



American Journal of Environment and Climate (AJEC)

ISSN: 2832-403X (ONLINE)

VOLUME 5 ISSUE 2 (2026)



PUBLISHED BY
E-PALLI PUBLISHERS, DELAWARE, USA

Environmental Governance in Ghana: Understanding the Persistence of Galamsey (Illegal Small-Scale Mining) Despite State Interventions

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Article Information

Received: March 25, 2026

Accepted: May 30, 2026

Published: August 19, 2026

Keywords

*Environmental Governance,
Ghana, Illegal Mining,
Institutional Fragmentation,
Livelihood Dependence, Political
Economy, Sustainability*

ABSTRACT

This paper examines why galamsey (illegal small-scale mining) continues to persist in Ghana despite repeated government interventions and military crackdowns. While public discourse often presents galamsey as a problem of illegality and weak law enforcement, this study argues that the issue is rooted in deeper environmental governance challenges. Drawing on the concepts of environmental governance, institutional fragmentation, political economy, and livelihood dependence, the paper analyzes how overlapping institutional mandates, political interests, and rural economic pressures interact to sustain illegal mining activities. Using secondary data, policy documents, academic literature, and public statements from state officials, security actors, and civil society voices, the study demonstrates that fragmented governance structures create weak coordination and inconsistent enforcement, while political incentives encourage selective application of regulations. At the same time, poverty, unemployment, and limited livelihood alternatives continue to push many rural communities into illegal mining as a survival strategy. The findings suggest that enforcement-centered approaches alone are unlikely to produce sustainable outcomes because they fail to address the structural and socioeconomic conditions that sustain galamsey. The paper concludes that effective responses require stronger institutional coordination, community participation, political accountability, and the creation of viable alternative livelihoods. Ultimately, the study contributes to broader debates on environmental governance in resource-rich developing countries by showing how governance failures, political dynamics, and livelihood insecurity combine to undermine environmental regulation and sustainability efforts in Ghana.

INTRODUCTION

In the early hours of the morning in many communities in Ghana, the sound of excavators and water pumps often replaces the quiet rhythm of farming life. Along riverbanks that once served as sources of drinking water and irrigation, the water now runs brown, thick with sediment and chemical residue. This transformation has become a daily reality for many residents. As farmers struggle to access clean water for their crops, households are also skeptical about the safety of the water they consume. Yet just a few meters away from the communities, groups of young men continue to dig, driven not by disregard for the environment, but by the urgent need to earn a living. This scene captures the complexity of illegal small-scale gold mining in Ghana, popularly known as galamsey. Over the years, galamsey has emerged as one of the most pressing environmental challenges in the country, contributing to widespread water pollution, land degradation, and deforestation (Kuffour *et al.*, 2018; Wilberforce & Nunoo, 2024). In response, successive governments have implemented enforcement measures ranging from arrests and equipment destruction to military-led crackdowns. Despite these interventions, the problem persists, often resurfacing shortly after each operation. The problem is that public discourse and policy responses frequently frame galamsey as a problem of illegality and weak law enforcement, suggesting that stricter policing and harsher penalties will resolve the

issue (Asumda & Nweke, 2026). However, the continued expansion of illegal mining despite these efforts points to a deeper governance challenge. Relying too much on strict policing and military may work for a short time, they do not solve the problem in the long run. Existing research suggests that effectively managing shared resources depend not only on the presence of regulations but also on the involvement of local people making the rules and helping to monitor activities, and on how institutions coordinate, enforce, and adapt them within specific political and social contexts, with (Agrawal *et al.*, 2022; Ostrom, 2017; Ostrom, 1990). Where authority is fragmented across multiple institutions, coordination weakens and accountability becomes unclear, allowing enforcement to become inconsistent and selective (Anyanwu *et al.*, 2025). In Ghana's mining sector, regulatory responsibilities are distributed among several institutions, including the Environmental Protection Agency, the Minerals Commission, the Water Resources Commission, local government authorities, traditional leaders etc. (Balag'kutu, 2024; Minerals Commission, 2014). This overlapping structure often results in gaps in communication, competition over mandates, and uneven enforcement. At the same time, enforcement processes are shaped by political dynamics, where local and national actors may mediate regulatory actions through patronage networks and electoral considerations, particularly in rural areas where livelihoods highly depend on small-

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scale mining (Bebbington *et al.*, 2018).

