all forms of ASM and the attraction and integration of artisanal mining into formal mining, including the following areas:

- Specific mention of artisanal mining in the Act and the special motivation and empowering provisions as referred to in the Artisanal and Small-Scale Mining Framework, 2015;
- New definition of mining co-operatives and the number of members (say minimum 20) that qualify to form/register as a cooperative, and ownership rights. The mining cooperatives should also be incorporated under the Co-operative Societies Act, 1968 (NLCD 252);
- One-stop-shop licensing and permitting procedure and institutional coordination;
- Redefined mandate of Mining Support Service Companies (MSSCs) for ASM with the extensive range of support and capabilities proposed. This should also be reflected in the Minerals and Mining (Support Services) Regulations, 2012 (LI 2174) as well; and
- Chiefs and community involvement and benefit sharing, etc.

The cooperatives, with assistance from the DOC and MSSCs, shall develop by-laws addressing issues such as child labor and Gender-biased violence/sexual exploitation and abuse to guide their operations and ensure transparency, regardless of the member's gender. The cooperatives shall also operate in accordance with the Affirmative Action Act, 2004, which outlines progressive targets for achieving gender equality among employees from 2024 to 2030 (as specified in the First Schedule).

8.2 Delineating Mineralised Areas for ASM

Objective: To confine ASM activities to specific block out areas for sustainable mining

The Minerals and Mining Act, 2006 (Act 703) indicates that the Minister in consultation with MinCom is to designate areas for SSM operations. About 200 blocks of various sizes have therefore been designated for SSM across the country. In addition to this, Under the GLRSSMP, a 5-year World Bank funded project with GGSA has been initiated to conduct prospecting and economic evaluation of the mineral resource of the areas to delineate mineral-rich areas for ASM. The regular funding from MIIF and the Mineral Development Fund (MDF) are inadequate to sustain GGSA's geo-prospecting services and operations for "blocked out areas" hence additional support is necessary.

The estimate that 90% of all SSM activities is conducted illegally gives an indication of the sheer scale of the illegal mining enterprise and enormous population involved. Thus, the 200 blocks of designated areas and that from the World Bank funded project would be sadly inadequate for the new ASM sector (from illegal mining formalization). This calls for massive and sustained financing for GGSA to intensify the geo-prospecting services and speedy delineation of more of mining blocked out areas for the ASM sector.

The SSM/ASM sector is reserved for Ghanaians and the effective way to exclude foreigners from the sector is to remove the strong attraction for that source of capital, responsible for instigating indiscriminate mining and the associated wanton destruction. An empowered security arrangement of arrest and prosecution led by the District Security Council must be

made to take responsibility of this role and to embark on search and arrest of foreign financiers and foreigners in mining communities. This must be situated within the new institutionalized mandate for DAs to actively facilitate and participate in the SSM/ASM license/permit acquisition process as well as management of the sector.

Chiefs and their elders must also be made accountable for entertaining foreigners and other migrants known to be involved in SSM/ galamsey. The traditional councils of the given areas should hold their chiefs accountable and ensure SSM/ASM is made the preserve of Ghanaians as required by the mining laws. This must be based on the premise that the chiefs would be adequately consulted and involved during the permitting process and future mining sector management.

Some amount of preparation has gone towards extending the Reclamation Security Agreement (RSA) to licensed SSM and Community Mining (CM) operations and this is close to commencement of implementation. To overcome potential challenges with implementation, such as providing measurements of the possible extent of degradation for small scale miners, the process must be simplified along with extensive education for the miners. The success of the RSA implementation holds the key to the persistent mining-land degradation from SSM and CMS.

For galamsey, however, the process of formalization could not be said to be complete without a clear mechanism for reclamation requirements - the posting of bond and mined land restoration implementation. This may look near impossible to achieve; to expect galamsey operators to raise adequate capital for compliance purpose. A recommended mechanism to achieve effective reclamation is for the MSSCs to offer support by way of preparing reclamation plans and undertaking progressive reclamation of the mined areas. It is recommended also for BoG and MIIF/MDF to undertake the Reclamation Security Agreement with EPA on behalf of the ASM cooperatives. This could help address the ease of acceptance of bonds from the various banks due to the associated high-risk nature

8.3 Declaring Water Bodies/Riparian Areas “No-Go Areas” for ASM

Objective: (1) To declare no-go areas for ASM activities and wastewater discharge on/near water bodies to protect such environmentally sensitive areas from the degradation associated with surface mining. (2) To ban the use of mercury in the ASM sector in Ghana.

Water bodies and their buffer zones must be declared environmentally sensitive “no-go areas” for mining activities. The direct mining on water bodies or in riverbeds and processing/washing of mineral ore in water courses or rivers must be declared prohibited and criminalised, both in the Schedule 5, “Environmentally Sensitive Areas” of LI 1652 (being revised), and the Buffer Zone Regulations (being prepared). The penalties for these offences must attract stiff sanctions which are deterrent enough to include forfeiture of property of offenders to the State.

The areas specified in Schedule 5 of LI 1652 as “Environmentally Sensitive Areas” (ESAs) are not meant as “no-go areas” for development (including mining). Rather, “These are areas which are known from experience to be fragile or valuable environments, which can easily be harmed by the effects of unwise development. An EIA is therefore mandatory for projects to be developed within or near such areas” (EPA: Environmental Assessment in Ghana – A Guide, 1996). Thus, ESAs are not designated “no-go areas”, rather before any project is developed in such an area, EIA must first be carried out for the project, irrespective of the type or scale, even where under normal circumstance, an EIA may not be required for such a project as for example SSM.

Due to the unique sensitivity of some of the ESA habitats, especially in terms of their irreversibility and potential loss of habitat or extinction of endangered species once damaged, such critically sensitive areas are recommended for designation as “no-go areas” to ASM and surface mining. These include ESAs numbers 1, 3, 4, 11 and 12:

1. All areas declared by law as national parks, watershed reserves, wildlife reserves and sanctuaries including sacred groves.
3. Areas which constitute the habitat of any endangered or threatened species of indigenous wildlife (flora and fauna).
4. Areas of unique historic, archaeological, or scientific interests.
11. Water bodies characterized by one or any combination of the following conditions—
 - a) water tapped for domestic purposes;
 - b) water within the controlled and/or protected areas;
 - c) water which supports wildlife and fishery activities.
12. Mangrove areas characterised by one or any combination of the following conditions—
 - a) areas with primary pristine and dense growth;
 - b) areas adjoining mouth of major river system;
 - c) areas near or adjacent to traditional fishing grounds; and
 - d) areas which act as natural buffers against shore erosion, strong winds or storm floods.

This will be necessary to ensure that the ESA list becomes ASM and surface mining sensitive and relevant, since ASM operators may lack even the resource to embark on basic habitat offset. The ESA list would therefore require necessary amendments.

It is recommended also that the Buffer Zone Regulations provide for protection of these super-sensitive areas from the potential damaging effects of surface mining (refer to Section to Section 4.3). The regulations must provide for sanctions where there is violation of these sensitive areas. There must be special provision for “instant stoppage enforcement” of the defined offending acts, prior to any required prosecution action, besides the provision for forfeiture of property of offenders to the State.

The ASM operations must be subject to water discharge standards requiring interception in recycling ponds, and to only discharge into the environment (where necessary), after ascertaining the effluent quality meets the discharge standards. The requirement for ASM

operators to prepare and implement watershed management plans must be made a part of the water rights acquisition process.

The University of Mines and Technology (UMaT) has developed a direct smelting kit called ‘sika bukyia’, for the extraction of gold at high temperatures, without the use of mercury. Also, the government in 2021 approved and procured a mercury-free mineral processing technology ‘gold-catcher’ for SSM and CM operations to create sustainable jobs and protect the environment (Graphic Online, 2021). The technology is said to improve gold recovery by more than 90% and save the environment from toxic mercury contamination. Thus, there are more effective and viable options for gold recovery than the use of mercury, therefore with the imminent health risks and threats to our water resources, it is recommended to ban the use of mercury in the SSM sector. This is reinforced by need to curtail the large-scale smuggling of mercury into Ghana, and the knowledge that there has been no formal import of mercury since 2019.

Need to amend the Minerals and Mining Act, 2006 (Act 703) and Mercury Law, 1989 to expunge the clauses providing for the purchase and use of mercury in mining in SSM/artisanal mining in Ghana.

8.4 Streamlined Social Regulatory Framework and Institutional Arrangements

Objective: To enhance compliance, environmental stewardship, social responsibility, and sound management in the ASM sector

The promotion of compliance in the ASM sector would be made relatively easy for the regulatory institutions by the facilitatory and supervisory roles of the MSSCs, who would partly be accountable for potential E&S, and health and safety compliance at the ASM cooperative mine sites. The MSSCs would also be required to provide training for the cooperatives and members. The above would facilitate achievement of the desired E&S stewardship and workplace sound management by the cooperatives as below.

- Strick enforcement of the Code of Practice by MC relying on simplified reporting templates for ease of compliance by the operators.
- Financial resource availability to the ASM cooperatives through intermediary participating local banks to procure any needed services through or by the MSSCs.
- Relying on MSSCs to take up other support services, reclamation and site restoration.
- Conserving water using settling ponds to recycle water used in the operations, rather than discharge potential toxic wastewater into natural drainage.

According to the Bole Municipal Assembly, the Assembly can play an important role in reducing child labour, preventing HIV and teenage pregnancy by carrying out effective sensitization in mining communities. Also, the DA (through the Physical Planning Department) could be involved in the licensing regime to ensure any proposed site for mining is not at variance with the local land use plan or re-zoned as appropriate. This emphasizes the key role DAs could play in the license/permit process.

The practice of children involvement in mining could be addressed for instance, through promoting children education in mining communities by providing school feeding opportunities. This could be supported through increased royalty allocation to the relevant DAs for those purposes. There must be clearly spelt out mandate for the DAs in relation to ASM child labour issues' regulation and management.

The mainstreamed gender equality and women's empowerment as provided for in the National Gender Policy and the Affirmative Action Act must be the basis for enhanced capacity building for the relevant departments under MGCSP, MELR, and DSWCD of DAs to enhance their skills and in developing common strategies towards GBV/SEA/SH issues. This must be linked to clear role re-definition for MGCSP, MELR and DAs for purposes of systematic channelling of resources, and enforcement and reporting function. It must also be made mandatory to ensure ASM workplace policies against GBV/SEA /SH within employment contracts and boldly displayed at the workplaces.

The above must be accompanied by clear mechanisms for seeking redress as well as making it an offence for a victim not reporting. The DSWCD of DAs must be supported to play the lead role with the other institutions in a collaborative role for sustained community education against the deeply rooted cultural norms and societal practices, etc. This would facilitate an effective ASM regulatory stewardship for compliance with the various social regulations with the support of the ASM communities through the DSWCD.

The superstitious belief that gold belongs to the spirits and must therefore be consulted to enable the rocks to yield gold in abundance, especially in case of declining yield must be dispelled. Geologically, the presence of faults and folds may cause a vein being mined to disappear due to a change in the direction of the orebody, and the spiritualists cannot do anything about that (Addei C, and Amankway R.K., 2011). Knowledge and awareness creation on gold deposits and the role of the GGSA in delineating mineable areas for ASM would be helpful to dispel the wrong notion, as well as encourage them to fall in line.

8.5 Transparent Documentation of Land Transactions for Security of Tenure

Objective: Transparent documentation of land transactions to secure farmlands and the protection of forest and cocoa landscapes.

Under Sections 14 to 18 of the Lands Act, 2020, traditional authorities with the support of the Lands Commission and the Office of the Administrator of Stool Lands are required to establish Customary Lands Secretariats for the management of lands. The mandate of the secretariats includes recording land interests and rights and maintaining accurate and up-to-date records of land transactions within their areas of jurisdiction.

The Lands Commission is currently working on the Regulations for the Lands Act that will ensure transparent procedures, coordination of local authorities and accountability in land

transactions. Such land transactions will be documented and formalised and then transmitted to the House of Chiefs (Customary Lands Secretariats) and further to the Lands Commission for gazetting. This way the era of informal land transaction will be over, and tenant farmers will be appropriately protected from greedy and inconsiderate chiefs and landowners.

Government's Multi-Sectoral Mining Integrated Project (MMIP) which metamorphosed into GLRSSMP provides alternative livelihoods support. Land use schemes are also prepared to cover agricultural lands giving some form of security to the farmers. Any other alternative use of land must be rezoned appropriately by making a request to the relevant District Assembly.

The inadequacy of compensation, coupled with the 5-year or more waiting period for the rehabilitated cocoa farm to be ready for harvesting, could greatly impoverish the farmers weakening their resistance to the galamsey enticement. It recommended therefore to pay competitive compensations to farmers to render cocoa farming equally lucrative, in addition to providing extension support for food crop cultivation in the rehabilitation of cocoa farms. A compensation (resettlement) Action Plan must be prepared for each affected farmer, and farmers made to sign a legal documentation binding them to observe their side of the contract. A mechanism for traceability of the farm properties and a system of monitoring must be put in place.

The penalty for galamsey offences in forest reserves should be reviewed and the Forests Protection Act (1974) accordingly amended along the "polluter pays principle" as provided for in Recommendation 9 below. Also, the Recommendation 7 below for the unbridled political interests in galamsey and interferences in the sector management which render the Forests Protection Act (1974) inoperable or ineffective must be applied in this case.

8.6 Local Financing Sources for ASM Operations

Objective: To prevent the reliance on foreign and illicit capital in ASM operations

The BoG launched the Domestic Gold Purchase Program in June 2021 to strengthen Ghana's foreign reserves by purchasing domestically mined gold. This program allows BoG to buy unrefined gold (dore gold) from aggregators and mining firms, paying in local currency at the prevailing market rate. The acquired gold is refined to international standards and added to the nation's reserves.

A significant focus of this program is to create opportunities within the SSM sector by providing these miners with a reliable, fair-price buyer in BoG. This could drive formalization within the sector by incentivizing small-scale miners to adopt environmentally sustainable practices, shift away from illegal trade networks, and access formal gold markets. Through this initiative, BoG also aims to improve the SSM sector governance and compliance standards, potentially reducing the sector's environmental and social challenges.

To achieve the success of the program it is imperative to block the foreign and illicit capital flow into the sector by exploring alternative local financing arrangements that would make capital available to support the diverse activities of the ASM sector. These could include:

- Promoting “green mining” as opposed to illegal mining sources of gold;
- Resource for prospecting to delineate mineralised areas for ASM;
- Funds from central government (BoG) through intermediary participating local banks to offer mining loans to MSSCs on behalf of the ASM cooperatives; and
- BoG’s intervention support to guarantee the Reclamation Security Agreement (RSA) and related Reclamation Bond placement on behalf of ASM operators.

Prospecting to delineate mineralised areas - by resourcing the Ghana Geological Survey Authority (GGSA) to conduct prospecting and the evaluation of the economic resource value of the areas to delineate mineral-rich areas for ASM. GSSA has the capacity and is providing this type of service already in a 5-year World Bank-funded project. The MIIF and the Mineral Development Fund (MDF) are the regular sources of funding for GGSA operations, but this is inadequate to sustain geo-prospecting services and operations for “blocked out areas” earmarked for ASM (aligned with Sub-component 1.3).

Upfront investment to support ASM operations – where BoG’s upfront investment aimed at sanitising and formalising the illegal mining sector through intermediary local banks to the ASM cooperatives through MSSCs, as well as other direct pre-financing arrangements. This could transfer the financing of the sector largely under BoG’s control, improve gold production levels among ASM operators, and ensure enhanced traceability of gold output, thus, promoting BoG’s Domestic Gold Purchase Program.

Financial support arrangement to mining cooperatives – through local participating rural banks (as intermediary banks) assisted by BoG to disburse the mining funds (in the form of concessionary loans) to MSSCs on behalf of the mining cooperatives. This could additionally help retain capital within the local economy supporting other economic sectors, thereby enhancing local development in such rural communities.

Sanctioning of Violators – Enforce the Minerals and Mining Amendment Act, 2019 (Act 995), where foreigners engaged in small-scale mining activities are punished. Punitive measures such as asset seizures, deportations, and heavy fines should be enforced against violators. Violators should be blacklisted from entering into the country.

8.7 Transparent and Coordinated Institutional System for ASM Governance

Objective: Transparent and coordinated institutional management system for ASM initiated at the district level

The involvement of DAs, EPA, WRC, TAs and Communities in addition to MinCom in a collaborative arrangement could enhance transparency and potentially expose any underhanded political interference.

DCEs of DAs should be directly elected by the people, based on their own merit, rather than appointed by the President. This would ensure that DCEs are accountable to the electorate, who can demand transparency and performance, rather than owing allegiance to the governing political party or the President. Such a system would promote local governance autonomy, reduce partisan interference, and strengthen accountability at the grassroots level.

The Whistleblower Act, 2006 (Act 720), should be utilised and made known to key players within the ASM sector. This will enable individuals to disclose information, in the interest of the nation, regarding unlawful or corrupt practices. Whistleblowers should be protected from victimisation and rewarded in accordance with the provisions of the Act. The Commission on Human Rights and Administrative Justice (CHRAJ), which is mandated to investigate allegations of corruption, conflict of interest, abuse of power or office, and disclosures of impropriety under Act 720, would be well-placed to receive disclosures related to the ASM sector.

The sector minister could be excluded from signing ASM licenses, and rather oversee the management performance through monitoring and demanding accountability from the high office of the ministerial policy position. The mandate for the signing of licenses could be appropriately assigned to the Head of the MinCom, who would then become accountable to the Ministry/Minister for the performance of MINCOM and the assigned targets achieved. Any complaints and appeals would then be channelled to the sector minister for adjudication through an appeals board, similar to that of the EPA in the EA Regulations (1999), and WRC in the WRC Act 522 (1996).

8.8 Simplified One-Stop-Shop Licensing/Permitting Procedure

Objective: To motivate prospective ASM operators to seek regulatory approvals with ease

One of the key objectives of GLRSSMP is to facilitate a transition for illegal miners/galamsey operators into the formal sector by minimizing the high turn-around time in the acquisition of license. The hurdle of multiple institutional approval processes that occur sequentially could be overcome with a simplified, synchronized, user-friendly inter-face with officials, and concurrently operating procedure for license and permits.

The GLRSSMP seeks to facilitate such a transition for illegal miners into the formal sector by and therefore recommends automating the licensing procedure into a one-stop-platform for license acquisition. All the regulatory agencies responsible (MinCom, EPA and WRC) for issuing permits for SSM will be enrolled onto platform for the concurrent working on applications before it gets to the Minister for MLNR, thereby reducing the turn-around time. The MinCom's Mining Cadastre Administration System (MCAS) has consequently been upgraded, and WRC is now integrated into the system, while integration of EPA and the Minister's Office is in progress.

The creation of a one-stop-shop procedure would indeed streamline the application process, making the platform accessible to miners regardless of location, and revolutionize the entire process, by significantly reducing the turn-around time for license/permit acquisition. This, however, would not address some underlying key challenges (of lack of strong district and local level participation and taking the sector Minister’s time to sign SSM licenses) leading to the observed ineffectiveness of the existing sector management system.

Thus, the planned one-stop-shop procedure could be further improved by removing the identified areas of weaknesses in the system by incorporating, institutionalizing and mainstreaming the roles of DAs, traditional authorities and community stakeholders into the process and requiring the Head of MinCom to sign SSM licenses to achieve greater efficiency (discussed in detail in Section 8.1). The updated content of the one-stop-shop platform could therefore be structured as shown in Table 8.2.

