Media Foundation for West Africa

The Environmental and Socio-Economic Impact of Illegal Mining on Local Communities in Ghana

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1. Introduction

Illegal mining, known locally as galamsey, has evolved into a national crisis in Ghana. While small-scale gold mining has been practiced for centuries, particularly in Akan regions such as Wassa and Akyem, it has escalated dramatically in recent decades, morphing into an unregulated industry that undermines environmental governance and community welfare[1].

Historically, gold mining was conducted using artisanal methods and supported rural economies. However, the liberalisation of the mining sector in the 1980s, coupled with weak enforcement capacity and rising global gold prices, triggered an explosion in informal mining[2]. Many youth, unable to find gainful employment, entered into galamsey as a last resort to earn a living. The sector became increasingly attractive to foreign actors and has been marked by the use of heavy machinery, harmful chemicals, and degradation of once-productive farmlands and rivers.

Small-scale mining is permitted under license, but most galamsey operations occur outside of this framework. The Minerals and Mining Act, 2006 (Act 703) and its amendments outline regulatory controls, yet enforcement is patchy and often undermined by political patronage and corruption[3]. Despite Ghana's reputation as a relatively well-governed, peaceful, and democratic country, its Artisanal and Small scale Gold mining (ASGM) sector is characterised predominantly by informality, criminality and deleterious environmental and human development effects, which include the ferocious denuding of the country's vegetation cover, toxic pollution of water bodies, and serious health and safety hazards inflicted on the rural populace in mining areas[4].

The MFWA's project: *"Breaking the Gridlock: Resolving Polarisation-Induced Policy Paralysis in Ghana,"* aims to promote evidence-based discourse that transcends partisan divides and drives sustained policy reform. This paper contributes to that objective by presenting a rigorous, but accessible analysis of the socio-ecological costs of illegal mining and pathways toward remedy.

[1] Ofosu-Mensah, E. A. (2011). Historical overview of traditional and modern gold mining in Ghana. University of Ghana.
[2] Hilson, G. (2001). A contextual review of the Ghanaian small-scale mining industry. International Institute for Environment and Development (IIED)
[3] Minerals and Mining Act, 2006 (Act 703). Government of Ghana
[4] Ayelanuzo and Aziabah (2025) State Capture in the Militarized Fight Against Illegal Small-Scale Goldmining in Ghana

2. Methodology

This study employs a qualitative desk review methodology, triangulating data from a wide range of sources. These include: academic studies, government and agency reports (i.e., the Environmental Protection Authourity (EPA), Minerals Commission, and Water Resources Commission), civil society publications, investigative journalism pieces, court rulings, historical accounts and oral testimonies documented in existing literature. Although the study does not include new fieldwork, it synthesises credible and recent secondary sources to draw generalisable conclusions. The focus is on major mining regions in Ghana which reflect the most representative environmental and social impacts of illegal mining activities.

3.Background

Gold mining in Ghana, has been central to the country's identity, economy and interaction with the outside world for centuries. The abundant presence of gold in the forest and savannah belts of southern and northern Ghana established the country as a focal point of precolonial trade and later European imperial interest. From indigenous forms of alluvial mining through the era of colonial mechanised extraction to the rise of contemporary multinational corporations and small-scale mining, the trajectory of gold mining in Ghana has been both dynamic and complex.

Although gold has been mined in Ghana for centuries, three "gold rushes" have been experienced, with the first occurring in the late nineteenth century and the second immediately after World War II. The third gold rush occurred from the early mid-1980s, when the government opened up the mining sector for foreign direct investment under the World Bank/IMF-directed Economic Recovery Program (ERP) (1983–1986)[5].

Prior to the advent of European colonialism, gold mining in Ghana was primarily conducted by indigenous communities using methods adapted to local ecological and social conditions. These methods included surface and riverbed panning, pit digging, and underground tunnelling, largely without the use of modern tools. These operations were widespread in Akan states such as Denkyira, Akyem and Asante, as well as in northern regions like Bole[6].These activities were organised around the social organisation of gold mining along lineage and clan systems[7]. Gold served not only as a medium of exchange; but, also as a symbol of political authority and spiritual power, embedded within the customs and chieftaincy structures of

[5] Nana Akua Anyidoho & Gordon Crawford (2014) Leveraging national and global links for local rights advocacy: WACAM's challenge to the power of transnational gold mining in Ghana, Canadian Journal of Development Studies / Revue canadienne d'études du développement, 35:4, 483-502, DOI: 10.1080/02255189.2014.936369
[6] Ofosu-Mensah, E. A. (2011). Historical overview of traditional and modern gold mining in Ghana. International Research Journal of Library, Information and Archival Studies, 1(1), 6–22
[7] Ntewusu, S. A. (2015). A social history of gold mining in Bole, northern Ghana: From pre-colonial to recent times. Transactions of the Historical Society of Ghana, (17), 1–26. https://www.jstor.org/stable/90016957

precolonial Ghanaian societies. Chiefs often regulated access to gold-bearing lands, controlled the redistribution of gold revenues, and oversaw mining activities in ways that reflected indigenous governance systems.

The late 19th and early 20th centuries witnessed the formal consolidation of British colonial rule over the Gold Coast, during which gold mining underwent profound transformation. The colonial government facilitated the entry of British capital into the sector, promoting the development of industrial mining in areas such as Obuasi, Tarkwa, and Prestea. These operations involved deep-shaft underground mining and the introduction of cyanide processing, allowing for more efficient extraction of gold from low-grade ore. The formation of companies such as Ashanti Goldfields Corporation epitomised the shift from indigenous artisanal mining to large-scale, capital-intensive production dominated by expatriate firms[8]. European mining interests were protected and subsidised by colonial policies, including land expropriation, favourable tax regimes, and the marginalisation of local miners who were often restricted to menial labour roles. This created a dual economy where the formal sector generated profits for foreign shareholders while the indigenous population faced increasing displacement and exclusion from mining benefits.

In addition to economic reorganisation, colonial mining brought significant socio-environmental consequences. Indigenous agricultural systems were disrupted, sacred lands were appropriated for concessions, and traditional authorities lost control over key aspects of land governance. Environmental degradation, including deforestation, soil erosion and water pollution became endemic in many mining regions. Governance structure imposed during the colonial period institutionalised forms of exclusion and laid the foundations for contemporary patterns of resource inequality and socio-environmental conflict. The colonial legacy of elite and foreign control over Ghana's mineral wealth continued to inform debates around mining governance in the postcolonial era.

Following Ghana's independence in 1957, efforts were made by successive governments to reclaim national control over the mining sector. The first post-independence administration under Dr Kwame Nkrumah nationalised key mining operations and established the State Gold Mining Corporation (SGMC) to manage operations. There was also a concerted effort to train Ghanaian mining engineers, geologists, and managers. However, despite initial gains, inefficiencies, corruption and lack of capital investment led to the stagnation of state-owned enterprises[9].

The third gold rush occurred from the early mid 1980s, when the government opened up the mining sector for foreign direct investment under the World Bank/IMF-directed Economic Recovery Program (ERP) (1983–1986). However, under the ERP, the World Bank argued for the liberalisation and privatisation of the mining sector; which became a central pillar of Ghana's economic reform

[8] Allen, G. K. (1958). Gold mining in Ghana. African Affairs, 57(228), 221–240. https://doi.org/10.1093/oxfordjournals.afraf.a004401
[9] Allen, G. K. (1958). Gold mining in Ghana. African Affairs, 57(228), 221–240. https://doi.org/10.1093/oxfordjournals.afraf.a004401

programme[10]. Privatisation occurred with the government selling its gold mines, which had been nationalised after independence to private companies. A legislative framework specific to mining was created for the first time with the Minerals and Mining Law of 1986 (PNDCL 153). This mining law was developed with "technical assistance" from the World Bank and in line with the Bank's strategy for mining that it promulgated continent-wide.[11]

Significant changes occurred with this policy: the shift in large-scale mining practices from underground mining to open pit surface mining as a more profitable option. This had major implications for local communities. First, land resources came under significant pressure, given the large-scale demands for land by surface mining in comparison with underground mining. 70 per cent of the land surface in the (former) Wassa West District in the Western Region, an area of 2,354 square kilometres, had come under gold mining activity by the early 1990s in concessions granted to eight transnational mining companies. Second, surface mining entailed the use of cyanide for gold extraction, with associated environmental problems due to cyanide spillages. Third, whereas underground mining was more labour-intensive, surface mining was based on capital-intensive technologies and equipment, which required less unskilled and more skilled labour, resulting in redundancy for local unskilled miners and in-migration of skilled labour[12].