While existing studies have examined the environmental impacts, policy responses, and socioeconomic drivers of gamsey, limited attention has been given to how institutional fragmentation, political incentives, and livelihood dependence interact to sustain the phenomenon. This study addresses this gap by analyzing gamsey through the lens of environmental governance and political economy. Specifically, it asks the question, how do institutional fragmentation, political incentives, and livelihood pressures interact to sustain illegal small-scale mining in Ghana despite repeated enforcement efforts? This paper begins by reviewing the key concepts that serve as a foundation for understanding the issue of gamsey. It then applies these concepts to the Ghanaian context to explain why illegal small-scale mining persists despite repeated and often forceful government interventions. The paper moves on to present a discussion and analysis section that synthesizes these insights to offer a deeper explanation of the issue and then moves on to draw a conclusion.

LITERATURE REVIEW

Environmental Governance and Institutional fragmentation

Environmental governance is known to be formal and informal arrangements through which societies manage environmental resources and address ecological challenges, including the institutions, rules, decision-making processes, and networks of actors involved (Lemos & Agrawal, 2006). It encompasses the roles of state agencies, private actors, civil society, and local communities in shaping how environmental decisions are made, implemented, and contested (Jouni, 2007; Lemos & Agrawal, 2006). Within this perspective, effective governance is not simply a matter of having laws or policies in place. Rather, it depends on how institutions coordinate, enforce, and adapt these rules across different levels and over time (Agrawal *et al.*, 2022; Ostrom, 2017; Decaro *et al.*, 2017). As such, governance tends to function most effectively when it operates through “multiple layers of nested enterprises” in which responsibilities are clearly defined, monitoring is credible, and enforcement is consistent (Mansbridge, 2014, p. 8, Jouni, 2007). However, in practice, these ideal conditions are often undermined by institutional complexities that weaken coordination and accountability. When roles are unclear, communication channels are weak, and enforcement responsibilities are dispersed, environmental regulations risk becoming “laws on paper” that are only selectively applied (Agrawal *et al.*, 2022; Ostrom, 1990). It is within this context that the concept of institutional fragmentation becomes particularly relevant.

Institutional fragmentation is the dispersion of authority and decision-making power across multiple organizations and levels of governance without clear coordination or integration mechanisms (Balag’kutu, 2024). In such settings, agencies frequently operate with overlapping

or competing mandates, limited information sharing, and differing priorities. This fragmentation can produce regulatory gaps, duplication of effort, and inconsistent enforcement, as no single institution possesses the authority or capacity to ensure coherent policy implementation (Anyanwu *et al.*, 2025; Balag’kutu, 2024). However, as Ostrom, (1990) note, effective management of shared resources depends on clearly defined roles, coordinated rules, and accountability among institutions. In Ghana’s mining sector, these dynamics are especially pronounced. The Minerals Commission may issue mining licenses without full alignment with the Environmental Protection Agency (EPA) and the Water Resources Commission (WRC), which are responsible for environmental and water permits respectively. However, since there is no full synchronized system that ensures these approvals are jointly verified before operations begin, miners can hold a valid mineral right while simultaneously violating environmental or water regulations (Asumda, 2022). In addition, monitoring and enforcement are not jointly carried out and each agency operates within its own mandate, often without real-time information sharing or joint inspections (Asumda, 2022). This creates situations where one agency assumes another is responsible for oversight, leading to regulatory blind spots. Similarly, although the state holds legal ownership of mineral resources, traditional authorities often control land allocation at the local level, sometimes granting access for mining in ways that conflict with formal regulations (Adranyi *et al.*, 2024). With this case, enforcement can become uneven and inconsistent. Agencies may assume others are responsible for action, conflicting priorities may encourage selective enforcement, and gaps in communication may allow illegal activities such as gamsey to persist largely unchallenged (Jouni, 2007). Viewed through this lens, the challenge of gamsey is not only about the existence of environmental regulations, but about how fragmented institutional arrangements weaken governance capacity and create space for continued non-compliance.