Table 8.2 Proposed, Updated One-Stop-Shop License/Permit Acquisition Process

Key Activity	Institution	Mandate
1) Search for/identified land for mining	<ul style="list-style-type: none"> • Traditional Council/Authority • Key Communities Stakeholders • District Assembly 	First point of call for the initial consent on land availability
2) Initial Mining Application Complete application Form (EPA and WRC)	<ul style="list-style-type: none"> • MinCom • EPA • WRC • DA 	<ul style="list-style-type: none"> • Conducts joint inspection • MinCom’s Cadastral Search (if land available) • EPA communicate screening decision • WRC publishes notice of the application • DA - Site plan and land encumbrances
3) Payment of initial fees	All institutions	Acknowledgement
4) Conduct Environmental Assessment (overview of E&S and technical information on project) and stakeholder engagement (addressing the requirements of all the institutions)	<ul style="list-style-type: none"> • Traditional Authorities (TA) • Communities Stakeholders • DA • EPA • MinCom • WRC • FC • NGO 	<ul style="list-style-type: none"> • Engage with stakeholders at the Locals and District levels • Engage with District offices of the institutions to understand their requirements and address as appropriate in the EA report, e.g. safety and health, water use and waste management, compensation issues, reclamation planning and agreed restoration at end of mine life.
5) Submit EA report and other institutional specific information on the shared platform	EA report review action – jointly done by all institutions, and also the DA and representative of Traditional Authorities (at the district-level)	District Review Committee: <ul style="list-style-type: none"> • DA (TA and Community representatives) • EPA • MinCom • WRC • Others (where relevant)
6) Payment of fees (final)	All institutions: <ul style="list-style-type: none"> • Land transaction/compensation 	<ul style="list-style-type: none"> • TA/community stakeholders • District Assembly

	<ul style="list-style-type: none"> • Business operating and development approval • Environmental permit • Ground rent • Other fees 	<ul style="list-style-type: none"> • EPA • Administrator of Stool Lands/LVD of LC • MinCom/Inspectorate Div./WRC
7) Issuance of Approvals, License and Permits	Approval by all institutions	<ul style="list-style-type: none"> • Business operating/development approval • Environmental Permit (incl. compensation) • Land transaction documentation • Water Rights and Discharge Conditions • Mining License (Health & safety Plan, Mine Plan, etc.) • Operating Permit

The statutory payments upfront of the actual commencement of mining could strategically be reduced to about 50% of the existing rate, and the difference charged to the following year’s payments. All these measures would aim at rendering the process very motivating for prospective applicants to readily roll on. Also, the testimonies of existing operators, especially on ASM-friendly tax regime and support services by the MSSCs would go a long way to advertise the improved ASM-official institutional working relationship. Elaborate capacity building must be carried out in all mining districts for ASM/galamsey operators to promote a seamless adoption and functioning of the one-stop-centre licensing/permitting procedure.

8.9 Deterrent Environmental Sanctions and Property Forfeiture

Objective: To ensure stringent sanctions as deterrent for illegal mining offences

The serious, legitimate public outcry against saboteurs must be reflected in extreme punitive sanctions, including the seizure of offenders' property as a deterrent. Thus, the campaign against galamsey must not just be aimed at flushing operators from their workplaces on water bodies and forests but actual arrests and prosecutions with the court's prerogative to order the forfeiture or seizure of the offender's property (found guilty).

The application of the “polluter pays principle” must be instituted as a tool in environmental enforcement and governance in Ghana. The existing practice of imposing administrative charges or fines on offending mining companies, such as spillage of chemical wastewater, may be challenged as arbitrary because there are no clear provisions in any legislation providing explicitly for such fines. The stop-gap measure must be rectified by incorporating procedures for charge-estimations based on the nature and scope of potential environmental damage caused by the polluter pays principle in the amended LI 1652 and the Mining and Environmental Guidelines.

There could also be cases which require or where enforcement must be instantaneous, without the luxury or option of communicating a written enforcement notice (as is the existing practice) or prosecuting in court, while the offence may be continuing. The EPA indicated during the

engagement session that prosecuting is always the last resort. However, there could be cases where delayed stoppage of the offending action could lead to unmitigated consequences, such as mercury-containing wastewater discharged into drinking water sources or the destruction of pristine forest reserves.

It is therefore recommended to:

- Provide explicit list of offences (including chemical/toxic waste discharge/spillage) as well as the method for estimating the potential/actual environmental damage caused and the corresponding fines.
- Define a category of environmental emergency offences requiring instantaneous enforcement and stoppage of the offending action, followed by necessary prosecution and sanctions.
- Where the offence attracts forfeiture of the property of the offender (found guilty) the prerogative of the court must always be exercised.

To overcome the difficulty associated with arresting large number of galamsey operators at a site, the prosecution could rely on drone or still photographs or videos taken as evidence (and for ease of prosecution). Also, the want of evidence of direct involvement of persons in the vicinity of galamsey sites, who claim innocence, it must be made an offence of complicity to see or be in the vicinity of a galamsey site without reporting the offence to the police. The above deterrent provisions and sanctions must be specified in Act 703 and LI 1652 amendments, the Ghana's Mining and Environmental Guidelines and the Buffer Zone Regulations in preparation.

8.10 Strengthening Capacity in IA and Institutional Arrangements

Objective: To build extensive capacity to enable institutions apply and benefit from IA outcomes in various decision processes

Section 12 (3)(f) of the Local Governance Act, 2016 (Act 936 grants DAs the authority to manage human settlements and the environment in their area of jurisdiction. They are responsible for approving developments (which definition includes mining). For mining activities therefore, that lead to degradation of the environmental and pollution of water resources, the DAs must be made to account for and lead in the fight against galamsey. The other institutions must play their respective collaborative roles, including licensing/permitting, monitoring, reclamation and site restoration. The benefit of effective institutional collaboration could potentially maximize the application of the scarce resources of these institutions.

The Abuakwa South Municipal Assembly indicated that the licensing regime should begin with DAs to ensure proper oversight and compliance with local regulations as well as national ones. Due to the sidelining of DAs in the mining licensing process, DAs are unable to pursue essential local level demands on mining companies, such as business operating permits, paying property rates, and acquiring stickers for operating excavators. Otherwise, DAs could generate substantial revenue by issuing permits, which funds could then be used to support the activities

of the District Mining Committees (DMCs). The Bole Municipal Assembly also emphasized that DAs could play an important role in reducing child labour, and prevention of HIV and teenage pregnancy by carrying out effective sensitization in mining communities.

The formation of ASM cooperatives would bring together large number of youth, women and others, and so potentially reduce the prospect of having several hundreds of individual applicants/ licensed operators. With the MSSCs empowered resource-wise they would be in a position to effectively support and supervise the ASM cooperatives. Thus, with the MSSCs taking up the oversight responsibilities of the cooperatives, the monitoring and other regulatory enforcement functions of the institutions would be considerably reduced.

Comprehensive environmental and social assessment capacity building for the key institutions is most essential to reflect and inform licensing and permitting decisions for sustainability, and to reinforce the need for collaboration. Furthermore, a good understanding of the principles of Impact Assessment would require, for instance, that:

- Blocked out areas for SSM must be subject to SESA or ESMF;
- Any group of contiguous SSM concessions must also be subject to Cumulative Impact Assessment; while
- ASM cooperative concessions are subjected to very limited Impact Assessment with the support of the MSSCs.

For now, these vital requirements are missing in our licensing/permitting decision processes and outcomes with resultant consequences but would be addressed going forward with the formalization ASM and the important attendant environmental and social safeguards and benefits.

9.0 ENVIRONMENTAL AND SOCIAL ACTION PLANS

The Environmental and Social Action Plan outlines the recommendations in an actionable mode for sustainable implementation and realisation of formalised ASM. The specific Action Plans cover the following:

- 1) Converting galamsey into formal ASM cooperatives for mass employment opportunities;
- 2) Delineating mineralised areas for ASM;
- 3) Declaring water bodies/riparian areas “no-go areas” for ASM;
- 4) Streamlined social regulatory framework and institutional arrangements;
- 5) Transparent documentation of land transactions for security of tenure;
- 6) Local financing sources for ASM operations;
- 7) Transparent and coordinated institutional system for ASM governance;
- 8) Simplified one-stop-shop licensing/permitting procedure;
- 9) Deterrent environmental sanctions and property forfeiture; and
- 10) Strengthening capacity in IA and institutional arrangements.

The implementation timeframe for the action plans is categorized as follows: short-term (within 1 year), medium-term (within 1 to 3 years), and long-term (beyond 3 years or on-going once commenced). The indicative budget for the implementation of the action plans is estimated at about \$900,000.00. This cost excludes the resources needed to fund the mineralized areas delineation for ASM by GGSA and the initial capital investments by BoG to fund the ASM Cooperative activities.

9.1 Converting Galamsey into a Formal ASM Co-operatives for Mass Employment Opportunities

The action plan for converting galamsey into a formal, dependable mass employment opportunity is presented in Table 9.1

Table 9.1 Converting Galamsey into a Formal ASM Co-operatives for Mass Employment Opportunities

Key Action	Institution		Description of Activity	Time Frame	Budget (\$)
	Lead	Collaborator			
1) Strategic scheme converting galamsey into formal ASM Cooperatives for mass employment opportunities	MinCom	EPA DOC	<ul style="list-style-type: none"> • Legislative framework changes in the Minerals and Act, 2006 (Act 703)– <ul style="list-style-type: none"> ○ Specific mention of artisanal mining. ○ One-stop-shop licensing and permitting procedure and institutional coordination. ○ DAs, Chiefs and community involvement and benefit sharing, etc. 	Short term	20,000

2) Awareness campaign on galamsey conversion into formal mining ventures in communities, including youth and women	MinCom	EPA DAs TA	<ul style="list-style-type: none"> • Prepare awareness raising materials • Map Galamsey districts and plan awareness program • Organize awareness campaign 	Long term	30,000
3) Formation of ASM Cooperatives	MinCom	DOC	<ul style="list-style-type: none"> • Legislative framework changes on Cooperatives formation (Act 703 and Co-operative Societies Act, 1968 (NLCD 252)) 	Short term	15,000
4) Mining Support Services Companies with new mandates	MinCom	EPA	<ul style="list-style-type: none"> • Legislative framework changes on new mandates for Mining Support Services Companies (Act 703 and LI 2174) 	Short term	5,000

9.2 Delineating Mineralised Areas for ASM

The action plan for delineating mineralised areas for ASM is presented in Table 9.2.

Table 9.2 Delineating Mineralised Areas for ASM

Key Action	Institution		Description of Activity	Time Frame	Budget (\$)
	Lead	Collaborator			
1) Publishing reclamation requirements and extending RSA to ASM operations	EPA	MinCom BoG MIIF	<ul style="list-style-type: none"> • Publish information on Reclamation Bond posting, reclamation planning and RSA for public knowledge • EPA to simplify RSA for ease of understanding • Create opportunities for extensive education on reclamation requirements and RSA. 	Short-term	10,000
2) Empowerment of MSSCs to provide full support on all aspects of reclamation to the ASM Cooperatives	EPA MinCom	DoC	<ul style="list-style-type: none"> • Provide special training to MSSCs on reclamation requirements and RSA for further training of the Cooperatives • MSSCs to undertake all the reclamation and restoration responsibilities for the Cooperatives. 	Short-term (On-going)	15,000
3) Empowerment of District Security Council	MinCom EPA	MLGDRD MoNS DAs	<ul style="list-style-type: none"> • Strengthen institutionalized mandate for DAs to actively facilitate and participate in the ASM license/permit acquisition 	Short-term (On-going)	15,000

9.3 Declaring Water Bodies/Riparian Areas “No-Go Areas” for ASM

The action plan for the prohibition of ASM activities on or near water bodies is presented in Table 9.3.

Table 9.3 Declaring Water Bodies/Riparian Areas “No-Go Areas” for ASM

Key Action	Institution		Description of Activity	Time Frame	Budget (\$)
	Lead	Collaborator			
1) Modify/amend Schedule 5 of LI 1652 prohibiting ASM in water bodies, riverbeds, and their buffer zones	WRC EPA	MLGDRD MESTI	<ul style="list-style-type: none"> Undertake legislative framework modification to reinforce aspects of ESAs and to be consistent with the Buffer Zone Regulations 	Short term	10,000
2) Buffer Zone Regulations providing stiffer sanctions including forfeiture of property of offenders	WRC	EPA	<ul style="list-style-type: none"> WRC undertakes legislative framework modification to provide for: <ul style="list-style-type: none"> Forfeiture of offenders’ property to the state Instant stoppage enforcement, prior to prosecution action 	Short term	5,000
3) Water Discharge Standards incorporating requirement for watershed management plans	WRC EPA	MLGDRD MESTI	<ul style="list-style-type: none"> Undertakes Water Discharge Standards modification as part of the Water Rights Permit acquisition process for the preparation of watershed management plans 	Short term	10,000
4) Ban of Mercury use in ASM	MinCom EPA	MoTI	<ul style="list-style-type: none"> Expunge the provisions in Act 703 and Mercury Law, 1989 for the purchase and use of Mercury in SSM/ artisanal mining Introduce clauses that would make it an offence to keep/store or sell or use Mercury in mining 	Short term	10,000

9.4 Streamlined Social Regulatory Framework and Institutional Arrangements

The action plan for streamlining the social regulatory framework is presented in Table 9.4.

Table 9.4 Streamlined Social Regulatory Framework and Institutional Arrangements

Key Action	Institution		Description of Activity	Time Frame	Budget (\$)
	Lead	Collaborator			
1) Promotion of compliance in the ASM sector through strict enforcement of the COP	MinCom	EPA WRC DAs	<ul style="list-style-type: none"> MinCom strictly enforcing the Code of Practice by developing and promoting simplified reporting templates developed for ease of compliance by the operators in the ASM sub-sector 	Short-term	15,000

2) Relying on financial resource made available to MSSCs for the cooperatives through the intermediary participating banks to meet requirements of the COP	MinCom	EPA WRC DA	<ul style="list-style-type: none"> MinCom offering technical training to the MSSCs to in turn support and guide the ASM Cooperatives to satisfy the requirements of the Code of Practice (operational areas, e.g. use of settling ponds to recycle wastewater, record keeping & reporting, health & safety) 	Short term (On-going)	25,000
			<ul style="list-style-type: none"> DSWCD to continue its social support to ASM communities with adequate resources from the sector through the mother DAs. 	Long term	25,000
3) Restructuring of social regulatory oversight for DSWCD to assume the lead monitoring and reporting, etc. role which must be spelt out in DAs mandate, while the other institutions play a collaborative role.	MLGDRD MoGCSP	MLGDRD MELR MLNR DAs MinCom	<ul style="list-style-type: none"> Relevant Depts under MLGDRD, MELR, MGSP & MLNR to hold a high-level capacity building and strategy meeting and to assign the lead social regulatory oversight role (on GBV/SEA/SH) to DSWCD of DAs, while retaining the other institutions in a defined collaborative function. 	Short term	30,000
4) Monitoring of children involvement in ASM and to report the culprits of child labour to the Police	DSWCD	Ghana Police MinCom MELR MoGCSP	<ul style="list-style-type: none"> DSWCD to promote children education in mining communities by providing school feeding opportunities for pupils. DSWCD to monitor children involvement in ASM for prosecution of the culprit of child labour. Ensure the child is rescued, counselled and return to school. 	Long term	25,000
5) Effective ASM regulatory stewardship and compliance with the various social regulations	MinCom DAs	MSSCs	<ul style="list-style-type: none"> ASM operators to rely on the support from MSSCs to put in place measures for safeguarding workers and the local people. 	Long term	35,000

9.5 Transparent Documentation of Land Transactions for Security of Tenure

The action plan for transparent documentation of land transactions for security of tenure and protection of forests and cocoa landscape is presented in Table 9.5.

Table 9.5 *Transparent Documentation of Land Transactions for Security of Tenure*

Key Action	Institution		Description of Activity	Time Frame	Budget (\$)
	Lead	Collaborator			
1) Facilitating quick commencement of documenting local land transactions to protect farmlands against Galamsey	OASL	MLNR	<ul style="list-style-type: none"> OASL supporting to develop simple land transaction template for use by Chiefs Raising the awareness of Chiefs on the documentation process 	Short term	5,000
2) Use of the land transaction template as a pilot by some Chiefs	Selected Chiefs OASL	LC	<ul style="list-style-type: none"> First set of trial use of the template for land transactions First submission of a set of land transactions to relevant CLSs. 	Short term	20,000
3) Competitive compensation to cocoa farmers and monitoring system of cocoa land cover/ farms	COCOBOD	MLNR MoFA	<ul style="list-style-type: none"> Compensation/Resettlement Action Plan for each affected farmer Monitoring of performance of rehabilitated farms, farmland integrity and yield. Extension support for undergrowth cultivation of food crops in the rehabilitation farms 	Long term	30,000
4) Deterrent sanctions or penalties for galamsey offences in forest reserves	FC	MLNR EPA AG's Dept	<ul style="list-style-type: none"> Amend the Forests Protection Act (1974) to align with the "polluter pays principle" provided for in Section 9.9 below. 	Short term	15,000

9.6 Local Financing Sources for ASM Operations

The action plan for seeking local financing sources for ASM operations is presented in Table 9.6.

Table 9.6 *Local Financing Sources for ASM Operations*

Key Action	Institution		Description of Activity	Time Frame	Budget (\$)
	Lead	Collaborator			
1) Exploration of central government (BoG) upfront investment of ASM operation through Intermediary participating Rural Banks for mining loans (indirectly)	BoG	MIF, MinCom, and Relevant Rural Banks	<ul style="list-style-type: none"> Review of the Domestic Gold Purchase Program to accommodate the new investment arrangement Explore feasible involvement and establish qualifying conditions of the Rural Banks Train the participating Rural Banks and on the modalities for their role in the program 	Short term	40,000

<p>2) Funds lodged in the Intermediary participating Rural Banks for disbursement as concessionary mining loans to MSSCs for the direct purchases of services and goods</p>	<p>BoG</p>	<p>MIIF, Relevant Rural Banks, MinCom, Relevant MSSCs</p>	<ul style="list-style-type: none"> • Commencement of funds lodgement in the Rural Banks (initial pilot) • Support the Rural Banks to evaluate the qualifying status, including OHS and complaint mechanism of the MSSCs for consideration for the loan facility • Supervised disbursement to the relevant MSSCs for needed ASM support • Monitor application of the funds provided 	<p>Long term</p>	<p>25,000</p>
<p>3) Resourcing GGSA to initiate the process of prospecting and establishing economic viability of delineated mineable areas for ASM</p>	<p>MIIF</p>	<p>BoG, GGSA, MinCom, PMMC</p>	<ul style="list-style-type: none"> • GGSA prepares budget for exploration/prospecting and delineating mineable areas, and evaluating economic viability of block out areas for ASM • GGSA provides timeframe for the assignment according to blocks. • GGSA signs undertaking/MoU with BoG guaranteeing satisfactory delivery. • BoG/MIIF agree to scheduled disbursement of funds to GGSA according to pre-determined work delivery/ milestones • Arrangement for first disbursement made to GGSA 	<p>Short term</p>	<p>20,000</p>
<p>4) BoG's proposed special Reclamation Bond placement guarantee for ASM Cooperatives with EPA</p>	<p>BoG EPA</p>	<p>MinCom, GGSA</p>	<ul style="list-style-type: none"> • EPA simplifies the RSA for ASM operations • BoG engages EPA and MinCom on the feasible arrangement to guarantee the RSA for the ASM Cooperatives 	<p>Short term</p>	<p>10,000</p>
<p>5) Ensuring traceability of gold output and promoting BoG's DGPP.</p>	<p>PMMC</p>	<p>BoG, MIIF, MinCom</p>	<ul style="list-style-type: none"> • Account for the repayment schedule between the Cooperatives (supported by the MSSCs) on one hand and BoG, MIIF, MinCom, PMMC and the Rural Banks on the other. • PMMC purchases the first gold output and makes payment to the Rural Bank through MSSCs, the Cooperatives • PMMC accounts for and presents the gold purchased to BoG 	<p>Long term</p>	<p>25,000</p>

9.7 Transparent and Coordinated Institutional System for ASM Governance

The action plan for a transparent and coordinated institutional system for ASM governance is presented in Table 9.7.

Table 9.7 *Transparent and Coordinated Institutional System for ASM Governance*

Key Action	Institution		Description of Activity	Time Frame	Budget (\$)
	Lead	Collaborator			
1) Establish transparent and inclusive ASM licensing/permitting decision processes involving relevant institutions with Traditional Authorities, and communities	MLNR	MinCom, DAs - selected EPA, WRC, TA	<ul style="list-style-type: none"> MLNR holds a high-level institutional meeting to formulate an inclusive ASM decision-making/governance process 	Short term	20,000
2) Establish a complaint mechanism for potential whistle-blowers to report any untoward interference or act in ASM licensing, etc.	CHRAJ MLNR	MinCom, DAs, EPA, WRC, TA	<ul style="list-style-type: none"> MLNR set up a whistle-blower desk at CHRAJ 	Short term	10,000
3) Advocate for changes in the law to elect DCEs & MCEs (no more appointed by the President)	MLGDRD	MLNR	<ul style="list-style-type: none"> MLGDRD to strongly advocate for changing the law in favour of electing DCEs & MCEs. 	Medium term	30,000
4) Assign the mandate for signing ASM licenses to the Chief Executive of MinCom	MLNR	MinCom	<ul style="list-style-type: none"> Introducing legislative framework changes excluding the sector minister from signing ASM licenses and ceding the responsibility to the Head of MinCom 	Short term	15,000

9.8 Simplified One-Stop-Shop Licensing/Permitting Procedure

The action plan for a simplified one-stop-shop licensing/permitting procedure is presented in Table 9.8.