The liberalisation of the mining sector in the 1980s and 1990s resulted in an increase in gold production, making Ghana one of the leading gold producers in the world. Multinational mining corporations established or expanded operations, attracted by favourable investment conditions and high global gold prices. Very generous terms to private mining companies were contained in the legislative and policy framework, including low taxes and royalty payments, low import duties on equipment, high retention of revenue and repatriation of profits[13]. While these investments increased foreign direct investments in the sector , they also reignited debates over land rights, revenue distribution and the social impacts of large-scale mining[14].

Affected communities often experienced involuntary displacement, loss of farmland and exposure to environmental hazards with limited compensation or recourse. The perceived imbalance between corporate profits and community well-being has been a recurrent source of tension, reflected in protests, legal disputes and calls for

[10] Owusu-Koranteng, D. 2008. "Mining Investment and Community Struggles." Review of African Political Economy 35 (117): 467–473.
[11] Nana Akua Anyidoho & Gordon Crawford (2014) Leveraging national and global links for local rights advocacy: WACAM's challenge to the power of transnational gold mining in Ghana, Canadian Journal of Development Studies / Revue canadienne d'études du développement, 35:4, 483-502, DOI: 10.1080/02255189.2014.936369
[12] Nana Akua Anyidoho & Gordon Crawford (2014) Leveraging national and global links for local rights advocacy: WACAM's challenge to the power of transnational gold mining in Ghana, Canadian Journal of Development Studies / Revue canadienne d'études du développement, 35:4, 483-502, DOI: 10.1080/02255189.2014.936369.
[13] Akabzaa, T., and A. Darimani. 2001. Impact of Mining Sector Investment in Ghana: A Study of the Tarkwa. A study drafted by Government Structural Adjustment Participatory Review Initiative (SAPRI).
[14] Campbell, B. (2008). Regulation & legitimacy in the mining industry in Africa: Where does Canada stand? Review of African Political Economy, 31(100), 367–385.

reforms in the current mining laws; particularly, the Minerals and Mining Act, 2006 (Act 703)[15].

Simultaneously, artisanal and small-scale mining (ASM) has emerged as a critical, though often informal, component of the gold mining landscape in Ghana. A particularly urgent issue in the past two decades has been the proliferation of illegal/galamsey and underregulated (ASM) mining activities. Galamsey activities just like underregulated small and large scale mining activities have been linked to deforestation, pollution of major rivers and destruction of arable land. The use of mercury, unsafe mining methods and encroachment on legally protected lands have drawn criticism from host communities, environmental groups and citizens across the country.

In response, the government has launched several military-led campaigns to clamp down on illegal and under regulated mining particularly ASM activites, with mixed results. The state has ordered successive military operations and taskforces to fight the problem including but not limited to Operation Vanguard, Operation Halt I, Operation Halt II, and the GALAMSTOP taskforce[16]. While these operations have occasionally disrupted some illegal activities, they have been largely unsuccessful and criticised for human rights abuses and unsustainability.

Today, Ghana remains one of the top gold-producing countries in the world, with gold accounting for a significant portion of its export revenues. However, the historical legacies of inequality, environmental degradation, food security and contested land rights continue to pose challenges to the sector's sustainability.

[15] Peters, W. (2013). History of gold mining in Ghana. Retrieved from https://www.ghanaweb.com/
[16] Ayelanuzo and Aziabah (2025) State Capture in the Militarized Fight Against Illegal Small-Scale Goldmining in Ghana

4. Historical Origins of Artisanal Mining to Mechanised Mining

Artisanal mining has a long history in Ghana spanning several centuries before the European explorers arrived. By some accounts, mining of gold in the Gold Coast can be traced as far back as to the sixth century when gold was the magnet that attracted the Arab traders to some parts of the country as early as the seventh and eighth centuries. It is an integral component of the organisation of rural populace in the ecosystem they were born. An organisation of production that revolves around the inextricable relationship between culture and the environment. Before the modern day artisanal and small-scale mining, traditional artisanal mining was a means of survival in gold-rich communities. It existed side by side with and supplemented farming as their modes of production and social reproduction[17]. To date, ASM endures as a livelihood activity.

The current position of ASM in Ghana is shaped around push and pull factors. The push factors include land dispossession, poverty, rising unemployment in farming communities and the collapse of traditional livelihoods, which force people out of agriculture and other economic activities. The pull factors that attract people into ASM include perceived quick financial returns, low barriers to entry, local knowledge of mining, and rising demand for gold which presents mining as a more lucrative and accessible livelihood option compared to farming. Together, these factors explain the rapid growth of ASM in mining-affected communities, as people

[17] Ayelanuzo and Aziabah (2025) State Capture in the Militarized Fight Against Illegal Small-Scale Goldmining in Ghana

struggle to rebuild their lives in the face of displacement, economic exclusion and environmental degradation[18].

The transformation of Ghana's small-scale mining sector since the 1980s has been shaped by a combination of economic reforms, labour displacement, and increasing community dependence on artisanal mining as a key livelihood strategy. During the economic downturn of the early 1980s, Ghana adopted structural adjustment programmes aimed at revitalising the economy by targeting key productive sectors, including mining. These reforms led to the opening of new mines and the rehabilitation of existing ones, many of which were divested to private interests.

The new and rehabilitated mining operations of the late 1980s and 1990s primarily relied on near-surface deposits that, while extensive, had relatively low gold grades. To remain viable, these operations needed to process large volumes of ore efficiently, requiring capital-intensive, highly mechanised methods, rather than labour-intensive approaches. Consequently, significant numbers of mine workers many of whom had no skills outside of mining were laid off. This wave of retrenchment saw many displaced workers turn to artisanal and small-scale mining, often without securing the necessary legal permits. Thus, small-scale mining became a refuge for those excluded from the formal mining economy[19].

The economic and social upheavals in proximate communities caused by large-scale mining have also led to an increase in ASGM activities, as communities affected by these large-scale mining activities have sought to diversify their livelihoods in response to the disruption to farming as an income source, and the takeover of farmlands for large scale mining. In many large-scale mining areas, ASGM which has a long history in Ghana, has become the main means of livelihood for erstwhile agrarian rural populations who are attracted to the financial prospects of artisanal mining[20].

Wassa Association of Communities Affected by Mining (WACAM); a community rights and environmental advocacy organisation corroborates this position. The large scale mining operations mainly surface mining created an intense competition between agriculture and mining activities for land. Most rural communities that hitherto depended on agriculture activities as their major source of livelihood have ceded their farms and lands to mining activities without compensation or with very minimum compensation which did not restore livelihoods. Land takeovers restrain people especially women from having access to forest products like firewood, snails, and palm fruits that serve as source of income for community women. In instances that compensation payments have been made, the affected people have complained about the process not being fair, the amount

[18] Wacam (2018) Asetsena Pa Newsletter; Ayelanuzo and Aziabah (2025) State Capture in the Militarized Fight Against Illegal Small-Scale Goldmining in Ghana

[19] Minerals Commission (2015) Artisanal & Small Scale Mining (ASM) framework

[20] Hilson, G., and C. Garforth. 2013. "'Everyone Now is Concentrating on the Mining': Drivers and Implications of Rural Economic Transition in the Eastern Region of Ghana." The Journal of Development Studies 49 (3): 348–364.

being paid late and inadequate. In a communities such as Akyem Saaman, affected people received as low as GHS 1000.00 for an acre of cocoa farm from mining companies. With no alternative means of livelihood, communities that are affected are left with no option but to take part in sometimes life threatening illegal mining activities to sustain their livelihood[21].

The informal and often artisanal operations being carried out within a framework outside the law became regarded as illegal as they operated on concessions of large scale multinational mining companies. This led to a trend of perpetual confrontation and conflict with security agencies. In recognition of the potential of the activity to contribute to the economy and to address the rather unacceptable subsisting situation, in 1986 government laid the foundation for recognition of ASM operations and its associated activities with the enactment of PNDC Law 153. This early legislation used the term "small scale mining" which was also deemed to include artisanal mining, and set the stage for formalising the ASM subsector, acknowledging its importance in Ghana's mineral landscape. Two years later, in 1988, a World Bank study confirmed and highlighted the subsector's relevance and the pressing need for its formalisation by revealing alarming annual revenue losses of up to $10 million due to gold smuggling and other irregularities. The Minerals Commission with the World Bank's assistance aim to formalise the sector led to the passage of the Small-Scale Gold Mining Act of 1989 (PNDC Law 218) along with other laws; notably, that governing the use of mercury, the Mercury Act, 1989(PNDCL 217), and that which transformed the Diamond Marketing Corporation into the Precious Minerals Marketing Corporation (PMMC), under the Precious Minerals Marketing Corporation Act, 1989 (PNDCL 219). These legislative changes sought to streamline and regulate the ASM sector[22].