Political Economy and Environmental Resource Governance

Newell (2008) observes that environmental problems are not isolated issues but are deeply embedded in social, economic, and political structures. Based on this, political economy perspective views resource governance not as a neutral or purely technical process and emphasizes that decisions about regulation and enforcement are embedded within broader political and economic systems (Bebbington *et al.*, 2018). With this, political actors, including elected officials, bureaucrats, local elites, and party networks often use institutions and policies strategically to secure support, distribute benefits, and maintain authority (Asori *et al.*, 2023). However, Ostrom (1990) observes that rules are more likely to be followed when they are applied consistently and perceived as fair. As such when enforcement is selective or influenced by

political interests, it undermines trust in the system and reduces voluntary compliance.

In resource-rich contexts such as Ghana, these dynamics can significantly shape responses to illegal mining. Political actors may develop relationships with miners, local intermediaries, or business interests, offering tolerance or protection in exchange for electoral support, campaign financing, or other forms of political advantage (Adom & Simatele, 2025; Hilson, 2017). At the same time, where galamsey serves as a key source of livelihood for local communities, strict enforcement can carry substantial political risks (Hilson, 2017). Aggressive crackdowns may alienate voters, disrupt local economies, and weaken patronage networks, creating incentives for politicians to adopt more cautious, selective, or symbolic enforcement strategies (Bebbington *et al.*, 2018; Adom & Simatele, 2025). Seen in this light, enforcement patterns in Ghana's mining sector are not simply the result of institutional weakness but are actively shaped by political considerations. While governments may initiate high-profile anti-galamsey campaigns to signal commitment to environmental protection, enforcement is often uneven across regions and time, particularly in areas where political costs are high or influential actors benefit from mining-related activities (Hilson, 2017; Adom & Simatele, 2025).

This perspective therefore complements the concept of institutional fragmentation by showing that gaps in enforcement are not only structural but also strategic. Political incentives influence when, where, and against whom regulations are applied. In an environment where some individuals are punished while others operate with impunity, the perception that rules can be bypassed is likely to be reinforced and as such contributes to the continued proliferation of galamsey despite repeated state interventions.

Livelihood Dependence and Environmental Degradation

Many rural households depend heavily on environmental resources for their daily needs and income (Angelsen *et al.*, 2011). This includes harvesting fruits, medicinal plants, fish, and other non-cultivated resources (Angelsen *et al.*, 2011). But Zimmerer (2015) observed that livelihood strategies specially under poverty and weak institutions can heighten environmental degradation. In many rural parts of Ghana, galamsey is rooted in poverty, unemployment, declining agricultural incomes, and limited access to alternative livelihood opportunities (Aidoo, 2016; Afriyie *et al.*, 2016; Hilson & Garforth, 2013). For many households, small-scale mining provides a critical, and sometimes the only, means of generating cash income, meeting basic needs, and coping with economic shocks.

Afriyie *et al.*, (2016) and McQuilken & Hilson, (2016) note that participation in illegal mining in Ghana is often a rational survival strategy rather than simple criminal deviance. So, young people, land-poor farmers, and those

excluded from formal employment are particularly likely to turn to informal mining when agricultural yields are low, markets are volatile, or state support is inadequate (Aidoo, 2016; Hilson and Osei, 2014; Amponsah & Munier, 2016). However, this livelihood dependence creates a profound sustainability dilemma. The very activity that enables short-term survival contributes to long-term environmental degradation, undermining water security, soil fertility, and the ecological foundations of future livelihoods (Kuffour *et al.*, 2018; Wilberforce & Nunoo, 2024). It could therefore be argued that understanding 'galamsey' therefore requires situating it within broader patterns of rural poverty, economic restructuring, and unequal access to opportunities.