Table 9.8 *Simplified One-Stop-Shop Licensing/Permitting Procedure*

Key Action	Institution		Description of Activity	Time Frame	Budget (\$)
	Lead	Collaborator			
1) Finalization of agreement on modalities for a simplified, user-friendly procedure for approval (licensing	MLNR	EPA WRC DAs MinCom	<ul style="list-style-type: none"> MLNR holds a high-level institutional meeting to finalise modalities for a simplified licensing and permitting procedure on ASM applications 	Short-term	30,000

and permitting) processes for ASM					
2) Awareness campaign in all mining districts for ASM/ Galamsey operators on the simplified licensing/ permitting procedure	MinCom	DAs EPA WRC	<ul style="list-style-type: none"> MinCom leads to conduct awareness campaign in mining districts for ASM/ Galamsey operators on the simplified licensing/permitting procedure to serve as vehicle of motivation 	Short-term	50,000
3) Creation of a one-stop-shop licence/permit process and pilot its use by prospective ASM/Galamsey applicants	MLNR	EPA WRC DAs MinCom	<ul style="list-style-type: none"> Develop a function platform hosting the one-stop-shop ASM application system Offer training to MSSCs for further training of ASM/Galamsey operators 	Medium-term	70,000
			<ul style="list-style-type: none"> Pilot ASM/Galamsey application processing for license/permit 	Medium-term	

9.9 Deterrent Environmental Sanctions and Property Forfeiture

The action plan for severe and deterrent environmental sanctions and property forfeiture is presented in Table 9.9.

Table 9.9 Deterrent Environmental Sanctions and Property Forfeiture

Key Action	Institution		Description of Activity	Time Frame	Budget (\$)
	Lead	Collaborator			
1) Application of the “polluter pays principle” as a tool in environmental enforcement and governance in the mining sector	MESTI MLNR	EPA, WRC, MinCom, DAs AG’s Dept	<ul style="list-style-type: none"> MESTI & MLNR hold a high-level institutional meeting to consider modalities for adopting “polluter pays principle” as part of the mining and environmental enforcement and governance tool. 	Short term	25,000
2) Amendment of LI 1652 to incorporate charge-estimations for polluting offences under the “polluter pays principle”	EPA	MESTI, MLNR, MinCom, WRC, AG’s Dept	<ul style="list-style-type: none"> “Polluter pays principle” as mining and environmental enforcement and governance tool in the mining sector codified into law in Ghana 	Short term	15,000
3) Incorporate the same clauses into the Mining and Environmental Guidelines	MinCom	EPA, WRC	<ul style="list-style-type: none"> “Polluter pays principle” as mining and environmental enforcement and governance tool in the mining sector described in the Guidelines 	Short term	10,000
4) Amendment of LI 1652 to introduce new provisions granting	EPA	MESTI	<ul style="list-style-type: none"> Attorney General’s Department supports developing cases 	Short-term	25,000

power to EPA to cause instantaneous enforcement/stoppage of a defined class of polluting offences.			requiring instantaneous enforcement and stoppage.		
5) Amendment of the penalty clauses of LI 1652 to introduce category of offences warranting potential forfeiture of offenders' property to the state.	EPA	MESTI	<ul style="list-style-type: none"> Determine cases falling into the category of potential forfeiture of offenders' property to the state 	Short term	10,000

9.10 Strengthening Capacity in IA and Institutional Arrangements

The action plan for strengthening capacity in IA and institutional arrangements is presented in Table 9.10.

Table 9.10 Strengthening Capacity in IA and Institutional Arrangements

Key Action	Institution		Description of Activity	Time Frame	Budget (\$)
	Lead	Collaborator			
1) DAs are responsible for approving developments (including mining), therefore must be made to account for ASM activities preventing degradation & pollution	MLGDRD MLNR	MinCom EPA WRC DAs	<ul style="list-style-type: none"> MLGDRD & MLNR to arrange a high-level meeting to discuss and declare DAs the lead managers of ASM activities (besides human settlements and the environment) on basis of Section 12(3)(f) of the Local Governance Act 936. DAs must be made to play a lead role in ASM licensing since they are responsible for approving developments (including mining) 	Short-term	30,000
2) Environmental and social assessment capacity building for the key institutions is most essential to reflect and inform licensing and permitting decisions for sustainability, and to reinforce the need for collaboration.	MESTI	MLNR DAs MinCom EPA WRC	<ul style="list-style-type: none"> MESTI supported by MLNR to recruit a consultant in organising high-level workshops to train the key institutions on E&S assessment and inter-agency collaboration including case studies and interactive exercises. MLNR to establish a bi-annual forum for the key institutions to foster inter-agency collaboration and review of permitting processes 	Short term	70,000

10.0 RISKS TO IMPLEMENTATION AND CONCLUSION

The SESA report addresses the root causes of illegal mining/galamsey as well as challenges with SSM generally and discusses the devastating E&S effects. It also presents recommendations for transitioning into a formalised ASM with a set of action plans towards realisation of the expected formalisation programme, at an indicative implementation budget of about \$900,000.00.

The SESA findings indicated a multiplicity of factors driving galamsey with grave environmental and social devastation and dire health consequences. The key drivers are:

- Endemic interest with almost entire economies of some rural mining communities and livelihoods dependent on galamsey;
- Foreign and illicit capital flow and foreign capture of the sector (otherwise reserved for Ghanaians);
- Political interference and corruption in the governance of the sector;
- Cumbersome permit/license acquisition process – a major disincentive for prospective applicants and renewal of expired licenses/permits;
- Laxed sanctions tacitly undermining effort to curb galamsey; and
- Low institutional capacity in Impact Assessment and governance arrangements.

The E&S devastation as well as dire health consequences associated with galamsey include:

- Gaping social challenges – drugs and prostitution, child labour, GBV/SEA/SH, superstition and bloodshed/murder, social injustice and impunity, lawlessness, etc;
- Security threats – galamsey armed gangs, armed conflicts, encroachment of licensed concessions, etc;
- Water pollution and resource degradation – including chemical contamination e.g. Mercury, affecting water treatment and supply;
- Land devastation – forest landscape, watershed and biodiversity degradation, infrastructure destruction, etc; and
- Land tenure insecurity for farmers and Cocoa landscape degradation favouring galamsey operations, etc.

Galamsey is prevalent and endemic in Ghana. The drivers and the devastating effects as indicated above are a clear danger, with no easy and simple fixes, despite persistent national efforts over the years. The recommendations for formalisation of galamsey are therefore equally far-reaching and all embracing, requiring strong political commitment and citizens' understanding and appreciation of the reality of the situation. This is necessary to shift positions and posturing such as demands from organised labour and civil society groups to governments to "stop galamsey now." The SESA findings are clear that it is only delusive; no government can solve galamsey "now" as it has persistently defied all previous attempts of successive governments.

The SESA recommendations outline motivating and empowering transition opportunities for galamsey operators into formal ASM cooperative mass employment. The strategic transitioning schemes include formation of ASM cooperatives where members have guaranteed ownership of the cooperatives, supported by MSSCs with redefined mandate as the backbone of the ASM cooperatives. Others include:

- Local financing sources for ASM operations from central government (BoG) through intermediary local participating Rural Banks;
- Resourcing GGSA to conduct prospecting to delineate mineable areas for ASM;
- Instituting the “polluter pays principle” as a tool in environmental enforcement and governance in Ghana’s mining sector as a deterrent;
- Declaring environmentally sensitive “no-go areas” for ASM and improvement on the Buffer Zone Regulations with stiffer sanctions, including forfeiture of property of offending parties to the State;
- Facilitating the establishment of formal land transaction mechanism to safeguard farming lands (farmers) and protect the cocoa landscape;
- Instituting a simplified one-stop-shop licensing/permitting procedure, synchronizing all requirements to work concurrently, reducing the turnaround time;
- Streamlining social regulatory framework with DSWCD of DAs in the lead role, while the other institutions play a collaborative role; and
- Strengthen institutional capacity in Impact Assessment to influence mining licensing decision-making, etc.

The Action Plans developed to facilitate implementation of the recommendations involve a multitude of statutory institutions with various roles and responsibilities, with some requiring changes to aspects of their established mandates. The SESA report shows that only 70% and about 10% of the formalisation programme could be achieved in the short-term and medium-term respectively, with the best collective effort, and with full political commitment.

Some of the recommendations have constitutional implications such as:

- Election of DCEs to give independence and immunity from unbridled political interferences on their new mandates in the formalised ASM licensing and management; and
- Re-assigning of the head of MinCom to signing ASM licenses rather than the existing mandate of the minister responsible for the sector.

Others may require legislative amendments to enable DAs to assume the following:

- Playing central role in ASM licensing and management (including reclamation as well as decisions on site restoration after mining); and
- Being accountable (largely but also jointly) for any E&S breaches from the formalized ASM.

Most of the ten recommended interventions could be considered as novel and almost revolutionary, encompassing many institutions collaborating to effectively deliver the ASM transformation Action Plans. Some forms of resistance could therefore not be unexpected in successful implementation of the E&S Action Plans.

The risks to the feasibility and ease of endorsing most of the far-reaching recommendations and the E&S Action Plans to achieving the desired outcomes could be encountered specifically in the areas of amendments and reforms of policies and regulations, and variations in institutional mandates. These could potentially be attributed to lack of political, social and cultural enabling environments, in addition to conflict of interests, protection of institutional turf and revenue resource derived from permit/license fees and levies. These may be reflected in the form of resistance to change, social conflict, political corruption, weak enforcement, formulation of policies/amendments that may leave room for possible legal loopholes and misinterpretation, etc.

These risks could also impact on the effective realization of the E&S Action Plans and the overall success of the ASM transformation. It is important to alert all stakeholders to be conscious of these risks and the dangers they could present so that the necessary effort to facilitate and mitigate the risks when encountered would be forthcoming in a manner that serves the best possible mutual interests.

A significant way to minimize the potential risks could be through SESA implementation oversight propped by initial awareness creation on the content of SESA and the commitments/requirements of the Action Plans for all the stakeholders. This could include the following:

- Drawing the attention of the Minister for Lands and Natural Resources to the reality of his ownership of the SESA and responsibility to lead in the implementation process;
- Formation of an Inter-Ministerial Oversight for the SESA implementation as the highest decision-making body (under the auspices of the Minister (MLNR));
- Composition of the Inter-Ministerial Oversight to involve all Ministers in government ministries with identified roles in the SESA;
- Formation of the Steering Committee for SESA implementation with high-level representation from all institutions identified with roles in the SESA;
- The Steering Committee would support the PIU for the actual SESA Action Plans' implementation; and
- The PIU would account to the Steering Committee as well as report to the Inter-Ministerial Oversight on monthly basis.

The sustained political pressure mounted by CSOs, organised labour, traditional authorities, academia and research institutions, and other political actors, among others, could, however, serve as risk mitigation to the potential resistance to ease of implementation of the SESA Action Plans.

It is important to note that delays to implementing the Action Plans towards the formalisation of ASM would not only be a license for the status quo to fester into an abyss, but the impunity and security risks could seriously undermine our nationhood.

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APPENDICES

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- 2.0 Stakeholder Identification Matrix
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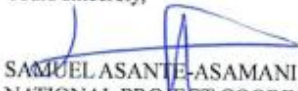
Appendix 1.0
Stakeholder Identification Matrix

Stakeholder Categories Project Component, Activities, Impacts/Issues	Government Ministries and Agencies	Local Government	Research Institutions	Representative Mining Communities
Deep-rooted and endemic interest in the galamsey canker	EPA MinCom WRC GLRSSMP PCU	PHMA AMSDA BMA ASMA	UMaT	Tarkwa Bremang Akyem Adukrom Tontonkrom Dakrupe
Foreign and illicit capital inflow and galamsey/artisanal mining capture	PMMC MIIF BoG MinCom EPA	PHMA AMSDA BMA ASMA		Tarkwa Bremang Akyem Adukrom Tontonkrom Dakrupe
Indiscriminate, try and error mining and land degradation	GGSA EPA MinCom FC	PHMA AMSDA BMA ASMA	UMaT	Tarkwa Bremang Akyem Adukrom Tontonkrom Dakrupe
Water resource degradation and pollution from SSM/galamsey	WRC EPA WRC	PHMA AMSDA BMA ASMA		Tarkwa Bremang Akyem Adukrom Tontonkrom Dakrupe
Farming land tenure insecurity and forest/cocoa landscape destruction	LC LUSPA OASL	PHMA AMSDA BMA ASMA		Tarkwa Bremang Akyem Adukrom Tontonkrom Dakrupe

Political interests in galamsey and interferences in the SSM sector	MinCom EPA FC WRC LC LUSPA			
Cumbersome permit and license acquisition process	MinCom EPA WRC	PHMA AMSDA BMA ASMA		
Laxed sanctions tacitly undermining effort to curb galamsey;	EPA WRC MinCom FC			
Low institutional capacity in Impact Assessment and management coordination	MinCom EPA WRC FC LC MELR LUSPA DOC	PHMA AMSDA BMA ASMA		
Gaping social and security challenges with SSM/galamsey	MGSCP-DoC MELR EPA	PHMA AMSDA BMA ASMA	UMaT	

Appendix 2.0

Sample of Introductory Letter

 REPUBLIC OF GHANA	MINISTRY OF LANDS AND NATURAL RESOURCES	P. O. Box M212 Ministries - Accra Digital Address: GA-110-0371 Kindly quote this number and date on all correspondence My Ref. No. <u>M/SL/24/97</u> Your Ref. No. _____ Date. <u>18th September, 2024</u>
<p>THE EXECUTIVE DIRECTOR ENVIRONMENTAL PROTECTION AGENCY ACCRA ATTENTION: CLIMATE CHANGE UNIT OF EPA</p> <p>Dear Sir,</p> <p style="text-align: center;"><u>UPDATING OF SESA FOR THE GHANA LANDSCAPE RESTORATION AND SMALL-SCALE MINING PROJECT (GLRSSMP)</u></p> <p>The Ghana Landscape Restoration and Small-Scale Mining Project (GLRSSMP) has commissioned the Center for Environmental Health Research and Training (CEHRT) to update and finalize the Strategic Environmental and Social Assessment of the GLRSSMP for the required clearance by the World Bank. In line with the Environmental Assessment Regulations of Ghana, the World Bank Environmental and Social Framework (ESF) standards and good practice Impact Assessment, the consultant must hold inclusive engagement with all relevant stakeholders for inputs to fully account for their concerns and interests to ensure environmental and social sustainability in the implementation of the project.</p> <p>The Climate Change Unit of EPA has been identified as a key stakeholder for engagement and inputs into the SESA exercise, especially in the following areas:</p> <ol style="list-style-type: none"> a) Basic distinction - large scale versus small scale versus artisanal mining (and ASM vrs Community Mining) in terms of technical, institutional, regulatory & env and mining policies b) Water policy and watershed management considerations in ASM (the importance) c) Land policy and its role in ensuring sustainable ASM (land reclamation option) d) How can site vulnerability consideration to Climate Change (CC) be a factor in ASM siting/permitting? e) Possible CC adaptation measures to apply f) Feasibility of a one-stop-shop permitting/licensing for ASM (institutional collaboration) g) ASM in agriculture and cocoa landscape h) Cooperatives formation and advantages for ASM <p>The engagement programme is from 18th to 25th September 2024. The consultant is scheduled to engage your institution on 19th September from 1:30pm to 2:30pm in your offices, provided the proposed date is suitable for you.</p> <p>We request your maximum cooperation for the consultant to successfully conduct the engagement rounds in the limited time available to them. Mr. Reynolds Offei Kwapong (Environmental Management Specialist Assistant) on contact number 0240214518 will follow up on this letter to confirm the suitability of the appointment accordingly.</p> <p>Thank you for your usual cooperation.</p> <p>Yours sincerely,</p> <div style="text-align: center;">  SAMUEL ASANTE-ASAMANI NATIONAL PROJECT COORDINATOR for: MINISTER </div>		
Tel: +233(0)303 943 078 +233(0)303 941 563 Email: info@mlnr.gov.gh Website: www.mlnr.gov.gh		

Appendix 3.0

Stakeholder Engagement Outcomes

3.1 Institutions

3.1.1 Minerals Commission

Date: 6 th November, 2024	Time: 12:00pm	Venue: MinCom
Discussant: Eric E. Bukari, Deputy Manager (SSM) – 0243339753/eric.bukari@mincom.gov.gh	Consultants: <ul style="list-style-type: none"> • Yaw Amoyaw-Osei • Kwabena Kwakye Mamphey • Christina Pobee • Barikisu Zawi 	
Discussions		
<p>1. ASM and SSM</p> <ul style="list-style-type: none"> • In Ghana, only SSM is defined by law, based on three main criteria: the size of the concession (not exceeding 25.2 acres), the nationality of the miner (must be Ghanaian), and the age of the miner (must be at least 18 years old). Operationally, miners using rudimentary, semi-mechanized, or fully mechanized tools are all classified as small-scale miners, provided the land size does not exceed 25.2 acres. • Internationally, the term artisanal and small-scale mining (ASM) is more widely recognized. Therefore, the project adopts the term ASM, which aligns with Ghana's legal definition of SSM. <p>2. ASM Formalization</p> <ul style="list-style-type: none"> • The formalization of ASM focuses on three key areas: regulation, licensing, and operational processes (including bookkeeping). This includes integrating unlicensed operators into the formal sector. • Most small-scale miners lack proper records of the personnel working within their concessions. <p>3. Categories of Entities that can Apply for License</p> <ul style="list-style-type: none"> • The following entities can apply for SSM licence: <ul style="list-style-type: none"> ○ Individuals; ○ Enterprise/sole proprietorship; ○ Limited liability companies; ○ Cooperatives; and ○ Groups. • For groups, a constitution governing their operations must be submitted with the license application. However, a common issue with the group system is that group members often serve as workers for a single member who is the true concession owner. • Co-operatives face similar challenges as the group system, and both models are gradually declining in use. <p>4. Block Out/Designated Areas for Mining</p> <p>According to Act 703, applications for SSM licenses must be made within designated "block-out" areas. If an application falls outside these areas, it cannot be processed. These areas are blocked out in two main ways:</p> <ul style="list-style-type: none"> • Areas relinquished by companies that have conducted prospecting activities; and • Areas where small-scale miners have rushed to mine. These areas, however, often lack prior geological investigation, although the MinCom is expected to conduct geological assessments before designating them for SSM. <p>Currently the MinCom has delineated 200 blocks of varying sizes for SSM.</p> <p>5. Collaboration MinCom and GGSA</p>		

- The MinCom is currently funding the GGSA to investigate designated areas if these areas are found to be mineralized then the MinCom would allocate them for SSM.
- The World Bank has also earmarked about 20 blocked out areas for SSM.

6. Bank of Ghana (BoG) Funding GGSA

- Small-scale miners often rely on financing from gold buyers who fund their operations, allowing miners to sell gold back to the financiers at a discounted rate. This arrangement, while informal, is not necessarily illegal under current financing practices.
- Although small-scale miners are not required by law to obtain prospecting licenses, some do engage in prospecting activities.
- BoG funding the GGSA to conduct geological investigations across the country to find mineralized areas and then hand it out to the Minerals Commission for it to parcel it out for SSM and then buying it back at a discount rate, is commendable as this will prevent the indiscriminate digging around for gold. However, there is a challenge because some private companies, licensed to buy and export gold, are struggling due to the centralization of gold purchases under the Gold for Oil Programme, which has pushed these companies out of the market.

7. Mine Support Service

In accordance with Section 59 of Act 703 and the Minerals and Mining (Support Services) Regulations, 2012 (LI 2174), any individual or entity providing services to a mineral rights holder must also obtain a license before rendering their services to the miner.

8. Galamsey Activities

- All illegal mining activities are reported to the District Chief Executive (DCE) of the respective district where the illegal activity is occurring. Reports typically include details on the nature of the mining activities, location, number of personnel at the site, and site coordinates. Under Section 92 of Act 703, District Mining Committees (DMCs) are established to assist the District Mining Officer in managing mining activities. The DCE serves as the Chairman of the DMCs due to their role as the Chair of the District Security Committee (DISEC). This dual role enables the DCE to address illegal mining through their authority within DISEC.
- According to labor statistics from the Minerals Commission, 90 out of every 100 small scale mining activities are conducted illegally.