In 2006, ASM regime was integrated into the new Minerals and Mining Act, 2006 (Act 703). Sections 81 to 99 apply to Small Scale Mining. Section 86 of the Minerals and Mining Act, 2006 (Act 703) provides that the size of land in respect of which a licence may be granted for small-scale mining shall be determined by the number of blocks prescribed under the law. The interpretation section of the Act further defines a "block" as an area measuring 21 hectares[23]. There is no mention of artisanal mining. In Ghana, Artisanal and Small Scale Mining is subsumed under Small Scale Mining (SSM). Therefore, even though Act 703 refers to small scale mining, this includes the artisanal operators[24].

Artisanal and Small Scale Mining has evolved from the artisanal stage through the use of rudimentary equipment such as: shovels, pick axes and sluice boards to currently semi-mechanised operations involving the use of equipment such as excavators, bulldozers and Washing Plants. According to Minerals and Mining Act 2006 (Act 703), Small scale mining operation means mining operation over an area

[21] Wacam (2018) Asetsenapa Newsletter
[22] 2020 Ghana EITI technical report on the ASM
[23] Minerals and Mining Act ,Act 703 ,Section 86
[24] Minerals Commission (2015) Artisanal & Small Scale Mining (ASM) framework

of land in accordance with the number of blocks prescribed. The duration of small scale mining licence is five years and renewable upon satisfactory performance during the first term[25].

Today, ASM is a major sub-sector in Ghana's mining subsector catering to the livelihood of millions of Ghanaians around the country. This is contributing to the informal economies of their local communities. It employs an estimated one million people and supporting approximately 4.5 million more[26]. The industry also serves as a major source of minerals for the country's jewellery industry serving the country's goal to diversify its economy through value addition.

Furthermore, ASM activities have often served as the frontier to larger-scale exploration efforts, where they identify mineral-rich areas that are subsequently the focus of substantial industrial investment by large scale mining companies. In some cases, ASM operators contribute to the development of their communities such as investment in local infrastructure, schools and health.

Production wise, ASM makes a contribution to Ghana's production of gold. It was responsible for 43% (2.1 million ounces) of the total output of gold in 2018, 36% in 2019, and 30% in 2020. ASM has, in addition accounted for about 100% of the diamond production of Ghana, indicating its entrenched and centralised nature as a key player in the mineral economy of the nation.[27] Irrespective of these contribution ,It is difficult to get the accurate number of people engaged in the industry. Some authoritative sources estimate that between 70 and 85 per cent of artisanal small-scale miners are operating illegally in the country[28].

Over the past decade, Ghana has experienced a major influx of foreign miners, particularly from China, into the artisanal small-scale gold mining sector. Beginning around 2006 and intensifying with rising gold prices after 2008, tens of thousands mainly from Shanglin County, Guangxi, and known locally as the "Shanglin gang" entered the country, often bypassing immigration controls via neighbouring Togo or tourist visas. The exact numbers of such irregular migrants is not known, precisely due to the evasion of immigration laws. But it can be safely stated that the large majority were from China and that they numbered in the tens of thousands to fifty thousand30,[29]. Though Chinese nationals dominate the foreigners engaged in galamsey in Ghana, some also come from other neighbouring African countries such as Togo, Burkina Faso, and Mali and non-African countries

[25] Minearls and Mining Act Act 703,2006
[26] McQuilken, J., and Hilson, G. (2016). Artisanal and small-scale gold mining in Ghana: Evidence to inform an 'action dialogue
[27] Minerals Commission 2021,Special training session for Judges and Magistrates on the offences and penalties under the under Ghana's Mineral's and Mining Act,2006,Golden Tulip hotel ,Kumasi
[28] University of Ghana (2024). *UG Climaxes 2024 DSRA Celebration with a Focus on Galamsey and the need to Preserve the Environ-ment.* https://ug.edu.gh/news/ug-climaxes-2024-dsra-celebration-focus-gal amsey-and-need-preserve-environment ;Eduful, M., Alsharif, K., Eduful, A., Acheampong, M., Eduful, J., and Mazumder, L. (2020). The illegal artisanal and small-scale mining (galamsey) 'menace'in Ghana: is military-style approach the answer? *Resources Policy*, *68*: 101732, 1–14; [28] Ayelanuzo and Aziabah (2025) State Capture in the Militarized Fight Against Illegal Small-Scale Goldmining in Ghana

[29]South China Morning Post, 7 July 2013

such as India, Serbia, Armenia, Russia, and Ukraine. The involvement of foreigners in ASGM especially the nationals of China, is linked directly to the mechanisation and semi-industrialisation that it has witnessed during this current era of mining.17 Their arrival marked a significant shift in the dynamics of Ghana's artisanal mining, with irregular migration making exact numbers difficult to determine.

Ayelanuzo and Aziabah (2025) argue that what was once regarded as Traditional artisanal and small-scale mining (TAM) has evolved into Capitalist Medium-Scale Mining (CMM); a highly mechanised and profit-driven enterprise. This perspective underscore that the sector's transformation from a relatively sustainable, subsistence-based livelihood for the subaltern classes into a capitalist, profit-oriented industry has resulted in severe and, in many cases, irreversible ecological damage to Ghana's natural environment[17],[30].

Mechanised artisanal and small scale mining, which is being conducted with heavy mining equipment, changed the ASM history. It has also signaled the start of the capitalist elites' use of mining to evict rural people just as the large scale companies that hitherto relied on artisanal mining for subsistence. In order to increase their profits, the power elites use the pull factors to invest money in CMM. They do this by purchasing large mining equipment, obtaining large land areas as mining concessions and employing labourers to work on these concessions[17].

A fairly structured hierarchy of operators exist within this highly mechanised ASM activities. They range from buyers through concession owners, ghetto or pit owners, miner to women and children who provide some form of support services, such as pounding food and transporting ore. The relationship between these actors can also be described as contentious. This is because buyers usually prefinance the activities of these groups and expect repayment in the form of gold. There are also problems between ghetto owners, on one hand and miners and women who work for them over meagre payments[31].

The increasing use of mechanised equipment and the widespread informal and often illegal nature of many operations have significantly expanded gold output from the ASGM sector. What began as survival-based, labour-intensive artisanal activity has, in many instances, transformed into capital-intensive, semi-industrialised mining ventures blurring the lines between traditional small-scale mining and commercial operations. As a result, Ghana's ASM gold production has surged dramatically from just 17,250 ounces in 1990 to an estimated 1.6 million ounces in 2016 highlighting the sector's growing contribution to national gold output, albeit through methods that often defy the sustainability of resource governance. Gold production from ASM in 1990 was below 20,000 ounces, and this accounted for less than 5% of the total gold produced that year. In 2016, gold produced from ASM increased significantly

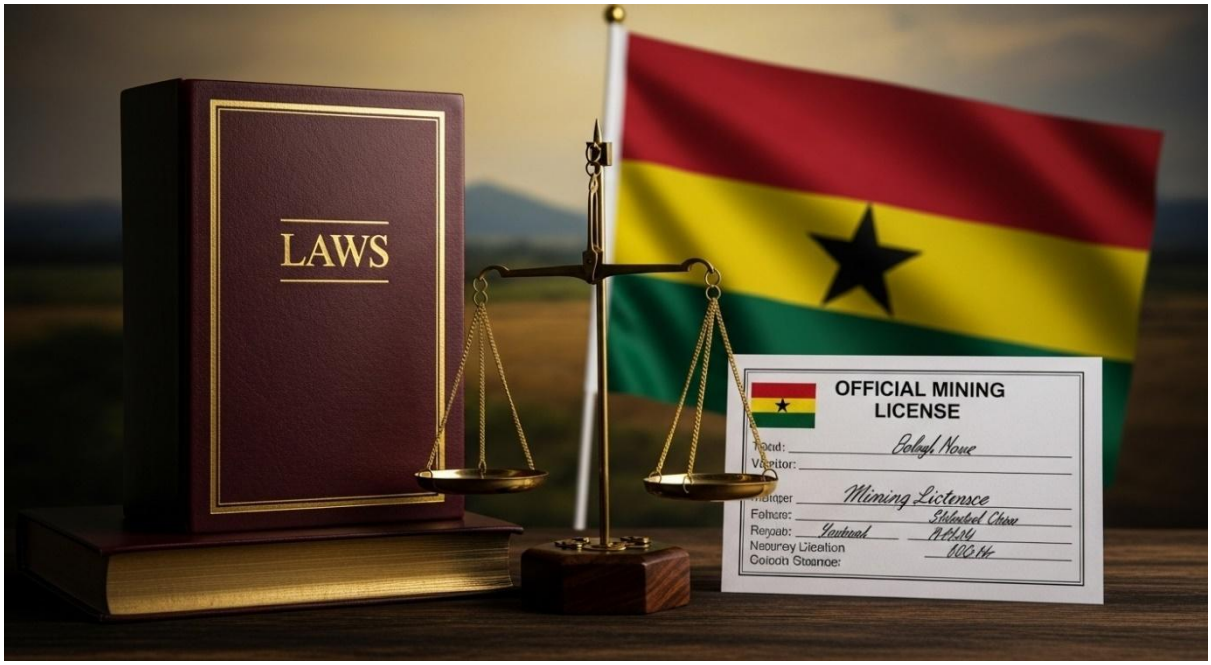
[30] Crawford, G., and Botchwey, G. (2017). Conflict, collusion and corruption in small-scale gold mining: Chinese miners and the state in Ghana. *Commonwealth & Comparative Politics*, 55(4), 444–470.
[31] Commission on Human Rights and Administrative Justice (2008) The state of human rights in mining communities in Ghana

to 1.6 million ounces, accounting for close to 40% of the total gold produced in the country[24],[32].