Integrating Institutional Fragmentation, Political Economy, and Livelihood Dependency

Bringing the ideas of environmental governance, institutional fragmentation, political economy, and livelihood dependence together provides a comprehensive framework for understanding the persistence of galamsey. Environmental governance makes us understand the role of institutions, coordination, and enforcement in managing natural resources, while institutional fragmentation explains how overlapping mandates and weak integration undermine regulatory effectiveness. Building on this, the political economy perspective shows how clientelism, patronage, and electoral incentives shape when and how enforcement is applied. At the same time, livelihood dependence highlights why individuals continue to engage in illegal mining despite environmental and legal risks, as it often represents a critical means of survival (Lemos & Agrawal, 2006; Afriyie *et al.*, 2023; Bebbington *et al.*, 2018; Aidoo, 2016).

Taken together, these perspectives suggest that galamsey persists not simply because of weak law enforcement, but because multiple forces interact and reinforce one another. Fragmented institutions create gaps that allow for inconsistent regulation, political incentives encourage selective or symbolic enforcement, and livelihood pressures make communities resistant to interventions that threaten their economic survival. This argument is further supported by collective action theory, which says that when rules are forced on communities without involving them, people may become less willing to cooperate on their own (Ostrom, 2010a). In the context of galamsey, this means that government crackdowns alone are unlikely to produce lasting compliance. This is because these actions do not address community beliefs, local practices, or the economic needs that push people into illegal mining (Brondizio & Le Tourneau, 2016). For rules to work well, people need to voluntarily cooperate, not just follow them out of fear. So, sustainable solutions therefore require not only stronger institutions, but also alignment between governance structures, political incentives, and local livelihood needs (Ostrom, 2010b). Table 1 below shows a summary of these perspectives to aid in better understanding of the phenomenon under

Table 1: Summary of Concepts

perspectives	Key Concern	How it Relates to Galamsey (Illegal Small-Scale Mining) in Ghana
Institutional Fragmentation	Overlapping mandates, poor coordination among agencies (e.g., mining, water, land agencies)	Creates gaps and confusion in enforcement, making it easier for illegal miners to operate without consistent monitoring
Political Economy	Political interference, vote-seeking behavior, and protection of illegal miners by powerful actors	Results in selective enforcement where some illegal miners are ignored or protected due to political or financial interests
Livelihood Dependence	Reliance on mining income and survival, especially in rural communities	Drives individuals and communities to continue illegal mining despite environmental damage and legal risks.

discussion.

These perspectives together provide a clearer explanation of how institutional fragmentation, political dynamics, and livelihood pressures jointly sustain illegal small-scale mining in Ghana, and it guides the empirical analysis that follows.

MATERIALS AND METHODS

This study adopts a qualitative research approach to examine why galamsey (illegal small-scale mining) continues to persist in Ghana despite repeated government interventions and enforcement campaigns. A qualitative approach was considered appropriate because the study seeks to understand the institutional, political, and socioeconomic factors shaping environmental governance outcomes rather than measure relationships through statistical analysis. Specifically, the study relies on a desk-based analytical design grounded in environmental governance and political economy perspectives. This approach was suitable because galamsey is a complex governance issue involving multiple actors, institutions, and competing interests that cannot easily be understood through quantitative measures alone.

The study primarily uses secondary data obtained from academic journal articles, policy documents, government reports, institutional publications, media reports, and publicly available statements related to galamsey and environmental governance in Ghana. The academic sources provided theoretical and empirical insights into environmental governance, institutional fragmentation, political economy, collective action, and livelihood dependence. The policy documents and institutional reports however were used to understand the regulatory framework surrounding mining governance in Ghana. In addition, public statements and media reports from sources such as GhanaWeb, Deutsche Welle (DW), Daily Guide Network, and Plan B FM were used to capture practical governance realities and stakeholder perspectives regarding anti-galamsey interventions.