9. Community Mining Scheme

The license for a Community Mining Scheme is a SSM licence issued by the Minister. Legally, there is no distinction between community mining schemes and small-scale mining. Land for community mining schemes is sourced from:

- Block-out areas;
- Tributer system: Large-scale miners allocate sections of their land to the community for mining while overseeing their activities. The community, or "tributer," receives a Tributer Certificate from the Chief Inspector of Mines. Under this arrangement, large-scale companies have the first right to purchase the gold produced. Both the large-scale and community miners are held responsible for any defaults.
- Special releases: Large-scale mining companies enter agreements with communities, releasing portions of their land for community mining activities.

10. Reclamation

- Small-scale miners are required to submit a costed reclamation plan to the EPA before being issued an environmental permit. However, only a few small-scale miners have reclaimed the areas they mined.
- Small-scale miners are also resisting the posting of reclamation bonds. Unlike large-scale miners, who use bank guarantees, small-scale miners are required to deposit cash into a bank account. This poses a challenge, as banks are unwilling to issue bank guarantees to small-scale miners due to the absence of feasibility reports.
- The challenge is however with EPA conducting monitoring supervisions at the mining sites.

11. Issuance of License

- With the introduction of the MCAS, an applicant applying for a SSM licence can apply for mining license online, but the District Officer will have to conduct a pre-licensing inspection before your application is attended to. Hence, the MinCom District Office is involved in the issuance of license process.

- The process for issuance of license is not long, the only challenge is in the delay of getting the Minister to sign the license.
- Currently about 380 active licenses have been issued and about 750 active licenses were issued last year.

12. Monitoring

- Conducting monitoring at mining concessions is not much of a problem, the problem however has to do with those who mine without a license, because they want mine without going through the legal process.
- About 70% of the illegalities happening in the mining sector is basically an issue of illegalities.

3.1.2 EPA – Head Office

Date: 3 rd October, 2024 / 16 th December 2024		Time: 1:30pm	Venue: EPA
Discussants: Ing. Michael Sandow Ali Director, Head of Mining – Michael.ali@epa.gov.gh Justine Seyire Dzadzra Ag. Director Mining- Justine.seyire-dzadzra@epa.gov.gh		Consultants: <ul style="list-style-type: none"> • Yaw Amoyaw-Osei • Barikisu Zawi • Christina Pobee 	
Discussions			
<p>1. ASM Relationship with Large & SSM</p> <ul style="list-style-type: none"> • ASM and SSM basically refer to the same terminologies used in different jurisdictions. In some jurisdiction it is referred to as artisanal and SSM but in Ghana it is referred to as small scale mining. • Community mining schemes and SSM have similar operations, both require EIA study. Even though the community mining scheme is supposed to be for the community, it is being owned by individuals. It is not all the community mining schemes that have environmental permits for their operations because of the politics involved. • SSM licence are given to four categories of entities – groups (10 persons required), cooperatives, individuals (companies) and communities (under the community mining scheme). • The current challenge lies with illegal miners (galamsey operators) operating as community mining groups/schemes. <p>2. Compliance of Mining Sector Operators</p> <ul style="list-style-type: none"> • EPA has in total 18 Regional Offices and Area Offices in some mining hotspot regions. • The regional and area officers are mostly the ones that start the EA process for the issuance of environmental permits and also conduct monitoring at the mining sites. • Large-scale mine operators are compliant with EPA regulations and stringent rules are applied to their operations. The large-scale miners use cyanide in processing of the concentrate. • Small-scale gold miners are the most offenders and cause most of the environmental menace. • EPA is able to conduct effective monitoring for the large-scale mines than the small-scale mines because the small-scale mines outnumber the large-scale mines. There are about 400 active small-scale licences. • Prosecutions are mostly the last resort for non-complying miners. But some measures for non-compliance include enforcement notices with stated timelines and administrative charges applicable. <p>3. Requirement for Posting of Bond</p> <ul style="list-style-type: none"> • It is only the large-scale mining companies that are currently required to pay reclamation bond. A process has however been initiated to require the small-scale miners to also pay the bond. This process is, however, 95% done and a RSA developed. Some of the limitations of the RSA include; <ul style="list-style-type: none"> ○ Measuring the extent of degradation for small scale miners; and ○ Acceptance of bonds from the various banks due to its high-risk nature. • The SSM are also requesting for an AKOBEN programme to establish their environmental performance rating so they can be differentiated from the illegal miners. <p>4. From Galamsey to ASM</p> <ul style="list-style-type: none"> • Some of the SSM work outside their concessions indicated in the mineral license and that is considered as illegal mining because the mining license and environmental permits given to the miners are site specific. 			

- Galamsey operators are encroaching on designated mining concessions belonging to both the small-scale miners and the large-scale miners.

5. Involvement of TAs in EA process

- Under LI 1652, miners are required to conduct stakeholder consultations, which include engaging with communities and TAs. Additionally, the EPA holds public hearings when necessary. The Minerals Commission (MinCom) is also required to Gazette the mining license for a 21-day period, allowing community members, TAs, and other stakeholders to submit any concerns and resolve them prior to issuing a mining lease or SSM licence to the miner.
- However, there are instances where some TAs express grievances about not being adequately consulted during the permitting process

6. Children Involved in Mining

- Children are not allowed on any legal SSM sites. However, they are often found at illegal and abandoned sites because of the money they tend to make from there.
- As part of EPA’s monitoring activities, they observe for potential child labour issues, even though it not their core mandate. They also educate miners on the effect of chemicals on the health of the children.
- Additionally, the EPA provides resources to some child labour committees to support sensitization programmes within the communities.

7. Payment of Royalties

Miners that mine in forest reserves pay additional royalties of 0.6% to the Group for Mining in Forest Reserves aside the 5% paid to the government. Of this 0.6% levy, 0.3% is allocated specifically for the development of the communities where the mining activities occur.

8. SEAs for ‘Blocked Out Areas

It would be necessary for the Geological Survey Authority to partner with Minerals Commission to provide “blocked out areas” earmarked mining activities and should be subjected to SEAs. These will further guide the zoning of mining activities within the area depending on the type of mining and processing techniques.

9. One Stop Shop Permitting/Licensing System

Having the one stop permitting platform will allow for effective M&E (i.e. identifying which licenses are currently being processed or approved).

10. Environmental Permits Issued (2014 – 2024 Nov.)

Year	No of Env. Permits	Remarks	Year	No of Env. Permits	Remarks
2014	8		2020	60	
2015	173		2021	82	
2016	38		2022	80	
2017	54		2023	77	
2018	0	Ban on SSM	2024	90	
2019	73		Total	735	

3.1.3 EPA – Western Region

Date: 30 th October, 2024	Time: 3:00pm	Venue: Virtual
Discussant: Shine Fiagome, Regional Director - 0501301697		Consultants: <ul style="list-style-type: none"> Yaw Amoyaw-Osei Christina Pobee Barikisu Zawi

Discussions**1. Issuance of Permits**

- The Minerals Commission designates areas for SSM, but miners sometimes discover that their permitted sites lack sufficient mineral resources. As a result, they tend to abandon these sites and seek out unpermitted areas for mining activities.
- Most of the miners go ahead to mine when the process for the issuance of the environmental permit delays.
- Both SSM and community mining schemes are subjected to environmental assessments and are required to complete the SMMI 1 (Small and Medium Scale Mining) form for registration of the project.
- EPA issues an environmental permit only after a miner has obtained a mining lease or SSM licence and the prescribed timeline for an environmental impact assessment is 90 days.

2. Reclamation Bond

- Miners are required to submit a reclamation plan along with other necessary documents when applying for an environmental permit. However, they are not able to implement the plan, as they do not appreciate its purpose.
- Previously, small-scale miners were not required to post bonds, but processes are now being established to ensure that they do.
- There is no conflict of interest for the EPA in both posting the bond and overseeing reclamation, as the EPA serves a coordinating role and works collaboratively with the Minerals Commission to ensure compliance.

3. Mining Support Services Companies

- The mining support service companies (MSSC) can assist miners/cooperatives in obtaining all necessary mining related permits.
- Before providing training to cooperatives or miners on mining operations, MSSCs should first conduct a needs assessment to identify specific requirements. Based on the assessment, practical training modules can then be developed and delivered at SSM companies that adhere to legal standards.
- MSSC can take charge of land clearing, topsoil preservation, excavation, and the development of mining and reclamation plans. However, the permitting regime needs to be revised to formally include the MSSC involved with cooperatives, making them accountable for any issues or concerns that arise.
- MSSC should also take on the responsibility of training cooperatives/miners on implementing and following through with reclamation plans.
- MSSC must demonstrate their capacity to handle the assigned scope of work before being recruited.

4. Financial Support for the MSSC

The BoG can finance the activities MSSC for the cooperatives with proven track records involved in artisanal mining operations.

5. Technical Personnel

- Each mining site should employ at least one qualified mining engineer with the necessary technical experience and a relevant bachelor's degree or membership in the Ghana Institute of Engineers. This ensures sound operations and environmental protection.
- Mining cooperatives that lack an in-house mining engineer can also engage the services of a MSSC for technical assistance.

6. Conversion of Lands for Community Mining

There have been complaints from some rubber plantation owners regarding their land being allocated for community mining activities.

7. Suggestions

- The MSSC can also oversee the grievance mechanism and manage complaints to ensure safety, resolve conflicts promptly, and promote harmony within mining communities.
- The Ghana Geological Survey Authority can be tasked with the responsibility of conducting exploration and prospecting studies to identify mineral-rich areas and advise the cooperatives on suitable locations to apply for mining permits.

3.1.4 GLRSSMP PCU

Date: 6 th November 2024	Time: 10:00am	Venue: GLRSSMP
Discussants: Micheal Dawutey, M&E Specialist – 0244888276 Juliana Abbeyquaye, Gender Specialist – 0243707372 Reynolds Kwapong, Environmental Specialist Assistant – 0240214518	Consultants: <ul style="list-style-type: none"> • Yaw Amoyaw-Osei • Kwabena Kwakye Mamphye • Christina Pobee • Barikisu Zawi 	
Discussions		
1. ASM and SSM		
<ul style="list-style-type: none"> • The project is designed with the multi-sectoral implementation concept, and it is being implemented by 9 regulatory agencies as the issues within the ASM cut across these agencies. • The terms “ASM” and “SSM” are used interchangeably in different jurisdictions. In Ghana, the Minerals and Mining Act categorizes mining into large-scale and SSM. However, SSM is referred to as ASM on a global scale, which is why the term ASM was used in project documentation. • Initially, the project considered incorporating medium-scale mining into the licensing regime, which would allow foreign nationals to partner with Ghanaians to acquire mining concessions. However, stakeholders opposed this idea during consultations, preferring that foreign nationals interested in mining apply for a large-scale concession and adhere to the established procedures for large-scale operations. • The PCU has, however, requested an opposition paper from the Minerals Commission (MinCom) on whether to go ahead with the medium scale or not. Hence, the MinCom will conduct another round of stakeholder consultations so as to conclude on the issue. 		
2. ASM Formalization		
<p>The formalization of ASM is not just about legalization, it is to address compliance with environmental and social (E&S) standards and promotes responsible mining practices. The project seeks to facilitate a transition for informal miners (illegal miners) into the formal sector by minimizing challenges, such as high turn-around time in the acquisition of license. Hence, a recommendation was made to automate the licensing procedure and also set up the one-stop-platform for license acquisition, where all the regulatory agencies responsible (MinCom, EPA and WRC) for issuing permits for the small-scale will be enrolled onto so they can all have access and work concurrently on the application before it gets to the Minister for MinCom, thereby reducing the turn-around time.</p>		
<p>As part of these improvements, the Minerals Commission’s Mining Cadastre Administration System (MCAS) has been upgraded, and the WRC is now integrated into the system. EPA integration is still pending, and efforts are underway to integrate the Minister's Office as well, although this has not yet been achieved. The platform will streamline the application process, making it accessible to miners regardless of their location.</p>		
3. Delineation of Mineral Rich Areas		
<p>As part of the project, the GGSA is to conduct geological investigations on block out areas and parcel these areas for small-scale miners so they will be informed on the mineral economic value of the concession and the mining methodology and the mineral processing to adopt. This is intended to discourage miners from indiscriminate digging in search of minerals, make mining more profitable so they have the resources to reclaim the land after completing mining activities, and minimize environmental destruction.</p>		
4. Interventions Under the Project Which Have Been Implemented by MinCom		
<p>These include:</p> <ul style="list-style-type: none"> • Establishment of the remote sensing technology to support monitoring; and • Tracking of movement of heavy equipment. 		
5. Policy and Regulation Reforms		
<p>The policies and regulations that are currently been reformed under the project are:</p> <ul style="list-style-type: none"> • Water Resources Commission (Riparian Buffer Zones) Regulations. The draft has been prepared; 		

- Water Resources Commission (Control of Waste Discharge and Management of Water Quality) Regulations. The draft has also been prepared;
- LI to Support Geological Investigation and Mineral Exploration by the GGSA. The draft for this is not ready; and
- Ghana’s Mining and Environmental Guidelines 1994, which is being reviewed and a draft has been prepared.

6. Review of the Minerals and Mining Act

The Ministry of Lands and Natural Resources has also commenced the review of the Mining and Minerals Act (Act 703).

7. Mining District Committees

The project has inaugurated about 88 district mining committees (DMC) across the mining areas in the country. The DMC consists of: Traditional Authorities, DCE/MCE, EPA Officer, Inspectorate Officer, MinCom District Officer. This platform is to give them the opportunity to participate in the management of SSM activities in the area. However, following their inauguration, the DMCs have struggled to function effectively due to a lack of resources. To address this, PCU is providing support to enable the DMCs to hold meetings, conduct monitoring activities and planning sessions.

If the DMCs are made functional the MMDAs would be able to identify illegal miners (those mining without license) within their jurisdiction.

8. Recommendations

- Recommendations can be made for the MMDAs to be integrated into the one-stop platform, so they can also be held accountable for any illegalities within their jurisdiction.
- The PMMC buys a chunk of the gold produced by the small-scale miners and has certain arrangements in place. Hence it will be recommended for the consultant to engage PMMC.

3.1.5 Water Resources Commission

Date: 20 th September, 2024	Time: 12:30pm	Venue: WRC
Discussant: Mawuli Lumor, Chief Basin Officer - 0244533990	Consultants: <ul style="list-style-type: none"> • Yaw Amoyaw-Osei • Barikisu Zawi • Christina Pobee 	
Discussions		
<p>1. Extent of Water Resource Degradation</p> <p>Reports indicate that turbidity levels in water bodies such as the Pra, Tano, Offin, Birim, Densu and Ankobra Rivers range between 14,000 and 28,000 NTU. These rivers have been adversely impacted by illegal mining activities. The WRC currently conducts monitoring studies twice a year, in February and July, focusing on six physico-chemical parameters and heavy metals concentration except for arsenic and mercury. The analysis does not include mercury and arsenic due to the high costs associated with such tests. As such as part of the GLRSSMP, a mini laboratory will be established to support the WRC to enable them conduct frequent monitoring and expand the scope of their water quality assessments, including the analysis of heavy metal concentrations.</p> <p>Aside from the use of mercury in ore recovery by illegal miners, some heavy metals, such as iron and arsenic, are naturally occurring elements found in the rock. These elements are released into the environment through mining activities, polluting nearby water bodies.</p>		
<p>2. Water Dependent Industries/Operations that Take Permit from WRC</p> <ul style="list-style-type: none"> • Ghana Water Company and Irrigation Companies such as the palm plantation at Butre are industries whose operations are affected by the water pollution. • Large-scale mining operations comply with the Water Use Regulations, 2001 (LI 1692), by obtaining the necessary water use permits to ensure that their water extraction and usage are legally regulated and managed in accordance with environmental standards. 		

- The WRC is unable to monitor illegal mining sites due to the security risks associated with these areas. The presence of illegal activities often poses dangers to personnel, limiting the Commission's ability to effectively carry out water resource management and monitoring in such locations.
- Large scale mines are required to pre-treat wastewater to prescribe limits and are charged fees for discharging the treated wastewater into the environment.

3. Relationship with MMDAs in Protecting Water Quality and Resources

WRC uses the principle of an Integrated Water Resource Management process where every institution who plays a role in water resource management is part of the management process. As such, each basin has a Basin Board which includes the respective MMDAs, Minerals Commission, Forestry Commission, and Traditional Authorities. The Basin Board meetings are organized twice annually. The Basin Board are also responsible for watershed management.

4. Role of WRC in Watershed Management

The GLRSSMP is currently funding the WRC to pilot local water governance project where the community gets to be involved in the management of water resources. WRC have conducted some initial identification and are set to inaugurate committees. As part of the committee structures, a Chief or an Influential Person in the community will be designated as a patron to lead the committees.

5. Buffer Zone Policy

The recommended buffer widths to observe during any operation in accordance with the Riparian Buffer Zone Policy, 2013 are as follows:

- 60 to 90 meters for municipal reservoir shoreline protective buffer (e.g. Weija Dam and Lake Bosomtwe);
- 10 to 60 meters for major perennial rivers/streams (e.g. Volta, Tano, and Offin);
- 10 to 20 meters for minor perennial streams;
- 10 to 15 meters for important seasonal streams;
- 10 to 50 meters for streams within forest reserves: and
- 30-meters around the perimeter as defined from the high-water elevation for wetlands.

Additionally, in accordance with LI 1692, a permit holder is required to construct, secure, and maintain any necessary infrastructure for the proper management and passage of wastewater from their operations. This must be done to the satisfaction of the Commission, or a person appointed by the Commission, ensuring that wastewater is appropriately managed to prevent environmental harm and comply with regulatory standards.

6. Simplified Procedure in Relation to Water Use Permits

The GLRSSMP has initiated the development of a one-stop permitting platform. This platform will allow all regulatory bodies with the mandate to issue permits to access and track permit decisions made by each entity. By providing a centralized system, the platform aims to enhance collaboration among regulatory agencies, streamline the permit issuance process, and improve overall transparency and efficiency in decision-making.

7. Seizure of Galamsey Lands

Seizing lands affected by galamsey activities will be ineffective. Instead, Chiefs should be empowered to take responsibility for managing lands within their jurisdiction. This approach would enhance local oversight and accountability, allowing traditional authorities to play a key role in preventing illegal mining and promoting sustainable land use practices.

8. ASM Implications for Transboundary River Bodies

- Both Côte d'Ivoire and Ghana have raised concerns about the transboundary pollution of the Tano and Bia Rivers caused by illegal mining activities (galamsey) occurring in both countries. However, the River Basin Authority has limited capacity to address the pollution of these transboundary rivers because of the high security risks involved. Many of the illegal miners are armed with weapons, such as guns, making it dangerous for regulatory bodies to intervene effectively in these areas.
- Despite the high security risks involved, the issue of transboundary river pollution can be addressed through dialogue and the development of collaborative projects that member countries can implement together. This will foster communication

and cooperation among the affected nations, enabling the development of shared solutions to mitigate pollution, protect water resources, and ensure the sustainable management of transboundary rivers.

3.1.6 Forestry Commission (FC)

Date: 3 rd October, 2024	Time: 1:30pm	Venue: GLRSSMP
Discussant: Joseph Appiah-Gyapong (PHD), Head of Donor Relations/Projects - 0208126825, appiah_gyapong@yahoo.com	Consultants: <ul style="list-style-type: none"> • Yaw Amoyaw-Osei • Barikisu Zawi • Christina Pobee 	
Discussions		
<p>1. Forest Reserves</p> <ul style="list-style-type: none"> • There are about 283 to 286 forest reserves including – national parks, resource reserves such as Sha Hills. Also, about 5000Ha of area scattered across the various forest reserves are degraded by illegal mining activities. • Small Scale Mining is not accepted in any of the Forest Reserves by law (LI 2462). Additionally, surface mining is not permitted in forest reserves, but underground mining is. • A maximum of 2% of the total land area of a forest reserve is given for exploration. <p>2. Permitting</p> <ul style="list-style-type: none"> • The FC issues an entry permit once the mining lease and environmental permit are obtained. The entry permits are issues with conditions that must be complied with. • There is a lack of institutional collaboration from the granting of the mining lease to the issuance of the environmental permit. • Any activity taken within a forest reserve without any entry permit is considered illegal. <p>3. Management of Forest Reserves</p> <ul style="list-style-type: none"> • The FC manages the reserves, but they belong to TAs. The TAs receive royalties from the revenue generated from the production reserves. <p>4. Monitoring and Supervision</p> <ul style="list-style-type: none"> • The FC has a rapid response team trained and armed to address security threats. • The FC lacks the skills and capacity to effectively supervise and monitor mining activities in forest reserves. • Two FC staff members were shot and killed last year. 		