Ayelanuzo and Aziabah (2025) draw the conclusion that it is consequently dishonest for Ghanaian state authorities to discursively describe CMM as small-scale mining (ASM) and then award licenses to the capitalist class as ASM operators[17]. Similarly, it is problematic for the capitalist class to apply for and consider itself ASM operators, even if their contiguous concessions span many kilometers.

[32] Owusu O, Bansah KJ, Mensah AK. (2019). "Small in size, but big in impact": socio-environmental reforms for sustainable artisanal and small-scale mining. *Journal of Sustainable Mining,* 18(1), 38–44.

5.Legal and Regulatory Framework for Artisanal and Small-Scale Mining



Built on the 1992 Constitution of the Republic of Ghana, the main legislation regulating the operation of the mining industry in Ghana is the Minerals and Mining Act, 2006 (Act 703), as amended by Act 794 of 2010, Act 900 of 2015, and Act 995 of 2019. While Act 703, as a mended, governs all mining activities, sections 81 – 99 apply exclusively to small scale mining.

In Ghana, all minerals in their natural state are owned by the state and held in trust by the President; meaning, individuals or entities cannot mine without obtaining legal authorisation. The Minerals and Mining Act, Act 703, requires that anyone engaging in mineral exploration or mining including small-scale mining must first secure a mineral right or license. Specifically for small-scale mining, Section 82 mandates that no person may operate without a valid license issued by the Minister or an authourised officer, reinforcing the need for formal regulation and legal compliance in the sector. Section 1 of the Minerals and Mining Act, Act 703, states that "Every mineral in its natural state in, under or upon land in Ghana, rivers, streams, water-courses throughout the country, the exclusive economic zone and an area covered by the territorial sea or continental shelf is the property of the Republic and is vested in the President in trust for the people of Ghana).

Section 9(1)(2) of Act 703 also provides for mining activities requiring a mineral rights. It provides that despite a right or title which a person may have to land in, upon or under which minerals are situated, a person shall not conduct activities on or over land in Ghana for the search, reconnaissance, prospecting, exploration or mining for a mineral unless the person has been granted a mineral right in

accordance with this Act. Activities conducted under a mineral right shall be limited to the activities permitted by the mineral right.

Furthermore, section 10 states that unless otherwise provided in this Act, a mineral right shall not be granted to a person unless the person is a body incorporated under the Companies Code, 1963 (Act 179), under the Incorporated Private Partnerships Act, 1962 (Act 152) or under an enactment in force[33].

With emphasis on small sacle mining activities Section 82, sub-sections 1 and 2 provide that

(1) "Despite a law to the contrary, a person shall not engage in or undertake a small scale mining operation for a mineral unless there is in existence in respect of the mining operation a licence granted by the Minister for Mines or by an officer authorised by the Minister."

(2) "An application for a licence shall be made in a form the Minister may direct to the office of the Commission in the designated area and shall be submitted with a fee the Minister may determine".

This underscores the legal obligation for all mining activities, including artisanal and small scale operations, to be carried out under a valid mineral right.

Section 83 provides that qualification of an applicant for small scale mining. It states that a licence for small scale mining operation shall not be granted to a person unless that person:

(a) is a citizen of Ghana,

(b) has attained the age of eighteen years, and

(c) is registered by the office of the Commission in an area designated under section 90 (1).

The Centre for Environmental Impact Analysis (CEIA) and the Accra Mining Network in further, state that any small-scale mining activity by individuals, group or companies without the following three key requirements is an illegal operation; "galamsey", which must not be tolerated by all stakeholders:

- License issued by the Minister for Lands & Natural Resources: SSM Reserved for Ghanaians and Licence is Site Specific
- Environmental Permit issued by the EPA (Act 703, Section 18; EPA Act 490 and LI 1652)
- Operating Permit issued by the Minerals Commission [34]

[33] Section 10 .Minerals and Mining Act ,2006,Act 703
[34] Centre for Environmental Impact Assessment and Accra Mining Network (2021) Handbook for sustainable artisanal small-scale gold mining

To acquire an ASM license, the Minerals and Mining (License) Regulations, 2012 (L.I. 2176), under the Grants of small-scale mining licences (pursuant to regulations 202 to 216) provides

detailed procedures to follow. See Table 1.

Table 1: ASM License Application Procedure

Step 1: Identification of an area of interest
Before the application for a small-scale mining licence, applicant must conduct a cadastral search at the Minerals Commission to ensure the designated area of interest is not under a pending licence or not an already licenced area. This research of the designated area is done to have a swift application process.

Step 2: Submission of an ASM Licence Application Form
Once a designated area is investigated, the applicant can then submit an application to the Minerals Commission through their district office. And pursuant to the Regulation, section 202 clearly states the particulars needed to applyfor a small-scale licence

- Application for a small-scale mining licence should be submitted to the district office of the commission in-person or by a representative of the applicant;
- All-important particulars should be clearly stated including name, postal address, residential address, phone number and email;
- The applicant must provide a copy of the national identification card;
- Before the application process, the applicant should have copies of certified company incorporation documents;
- A copy of the Cadastral Search Report, indicating that the area of interest is free immediately prior to submission of the application;
- Clearly state the mineral of interest in the designated area interested to mine
- Applicant must provide evidence of payment of the applicable fees

Step 3: Review and Pre-Licensing Site Inspection
The Minerals Commission will thoroughly review the application submitted within a period of ten days for errors or falsified information provided by the applicant. The district officer will work with the applicant to resolve application discrepancies in the application. If the application is considered to be adequate by the Commission, the district officer of the commission will conduct a pre-licensing site inspection to the designated area of interest to determine whether the plan submitted by the applicant is exactly the same depicted on the ground.

Step 4: Environmental Permit

A letter from the Minerals Commission is issued to the applicant to obtain an environmental permit from the EPA.

Step 5: Consideration of Application for ASM Licence
Upon submission of the EPA permit, the Minerals Commission will consider the application together with the Prelicensing Inspection and make recommendation to the Minister.

Step 6: Notice of Grant or Rejection for ASM licence
When the minister approves a recommendation to grant the application and notifies the Minerals Commission accordingly, the Minerals Commission gives notice of the grant to the Applicant by means of a Notice of Grant of Small-Scale Mining License. The notice requires the applicant to pay the applicable mineral right fees to the Commission and annual ground rent to the Office of the Administrator of Stool Lands. Where the Minister approves a recommendation to reject the application and notifies the Minerals Commission accordingly, the Minerals Commission gives notice of the rejection to the Applicant, including the reasons for the rejection.

Step 7: Acceptance of Grant of an ASM License
The applicant is required to pay applicable fees and give notice to the Minister and the Minerals Commission in writing of acceptance of the grant within 60 days after being notified by the Minerals Commission of the grant.

Step 8: License Agreement
After the applicant pays the applicable fees prescribed, the Minerals Commission prepares the license agreement for the applicant to endorse. The agreement is then sent to the sector minister for the minister to endorse on behalf of the Government of Ghana.

Step 9: Registration of License
On receipt of the signed agreement, the applicant is required to stamp and register it with the Lands Commission. Applicant is also required to swear an oath and obtain a certificate of proof from the High Court Registry.

Step 10: Secure Regulatory Permit
The applicant will be issued a letter to acquire necessary permits from regulators including Water Resource Commission.

Step 11: Operating Permit
Upon receiving the regulatory permits, the applicant will take the regulatory permits, the signed agreement and a cover letter from Minerals Commission to

the Chief Inspector of mines to obtain an Operating Permit before the commencement of mining activity.

Source: Centre for Environmental Impact Assessment and Accra Mining Network (2021) Handbook for sustainable artisanal small-scale gold mining.