The paper further adopts an interpretive analytical approach, which examines the broader governance implications embedded within enforcement practices, policy responses, and public narratives surrounding galamsey. Rather than treating galamsey solely as an environmental or criminal issue, the analysis interprets it as a governance challenge shaped by the conglomeration of institutional fragmentation, political interests, and livelihood pressures. By combining theoretical literature with real-world examples and public narratives, the study provides a broader and context-sensitive understanding of why anti-galamsey interventions in Ghana have produced limited long-term success. A limitation of the study is that it relies entirely on secondary sources and does not include primary field interviews or direct community engagement. Nevertheless, the use of multiple academic, institutional, and media sources helps strengthen the reliability and analytical depth of the study.

RESULTS AND DISCUSSION

On November 9, 2022, Superintendent Ransford Aborabora of the Ghana Immigration Service testifying in court in the case involving Chinese national Aisha Huang who had been arrested for engaging in galamsey stated “on May 6, 2017, I led a team to Obuasi, where we stormed a site where galamsey activities were ongoing. This was during the period that President Akufo-Addo had placed a ban on small-scale mining. We had received intel that some people were flouting the directive. Upon reaching the location, we arrested four Chinese nationals. One of them, Gao Jin Cheng, told us that they were working for Aisha Huang and that their passports were even with her” (GhanaWeb, 2022). This testimony reveals something that policy documents obscure. When multiple agencies share responsibility for mining governance, it can create a situation where no single actor holds a complete mandate. For instance, in Ghana, the minerals Commission licenses small-scale mining operations, the Environmental Protection Agency on the

other hand monitors water quality and environmental impacts while the Water Resources Commission regulates river use. The Local government authorities manage land allocation, with traditional leaders exercising authority over customary land. Immigration Service then arrests foreign nationals operating illegally.

However, it could be seen from the statement that the immigration officers acted on intelligence about illegal mining activity, a crime that falls technically under the Minerals Commission and the Ghana Police Service. So, the question is why did immigration lead the operation? The answer is because the intelligence came to them, not because the governance system coordinated across agencies. This is a clear illustration of institutional Fragmentation. As Balag'kutu (2024) and Anyanwu *et al.* (2025) note, overlapping institutional mandates without clear coordination produce regulatory gaps, duplication of effort, and inconsistent enforcement.

Also, on June 23, 2017, DailyGuide Network captured a statement by Brigadier-General J. Odei (retired), a Ghanaian security expert as follows “Galamsey did not start in 2016, but past governments have looked on and have allowed the situation to degenerate into the present unacceptable crisis. Actions initiated in the past have been messed up in politics, corruption and the inability to enforce the laws and regulations. President Mahama flew over the sites of Galamsey in 2013 and expressed shock at what he saw. A Task Force dismantled hundreds of illegal mining equipment, but like its predecessors, galamsey did not stop but flourished with impunity. The NPP after its ultimatum has equally seized equipment. The war on galamsey cannot be won on ‘Rambo’ type of operations but collaboration with Chiefs and Communities”. (Odei, 2017). One thing from the statement that caught my attention is the General mentioning that “Actions initiated in the past have been messed up in politics, corruption, and the inability to enforce laws.” This is the language of political economy, the study of how power relations, interests, and electoral incentives shape governance outcomes (Bebbington *et al.*, 2018). In resource-rich contexts like Ghana’s mining regions, political actors form relationships with miners, equipment suppliers, local brokers, and sometimes foreign operators. These relationships are not accidental. They are clientelist networks through which politicians secure votes, campaign financing, and local legitimacy (Adom & Simatele, 2025; Hilson, 2017). Electoral incentives further discourage strict enforcement (Hilson, 2017). Politicians may fear that aggressive crackdowns will alienate voters in rural constituencies where galamsey underpins local livelihoods.