3.1.7 Lands Commission

Date: 1 st October, 2024	Time: 10: 17am	Venue: LC
Discussant: Maxwell Adu-Nsafoa- Technical Director (Lands) - Maxwell.nsafoa@mlnr.gov.gh	Consultants: <ul style="list-style-type: none"> • Yaw Amoyaw-Osei • Barikisu Zawi • Christina Pobee 	
Discussions		
<p>1. Role of the Lands Commission in Land Title</p> <ul style="list-style-type: none"> • In Ghana, 20% of the land is owned by the state (public lands), while 80% falls under customary land arrangements. The customary land arrangements encompass family and stool/skin lands. Other forms of customary ownership are the tendana (in the Upper East) or tindaamba (in the Upper West). • Public lands are acquired by the government through the exercise of eminent domain, which allows for compulsory acquisition. When land is acquired, compensation is provided in accordance with the Lands Act, 2020 (Act 1036). • Land Commission – 		

- On behalf of the Government, manage public lands and any other lands vested in the President by the Constitution or by any other law and any lands vested in the Commission;
- Advise the Government, local authorities and traditional authorities on the policy framework for the development of particular areas of the country to ensure that the development of individual pieces of land is coordinated with the relevant development plan for the area concerned; and
- Advise on, and assist in the execution of, a comprehensive programme for the registration of title to land throughout the country.

2. Rights of a Mining Lease Holder

- The holder of a mining lease only has the right to the minerals under the land and does not own the surface right unless the owner of the land has been adequately compensated. The ownership of the land for the concession is, however, not transferred to the mining companies.
- The State can also compulsorily acquire surface rights when landowners do not agree to negotiation terms, particularly when the project is deemed to be of national interest.
- Copies of mining leases are provided to the Land Commission (LC) for record-keeping purposes.

3. Land Security

- The interests of both the landowner and the farmer should be formalized and registered with the LC to ensure the protection of both parties. Registering these lands will deter the TAs from giving the lands out for illegal mining activities.
- Under the Lands Act, 2020 (Section 14 to 18), TAs are required to establish Customary Lands Secretariats for their management lands. The mandate of the Secretariats includes recording land interests and rights and maintaining accurate and up-to-date records of land transactions within their area of operation.
- A Customary Land Secretariat is also required to submit records of each recorded transaction to the Lands Commission and the Office of Administrator of Stool Lands every three months.
- The Lands Commission are now working on the Regulations for the Lands Act, 2020 and may include it a system that will capture the “Abunu” and “Abusa” land tenure system.

3.1.8 Land Use and Spatial Planning Authority (LUSPA)

Date: 20 th September, 2024	Time: 10:30 am	Venue: LUSPA
Discussant: Mohammed Alhassan Damba, Director Research Monitoring and Evaluation – 0245496917		Consultants: <ul style="list-style-type: none"> ● Yaw Amoyaw-Osei ● Barikisu Zawi ● Christina Pobee
Discussions		
1. Land Use Plan		
The various land use schemes referred to in Section 46 of the Land Use and Spatial Planning Act (Act 925) include the following: <ul style="list-style-type: none"> ● Spatial Development Framework (strategic framework prepared at national, sub-national, regional and district levels) ● Structural Plans (Master Plans): broad land use zones prepared cities and townships ● Local Plans: district/community level ● Mining activities reflect in all 3 levels of land use schemes/planning. <p>Greenfield areas are the responsibility of the MMDAs to project. However, the landowners do have shares in proceeds gained from the Greenfields.</p>		
2. LUSPA’s Mandate		
<ul style="list-style-type: none"> ● The core mandate of LUSPA seeks to ensure sustainable development of land and human settlements within the entire territory of the country (Act 925). The territory of Ghana as defined under the Constitution of the Republic of Ghana includes the land mass, air space, sub-terrain territory, marine space and reclaimed lands (Section 45 of the Act 925). 		

- LUSPA’s strategic role ensures sustainable landscape management through the preparation of planning permit frameworks whereas the Physical Planning Departments (PPDs) provide permits in compliance with the Local Development Plans.

3. Incorporation of Mining Concessions into Land Use Schemes

- The responsibility of LUSPA includes the development and management of broader framework/planning schemes whereas the MMDAs are responsible for the spatial, human settlement and planning development of its area of authority (Section 34 of Act 925).
- If a mineral concession is identified by a company or individual during exploration, the PPD of the MMDAs and LUSPA are informed, so they can update the land use schemes in the future, such as designating that area as a mining zone.

4. Involvement of MMDAs in Mineral Concession/Mining Permit

- Payments related to mineral rights are typically paid to the MinCom, which does not serve as an incentive for the MMDAs to actively engage in the mineral rights process. Therefore, it is essential for MMDAs to receive a share of the licensing fees and charges associated with mineral rights to encourage their active involvement.
- The process of granting mineral rights should follow a bottom-up approach, beginning with the involvement of local authorities. This should include active participation from the chiefs and the respective MMDAs. This approach will ensure that all relevant stakeholders at the local level are engaged from the outset, promoting transparency and inclusiveness in the mineral rights process.
- Additionally, there needs to be a regulatory framework that will make it obligatory for the MMDAs to be part of the mineral rights process.

5. Incorporation of Mineral Concessions into District Medium Term Development Plans

- MinCom gives the mineral right for concessions and the District Planning Authority/MMDAs permits any physical development in their jurisdiction (Local Governance Act, 2016 (Act 936).
- The District Assembly is responsible for the development, improvement and management of human settlements and the environment in the district (Act 936).
- The PPD of the MMDAs is responsible for preparing spatial plans and assisting in the development of district land use plans. These plans help guide the formulation of development policies and inform decisions related to the district's activities (Local Governance Service, 2018).

6. LUSPA’s Support to MMDAs

The MMDAs by Act 936, are allowed to work autonomously while LUSPA provides technical support by granting land use planning schemes to be adapted. However, major limitations include socio-political interferences and deeply embedded political interests and networks which limit the functions or objectives of the MMDAs.

3.1.9 Office of the Registrar of Companies (ORC)

Date: 25 th September, 2024	Time: 1:45pm	Venue: ORC
Discussants: Love A.K Yeboah, Head, PPBR M&E- kceeeel@gmail.com Frank Opoku-Darko, Ass. Chief Company Inspector - 0243534169 Daniel Brobbey, Deputy Research Director - 0249502028 Sandra Korkor Quarcoo, Chief Company Inspector - 0249193246	Consultants: • Yaw Amoyaw-Osei • Barikisu Zawi • Christina Pobee	
Discussions		
<p>1. Registration Process for ASM facilitation</p> <ul style="list-style-type: none"> • ORC oversees registration of companies while the Minerals Commission plays the role of the regulatory body for mining operations for companies. • ORC has 4 Regional Offices located in Accra, Sunyani, Takoradi and Tamale to aid in the facilitation of registering companies. These regional offices aid in ensuring seamless and decentralized services across the country. 		

- In the registration of companies, the use of the term “Enterprise” is adapted for easy identification of SSM companies from the large-scale mining companies.
- Renewal of business certificate is done annually.

2. Incentives and Special Facility for ASM Operator Registration

There are currently few incentives for registering companies which include reduced registration fees. The ORC is keen on undertaking grass root registrations across the country as part of its key formalization strategy. The grass root registration is where the ORC team goes into the communities and provides registration services.

3. The Community Mining Projects

There is strong willingness of small-scale miners to register their companies except for some groups/individuals who are operating illegally.

4. Recommendations

- Incentivize formalization through proposals such as downscaling of taxes. This is to enable easy identification of mining groups/ associations.
- Sensitization of the miners through the registration process.

3.1.10 Office of the Administrator of Stool Lands (OASL)

Date: 26 th September, 2024	Time: 10:50 am	Venue: OASL
Discussants: Maame Ama Edwumadze-Acquah, Administrator of Stool Lands – sisterdee2026@gmail.com , 0244262301 Antoinette Dzifa Asafo, Assistant Stool Lands Officer- dzifaasafo@gmail.com		Consultants: <ul style="list-style-type: none"> • Yaw Amoyaw-Osei • Barikisu Zawi • Christina Pobee
Discussions		
<p>1. Use of Customary Lands in Galamsey Operations</p> <ul style="list-style-type: none"> • Most of customary/stool lands are currently encroached by illegal miners. This has significantly affected stool lands revenue especially from agricultural lands. • With the exception of a few, the majority of traditional authorities (TAs) are involved in illegal mining activities within their jurisdiction. 		
<p>2. Involvement of TAs in Land Acquisition and Mining Leases for ASM</p> <p>Some TAs have complained about not being involved in decisions regarding mineral rights. Hence, TAs should be involved in the mining rights or lease process and, as such, can be held accountable for the management of mines. Their involvement can ensure better oversight, making them key stakeholders in ensuring compliance with regulations and environmental standards in mining operations.</p>		
<p>3. Local Management Committees</p> <p>About 20 to 21 Local Management Committees have been established in the various mining areas under the Minerals Development Fund Act, 2016 (Act 912). These committees receive funds from the Minerals Development Fund to undertake projects aimed at the development of their respective communities.</p>		
<p>4. Payment of Royalties and Ground Rent</p> <ul style="list-style-type: none"> • In accordance with clause (6) of article 267 of the Constitution and the Office of the Administrator of Stool Lands Act (Act 481), ten percent of the revenue accruing from stool lands is to be paid to the Office of the Administrator of Stools Lands to cover administrative expenses; and the remaining revenue is to be disbursed in the following proportions: (a) twenty-five percent to the stool through the traditional authority for the maintenance of the stool in keeping with its status; (b) twenty percent to the traditional authority; and (c) fifty-five percent to the District Assembly within the area of authority in which the stool lands are situated. 		

- Traditional Authorities (TAs) have, however, raised complaints regarding the insufficient allocation of stool land revenue provided to them.

5. Reclamation

- The land holding title should revert to the original custodians of the land, unless compulsorily acquired by the Government (i.e. land and interests are vested in the State).
- There should be a system that allows the small-scale miners to post reclamation bond for the remediation of land in the event of default.

6. Incentives

The ASM scheme can be incorporated into the community mining scheme and provided with some incentives to entice them to pay the reclamation bond.

7. Recommendations

There should be a nationwide sensitization on the effects of illegal mining on our environment.

3.1.11 Ministry of Employment and Labour Relations (MELR)

Date: 2 nd October 2024	Time: 10:20am	Venue: MELR
Discussants: Kizito Ballans, Chief Director - 0208162057 Esther Ofori Agyemang, Head of Child Labour Unit – 0244643276 Esq Hamidu Adakurugu, Director of Finance and Administration - 0244688558	Consultants: <ul style="list-style-type: none"> • Yaw Amoyaw Osei • Barikisu Zawi • Christina Pobee 	
Discussions		
<p>1. Child Labour</p> <ul style="list-style-type: none"> • The ministry is mandated to promote decent work, and it does that through its departments such as the Department of Factories Inspectorate (DFI) and the Labour Department. • The Labour Department conducts labour inspections in workplaces to ensure compliance with the Labour Act, 2003 (Act 651). • The National Plan of Action on Child Labour provides a clear vision for the elimination of child labour. To support its implementation, the ministry has established the National Steering Committee comprised of relevant ministries and agencies, such as the Ministry of Gender Children and Social Protection, the Ministry of Lands and Natural Resources, the Minerals Commission, and others. • The Hazardous Activity Framework specifies that a young person must be at least 21 years old to work in the mines. <p>2. Monitoring and Supervision</p> <ul style="list-style-type: none"> • The Department of Labour is not a decentralized institution, and due to the limited number of labour inspectors, labour inspections are not widespread. Therefore, labour inspections should be strengthened by providing the department with the necessary resources and enhancing the capacity of its staff. • The Inspectorate Division of the Minerals Commission (MinCom) is responsible for conducting inspections at mining sites, while the DFI is responsible for inspections at construction sites and factories. <p>3. Health Policy</p> <p>There is no policy on health and safety, and as a result, there is no management system in place for health and safety.</p>		

3.1.12 Ministry of Gender, Children and Social Protection – Department of Children (MGCSP-DoC)

Date: 14 th October, 2024	Time: 2:00pm	Venue: Virtual
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Discussants: Alexender Boadu Sefa, Head of Department of Children - 0243362123	Consultants: <ul style="list-style-type: none"> • Barikisu Zawi • Christina Pobee
Discussions	
<p>1. Functions of the Department of Children</p> <p>The Department of Children has the responsibility of implementing programmes and activities affecting children in Ghana. Its mandate is to improve the welfare and full integration of Children into the development process through advocacy, research and other development projects. The functions of the Department are to:</p> <ul style="list-style-type: none"> • Implement policies, programmes, projects and plans of the sector Ministry; • Monitor and evaluate the processes and impacts of plans and programmes; • Collaborate and network with MDAs, MMDAs, Non-Governmental Organizations to improve and enhance the socio-economic status and circumstances of children; • Undertake research towards improving the wellbeing of children; • Provide referral and on the spot counseling services; • Implement Ghana’s International conventions, treaties and protocols in relation to children’s development <p>2. Child Labour Issues</p> <ul style="list-style-type: none"> • The primary causes of child labor in mining communities are poverty and parental neglect. Children in these areas often prioritize mining due to its economic benefits, leading them to believe that it is a better option than attending school. • Additionally, there are rising cases of teenage pregnancy in these communities, largely attributed to the presence of high-earning workers. This situation results in many girls dropping out of school. <p>3. Allocating Funds for Children Education</p> <p>Allocating a portion of mining royalties to District Assemblies to support children's education in affected mining communities is a beneficial idea. However, measures must be put in place to ensure the funds are safeguarded and used effectively for this purpose.</p> <p>4. Monitoring</p> <p>The Department of Children is not decentralized, limiting its ability to conduct frequent monitoring activities in the communities.</p> <p>5. Recommendations</p> <ul style="list-style-type: none"> • District Assemblies should establish by-laws to discourage mining activities that attract children and implement sanctions for parents who permit their involvement. • Awareness campaigns should be conducted in mining communities to educate residents about the dangers of child labor. • Child Protection Committees should be formed in mining communities, comprising chiefs, community members, and other stakeholders. Members of these committees should receive training on effectively addressing child labor issues. 	

3.1.13 Ghana Geological Survey Authority (GGSA)

Date: 1 st November 2024	Time: 10:00am	Venue: GGSA
Discussant: Mr. Isaac Mwinbelle, Ag. Deputy Director- General, isaac.mwinbelle@mincom.gov.gh 0244711549	Consultants: <ul style="list-style-type: none"> • Christina Pobee 	
Discussions:		
<p>1. Extent of World Bank Support Towards Mineral Exploration for SSM</p> <p>The World Bank provides support to the GGSA towards the delineation of mineralized zones /blocked out areas as part of the GLRSSMP. The GGSA conducts the following activities:</p> <ul style="list-style-type: none"> • Geophysical surveys (Airborne magnetic surveys); • Geochemical soil sampling; • Geological mapping for delineated or SSM blocked out areas (prospective gold deposit areas); 		

- Providing regulatory support through the development of a legislative instrument to give effect to the Geological Survey Act 928, 2016; and
- Improvement of geological information by implementing a Geological and Mineral Information System. This system will capture, store and process data in a comprehensive and useful format, connecting all regional offices to one network system.

2. Delineation Procedures for Mineable Areas for SSM

The procedure for the delineation for mineable areas for SSM include:

- Conduct a desktop study of existing data or literature to understand the general geology of the area;
- Conduct geophysical surveys using magnet-mounted drones which helps for broad coverage;
- Interpretation and categorization of recommended areas for further analysis;
- Geochemical soil sampling to ascertain concentration of gold in recommended areas. Data is then plotted to develop a layout of areas with mineral concentration;
- Geological mapping to define drillable areas;
- Drilling process; and
- Mineral resource estimation/evaluation.

3. Extent of Regional and Nation-Wide Mineral Exploration

Mineral exploration activities are long term projects and expected to be conducted over a long period of time. These activities are largely dependent/ supported by the availability of existing data or baseline information on the delineated areas. As such, sustained and continuous investment can ensure the carrying out of extensive systematic mineral exploration. This will enable the extension of coverage to most or all mineralized areas of the country.

Currently, the GGSA is working on 5 to 6 block-out areas, of which 3 are currently worked on i.e. the Dunkwa Block (undergoing geochemical sampling), the Senyo Block (undergoing geophysical sampling), and the Bonfe Block. The GLRSSMP is a 5-year project focused exclusively on only delineated block-out areas. The World Bank's allocated budget is limited to these designated zones.

4. Adequacy of Resources from MIIF/MDF

8% of the royalties that goes into the MDF is allocated to GGSA. However, this allocation is inadequate. Recommendation for increased quota of 30-40% to conduct extensive mineral exploration and develop reliable geological data for mining.

5. Bank of Ghana Domestic Gold Purchase Programme and Small-Scale Miners Involvement

The Gold Purchase Programme is challenged by low gold production levels among SSM operators. This issue stems from the lack of sufficient improved geological data, which hinders their capacity for efficient gold extraction. Additionally, a significant portion of the gold is lost due to the reliance on trial-and-error mining techniques.

6. Capacity Building and Mining Support Services

- Institutions such as UMaT can provide technical support in capacity building for mining professionals in the mining process to improve their production.
- The GSSA can provide Mining Support Service through the following;
- Reduced costs of laboratory analysis for geochemical sampling
- Help in the interpretation of data and become a national repository of geo science data as contained in their mandate

3.1.14 Department of Co-operatives (DOC)

Date: 6th November, 2024	Time: 11:00am	Venue: Virtual
Discussant: Edith Dzidzornu, Deputy Registrar Legal - 0244685726	Consultants: <ul style="list-style-type: none"> • Barikisu Zawi • Christina Pobee 	

Discussions

1. Procedure for Forming Co-operatives

Cooperatives function as companies, however, the registration process of both varies. To form a cooperative, the following steps are required:

- Interested parties/ members are first provided with training and sensitization on the structure and functions of a cooperative. As such, designated leaders of the DOC are required to provide education to their members on the requirements and operations of a cooperative.
- Costs involved in the registration process include financial audit fees, transportation and postal fees of documentation to Accra.

2. Decentralization of Services for Registration

The DOC provides decentralized services with district officers in charge. The registration process starts at the district office level and is completed at the Head Office in Accra. The Department is mandated by law to conduct monitoring activities and financial audits annually.

3. By-laws for the ASM Operators

The DOC assists the cooperatives in establishing their by-laws which incorporate issues on child labour, gender-based violence, etc. to guide the operations of the cooperatives. The by-laws are also developed with inputs from the District Mining Committees.

4. Incentives for Registration

To further incentivize ASM operators to form cooperatives, there would be the need to provide some extensive form sensitization on the formation of cooperatives. Once these cooperatives are formed, monitoring and compliance can be achieved with environmental guidelines easily and more efficiently.

5. SSM Cooperatives

There are currently very few cooperatives in the mining sector (less than 10).

6. Mining Support Services

Cooperatives have the capacity to function as a company and can apply for external borrowing. These funds can help raise the required funds needed for the reclamation plan and for the services of mine support services

3.1.15 Precious Mineral Marketing Company (PMMC)

Date: 21 st November, 2024	Time: 10:30am	Venue: Virtual
Discussant: Rahael Abolasom Kumah, PMMC - 0205727402	Consultants: <ul style="list-style-type: none"> • Yaw Amoyaw-Osei • Victoria Nkrumah 	
Discussions		
1. SSM's Contribution to Gold Production		
It is estimated that SSM contributes approximately 40% of the total gold production in the country, making a significant input to the economy.		
2. Financing Challenges by PMMC to SSM		
The PMMC previously financed SSM companies with loans to support their operations. However, this practice was discontinued due to miners failing to repay the loans and insufficient funds from the company's internally generated funds (IGF). In 2021, PMMC incurred a loss of approximately 10 million cedis due to unpaid loans from SSM operators.		
3. Current Financing by the Bank of Ghana		
Currently, the Bank of Ghana (BoG) serves as the primary financier of the PMMC, enabling it to do gold purchases from various mining companies.		

4. Gold Sales and Smuggling Issues

- SSM operators tend to sell their gold to foreign buyers due to the more competitive rates they offer (always adjusting the rates higher compared to the designated local buyers.
- Gold export records from international sources indicate higher outputs than local data, primarily due to rampant smuggling through illegal routes such as Burkina Faso to Dubai, among others.

5. Gold Sales and Smuggling Issues

Most SSM operators work without valid licenses.

6. Memorandum of Understanding to Support SSM Operators

PMMC is currently preparing to sign a MoU, together with the Mineral Income Investment Fund (MIIF) and the MinCom to define their respective roles as intermediary bodies in supporting SSM companies.