The following laws and regulations also apply to operations of ASM:

- Minerals and Mining (Amendment) Act, 2019 (Act 995);
- Minerals and Mining (General) Regulations, 2012 (L.I. 2173) Regulations 24-25
- Minerals and Mining (Support Services) Regulations, 2012 (L.I. 2174) Regulations 2(2) & 5
- Minerals and Mining (Compensation and Resettlement) Regulations,2012 (L.I. 2175)
- Minerals and Mining (Licensing) Regulations, 2012 (L.I. 2176) Regulation 202-256
- Minerals and Mining (Explosives) Regulations, 2012(L.I. 2177)
- Minerals and Mining (Health, Safety & Technical) Regulations, 2012 (L.I. 2182) Regulation 469-492
- Minerals and Mining (Tracking of Earth Moving & Mining Equipment) Regulation, 2020 (L. I. 2404)
- Minerals and Mining (Local Content and Local Participation) Regulation, 2020 (L.I. 2431)
- Environmental Protection Act ,2025, (Act 1124)
- Environmental Assessment Regulations, 1999 (LI 1652)
- Environmental Protection (Mining in Forest Reserves) Regulations, 2022 (L.I. 2462)
- Forestry Commission Act (1999) Act 571
- Water Resources Commission Act,1996, Act 522

Other Relevant Policies

- The Minerals and Mining Policy of Ghana, of 2014;
- The National Environmental Policy, of 2012;
- The Ghana National Land Policy, of 1999;
- National Environmental Policy
- National Water Policy
- Multilateral Mining Integrated Project of 2017 (MMIP)
- Community Mining Scheme- The Small-Scale and Community Mining Operational Manual of 2021[35]

[35] GHEITI 2021-2022 Mining Sector Report

- The Responsible Cooperative Mining and Skills Development Programme, 2025 (COMSDEP)

Figiure 1: Key Governmental Institutions and their Roles

Ministry of Lands and Natural Resources	Role	Responsibility
Ministry of Lands and Natural Resources	Policy	Ensures sustainable management of natural resources, formulates policies and regulations for environmental protection, stakeholder rights, and sustainable mining practices. Issues licenses and permits for LSM and ASM operations, enforces compliance.
Minerals Commission	Regulator	Develops and coordinates mineral sector policies, regulates and manages mineral resources. Serves as a technical adviser to the Minister of Mines, plays a pivotal role in the regulation, licensing, and monitoring of mining operations, including ASM.
Inspectorate Division of the Minerals Commission	Compliance	Conducts regular inspections and audits of mining sites, including small-scale mining operations, to assess compliance with approved mining plans, environmental standards, safety protocols, and other regulatory requirements. Oversees and regulates ASM operations, focusing on promoting responsible mining practices and preventing illegal mining activities.
Environmental Protection Agency	Regulator	Ensures effective protection, preservation, and improvement of the country's environment. Collaborates with regulatory bodies to ensure that ASM operations are carried out in an environmentally responsible manner. Evaluates the impact of ASM operations on the environment before granting environmental permits.

Forestry Commission	Regulator	All mining operations within forest reserves require a Forest Entry Permit issued by the Forestry Commission. This permit is mandatory even after obtaining mineral rights, EPA environmental approval, and water-use permits[36]
Ghana Geological Survey Authority	Compliance	Collects geo-scientific data, serves as a National Repository for data generated by public and private entities, including mining and mineral exploration companies.
Lands Commission	Policy	Provides an integrated and efficient system for the administration and management of lands in the country.
Water Resources Commission	Regulator	Prevent mining operations from mining in water bodies; Enforcing sanitation standards in the ASM subsector; provide surveying and mapping services where necessary. The role of the commission is to provide national water maps to the Minerals Commission which will help in the demarcating lands for ASM.
Ministry of Local Government and Rural Development	Policy	Provides policy directions for local governance in Ghana. Decentralised governance that will help to increase the participation of small-scale miners in policy formation.
Ghana Revenue Authority	Compliance	Responsible for mobilising taxes from the ASM subsector. Provide receipts of taxes received from ASM actors. The GRA is the sole institution set up to tax all institutions including the ASM subsector. GRA comes up with strategies to mobilise taxes from the ASM subsector.
Ghana Gold Board (GoldBod)	Compliance	The Ghana Gold Board (GoldBod) is a body corporate established by an Act of Parliament (ACT 1140) in the year 2025 to oversee, regulate and undertake the buying, selling, assaying, refining, exporting and other related activities in respect of Gold and other Precious Minerals in Ghana.[37] The GoldBod

[36] Environmental Protection (Mining in Forest Reserves) Regulations, 2022 LI2462
[37] Ghana Gold Board(GoldBod) https://goldbod.gov.gh/about-us/

		per section 78 of ACT 1140, took over the rights, obligations, assets, liabilities and workforce of the Precious Minerals Marketing Company (PMMC) Limited.
Ghana National Association of Small-Scale Miners (GNASSM)	Industry Body	Umbrella body of all registered small-scale miners in Ghana. Encourages adherence to rules and regulations governing ASM activities. Strives to increase membership and facilitates the formalisation of artisanal and small-scale operations. Promotes transparency and accountability within the sector.
Ministry of Gender and Social Protection	Policy	Gender equity in mining areas, Policies to reduce child labour in mining sites.
Office of the Administrator of Stool lands	Compliance	Responsible for collecting, managing, and disbursing revenues from stool lands—lands controlled by a stool

Source: GHEITI 2021-22 Mining Sector Report; 2020 Ghana EITI technical report on the ASM sector

6.Negative Consequences of Irresponsible Mining in ASGM in Ghana

In mineral rich African countries, the ASGM industry has helped with employment creation and expansion of national as well as local economy of host communities. The ASGM accounted for 35% of revenue from the mining sector in 2019. It also contributed to 7% of the country's GDP from the gold mining sector[38].
Nevertheless, as ASGM operations rapidly expand, incoherent or weak legislation and enforcement, use of obsolete technologies, among others have led to limited economic benefits to the miners, host communities and the mineral rich countries. It which manifest itself in significant environmental damage and health burdens at the local level.[39]

6.1 Environmental and Human Health Challenges

One of the most critical impacts is widespread deforestation, which has led to the loss of biodiversity and the degradation of vital ecosystem services. Satellite imagery indicates a marked decline in forest cover in districts like Tarkwa-Nsuaem, Prestea-Huni Valley, and Atiwa. These areas, once characterised by dense forests and ecological richness, now face the extinction of native flora and fauna, disruption of

[38] Taux, K., Kraus, T. and Kaifie A. (2022): Mercury exposure and its health effects in workers in the artisanal and small-scale gold mining (ASGM) sector—a systematic review. Int J Environ Res Public Health 19(4):2081. https://doi.org/10.3390/ijerph19042081
[39] Basu, N., Clarke, E., Green, A., Calys-Tagoe, B., Chan, L., Dzodzomenyo, M., Fobil, J., Long, R. N., Neitzel, R. L. and Obiri, S. (2015): Integrated assessment of artisanal and small-scale gold mining in Ghana— part 1: human health review. Int J Environ Res Public Health 12(5):5143–5176. https://doi.org/10.3390/ijerph1205 05143

rainfall patterns, and diminished carbon sequestration capacity[40]. Between 2011 and 2015, there was expansion of ASGM in cocoa-growing areas in southern Ghana. The rate of expansion of galamsey increased from 12,376 ha (+113%) for 2011–2013 to + 13,414 ha (+58%) for 2013– 2015. So, the galamsey area has more than tripled from 10,907 ha in 2011 to 36,696 ha in 2015[41]. Several protected forest reserves, in vicinity of a river, are directly encroached on by galamsey. The Anhwiaso East, the Tano Ofin Extension, the Upper Wassaw, the Oda River, the Subin Shelterbelt, the Denyau Shelterbelt, the Tano Nimiri, the Pra Anum, and the Atewa Range are among the most affected reserves. The destruction of these forest reserves increased from 53 to 603 ha between 2011 and 2015 within the change area[42]. As a result of these high-level of degradation, the World Bank in 2021 approved $103.4 million for Ghana under the Ghana Landscape Restoration and Small-Scale Mining project to reverse land degradation caused by mining and strengthen integrated natural resource management in about 3 million hectares of degraded landscapes[43].

Furthermore, the amount of "mine water" stagnant water in abandoned pits expanded from 1.52 ha in 2008 to 200 ha in 2013; an increase of more than 13,000%. Stagnant water exists because when mining operations move on, concession holders do not reclaim land despite requirements ensured during the licensing processes[44] (Hausermann et al., Ayelanuzo and Aziabah (2025).

The pollution of water bodies such as rivers, basins, sub-basins, and tributaries/streams is one of the most serious and life-threatening menace of mechanised and medium-scale mining. This is noticeable in the alarming rate of the pollution of rivers and drying up of water bodies[45]. (Hilson, 2017; Eduful et al., 2020; Ayelanuzo and Aziabah 2025).

Additionally, the use of toxic chemicals such as mercury and cyanide in gold extraction processes has resulted in the pollution of major rivers, including the Pra, Offin, and Ankobra.

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[40] Snapir, B., Simms, D. M., Waine, T. W. (2017). Mapping the expansion of galamsey gold mines in the cocoa growing area of Ghana using optical remote sensing. *International Journal of Applied Earth Observation and Geoinformation, (58)*, 225–233; Ayelanuzo and Aziabah (2025) State Capture in the Militarized Fight Against Illegal Small-Scale Goldmining in Ghana

[41] Ibid.

[42] Snapir, B., Simms, D. M., Waine, T. W. (2017). Mapping the expansion of galamsey gold mines in the cocoa growing area of Ghana using optical remote sensing. *International Journal of Applied Earth Observation and Geoinformation, (58)*, 225–233; Ayelanuzo and Aziabah (2025) State Capture in the Militarized Fight Against Illegal Small-Scale Goldmining in Ghana

[43] World Bank. (2021, August 30). *Ghana to reverse land degradation with World Bank support* [Press release]. https://www.worldbank.org/en/news/press-release/2021/08/30/ghana-to-reverse-land-degradation-with-world-bank-support

[44] Hausermann H., Adomako J., and Robles M. (2020) Fried eggs and all-women gangs: the geopolitics of Chinese gold mining in Ghana, bodily vulnerability, and resistance. *Human Geography*, *13*(1), 60–73; Ayelanuzo and Aziabah (2025) State Capture in the Militarized Fight Against Illegal Small-Scale Goldmining in Ghana

[45] Hilson, G. M., and Maconachie, R. (2017). Formalising artisanal and small-scale mining: Insights, contestations and clarifications. *Area, 49*(4), 443–451. https://doi.org/10.1111/area.12328; Eduful, M., Alsharif, K., Eduful, A., Acheampong, M., Eduful, J., and Mazumder, L. (2020). The illegal artisanal and small-scale mining (galamsey)'menace'in Ghana: is military-style approach the answer? *Resources Policy*,*(68)*, 101732, 1–14; Ayelanuzo and Aziabah (2025) State Capture in the Militarized Fight Against Illegal Small-Scale Goldmining in Ghana.

This contamination poses a significant threat to aquatic life and the health of communities reliant on these water bodies for drinking, fishing, and irrigation. The Ghana Water Company and the Water Resources Commission have consistently raised alarms about the rising costs and risks of water purification in these heavily impacted zones[46]. Moreover, air and noise pollution caused by machinery and gold-burning practices have led to increased respiratory illnesses and general discomfort in adjacent communities; particularly, affecting children and the elderly[47]. Reports from the EPA, University of Mines and Technology, and the Water Research Institute confirm these trends, highlighting long-term ecological damage that could take decades to reverse[48].

A study conducted in Dunkwa – on – Offin, an ASGM community by Kwaansa et al[49]., (2010) found that the mean urinary mercury concentration in small-scale miners (1.23 μg/L; range: 0.32–3.62 μg/L) was higher than that in farmers (0.69 μg/L; range: 0.08–2.31 μg/L); while Asante et al., (2007) compared urinary mercury concentrations among Tarkwa miners (3.6 μg/L; range: 0.50–9.4 μg/L), to non-miners living in the same area (4.3 μg/L; range: 1.1–12 μg/L), and non-mining Accra residents (3.1 μg/L; range: 1.4–5.5 μg/L). Similarly, a study by Calys-Tagoe[50] et al., (2015) in Tarkwa an ASGM community in Ghana revealed that a total of 121 injury episodes involving 95 miners, with an estimated injury rate calculated to be 5.4 per 100 person years from the 404 miners interviewed.

Hence, it can be concluded that a number of scientific studies as well as anecdotal evidence have linked negative health, environmental and socio-economic and socio-cultural challenges to operations of ASGM in Ghana. Strong evidence suggests elevated mercury exposures in workers and ASGM community members, as well as in nearby biotic and abiotic environmental media. There is also some evidence that ASGM miners and community members are exposed to other heavy metals, such as arsenic and cadmium; mobilised during the mining process. Though data on types, severity and frequency of injuries among ASGM miners in Ghana is limited, studies from other countries, preliminary investigations of injuries in ASGM in Ghana, and reports of unsafe working conditions in Ghana suggest that injuries are common among ASGM miners.

[46] Water Resources Commission (2022). Annual Report on Water Quality and Pollution Trends.

[47] EPA Ghana (2021). Environmental Assessment of Small-Scale Mining in Western and Ashanti Regions

[48] Khazini, L., Dehkharghanian, M. E., & Vaezihir, A. (2021). Dispersion and modeling discussion of aerosol air pollution caused during mining and processing of open-cast mines. International Journal of Environmental Science and Technology, 1-12

[49] Kwaansa-Ansah, E., Basu N. and Nriagu, J. (2010): Environmental and occu-pational exposures to mercury among indigenous people in Dunkwa-on-Offin, a small scale gold mining area in the south- west of Ghana. Bull Environ Contam Toxicol 85(5):476 – 480. https://doi.org/10.1007/s00128-010-0141-7

[50] Calys-Tagoe, B., Ovadje, L., Clarke, E. and Basu, N. (2015): Profile of injuries associated with small-scale gold mining in Ghana. IJERPH 12 (7): 7922 - 7937

6.2 Socio-Economic Impact on Local Communities

6.2.1 Livelihood Disruptions

Beyond ecological degradation, illegal mining has inflicted severe socio-economic damage on local communities. Chief among these is the displacement of farmers and the destruction of arable land, which has led to a sharp decline in agricultural productivity especially in cocoa and staple crop cultivation. The point is that, both the artisanal and commercial mechanised mining require one key resource, land. Because it involves the acquisition of huge tracts of land, this inescapably involves the grabbing of land marginalised community groups farm or mine on. They are, thus, not only dispossessed, but their livelihoods are destroyed.

Dispossession or grabbing applies to landed or landless peasant. Because they are alienated from their land, their ability to access and use it have been directly or indirectly interdicted by the activities of mining operators[51]. Farming activities close to or adjoining these mining activities are equally forced to cease. Cocoa farms are often flooded by the tailings of these mining operators, and the chemicals used in mining render these farms unproductive. Access to farms are blocked, and the sources of water hitherto depended on for mining activities are diverted and polluted by the miners for their activities[52]. The degradation and loss of farmland have forced many families to abandon their livelihoods, exacerbating rural poverty and food insecurity. Additionally, the lack of clear land tenure and overlapping claims among traditional authorities, individuals and miners has sparked conflicts and, in some instances, violence. Women, who play a central role in subsistence farming, have been disproportionately affected, facing both economic disempowerment and loss

[52] Siaw, D., Ofosu, G., & Sarpong, D. (2023). Cocoa production, farmlands, and the galamsey: Examining current and emerging trends in the ASM-agriculture nexus. *Journal of Rural Studies, 101*, 103044.

of household food supplies.[53] Land takeovers for mining activities also restrain women from having access to forest products like firewood, snails, and palm fruits that serve as source of income for community women. In instances that compensation payments have been made, the affected people have complained about the process not being fair, and the amount being paid late and inadequate. In a community such as Akyem Saaman, affected people have received as low as One thousand Ghana Cedis (GHS 1000.00) for an acre of cocoa farm as compensation for the takeover of their farms for mining activities. With no alternative means of livelihood, communities that are affected are left with no option but to take part in sometimes life threatening illegal mining activities to sustain their livelihood.[54] The convergence of these environmental and socio-economic pressures underscores the urgent need for comprehensive, community-inclusive strategies to address the illegal and irresponsible mining crisis.

6.2.2 Public Health Impact

Illegal gold mining practices have introduced serious public health risks in affected communities; particularly, through widespread and unregulated use of mercury in gold extraction. Often handled without protective equipment or proper containment measures, mercury exposure has resulted in neurological damage, developmental disorders, and other chronic health conditions[55]. Medical studies and field reports have linked this exposure to cases of mercury poisoning, miscarriages, and congenital deformities, especially in mining-intensive zones.

In addition to chemical exposure, galamsey activities contribute to elevated rates of respiratory illnesses, skin infections, and waterborne diseases such as cholera, dysentery, and typhoid.[56] Dust emissions from excavation sites, coupled with fumes from open burning of gold amalgam, degrade air quality, affecting both miners and nearby residents. The health risks are further compounded by the absence of sanitation infrastructure in informal mining settlements, where overcrowding and poor hygiene conditions accelerate disease transmission.