7. Promotion of Mercury-Free Gold Processing

PMMC has reduced the rates of the gold-catcher machines to promote use of mercury-free ore processing by SSM operators.

3.1.16 Bank of Ghana (BoG)

Date: 21 st November 2024	Time: 3:00pm	Venue: Virtual
Discussant: Naa Aku Nartey, Head of the Gold Management Office (Financial Markets Dept) - aku.nartey@bog.gov.gh Akua Afriyie Nettey 26 300 1519 Paul E. K. Bleboo - paul.bleboo@bog.gov.gh	Consultants: <ul style="list-style-type: none"> • Yaw Amoyaw-Osei • Christina Pobee 	
Discussions		
1. Streamlining Financial Support and Simplifying Processes for ASM Operators		
<ul style="list-style-type: none"> • The proliferation of illegal mining is largely due to the influx of foreign/ illicit capital. As such, there is the need for financial support or capital from the Bank of Ghana through the local banks needed by ASM operators in undertaking the posting of the reclamation bond as well as to contract the services of the mining support services. • The BoG is currently considering tackling the conversations on “rationalisation/inclusion” of ASM with keen concern. The Bank is currently engaging with foreign organisations including the World Gold Council on the current challenges posed by illegal mining while BoG is interested in pursue and purchasing green mineral/mining or green gold • Minor challenges such as aiding in paperwork and alteration of the process could significantly encourage more ASM operators towards formalisation. • BoG expressed surprise that the SESA for the ASM sector formalization is local initiative, because they have always been concerned and exploring ways to deal with issues of illegal mining/galamsey, and indicated the willingness to join in the discussion on the way forward for this important subject. • The BoG representatives (on the Gold Desk) requested for a write up to enable them substantively take the matter up to their superiors, but they were rather requested to participate in the planned stakeholder validation workshop to enable interaction with other key players such as MinCom, MIIF, PMMC, EPA and MDF. • The senior contact at BoG to address the invitation letter for the workshop was given as: Dr. Zakari Mumuni Director, Financial Markets Department zakari.mumuni@bog.gov.gh. 		

3.1.17 Mineral Income Investment Fund (MIIF)

Date: 22 nd November 2024	Time: 3:30pm	Venue: Virtual
Discussants: Kwabena Barning, Chief Technical and Operations Officer - kwabena.barning@miif.gov.gh Richard Tetteh Oglitei, Head of Risk - richard.oglitei@miif.gov.gh	Consultants: <ul style="list-style-type: none"> • Yaw Amoyaw-Osei 	

Sharon Addo, Head of ESG (Executive Assistant) - sharon.aseidu@miif.gov.gh	• Christina Pobee
Discussions	
<p>1. MIIF's Incubator Programme for SSM MIIF has initiated an incubator programme to support SSM operations by:</p> <ul style="list-style-type: none"> • Providing capital for plant and machinery. • Offering pre-production capital. • Supplying guidelines to help structure business operations effectively. 	
<p>2. SSM Royalties and the role of the MDF SSM operators are legally obligated to pay 5% royalties, though this has been discounted to 4.5%. These royalties can be reinvested into mining communities via the MDF.</p>	
<p>3. Market Distortion Due to Foreign Funding A lack of local funding has led to a large influx of foreign investment in the sector. Gold is bought at a premium rate (higher than the usual market rate) which is currently distorting the market.</p>	

3.1.18 University of Mines and Technology (UMaT)

Date: 17 th December, 2024	Time: 8:30 am	Venue: Virtual
Discussants: Dr Ishmael Quaicoe, Head of Consulting Unit - 0505838593 Isaac Attatsi, UMaT - 0244219848		Consultant: Yaw Amoyaw-Osei
Discussions		
<p>1. UMaT Consultancy Unit</p> <ul style="list-style-type: none"> • UMaT has a consultancy unit that provides capacity building and other training opportunities for SSM operators. • UMaT could also be included in any future planned capacity building programmes, especially on ESIA and SESA and other related E&S subject areas for capacity enhancement of its professionals. This would enable them offer credible consultancy services in such areas. 		
<p>2. Research and Innovation The University had conducted a lot of research on artisanal SSM and some innovative technologies had been evolved like Direct Smelting Technique popularly known as ‘Sikabokyia’, which had been approved by the United Nations Environment Programme as one of the best gold processing methods. This information has been published by media outlets such as Modern Ghana.</p>		
<p>3. Recommendation Private sector entities such as Hibridge Group Ltd and Ridgecrest Resources Ltd could be included in the capacity-building programme, as their teams have been actively supporting SSM companies and are set to launch a support service for these operators in January 2025.</p>		

3.2 MMDAs

3.2.1 Abuakwa South Municipal Assembly

Date: 14 th November, 2024	Time: 10:30am	Venue: Virtual
Discussant: Isaac Ayamaga, Deputy Director-Administration - 0206002052 Benjamin, Assistant Director - 0598747438		Consultants: • Yaw Amoyaw-Osei • Barikisu Zawi
Discussions		
1. Assembly’s Current Role		

The role of the Assemblies in the licensing process is currently minimal. However, when issues of illegality arise within a given area, the jurisdictional Assembly is often the first to be blamed. Due to the sidelining of Assemblies in the licensing procedure for mining activities, many mining entities are reluctant to fulfil essential local-level requirements, such as obtaining business permits, paying property rates, and acquiring stickers for their operating excavators.

2. District Mining Committees

- The District Mining Committees (DMCs) should be established by the District Assembly (DA) rather than the MinCom, with the Assemblies having oversight responsibility for the functions of the DMCs.
- The Assembly can generate revenue by issuing permits, such as business operating permits and property rates, as well as stickers for operating excavators to mining entities. These funds can then be used to support the activities of the DMCs.

3. Land Use Schemes

Mining Concessions are not incorporated into local land use schemes because the Assembly does not have accurate data on them.

4. Recommendations

- The Head of the Environmental Health and Sanitation Unit should be actively involved in any licensing regime related to environmental matters. This ensures they can provide input on potential environmental impacts, particularly those arising from mining activities. Their involvement grants the District Chief Executive (DCE) the authority to hold them accountable for their responsibilities, unlike the EPA officer, over whom the DCE/MCE has no direct authority.
- The PPD of DAs should also be involved in the licensing regime to ensure the proposed site for the mining activity is not at variance with the local land use plan of the DA.
- This will also ensure that miners engage in responsible mining practices, as they will recognize that the Assemblies now play a significant role in the licensing process.
- Additionally, the Assemblies should have the authority to revoke mining leases or SSM licenses granted to miners if they are found guilty of any illegal activities.
- The licensing regime should begin with the Assemblies to ensure proper oversight and compliance with local regulations.

3.2.2 Bole Municipal Assembly

Date: 15 th November, 2024	Time: 10:30am	Venue: Virtual
Discussant: Edmond Zoure, District Planner - 0245282019	Consultants: <ul style="list-style-type: none"> • Yaw Amoyaw-Osei • Barikisu Zawi 	
Discussions		
1. Assembly’s Current Role The Assembly is not involved in the issuance of license to small scale miners. The license processes start at the Minerals Commission and mining companies only apply for site plans and inspection of sites as a requirement to being granted license by the Commission.		
2. Reclamation The Assembly does not undertake monitoring and supervision of SSM activities. It has also not undertaken land reclamation or involved in land reclamation by any entity.		
3. Incorporating Mining Concessions in Land Use Schemes and Medium-Term Development Plan Mining concessions are not integrated into the Medium-Term Development Plan.		
4. Royalties <ul style="list-style-type: none"> • The Assembly has not benefited from royalties from small scale mining or community mining operations. • Chiefs benefit from mining companies operating in their communities but not the entire community. 		

5. Sensitization

The DA can play an important role in reducing child labour, prevention of HIV and teenage pregnancy by carrying out effective sensitization in mining communities on the effects of these stated social issues.

3.2.3 MMDAs Outcomes from the Initial Engagement

Prestea-Huni Valley Municipal Assembly	
Issue Raised	Outcomes
Economic - <ul style="list-style-type: none"> • High rate of unemployment • Increase in cost of living • Increase in buying and selling • Increase in developmental projects • Widen tax net of the assembly and country at large. 	Formalization (developing a system for registering, monitoring and tracking) of ASM will create more job opportunities for local youth
	Cost of goods and services increased as a result of the high purchasing power of miners making it difficult for the locals to afford these goods and services.
	Mining increased commercial activities within local communities and expanded the local economy.
	Development of local communities was accelerated as a result of increasing commerce, expanding economy and improved standard of living.
Socio-cultural – <ul style="list-style-type: none"> • Increase in teenage pregnancy • Increase in influx of migrants • Rise in school dropout rate • Rise in drug use and other social vices • Prostitution and STIs 	Affluent miners lure teenage girls into amorous relationships with the promise of granting them financial favours.
	Mining attracts many migrant workers with diverse cultural backgrounds which sometimes conflict with the culture and societal norms of the local communities.
	The quick financial gains from working in these mines discourage the youth from educational pursuit as they find it less rewarding.
	The youth are influenced by migrant workers to take up bad lifestyles and habits such as smoking and the use of drugs like tramadol.
	Because of how mining was active in the community, women from other towns and communities came to the community practicing prostitution and they end up spreading STIs.
Institutions - <ul style="list-style-type: none"> • Lack of proper procedures and transparency in giving land out for mining. • Lack of coordination between chiefs and assembly members increasing land disputes • Siphoning of proceeds meant for community development 	There were serious challenges in land administration by Chiefs and elders as stool/family lands were offered for mining indiscriminately without following proper procedure. The proper procedure will be for all chiefs and elders to be made aware when an individual or organization wants land for mining. However, this process is not transparent enough and sometimes, a few leaders can give out land without informing the other leaders. It becomes a problem when this same portion of land is given out to a different party by another set of leaders.
	The uncoordinated administration of land between traditional authority and district assembly created room for disputes as lands were allocated by the government institutions without adequate consultation with the relevant stakeholders including chiefs.
	It is alleged that Assembly members and town development committees who represent the people connive to divert funds meant for development to enrich themselves.
	Due to lack of proper monitoring by institutions like GES, some teachers when posted to work in the community do not show up nor attend classes frequently. This

<ul style="list-style-type: none"> • Increase in school drop out 	<p>takes the interest of school out of the students leading to truancy and increased school dropout.</p>
<ul style="list-style-type: none"> • Increase in illiteracy 	<p>When there is an increase in school dropout, there is an automatic increase in the level of illiteracy within communities.</p>
<p>Natural resources -</p> <ul style="list-style-type: none"> • Land degradation and landscape destruction • Water pollution • Deforestation • Air pollution 	<p>Mining destroys land when pits are left uncovered. Erosion from washing creates uneven land surfaces.</p> <p>Water bodies are polluted by the high concentration of mercury and oils used by miners.</p> <p>In the preparation of lands for mining, all trees are cut down and the lands are made bare.</p> <p>Air is polluted from fumes generated by equipment/machines used by miners.</p>
<p>Amansie South District Assembly</p>	
<p>Issue Raised</p>	<p>Outcomes</p>
<p>Economic -</p> <ul style="list-style-type: none"> • Reduction in cocoa and timber production • Loss of revenue by state institutions • Low gold recovery rate • Loss of revenue • Threat to food security • High cost of living in the mining communities 	<p>Gold mining is more lucrative causing more people to lose interest in farming cocoa and timber production.</p> <p>It appears that as the operations of artisanal miners are not properly tracked, local and national authorities lose revenue due to lack of proper reporting and accountability.</p> <p>Studies have proven that ASM only works at a 30% recovery rate. This is due to the lack of modern technology usage in mining.</p> <p>Revenue due the state in taxes is lost through smuggling of minerals into other countries. It is estimated that about 60% of the countries gold is unaccounted for.</p> <p>Destruction of farmlands for mining is gradually reducing food production and creating scarcity.</p> <p>Mining brings a lot of money into the communities increasing the cost of everything and making the cost of living high.</p>
<p>Socio-cultural -</p> <ul style="list-style-type: none"> • Lack of alternative employment opportunities • Children are enticed into illegal mining • Low standard of living against high cost of living • Sexual exploitation: prostitution, juvenile delinquency and teenage pregnancy 	<p>The lack of employment opportunities in communities forces the youth to engage in illegal mining</p> <p>Illegal mining is considered a lucrative venture, as compared to education which is time-consuming and less rewarding making the former the preferred choice of the youth.</p> <p>The presence of mining has caused a spike in the prices of goods and services in these mining communities making the average person worse off economically.</p> <p>This is as a result of children being exposed to new ways of life by migrant workers who come to the community to mine.</p> <p>Economic Vulnerability: ASM often attracts a population seeking alternative livelihoods, especially in areas where formal employment opportunities are limited. The uncertain and sometimes meager incomes from mining can push individuals, particularly women, into transactional relationships or sex work as a means to supplement their earnings.</p> <p>Migration and Temporary Settlements: The transient nature of ASM, where miners move to new sites following ore deposits, leads to the creation of temporary settlements or "boomtowns." These places often lack structured social systems and law enforcement, creating an environment conducive to illicit activities, including sexual exploitation.</p>

	<p>Gender Disparities: Gender roles within ASM communities often relegate women to lower-paid and riskier jobs. As men typically dominate the profitable segments of the sector, women might be compelled to offer sexual favors in exchange for access to better mining sites or additional resources.</p> <p>Health Concerns: Sexual exploitation in mining areas can exacerbate health issues, particularly the spread of sexually transmitted infections, including HIV/AIDS. This poses further socio-economic challenges to already vulnerable communities.</p> <p>Mental Health and Social Stigma: Victims of sexual exploitation often suffer from psychological trauma. In many societies, they might also face social stigma, further marginalizing them within their communities.</p> <p>Lack of Oversight: The informal nature of many ASM operations means there's often a lack of official oversight, making it challenging to regulate and combat sexual exploitation</p> <p>Rise in school dropout, teenage pregnancy, substance abuse: Migrant workers introduce the youth to drugs and lure the young girls with money and subsequently impregnate them. Also, the youth find schooling unattractive and resort to working in mines instead because of the almost immediate financial gains</p>
Child labour	With families often involved in ASM activities, children might be at heightened risk. The allure of quick money in mining zones can attract unaccompanied children, making them vulnerable to various forms of exploitation, including sexual abuse.
<p>Institutions -</p> <ul style="list-style-type: none"> • Political interference especially from the national level. • Apathy • Conflict of interest • Rise in social vices • Lack of supervision causing mining within buffer zones • Institutional bureaucracy 	Instructions usually come from higher-level officials asking junior staff at the district-level to look the other way and accommodate operations of miners.
	Public officials usually possess an attitude of apathy and hardly monitor or supervise mining operations for compliance as required.
	It is alleged that officials may not do the right thing because they may have vested interest in mining companies.
	Increase in prostitution, school drop - out, sexual abuse if institutions do not perform their functions
	If monitoring is not strict and supervision is not keen, it leads to misdemeanors and ASMs not doing the right thing.
<p>Natural resources -</p> <ul style="list-style-type: none"> • Land degradation/depletion of the ozone layer/ecosystem • Loss of fertile agricultural land • Water pollution • Air pollution 	Deforestation, acid mine drainage and loss of vegetation cover are commonly associated with mining operations. Land clearance for mining activities causes destruction of flora, degrades land and an entire ecosystem.
	Individuals are selling agricultural lands to miners causing the community to lose fertile lands which were being used for farming.
	Aquatic resources are endangered by chemicals introduced into water bodies. This also makes water unsafe for human consumption. Chemicals are washed into waterbodies by miners polluting them heavily
	Dust from heavy machinery, fumes from old machines and equipment and emissions from mercury during ore processing pollute the air environment.
Bole Municipal Assembly	
Issue Raised	Outcomes
<p>Economic -</p> <ul style="list-style-type: none"> • Loss of farmlands 	People sell their farmlands to people who want to mine.
	Mining in the community has caused an increase in the cost of goods and services.

<ul style="list-style-type: none"> • High cost of goods and services • Loss of economic trees (Shea) and settlements • Insecure jobs 	<p>Some individuals with farms with economic trees such as Shea tree, give the land out to people interested in mining.</p> <p>There are no jobs for the youth in the mining communities. So in order to make some money and survive most of the youth engage in mining.</p>
<p>Socio-cultural -</p> <ul style="list-style-type: none"> • High rate of teenage pregnancy • Prostitution • Marital Breakdown • School dropout • Robbery • Drug abuse • Area could become prone to conflicts • Threat to food security • Breakdown in culture 	<p>Miners from other communities lure young underage girls with money and gifts and impregnate them. They mostly do not take care of the children</p> <p>Women from other communities are mainly involved in this. They come to the communities to engage in prostitution to make some money from miners.</p> <p>Because of hardships faced by some families, some women disobey their husbands and still go to the mine pit to work. This leads conflicts in homes divorce cases.</p> <p>Majority of children in the mining communities realize that money from mining helps them quickly solve monetary issues. so they prefer mining to make money. They do not see the importance of education. Also, very few local role models available to enlighten them</p> <p>There has been an increase in robbery along the highways and in the communities. With Armed robbers targeting mining sites and gold dealers.</p> <p>In some communities, the youth have adopted the habit of abusing drugs, which they learnt from foreigners who come to the community to mine.</p> <p>Due to influx of immigrants from various ethnic groups, the community is more prone to ethnic conflicts.</p> <p>People abandon farming and go into mining as it is more lucrative</p> <p>Acceptance of foreign culture is causing a dilution in the culture of the natives.</p>
<p>Institutions -</p> <ul style="list-style-type: none"> • Monopoly of royalties among traditional authorities • Land allocation to multiple persons • Lack of fulfilment of institutional mandates 	<p>It was alleged that money goes to chiefs who mostly end up not using it for community development. Others squander the resources.</p> <p>Because of improper allocations of land by traditional authorities, land may be allocated to more than one person</p> <p><u>Environmental Protection Agency</u> The EPA has mandate to ensure the protection of natural resources from mining activities including ASM. Current challenges include inadequate monitoring of sites; Lack of enforcement of laws; Delays in issuing environmental permits Hardly does the EPA do monitoring at mining sites so how would they enforce the laws to protect the environment</p> <p><u>Lands Commission</u> Lack of sensitization in the mining communities regarding land acquisition and Delay in issuance of permit Lands commission should do a lot of sensitization in mining communities letting them know the correct processes involved in land acquisition</p> <p><u>Minerals Commission</u> Delays in issuance of licenses; Irregular monitoring of mining sites. The duration it takes to get a licence is too long and the process is too cumbersome. Officially, this is not supposed to go beyond 90days but there were reports that it went between three and six months.</p> <p><u>District Assemblies</u></p>

	Lack of political commitment; Irregular Stakeholder engagement meetings. Lack of adequate resources for assemblies and government agencies to carry out monitoring and supervision duties affects how well they can work.
Natural resources - <ul style="list-style-type: none"> • Minimal land degradation • Deforestation • Extinction of flora and fauna species • Air pollution • Reduction of mineral deposits 	The lands used for mining end up destroying flora and fauna
	To make way for mining activities some communities engage in tree felling.
	During the preparation of sites for mining, there is a lot of clearing of plants and thus the destruction of homes of wildlife.
	Pollution from fumes of machines used for mining
	Gold is a non-renewable resource, so it depletes with time.
Abuakwa South Municipal Assembly	
Issue Raised	Outcomes
Economic - <ul style="list-style-type: none"> • Lack of interest in agribusiness • High cost of living • Damage to road networks by earth moving equipment • Inadequate regulation may affect tourism 	Because of the lucrative nature of mining, most of the youth in mining communities shy away from farming activities.
	Mining within the community has caused an increase in the price of goods and services
	Most roads were designed for normal car types so when constantly used by heavy earth moving equipment and vehicles, the roads deteriorate quickly.
	Reckless mining destroying the landscape of communities that could have otherwise been enhanced to boost tourism.
Socio-cultural - <ul style="list-style-type: none"> • Land litigation • High crime rate • Increase in school dropout • Migration of foreigners • Teenage pregnancy • Drug abuse • Indiscipline • Spread of communicable diseases • Covid-19 and other communicable diseases 	There is no cohesion between the chiefs and the District Assembly in relation to land acquisition and usage. The Chiefs can demarcate a parcel of land to an individual for mining whereas that land per the MTDP is for another future developmental project. Sometimes, such cases take years to reach settlement.
	Mining communities in the district, have experienced a rise in crimes like stealing and robbery.
	It is reported that, about 50% of children drop out of school to engage in mining. Another 30% do not see the need to continue schooling after basic education as mining provides quick money.
	It seems mining has led to an increase in the population size of the various communities as people migrate to the district to work in mines
	Mineworkers lure girls with money and impregnate them and leave them destitute.
	Most of the youth start abusing drugs and eventually get addicted when they make money from the mine work
	Because most of the youth make a lot money from mining, they do not respect and lack discipline.
	With the influx of foreigners, there is spread of a lot of diseases and STIs.
If ASM is formalized, procedures to contain the spread of COVID 19 and other communicable diseases should be prioritized by government agencies.	
Institutions - <ul style="list-style-type: none"> • Political interference. • Lack of collaboration among institutions. • Lack of capacity building • Lack of logistics • Inadequate monitoring 	Sometimes orders come from above or persons bring Permits/ Certificates from the national level.
	There is no collaboration among institutions. They have decided to play their roles independently even though some roles are intertwined; they do not want to be undermined This results in decisions that may cause issues for other institutions.
	There is limited capacity building for institutions to equip themselves.
	Institutions lack the necessary logistics needed to make them work effectively.
	Institutions hardly do any monitoring hence mining companies are not compliant.

<ul style="list-style-type: none"> •Corruption •Indiscipline 	<p>It is alleged that many institutions have corrupt officials who take bribes instead of enforcing the law and punishing those who are at fault.</p> <p>Most workers in these institutions take the role they have to play for granted and are more concerned with making money.</p>
<p>Natural resources -</p> <ul style="list-style-type: none"> •Land degradation •Depletion of forest reserves •Water pollution •Air pollution from dangerous fumes and dust 	<p>Miners not having the technical expertise/Knowledge to sustain the environment will still be an issue even when SSM is formalized.</p> <p>Death of endangered flora and fauna resources as a result of land preparation activities</p> <p>Use of chemicals for mining can leach into nearby waterbodies.</p> <p>Fumes from machines used during mining pollutes the air.</p>

3.3 Representative Mining Communities

Group	Tarkwa Bremang	Tontokrom	Dakrupe	Akyem Adukrom
Opinion leaders/traditional authority	<ul style="list-style-type: none"> • All the waterbodies in the community have been contaminated killing organisms in the water. • Illegal mining has worsened the flooding condition in the community this is due to alterations in the natural course of the Ankwoa River • There are school dropouts because of Illegal mining. <ul style="list-style-type: none"> ◦ Age and gender of school dropouts: The majority of school dropouts in the Tarkwa Bremang area due to ASM activities tend to be adolescents and young adults, typically ranging from ages 12 to 24. It is not uncommon to find children as young as 10 getting involved in mining. Both boys and girls are affected, but the representation can vary based on the specific roles within ASM. Boys often get involved directly in the digging, processing, and handling of heavy machinery, while girls might be found in support roles such as selling food, acting as porters, or even in unfortunate 	<ul style="list-style-type: none"> • Community leaders feared that all mining lands had been exploited and there is little land left for community or SSM. • Some officials of the security agencies seem to support illegal mining. These should be weeded out for the formalized ASM to succeed • Leadership of the Community is ready to work according to government regulations for community mining to succeed • Child labour: So much pressure on Parents for school fees and to cater for their children’s needs hence sometimes indirectly push children to mine. • There is currently so much hardship due to the ban on illegal mining. 	<ul style="list-style-type: none"> • Flooded deep pits is a challenge to miners. Sexual exploitation: adult men entering into transactional sexual relationships with adolescent girls, leading to teenage pregnancy. Girls are easily lured by miners with money. • Pits collapse on people killing them instantly. • Children are not allowed to go to the site. Unfortunately, some still find their way to the pits. They feel school is a waste of time and need money. • Security risk: Stealing and robbery is a challenge probably influenced by migrants • A blueprint community mining already happening in the community 	<ul style="list-style-type: none"> • Most of the land has been given out to a SSM firm called managing God’s Resources (MGR) • The concessioner has done little to support developmental projects in the community • Pollution of water bodies from mining is a challenge.

Group	Tarkwa Bremang	Tontokrom	Dakrupe	Akyem Adukrom
	<p>cases, being subjected to sexual exploitation.</p> <ul style="list-style-type: none"> ○ Root causes for school dropouts: <ul style="list-style-type: none"> ▪ Economic attraction: The potential to earn money quickly is a significant lure for many young people. Compared to the long-term and often uncertain benefits of education, the immediate financial rewards of ASM can seem more attractive, especially in families experiencing economic hardships. ▪ Peer influence: When friends or peers are involved in ASM and seemingly benefiting from it, others might feel the pressure or the desire to join in, abandoning their schooling in the process. ▪ Family pressure: In some households, children might be encouraged or even forced by their families to engage in mining as a way to supplement the family income. ▪ Lack of awareness or value for education: In some 			

Group	Tarkwa Bremang	Tontokrom	Dakrupe	Akyem Adukrom
	<p>communities, the immediate benefits of ASM overshadow the long-term advantages of education. There might be a lack of understanding or appreciation for the value of sustained education.</p> <ul style="list-style-type: none"> ▪ Poor school infrastructure and resources: The quality of education and the state of school infrastructure can also influence dropout rates. If schools are not well-equipped or if the quality of education is perceived to be low, families and students might not see the point in continuing. ▪ Social disintegration: The influx of people into mining areas, often from different regions or even countries, can lead to a breakdown of traditional social norms and values. This can have various knock-on effects, including a diminished value placed on education • Majority of farmlands have been destroyed by illegal mining. 			

Group	Tarkwa Bremang	Tontokrom	Dakrupe	Akyem Adukrom
	<ul style="list-style-type: none"> • So far, four (4) children have died by falling into uncovered mine -out pits. • The community stands to benefit if small scale mining is formalized, and communities are encouraged to mine sustainably 			
Women	<ul style="list-style-type: none"> • The bigger the mining group the less cash each individual would earn compared to current situation when they mostly mine solo • Rising illiteracy levels. School dropout is becoming a very serious issue as their children make a lot of money from mining. • Job creation- will be enhanced if there is sustainable mining. Unemployment levels are currently very high. • Mining had led to an increase in upper respiratory tract infections and other diseases 	<ul style="list-style-type: none"> • Illegal mining has destroyed all water bodies. Women have to carry water along when going to farms for drinking. • It is alleged that the Elders of the community are bias when it comes to enforcing the law • Women are ready and willing to benefit from alternative livelihood training and small loans to start other trades if they can no longer mine. • Formalized mining may empower more women to take better care of their families as they may earn money directly and indirectly from mining. 	<ul style="list-style-type: none"> • Mining is hard work • There are respiratory tract infections, waist Problems, Eye diseases • Usually paid less than they deserve or rate that was agreed on • Formalized mining may assist to regulate earnings of women 	<ul style="list-style-type: none"> • Once the government gives the go ahead and formalizes ASM, we are excited and willing to adhere to all rules. • Ability to feed themselves and support the family
Miners	<ul style="list-style-type: none"> • The chiefs tolerate illegal mining because they are sometimes involved, they do not have the moral right to stop others. They should make sure the right thing is done. • Weak systems- Operation Calm Life, a police initiative to monitor small scale and illegal mining end up taking monies from miners so they can continue illegal mining. 	<ul style="list-style-type: none"> • Most surface water have been heavily polluted • The ban on illegal mining has put a lot of stress on the community • Most Children have become truants and do not respect anyone for that matter. What they do is they roam moving from site to site. When they get a site with no one they begin to do surface mining. • There is no formal agreement between landowner and miner for reclamation 	<ul style="list-style-type: none"> • Community has not been able to renew its community mining licence since 2014 • Periodic fatal accidents from falling stones or collapsed pits • High cost of equipment • Stalling of work due to Covid-19 and inability to import dynamite 	<ul style="list-style-type: none"> • Conflicts between natives and people who come in from other towns to mine. • A rise in social vices which refer to activities or behaviours that are considered harmful or undesirable in ASM community. These behaviours typically go against societal norms and values and can have detrimental effects on both individuals and the

Group	Tarkwa Bremang	Tontokrom	Dakrupe	Akyem Adukrom
	<ul style="list-style-type: none"> • Little technological know-how on responsible mining • The ore lies within water bodies and the farther you go from the water, the more difficult it is to get gold • If government reclaims land that was left after mining, it should take full ownership. 	<ul style="list-style-type: none"> • we recommend that levies are placed on mining. These levies should go into the development funds of the communities • If Mining is formalised and new laws made are enforced, children would have no option than to go to school. 		<p>community as a whole. Some of which include: sexual exploitation, Drug Abuse, Alcoholism, Prostitution, Gambling, Bribery and Corruption, Theft and Robbery, Fraud, Violence and Hooliganism, Smoking (where prohibited), Cybercrimes, Human Trafficking, Child Abuse, Domestic Violence,</p> <ul style="list-style-type: none"> • Frequent malaria due to breeding of mosquitoes in stagnant waters of open pits. • High school dropout rate • Training and education will lead to adoption of sustainable mining practices. • Funds collected from tolls in the past had been used to build a CHPS compound and so more mining would benefit the community
Children/ Teachers	<ul style="list-style-type: none"> • During the rainy season, there is serious flooding because the waterbodies have been altered by illegal mining activities. School children do not go to school for days and sick people have to be carried across because the roads are blocked 	<ul style="list-style-type: none"> • Attendance rate is poor. In a class of about 50 children, only a third of the class population shows up during school hours. • Children are usually late to school with the excuse that they had to wait for their parents to finish process ore for gold in order to receive funds for their upkeep. 		<ul style="list-style-type: none"> • Increase in teenage pregnancy • Poor academic performance. This is mainly due to the lack of focus on their studies. • Some students become disrespectful to both teachers and parents because they make their own money.

Group	Tarkwa Bremang	Tontokrom	Dakrupe	Akyem Adukrom
	<ul style="list-style-type: none"> Families prioritize mining over education as it brings quick money 	<ul style="list-style-type: none"> Children (both males and females) skip school or leave in between classes to go to mined out sites to scavenge for gold Due to the proximity of mining sites to schools there is a lot of noise and air pollution from excavators and fumes respectively Galamsey (illegal mining) is very lucrative and as such entices young ones If permits are given to cooperatives and groups instead of individuals, mining would be responsibly done and child labour checked. Parents and children will be motivated to concentrate on education when they realize ASM or cooperatives employ only persons who have completed their education. 		<ul style="list-style-type: none"> Formalized community mining may increase motivation for children to go to school as they will be employed after

3.4 Validation Workshop – Draft SESA

Date: 15 th October, 2020		Venue: Easter Premier Hotel (Koforidua)	
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Discussions			
Issues and Feedback		Response and Recommendation	
<ul style="list-style-type: none"> A finding in the report that women who worked in SSM earned just a third of what their male counterparts earned was explained. 		Addressing Pay Inequalities in SSM: <ol style="list-style-type: none"> Gender-Sensitive Policy Formulation and Implementation: <ul style="list-style-type: none"> Governments and relevant regulatory bodies should develop and implement policies that explicitly ensure gender equality within the ASM sector. This includes guidelines on equal pay for equal work, irrespective of gender. Education and Training: 	

<ul style="list-style-type: none"> • The meeting discussed that women are not intentionally discriminated against in terms of their earnings in the sector. They are paid based on the level of effort they put into their work. • Notably, an exception is observed in Prestea/Huni Valley, where it was cited that both genders reportedly receive equal shares from the proceeds of small-scale mining. 	<ul style="list-style-type: none"> • Organize sensitization workshops in mining communities emphasizing the value of equal pay and women's contribution to the mining sector. • Provide training opportunities for women in the sector to take on more technical roles that traditionally attract higher pay. This would help bridge any skill-based pay gaps. <ol style="list-style-type: none"> 3. Data Collection and Monitoring: <ul style="list-style-type: none"> • Regularly collect gender-disaggregated data on earnings in the ASM sector to monitor progress towards pay parity. • Any instances of gender-based pay discrimination should be reported, investigated, and addressed promptly. 4. Community Engagement: <ul style="list-style-type: none"> • Engage with mining communities, including both male and female miners, to discuss the benefits of equal pay for equal work. This will help in dismantling any existing societal or cultural barriers to pay equality. 5. Strengthen Women's Representation: <ul style="list-style-type: none"> • Encourage the establishment of women's committees or groups within mining associations to represent and advocate for their interests. • Ensure women's participation in decision-making roles and committees within the ASM sector. This would help in voicing concerns related to pay disparities and finding community-supported solutions. 6. Collaboration with Other Sectors: <ul style="list-style-type: none"> • Collaborate with sectors that have made strides in addressing pay inequalities to learn from their strategies and best practices. • Partner with NGOs and women's rights organizations to facilitate workshops and training sessions on gender equality and women's empowerment in the ASM sector. 7. Public Awareness Campaigns: <ul style="list-style-type: none"> • Launch public awareness campaigns on the importance of gender equality in pay across all sectors, including ASM. This can help change societal perceptions and create a broader push for equality. 8. Review and Reform: <ul style="list-style-type: none"> • Periodically review the compensation structures in the ASM sector, taking gender into account, to ensure that any disparities are identified and addressed. • Engage third-party organizations to conduct unbiased reviews and recommend actionable solution
<p>The suggestion to establish a legal framework for the creation of SSM cooperatives was met with challenge. Existing laws and regulations pertaining to SSM already encompass provisions for the initiation of SSM cooperatives.</p>	<p>In addressing the challenge where there seems to be a perception (or lack of awareness) about the absence of a legal framework for SSM cooperatives despite the presence of provisions in the existing laws, the following recommendations can be made:</p> <ol style="list-style-type: none"> 1. Awareness and Training: Organize workshops and training sessions targeted at stakeholders in the SSM sector to educate them about the existing provisions in the law that allow for the formation of SSM cooperatives. 2. Clear Communication: The Minerals Commission or relevant authority should release clear and accessible communication materials, possibly in the form of brochures, posters, or online resources, detailing the process and legal provisions for forming SSM cooperatives. 3. Strengthening Institutional Support: Ensure that relevant institutions, such as the Minerals Commission, have a dedicated desk or personnel who can provide guidance and support to groups wishing to form cooperatives. 4. Regular Review: Periodically review the existing laws to ensure they are up to date with the current needs and challenges of the SSM sector, and that they provide an effective framework for the establishment and operation of cooperatives.

	<ol style="list-style-type: none"> 5. Engagement with Stakeholders: Engage regularly with SSM operators, especially those keen on forming cooperatives, to understand their challenges and offer solutions. Their feedback can be invaluable in fine-tuning the legal provisions and ensuring they are practical. 6. Streamline Registration Process: Simplify the registration process for cooperatives, ensuring that it's efficient and not overly bureaucratic. This can be achieved by possibly digitizing certain processes or offering step-by-step guidance for applicants. 7. Promotion of Cooperatives: Highlight and promote the benefits of working in cooperatives, such as increased bargaining power, shared resources, and collective problem-solving. This can encourage more SSM operators to consider this route. 8. Collaboration: Foster collaboration between the SSM sector and other governmental and non-governmental organizations to support the formation and successful operation of cooperatives. This might include technical training, access to finance, and market linkages. <p>By implementing these recommendations, it is hoped that the challenge around the perception of the absence of a legal framework for SSM cooperatives will be addressed, and the sector can progress with clearer understanding and more robust cooperative formations.</p>
<p>The recommendation for certain sites to be declared as no-go areas for small-scale mining was mentioned to already be in place. The drawback is the lack of its implementation, not the inadequacy of the law.</p>	<p>Addressing the challenge of non-implementation of already established "no-go areas" for SSM necessitates a multi-faceted approach. Here are some recommendations to tackle this challenge:</p> <ol style="list-style-type: none"> 1. Strengthen Monitoring and Surveillance: <ul style="list-style-type: none"> • Deploy regular patrols and monitoring teams to ensure compliance with "no-go area" regulations. • Consider the use of technology, such as drones or satellite imaging, to monitor and report unauthorized activities in these zones. 2. Raise Public Awareness: <ul style="list-style-type: none"> • Launch public education campaigns to inform the public and miners about the designated no-go areas and the reasons behind such declarations. • Collaborate with local community leaders and influencers to spread the message. 3. Enforce Penalties: <ul style="list-style-type: none"> • Strictly enforce penalties for violators to serve as a deterrent. Ensure that penalties are both consistent and commensurate with the infringement. • Speed up the prosecution process for those caught mining in no-go areas. 4. Community Engagement: <ul style="list-style-type: none"> • Engage with local communities and make them stakeholders in the preservation of no-go areas. Their buy-in can be a strong deterrent to potential violators. • Implement community-based monitoring systems where locals can report any unauthorized mining activities. 5. Review and Refine the Existing Laws: <ul style="list-style-type: none"> • Periodically reassess the "no-go area" regulations to ensure they are still relevant and practical. • Clearly demarcate and signpost the boundaries of these areas to reduce unintentional violations. 6. Capacity Building: <ul style="list-style-type: none"> • Train law enforcement agencies, local administration, and other relevant stakeholders on the importance of these no-go zones and the best practices for enforcing the associated rules. 7. Establish Rehabilitation Plans:

	<ul style="list-style-type: none"> • For areas that have been mined illegally, implement rehabilitation programmes to restore the land. This will not only repair environmental damage but also discourage further illegal mining. <p>8. Promote Alternative Livelihoods:</p> <ul style="list-style-type: none"> • For communities heavily dependent on mining, introduce programmes that offer alternative sources of income. This can reduce the incentive to mine in restricted areas. <p>9. Stakeholder Collaboration:</p> <ul style="list-style-type: none"> • Foster collaboration between regulatory agencies, environmental groups, and mining associations. Joint efforts can lead to more effective monitoring and enforcement. <p>10. Regular Feedback Mechanism:</p> <ul style="list-style-type: none"> • Establish a mechanism where challenges in the implementation process can be reviewed periodically, and feedback from ground personnel can be incorporated into strategies. <p>Effective implementation of "no-go areas" for SSM is crucial for the sustainability of the environment and the well-being of the communities involved. Through a combination of strict enforcement, community engagement, and continuous monitoring, it is possible to address the challenges posed by non-compliance</p>
<p>The role of IAs in the implementation of some of the recommendations in the report was highlighted. These include the FC in maintaining forest reserves and WRC in restoration activities (The consultant was advised to distinguish between land degradation in southern Ghana from those in northern Ghana due to their peculiar differences)</p>	<p>Question: How can Implementing Agencies (IAs) like the Forestry Commission (FC) in maintaining forest reserves and the Water Resources Commission (WRC) in restoration activities effectively address land degradation issues, while recognizing the distinct differences between land degradation in southern Ghana and northern Ghana?</p> <p>Answer: Land degradation in Ghana varies distinctly between the southern and northern regions, primarily due to differences in climate, vegetation, and human activities. The southern part of Ghana has a wetter, tropical climate with lush forests, while northern Ghana is relatively drier with savannah vegetation. As such, the challenges faced by each region regarding land degradation differ, and therefore the interventions by IAs should be tailored accordingly.</p> <p>For the Forestry Commission (FC):</p> <ol style="list-style-type: none"> 1. In southern Ghana, the focus should be on protecting the existing forests from illegal logging, encroachments, and farming activities. This can be achieved through regular patrols, community-based forest management, and stricter enforcement of forestry laws. 2. In northern Ghana, where deforestation might be driven by the need for agricultural land, charcoal and firewood, the FC could promote agroforestry and the use of efficient cooking stoves to reduce the dependency on wood and charcoal. <p>For the Water Resources Commission (WRC):</p> <ol style="list-style-type: none"> 1. In southern Ghana, restoration activities could focus on watershed management, considering the numerous rivers and water bodies in the region. The establishment of buffer zones and the conservation of wetlands should be a priority to maintain water quality and prevent siltation. 2. In northern Ghana, where water scarcity is a more pressing issue, the WRC should prioritize rainwater harvesting, the construction of small dams, and the promotion of water-efficient farming techniques. <p>Recommendation: To address land degradation effectively, considering the distinct differences between southern and northern Ghana:</p> <ol style="list-style-type: none"> 1. Tailored Interventions: Implementing agencies should develop region-specific strategies. While the southern region might require more stringent forest protection

	<p>measures, the northern region might benefit from initiatives that combat desertification and promote sustainable agriculture.</p> <ol style="list-style-type: none"> 2. Community Engagement: Engage local communities in both regions and make them stakeholders in conservation and restoration activities. Their firsthand experience and knowledge can be invaluable in designing effective strategies. 3. Capacity Building: Regularly train staff of IAs on the peculiar challenges of each region and equip them with the skills needed to address these challenges. 4. Collaboration: Foster collaboration between the FC and WRC. Joint initiatives can lead to more comprehensive solutions, especially in areas where forest and water resources intersect. 5. Research & Data Collection: Continuously monitor and research the state of land degradation in both regions. This data will be instrumental in adjusting strategies over time and measuring the effectiveness of interventions. 6. Public Awareness Campaigns: Launch awareness campaigns in both regions, highlighting the importance of conservation and sustainable land use practices. <p>By adopting a nuanced approach that recognizes the distinct challenges of each region, IAs can more effectively address land degradation in Ghana.</p>
<p>EPA incorporating compulsory land reclamation (restoration) fees in their permitting systems would ensure there is no need to source external funding to undertake this exercise in future.</p>	<p>Addressing compulsory land reclamation (restoration) fees This is in progress ie Reclamation bond administration for ASM. Draft Reclamation Security Agreement (RSA) available. The Ghana National Association of Small-Scale Miners (GNASSM) and selected banks have been engaged.</p> <p>Recommendations for Incorporating Compulsory Land Reclamation (Restoration) Fees into EPA's Permitting Systems:</p> <ol style="list-style-type: none"> 1. Clear Legislation: Establish a clear legislative framework that mandates the collection of reclamation fees as a part of the permitting process. The legislation should define the criteria for fee assessment, methods of collection, and penalties for non-compliance. 2. Fee Structure: Design a fee structure based on the scale and potential environmental impact of the proposed activity. Larger and potentially more destructive activities should incur higher reclamation fees. 3. Reclamation Fund: Establish a dedicated "Land Reclamation Fund" where all collected fees are deposited. Ensure transparency and accountability in the management of this fund. 4. Periodic Review: Regularly review and, if necessary, revise the fee amounts to account for inflation, changing land value, and the varying costs of restoration technologies and methods. 5. Stakeholder Engagement: Engage with industry stakeholders to garner support for the reclamation fee initiative. Understand their concerns and provide clarifications to ensure compliance. 6. Transparency: Clearly communicate how the collected fees are being utilized. Publish annual reports detailing the use of funds, successful reclamation projects, and the benefits achieved from those projects. 7. Incentivize Compliance: Offer incentives for early or timely payment of reclamation fees, such as expedited permit reviews or recognition certificates for responsible corporate behavior. 8. Third-Party Audits: Periodically commission third-party audits of the reclamation fund to ensure transparency, credibility, and correct utilization of the funds. 9. Capacity Building: Equip the EPA with the necessary resources and training to manage and oversee the implementation of the reclamation fee system efficiently.