Ghana is also running out of fresh water from its rivers. Bearing in mind that these are the sources of water for the Ghana Water Company Limited (GWCL), which treats and distributes water to Ghanaians. A recent case in point is the pollution of the Pra river in the Central Region of Ghana. The GWCL issued a press release in August 2024, which reported that about sixty per cent of the catchment capacity of the Pra is silted because of illegal mining. As a result of this, the river is recording an average

[53] Addai, H., Adjei, K. J., Eshun, B., Chemah, D. N., & Appiah, W. (2024). Interrogating the impact of illegal artisanal and small-scale mining on agriculture at east akim municipality. Acc journal xxx, 7.
[54] Wacam (2018)Asetsenapa Newsletter
[55] Nunoo, S., Manu, J., Owusu-Akyaw, F. K., & Nyame, F. K. (2022). Impact of artisanal small-scale (gold and diamond) mining activities on the Offin, Oda and Pra rivers in Southern Ghana, West Africa: A scientific response to public concern. Heliyon, 8(12).
[56] Gyamfi, O., Sørensen, P. B., Darko, G., Ansah, E., Vorkamp, K., & Bak, J. L. (2021). Contamination, exposure and risk assessment of mercury in the soils of an artisanal gold mining community in Ghana. Chemosphere, 267, 128910.

turbidity of 14,000 NTU which is far above the maximum of 2,000 NTU; the parameters within which the water can be treated for drinking[57].

And vulnerable groups particularly children, pregnant women and the elderly face the greatest health burdens, highlighting the urgent need for integrated public health interventions in galamsey-prone areas.

6.6.3 Child Labour

Child labour remains a pervasive and troubling feature of illegal mining operations in Ghana. In many galamsey-prone areas, children particularly underage boys are engaged in hazardous, physically demanding tasks, such as digging, carrying heavy loads, and working in unstable pits. Girls, on the other hand, are commonly involved in washing sediment, transporting materials, or selling gold, often under exploitative conditions.[58]

This early and unsafe integration into the informal labour market disrupts children's access to formal education, leading to high dropout rates and weakened academic outcomes. As a result, child labour in illegal mining not only violates national and international child protection standards; but, also perpetuates intergenerational cycles of poverty, curtailing opportunities for social mobility and long-term development. The normalisation of children's participation in galamsey activities undermines both community resilience and national human capital development, necessitating urgent multisectoral interventions.

6.2.4 Social Fragmentation

The influx of miners, including many external actors, has significantly altered the social dynamics in formerly cohesive rural communities. Tensions have risen as competition over resources and uneven benefits have created divisions among residents. In some areas, vigilante groups and local militias have emerged some established to protect mining interests, others formed to extort illegal operators. This volatile environment has undermined local governance and led to sporadic violence.

Traditional authorities, once central to conflict resolution and land allocation, have in some cases lost legitimacy due to perceived or actual complicity in illegal mining operations[59]. Their roles are often contested, weakening communal bonds and local institutional authority. Women have been disproportionately affected by the resulting instability. Increased economic hardship, combined with displacement and reduced access to secure livelihoods, has diminished their autonomy and social

[57] Ayelanuzo and Aziabah (2025) State Capture in the Militarized Fight Against Illegal Small-Scale Goldmining in Ghana

[58] Addo, A. M., Nyantakyi, E. K., Appiah-Adjei, E., Ackerson, N. O. B., Yeboah, S. I. I. K., Borkloe, J. K., ... & Owusu, M. (2023). Environmental and health impacts of mining: a case study in Kenyasi-Ahafo Region, Ghana. Arabian Journal of Geosciences, 16(5), 334.

[59] Takyi, S. (2024). Natural resources extraction and education in Ghana: Understanding the impact of gold mining on children's education in the kenyasi community (master's thesis, oslo metropolitan university).

standing[60]. Moreover, several NGOs have reported a troubling rise in gender-based violence in galamsey-affected communities, often exacerbated by the influx of transient male workers and the absence of effective protective services.

7.Political Economy and Stakeholder Analysis

Illegal mining in Ghana thrives within a deeply entrenched and multifaceted political economy, shaped by the competing interests of various state and non-state actors. This complexity has significantly undermined governance, enforcement, and reform efforts within the small-scale mining sector.

7.1 Local Political Actors

Local political actors have emerged as influential stakeholders in the perpetuation of illegal mining in Ghana. Frequently, these individuals are implicated in shielding galamsey operations, motivated by a combination of electoral incentives, financial patronage networks and political expediency. In many cases, politicians at the district and constituency levels leverage relationships with illegal miners to secure campaign financing or consolidate voter support; particularly, in mineral-rich regions where galamsey constitutes a significant source of livelihood[61].

Such political entanglements compromise the impartiality and credibility of enforcement mechanisms, as authorities may be pressured to overlook illegal activities or suspend crackdowns during politically sensitive periods. The instrumentalisation of galamsey for electoral gains has led to a cycle of selective enforcement and policy reversals, where meaningful reform efforts are routinely stalled or undermined once political costs become apparent. This dynamic contributes to the broader problem of governance paralysis that continues to hinder long-term, sustainable solutions to the illegal mining crisis[62].

7.2 Traditional Authorities

Traditional authorities have historically held significant influence in matters of local governance, land administration and community dispute resolution in Ghana. In the context of small-scale mining, their roles have become increasingly complex, and at times, contradictory. While some chiefs and family heads have entered into informal leasing arrangements with illegal miners, often in pursuit of short-term

[60] International Labour Organization (2021). Child labour in mining and quarrying in Ghana.

[61] Abdulai, A. G., Buur, L., & Stacey, P. (2025). Party political campaigning and the illegal extraction of gold in Ghana. World Development, 192, 107008

[62] Aziabah, M. A., & Ayelazuno, J. A. (2024). The failure of the militarised fight against 'Galamsey'in Ghana: A critical overview of the class and political dynamics. Journal of Planning and Land Management, 3(2), 38-51.

financial gains, others have emerged as vocal opponents of galamsey due to its destructive impact on land, water resources, and communal cohesion.[63]

However, those traditional leaders who resist illegal mining often face structural limitations, including a lack of legal authority, logistical support and security guarantees. Their capacity to enforce communal by-laws or protect customary lands is further undermined by competing claims over land ownership, political interference and the absence of coherent coordination with state institutions. This internal fragmentation among traditional leaders has made it difficult to present a unified front against galamsey and has, in some cases, eroded public trust in traditional leadership within affected communities[64].

7.3 Security Agencies

Security agencies, notably the police and military play a critical but controversial role in the governance of Ghana's small-scale mining sector. While these institutions are mandated to support enforcement operations and protect national resources, multiple reports and investigations have revealed troubling patterns of bribery, collusion and selective enforcement in galamsey-affected areas. Security personnel have been implicated in providing protection to illegal mining operations, leaking information on planned raids, or simply turning a blind eye in exchange for financial inducements[65].

Such conduct do not only reinforces a culture of impunity; but, also undermines public confidence in state institutions, particularly in communities already marginalised by environmental harm and economic disruption. The blurred line between law enforcement and complicity contributes to an accountability vacuum that frustrates efforts to implement sustained and impartial anti-galamsey interventions. Addressing this issue requires institutional reform, improved oversight mechanisms, and the depoliticisation of security assignments related to resource governance.

7.4 Foreign Actors

Foreign involvement; particularly, by Chinese nationals has significantly intensified the scale, capitalisation, and technological sophistication of illegal mining operations in Ghana. These actors frequently operate through informal partnerships with local agents, providing access to excavators, dredging equipment and financial

[63] Ampaw, E. M., Chai, J., Jiang, Y., Dumor, K., & Edem, A. K. (2023). Why is Ghana losing the war against illegal gold mining (Galamsey)? An artificial neural network-based investigations. Environmental Science and Pollution Research, 30(29), 73730-73752.

[64] Asori, M., Mpobi, R. K. J., Morgan, A. K., Apoanaba, T. A., Katey, D., Ampofo, S. T. & Appiah, D. O. (2023). Is illegal mining socio-politically entrenched? An opinion piece of the interaction between formal politics and chief dominance in mineral governance, and its influencon fighting Galamsey in Ghana. GeoJournal, 88(2), 1953-1963.

[65] Aziabah, M. A., & Ayelazuno, J. A. (2024). The failure of the militarised fight against 'Galamsey'in Ghana: A critical overview of the class and political dynamics. Journal of Planning and Land Management, 3(2), 38-51.

capital that far exceeds the means of typical artisanal miners.[66] The influx of foreign capital has transformed galamsey from a predominantly subsistence-level activity into a semi-industrial enterprise with far-reaching environmental and social consequences.

This collaboration between foreign operators and local stakeholders further complicates governance and enforcement. The overlapping interests of economic profiteering, political patronage, and institutional complicity have fostered a regulatory environment where enforcement is often inconsistent, selective, or timed to serve electoral interests. Such conditions have produced a policy paralysis, wherein systemic reform is continuously undermined by short-term political calculations and entrenched interests across multiple levels of governance[67].

8. Policy Gaps And Stalemates

Despite a legal framework governing small-scale mining in Ghana, the country continues to face significant challenges in enforcement and policy coherence. These gaps have enabled illegal mining to persist and flourish in many parts of the country. Some of them are discussed below:

8.1 Enforcement Failures

Despite the existence of legal framework regulating small-scale mining; notably, the Minerals and Mining Act, 2006 (Act 703) and its subsequent amendments, enforcement remains critically weak. Chronic under-resourcing of regulatory bodies, such as the Minerals Commission, Environmental Protection Agency, and district-level task forces, has severely limited their ability to monitor operations, conduct inspections, and implement sanctions effectively. Many local offices lack basic transportation, technical equipment and trained personnel required to carry out enforcement mandates.

Moreover, widespread corruption within enforcement agencies has further eroded the integrity of anti-galamsey efforts. Field reports and investigative accounts reveal that some officials accept bribes, selectively apply regulations or collude directly with illegal miners. These practices foster a culture of impunity, enabling illegal operations to persist openly in defiance of national laws. Without systemic reforms to address these enforcement failures, regulatory initiatives will continue to falter, undermining public trust and weakening the overall legitimacy of resource governance in Ghana.

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[66] Modern Ghana News (2023). Investigative Report on Foreign Involvement in Galamsey

[67] Lindström, A. (2025). Deforestation and Illegal Gold Mining: A Comparative Analysis of Governmental Strategies in Ghana, Sierra Leone and Zimbabwe.

8.2 Institutional Overlap and Poor Coordination

A significant structural challenge in Ghana's efforts to regulate small-scale mining lies in the institutional fragmentation among key regulatory bodies. Agencies such as the Minerals Commission, Environmental Protection Agency, and Forestry Commission all play critical roles in managing mining activities; yet, their mandates often overlap without clear boundaries or coordination frameworks. This has resulted in operational redundancies, inconsistent policy implementation, and blurred lines of accountability.

The absence of a unified command structure or inter-agency coordination mechanism has made enforcement fragmented and inefficient. For example, site inspections, license verification, and environmental compliance checks are often duplicated or delayed due to poor communication among agencies. Additionally, stakeholders report confusion regarding which institution holds ultimate authority in regulating specific aspects of small-scale mining operations. These inefficiencies not only hamper timely enforcement; but, also create opportunities for illegal miners to exploit regulatory loopholes and evade oversight. Addressing this issue requires an institutional realignment that clarifies roles, enhances inter-agency coordination, and promotes shared accountability in the governance of Ghana's mineral resources.

8.3 Partisan Politicisation

Efforts to combat illegal mining in Ghana have been significantly undermined by partisan politicisation, wherein anti-galamsey campaigns are frequently aligned with electoral cycles and political interests rather than guided by long-term policy goals. Enforcement actions tend to intensify during election off-seasons and wane during politically sensitive periods, reflecting a broader tendency to use environmental regulation as a tool of political strategy, rather than public service. This cyclical and inconsistent approach has eroded public trust, especially in affected communities that witness selective crackdowns, uneven application of the law, and abrupt policy reversals.

The politicisation of enforcement also discourages institutional continuity across successive administrations, as new governments may abandon or dilute previous efforts for political expediency. As a result, legitimate small-scale miners face regulatory uncertainty, while illegal operators exploit these inconsistencies to continue harmful practices. Ultimately, these dynamics weaken environmental governance, exacerbate natural resource depletion, and obstruct efforts to build a sustainable and transparent mining sector. Addressing this challenge requires stronger accountability mechanisms, institutional independence, and the deliberate depoliticisation of regulatory enforcement.

9. Recommendations

9.1 Institutional Reform

Addressing illegal mining in Ghana requires robust institutional restructuring and policy harmonisation. A critical first step is the establishment of a unified inter-agency task force that consolidates the enforcement functions of key institutions such as the Minerals Commission, Environmental Protection Agency, Forestry Commission, and relevant security agencies. This task force must operate under a clearly defined mandate with independent oversight mechanisms to ensure transparency, accountability, and insulation from political interference.

Additionally, there is a pressing need to review and streamline existing mining laws; particularly, the Minerals and Mining Act, 2006 (Act 703) and its subsequent amendments. Regulatory loopholes and inconsistencies within the legal framework continue to be exploited by both licensed and illegal operators and complicit actors. A comprehensive legal audit should be undertaken to enact laws that will protect the environment and socio cultural wellbeing of the people. In view of the afore-mentioned:

- mining sector policies and laws must declare Forest Reserves, Globally Significant Biodiversity Areas, Ramsar Sites, Wild Life Sanctuaries, National Parks and Cultural Sites as 'No Go Zones' for mining operations.
- Section 17 of Act 703 which grants water rights to mining companies should be removed from the Act and replaced with provisions that will protect water bodies. Ghana is gradually becoming a water-stressed nation and the Act must be seen to be working towards th objective of protecting water bodies in mining communities.
- In line with the signing and ratification of the Minamata Convention on Mercury (2013) Article (7), the State should put in place measures to prevent the use of mercury in mining and to repeal the use of mercury in all mining related-laws.
- Information that the host mining communities and the public may require to make informed decisions on environmental and nature protection; socio-economic-cultural rights, should be disclosed to the public at no cost to the public and host mining communities.
- To protect rivers and streams from pollution, siltation and discharges of harmful contaminants, the buffer zone allocation to protect such water bodies from an active mining area to the water body should be at least 200 metres from the water body.

9.2 Community Engagement & Empowerment

- The policies and legal framework must also include and reflect human rights provisions, and mining companies must be required to observe, promote, and

respect human rights in all mineral development and related activities in host communities.

- The policies should also include participation of host communities and Civil Society Organisations (CSOs) in environmental standard enforcement. Mining communities' livelihoods have been destroyed, their rivers have been polluted, the air has been polluted with dust; there is excessive noise from rock blasting, and their houses have cracked as a result of the vibration from rock blasting. The regulatory bodies in charge of ensuring mining operation standards reside elsewhere.
- The Free Prior and Informed Consent Principle should be internalised in the Minerals and Mining Act.
- Host communities should be involved in the processes leading to the acquisition of the mineral rights, and the process should be based on the "Free, Prior, and Informed Consent" (FPIC) concept. The Free, Prior, and Informed Consent should form the basis for the decision-making processes in the entire life cycle project implementation.

9.3 Transparency And Accountability

Ensuring transparency in the governance of Ghana's mineral resources is essential to dismantling the networks that enable illegal mining. A foundational step is to establish a publicly accessible online registry of all mining licenses, concessions, and permit holders. This platform should include geospatial data, license durations, environmental commitments, and beneficiary ownership disclosures. Such transparency will empower civil society, journalists, and affected communities to track mining activities, expose illegal operations, and demand greater compliance from both companies and regulators

In parallel, legal protections must be enacted and enforced for journalists, community whistleblowers, and environmental defenders who expose illicit mining operations and associated corruption. Intimidation, violence, and legal threats against these actors not only undermine public accountability; but, also restrict the flow of critical information needed for effective reform. Strengthening Ghana's whistleblower legislation and ensuring swift prosecution of those who harass or harm media professionals is essential for creating a culture of openness and civic vigilance.

9.4 National Consensus Building

The persistent failure to sustainably address illegal mining in Ghana reflects a broader lack of national consensus on natural resource governance. To overcome the current policy gridlock, it is imperative to facilitate inclusive, non-partisan dialogue platforms that bring together a broad coalition of stakeholders including CSOs, traditional authorities, youth groups, community leaders, and political actors across party lines. These forums should be guided by evidence, rooted in shared

national interests, and aimed at building long-term consensus on regulatory reforms, environmental protections, and equitable resource distribution.

Equally important is the need to de-link enforcement agencies from direct political appointments to promote institutional neutrality and professionalism. Agencies such as the Minerals Commission, Environmental Protection Agency, and specialised anti-galamsey task forces must operate independently of political cycles and influences. This will help to ensure that enforcement actions are based on law and evidence, not electoral expediency thereby restoring public trust and ensuring the continuity of reforms across successive administrations.

9.5 Impose a Moratorium on Mining Licences

The state should temporarily suspend the issuance of new mining licences to allow for a thorough review of existing operations, strengthen regulations, and prevent further environmental damage.

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