	<ol style="list-style-type: none"> 10. Public Awareness: Raise awareness among the public about the importance of land reclamation and how the fees collected play a crucial role in ensuring the restoration of mined or degraded lands. 11. Penalty System: Implement a strict penalty system for entities that evade or delay the payment of reclamation fees. This could include fines, permit denials, or other legal actions. 12. Collaboration: Collaborate with other governmental departments, NGOs, and international agencies to leverage additional expertise, resources, and best practices related to land reclamation. <p>Incorporating compulsory land reclamation fees into the permitting system will not only ensure financial readiness for future restoration projects but also emphasize the principle of "polluter pays," making industries more accountable for their environmental footprint.</p>
<p>It was brought to the attention of the consultant that reclamation cannot be undertaken without restoration. They go hand in hand.</p>	<p>Response: The intrinsic connection between reclamation and restoration in the context of land management. Indeed, reclamation is the process of returning disturbed lands to a stable condition, while restoration focuses on the return of the ecological functionality of that land. While reclamation ensures stability and safety, restoration ensures the return of biodiversity, ecological balance, and natural services. Recognizing that both processes are interdependent is crucial for holistic land management, especially in areas impacted by mining or other disruptive activities.</p> <p>Recommendations:</p> <ol style="list-style-type: none"> 1. Integrated Approach: Develop a unified framework that encapsulates both reclamation and restoration activities. This will ensure a more holistic and efficient approach to land management post-mining. 2. Strengthening Guidelines: Revise existing guidelines or create new ones that provide clear instructions on how reclamation and restoration should be conducted sequentially to ensure the best results. 3. Stakeholder Collaboration: Engage ecological experts, local communities, and industry stakeholders in the planning and execution of reclamation and restoration projects to leverage diverse expertise and ensure the best outcomes. 4. Capacity Building: Organize training programmes for professionals and workers involved in reclamation and restoration to ensure they understand the importance and techniques of both processes. 5. Performance Metrics: Establish metrics to measure the success of reclamation and restoration efforts. While reclamation can be assessed through land stability and safety metrics, restoration success can be measured through biodiversity indices, soil health, and other ecological parameters. 6. Incentivize Best Practices: Offer incentives to mining companies or other industries that demonstrate excellence in both reclamation and restoration efforts. 7. Research and Innovation: Invest in research to develop innovative techniques and best practices that can enhance the efficiency and effectiveness of both reclamation and restoration. 8. Public Awareness: Educate the public and industry stakeholders about the importance of both reclamation and restoration to ensure community support and industry compliance. 9. Periodic Assessments: Conduct regular assessments of reclaimed and restored sites to monitor their progress and ensure that both processes are being executed to the highest standards. 10. Funding Mechanism: Consider establishing a dedicated fund sourced from industry contributions, which can be used to support high-quality reclamation and restoration projects.

	<p>By emphasizing the symbiotic relationship between reclamation and restoration, we can ensure a more sustainable and ecologically responsible approach to land management post-disturbance.</p>
<p>The consultant was advised to distinguish between land degradation in southern Ghana from those in northern Ghana due to their peculiar differences.</p>	<p>Response: Emphasizing the regional disparities in land degradation between southern and northern Ghana. Recognizing these differences is essential to designing region-specific solutions and interventions. The unique ecological, climatic, and socio-cultural factors in these regions necessitate distinct approaches to address land degradation issues.</p> <p>Recommendations:</p> <ol style="list-style-type: none"> 1. Regional Assessment: Conduct comprehensive assessments in both southern and northern Ghana to identify the root causes, extent, and impact of land degradation. This would involve studying soil quality, water availability, vegetation cover, and other essential ecological parameters. 2. Tailored Interventions: Design interventions tailored to the specific challenges and needs of each region. For example, northern Ghana, with its more arid conditions, may require more emphasis on water conservation and drought-resistant farming practices. 3. Stakeholder Engagement: Engage with local communities, regional governments, and experts familiar with the unique challenges of each region. Their insights will be invaluable in crafting region-specific strategies. 4. Cultural Considerations: Recognize and respect the traditional knowledge and practices of local communities in both regions. Integrate these practices, where beneficial, into land restoration and conservation strategies. 5. Research Collaboration: Collaborate with academic and research institutions in Ghana to study the distinct land degradation challenges in the north and south. This can provide a robust scientific foundation for policy and interventions. 6. Capacity Building: Organize training and capacity-building programmes that are region-specific. For instance, farmers in the north might benefit from techniques to combat desertification, while those in the south might require strategies to prevent soil erosion from heavier rainfalls. 7. Monitoring & Evaluation: Establish a monitoring and evaluation system that tracks land degradation and restoration efforts separately for the two regions. This will help in understanding the effectiveness of interventions and making necessary adjustments. 8. Awareness Campaigns: Design public awareness campaigns that address the unique challenges of each region, educating the public on the importance of sustainable land management practices. 9. Funding Allocation: Ensure that funding allocated for land restoration and conservation is proportional to the degradation challenges faced by each region. This might require a flexible funding model that can address urgent needs as they arise. 10. Policy Harmonization: While interventions might be region-specific, ensure that overarching policies are harmonized to provide a consistent framework for action across the country. <p>By taking into account the specific challenges faced by both southern and northern Ghana, we can ensure that interventions are not only effective but also sustainable in the long run.</p>
<p>It was noted that child labour in ASM is critical to the project and the impression that ASM does not involve children is inaccurate. It was therefore appropriate the report has unearthed useful child labour issues in the sector.</p>	<p>Response: Bringing to light the critical issue of child labour within the ASM sector. We acknowledge the gravity of the situation and understand that children's involvement, despite being illegal and unethical, persists in some areas. It is essential to address this concern not only for the immediate protection of children but also for the sustainable future of the sector and the larger societal implications it carries.</p> <p>Recommendations:</p>

	<ol style="list-style-type: none"> 1. Strengthen Monitoring and Enforcement: Increase monitoring efforts in known ASM areas to detect and deter child labour. Collaborate with local law enforcement agencies to ensure child labour laws are strictly enforced. 2. Awareness Campaigns: Organize targeted campaigns to raise awareness about the dangers and illegality of child labor in ASM among communities, miners, and stakeholders. Use testimonials, case studies, and other impactful methods to communicate the risks associated with child labour. 3. Education Initiatives: Invest in educational infrastructure and programmes in mining areas to ensure that children have access to quality education. This can act as a deterrent against child labor as parents may prioritize schooling over short-term financial gains. 4. Community Engagement: Engage with communities to understand the root causes that drive child labor. Often, economic necessity is a significant factor. By addressing underlying socio-economic challenges, the incentive for child labour can be reduced. 5. Alternative Livelihood Programmes: Initiate programmes that offer parents in mining areas alternative means of income, reducing the financial need to send their children to work. 6. Child Protection Units: Set up child protection units near ASM sites to offer immediate assistance to children found working. These units can provide medical care, counseling, and reintegrate children into educational systems. 7. Regular Reporting: Establish a transparent system where instances of child labor are reported, acted upon, and documented. This can be a collaborative effort involving NGOs, local communities, and government agencies. 8. Stakeholder Collaboration: Partner with NGOs and international organizations that work towards eradicating child labour. Their expertise, resources, and networks can amplify efforts on the ground. 9. Capacity Building: Train local officials, community leaders, and mining stakeholders on child rights and the importance of eliminating child labour. Equip them with tools and resources to identify and report child labor. 10. Policy Review: Review and update policies related to ASM to ensure that they adequately address child labour concerns, with provisions for strict penalties for violations. <p>Addressing child labor in the ASM sector requires a holistic approach, involving various stakeholders and targeting both the immediate challenge and its root causes. With concerted effort and collaboration, the sector can progress towards a more ethical and sustainable future.</p>
<p>There is the need to link the recommendations in the report to the various components of the project. This has been done for component 2 but not for the other components. (1 and 4, for example).</p>	<p>Response: It is crucial for the recommendations to align with all components of the project to ensure holistic and effective implementation. I will revisit the report and ensure that the recommendations are adequately linked to components 1 and 4, as well as any other components that may have been missed. Your feedback is invaluable, and we strive to provide a comprehensive and cohesive analysis that serves the project's objectives.</p>
<p>The need for a PPP arrangement on reclamation and a policy on how tailings would be used during the reclamation process was discussed.</p>	<p>Response: We acknowledge the significance of considering a Public-Private Partnership (PPP) arrangement for reclamation and the importance of having a clear policy on the utilization of tailings during the reclamation process. A well-structured PPP can mobilize resources and expertise from both public and private sectors, ensuring efficient and sustainable reclamation efforts.</p> <p>Recommendations:</p> <ol style="list-style-type: none"> 1. PPP Development for Reclamation: Initiate a feasibility study to determine the viability and benefits of a PPP arrangement specifically for reclamation activities. This would

	<p>identify potential private sector partners, evaluate the potential risks and benefits, and provide a roadmap for implementation.</p> <ol style="list-style-type: none"> 2. Tailings Policy Formation: Establish a multidisciplinary committee comprising environmental experts, mining specialists, local community representatives, and other stakeholders to draft a policy on tailings utilization. This policy should consider: <ul style="list-style-type: none"> • Environmental sustainability and safe disposal methods. • Potential economic benefits, such as recovering residual minerals. • Mitigation measures for any potential environmental or health risks associated with tailings. 3. Engage with Existing Successful Models: Identify and collaborate with regions or countries that have successfully implemented PPP models for reclamation or have established effective tailings policies. This can provide valuable insights and best practices. 4. Stakeholder Engagement: Regularly engage with local communities and other stakeholders throughout the process. Their input and buy-in are crucial for the success of both the PPP arrangement and the tailings policy. 5. Monitoring and Evaluation: Once the PPP model and tailings policy are in place, establish a robust monitoring and evaluation system to regularly assess the effectiveness and make necessary adjustments based on real-time data and feedback.
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3.5 Final Validation Workshop

Date: 3 rd December 2024		Time: 9:30am		Venue: Central Hotel	
Discussants:					
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Workshop, Comments, Discussions Points and Recommendations			
Issues Raised/Questions		Responses and Discussions	
<p>1) With the exception of child labour, have social issues such as prostitution, sexual exploitation and abuse been adequately addressed?</p> <p>Need to strengthen the SESA with comprehensive mitigation and action points on GBV, SEA, child labour, and trafficking to address social issues in mining communities.</p> <p>2) Children who work in these mining sites are mostly trafficked from other areas, how is that addressed?</p>		<p>Social issues including sexual exploitation and abuse and harassment have been addressed under the 11th challenge: Absence of effective regulatory oversight for needed social support and protection in the ASM sector.</p> <p>During stakeholder engagement with the Ministry of Gender, discussions centred on child labour prevalence in mining communities. Parental neglect and poverty were identified as major factors contributing to menace in mining communities. It was noted also that the allure of quick financial gains from mining activities has left many children disinterested in education.</p> <p>The formation and effective functioning of the Mining Cooperatives could be the strategy to instil accountability and social regulatory standards in the formalized ASM sector. The establishment of the Mining Support Services Companies (MSSCs) overseeing operations of the Mining Cooperatives would have no room for the involvement of children.</p>	
<p>3) Concerns were raised about centralized resource allocation processes, which limited the benefits received by the District Assemblies (DAs) to enable the Assemblies superintend over the School Feeding Programme (SFP).</p> <p>4) The Department of Social Welfare and Community Development (DSWCD) was recommended to take on a stronger social regulatory oversight role in promoting children's education and addressing child welfare issues in mining communities.</p>		<p>Despite the SFP being introduced to incentivize school attendance and by extension discourage children from engaging in galamsey, it is perhaps not achieving the expected results, particularly in Junior High Schools.</p> <p>The DSWCD of DAs have been identified as pivotal in implementing and enforcing child welfare policies, as well as addressing the health and safety concerns of children in mining communities.</p> <p>The DAs have been recommended to support the managing of the SFP to ensure its sustainability and effectiveness through increased royalty payments to empower the Assemblies to expand the programme and attract more children to school.</p>	
<p>5) Question on challenge 5 "Land Tenure Insecurity"</p> <p>The attitudes of some chiefs in creating conditions of land tenure insecurity and motivating galamsey proliferation may not be sufficiently addressed by the proposed documentation of land transactions.</p>		<p>From the engagement with the Lands Commission, documentation of land transactions holds the answer to the uncaring attitude of some chiefs who readily welcome galamsey operators or promote galamsey proliferation in their areas, against the interest of farmers and farming.</p>	
<p>6) The proliferation of galamsey activities contributes to false urbanization in rural areas,</p>		<p>It is hoped that the formalization of ASM would lead to significant changes in the financial circumstances and dynamics in these rural areas, where the financial support to the local banking sector (from</p>	

<p>creating an illusion of economic growth without a solid socio-economic foundation.</p> <p>Wouldn't the formalization of Galamsey perpetrate this false urbanization phenomenon, leading to the gradual collapse once the mineral ore in the area is exhausted, the mansions and the hotels, etc. will become while elephants.</p> <p>Galamsey affects population dynamics, skewing census data and misdirecting policy development.</p>	<p>central government) and retention of capital in the rural economy could lead to general improvement in the socio-economy of these communities and districts in a sustainable way.</p> <p>The formalized ASM would ensure better societal organization, promoting the development of other socio-economic sectors and support systems and likely to result in more sustainable livelihoods and community development.</p>
<p>7) Gold tracking and traceability – in most mining communities, gold is sold illegally in “kiosks” which pose challenges to traceability and regulation in ASM. Could regularization for these illegal buyers be an ideal solution?</p> <p>8) Attention was drawn to the presence of gold purchase kiosks in the Galamsey communities who play an important role in the value chain.</p> <p>How does foreign financing of these kiosks complicate oversight, and why is strengthening gold tracking systems essential to addressing illicit sales and ensuring</p>	<p>It is evident that gold sales conducted in “kiosks” within Galamsey communities pose significant challenges to traceability of gold output from Galamsey sources. Many of these kiosks are financed by foreign sources, further complicating oversight. Strengthening gold tracking systems is therefore essential to address illicit sales and ensure compliance with regulatory standards. Perhaps the Mining Support Service Companies (MSSCs) could take on the additional responsibility to relate and work with such gold dealers within the context of formalization, and in conjunction with the PMMC.</p> <p>By law, the Precious Minerals Marketing Company (PMMC) serves as the sole aggregator of gold. However, during the stakeholder engagement, PMMC disclosed facing significant financial challenges, including debts incurred while supporting SSM operators. Additionally, competition from foreign buyers, who often outbid PMMC's prices, undermines its role in aggregating gold.</p> <p>To address these issues, the proposed intervention is for the Bank of Ghana to support the Cooperatives through the MSSCs and PMMC. The pre-financing arrangement would aim to eliminate illicit financing and improve the formalization of ASM operations.</p> <p>Tracking funding sources is challenging, as foreign companies often acquire licenses through local entities who front for them.</p>
<p>9) There are local artisans who fabricate equipment for the SSM and Galamsey operations, who the formalization could leave out and become excluded from the value chain</p>	<p>It is important that the formalization process does not lead to exclusion of any local artisans and players in the value chain. The MSSCs would be mandated as part of their responsibilities to ensure participation of these artisans, through education and support to improve their fabricated products so as to provide business outlets for them. The Mining Cooperatives would be encouraged to do business with these artisans.</p>
<p>10) The requirement to conduct Strategic Environmental and Social Assessment (SESA) for blocked out areas intended to be assigned to SSM/ASM applicants/operators was lauded</p>	<p>It is further recommended that besides this SESA, Cumulative Impact Assessment be conducted where a group of contiguous concessions (in a given area) are licensed for a number of SSM operators/operations, followed by the individual applicants conducting their separate assessments.</p>

<p>11) Who owns the SESA?</p>	<p>It was agreed that this particular SESA is owned by the Ministry of Land and Natural Resources who commissioned the assignment. The question was described as a relevant observation, as the ownership is related to ensuring implementation of the respective actions and to monitoring performance.</p> <p>In the case, however, of the recommended SESA for blocked out areas for SSM/ASM applicants, the promoter of the sector (MinCom) would be responsible for commissioning that SESA.</p>
<p>12) Whistleblowing on galamsey can be effective if supported by monetary compensation or other incentives to encourage participation.</p>	<p>This will be considered in the relevant proposed Action Plan, at least to motivate people to take up the risk of reporting.</p>
<p>13) Expansion of District Mining Committees (DMCs) composition to include key institutions such as the Water Resources Commission (WRC) and the Forestry Commission (FC).</p>	<p>The recommendation and proposed Action Plan on the DMCs are not only to expand the membership, but for re-structuring to make the DAs play a central role, with others in collaborative capacities.</p>
<p>14) Develop clear timelines for implementing recommendations and assign lead and collaborating agencies for accountability.</p>	<p>The proposed Action Plans have converted mitigation measures and recommendations into implementable plans with identified lead implementers.</p> <p>The identification/designation of collaborating institutions will be included in the proposed Action Plans.</p>
<p>15) Develop tailored educational programmes in mining communities to teach proper mining practices and foster research.</p>	<p>The responsibility to educate the ASM operators/ communities on sound mining practices has been assigned to the MSSCs in the recommendations. It is also recommended for the University of Mines and Technology to establish a consulting unit to also act as a Mining Support Services Company, with an opportunity for research.</p>
<p>16) Liaise with the Bank of Ghana, and rural banks, including the Apex Bank to empower local funding for formalized ASM activities.</p>	<p>Engagement with BoG yielded very promising results, as they were already in consultation with some foreign partners on promoting “green mining” in Ghana. They expressed surprise that the formalization initiative was local-based, and readily requested a write up for further action on their part. Their presence at this workshop demonstrates this interest, especially as linked to the “Domestic Gold Purchase Programme”.</p> <p>The Apex Bank would be included in list of interested financial institutions for consideration in the financing arrangement for the ASM sector as a replacement of foreign and illicit financing sources.</p>
<p>17) Include the DAs on MCAS</p>	<p>The involvement of DAs in the mining licensing and permitting process receives special consideration in this SESA report. The DAs would as recommended hopefully become a key player in the process and hence included.</p>
<p>18) The negative aspects of Galamsey include the distorted culture of such communities, disrespect for the elderly and the chiefs.</p>	<p>The ASM formalization could inadvertently introduce respect for law and order and ensure observance of regulatory standards that could be the answer to that observed problem.</p>