Also, in the final statement of the General, he proposed a collaboration of Chiefs and communities as the way to win the war on galamsey. This suggests that the militarized enforcement strategies fail precisely because they do not alter political incentives. Thus, although a military task force will seize equipments etc, the same political actors who tolerated or profited from galamsey

still remain in place, and as such, the structure of interests do not change. As Bebbington *et al.* (2018) argue, resource governance is never a neutral technical exercise. It is a site of contestation where decisions about enforcement are shaped by who benefits from the status quo.

Moreover, Johannes Preuss, German filmmaker and Student Academy Award winner for his documentary “Galamsey” stated in his report that “Hell, looks like a huge crater landscape. Because they cannot dig into rivers, mining companies keep digging holes in the earth. They throw water in those holes to extract the gold and keep doing that as long as it’s profitable. But no one covers their holes up when they’re done. That’s why the whole country looks like a lunar landscape. The government has declared war on illegal gold mining. There was a scandal recently, as a family member of the government who was acting against gold-diggers was murdered. He was lured into an alley and lynched. That hardened the government’s stance” (Deutsche Welle (DW), 2017)

This assertion by Johannes highlights the livelihood dependence on galamsey for many communities. The statement that “a family member of the government who was acting against gold-diggers was murdered. He was lured into an alley and lynched. That hardened the government’s stance” highlight the fact that communities wouldn’t kill government agents unless they perceive enforcement as an existential threat to their survival. As already highlighted in the literature review, for many rural Ghanaians, galamsey is not a choice between legal and illegal income. It is a choice between illegal mining and no income at all. When enforcement threatens the only livelihood available, communities would not comply passively. They will resist even violently sometimes. However, as Kuffour *et al.* (2018) and Wilberforce & Nunoo (2024) demonstrate, livelihood dependence creates a profound sustainability dilemma. Although Galamsey seems to enable short-term survival, it goes on to degrade the ecological foundations of long-term survival such as clean water, fertile soil, and productive land (Amponsah & Munier, 2016; Kuffour *et al.*, 2018; Wilberforce & Nunoo, 2024) . Therefore, it could be argued that no amount of military enforcement can resolve this dilemma unless it is accompanied by viable economic alternatives that make formal livelihoods more attractive than illegal mining.

Now, Mr. Kwame Pianim, a Ghanaian economist and statesman also made a very essential statement on August 2025 that “Every day we allow galamsey to continue, we dig ourselves deeper into a hole from which we may never recover. The contamination of our rivers means higher costs for water treatment, increased health risks, and the collapse of livelihoods for millions of Ghanaians. The fight against galamsey will not be won by government alone. Every citizen must be part of the solution. We must decide, collectively, that enough is enough.” (Plan B 104.5 FM, 2025). This statement sounds like a moral appeal for collective action. However, from the lens of environmental governance theory, it is an empirical claim

about how rules actually become effective. As highlighted earlier, Ostrom's collective action theory shows that when rules are imposed on communities without their participation, compliance is shallow and temporary (Ostrom, 2010a). As such, people obey only out of fear, and they evade when enforcement relaxes. What Mr. Pianim recognizes and what Ghana's enforcement campaigns have largely ignored is that sustainable governance requires what Mansbridge (2014, p.8) calls "multiple layers of nested enterprises" with shared responsibility between the state and citizens.

The truth is that the state cannot win alone because the state is not present on every riverbank, in every forest, at every hour. At the same time, local compliance depends on whether communities believe the rules are fair, whether they have a stake in enforcement, and whether they see a path from illegality to formal participation (Ostrom, 2017). Mr. Pianim's statement that "enough is enough" framing is urgent not because enforcement has been too weak, but because governance has been too narrow focused on repression rather than on building cooperative relationships between the state and the people who live inside the landscape of galamsey.

CONCLUSION

This paper set out to analyze why galamsey continues in Ghana despite repeated government interventions. The analysis shows that the problem goes beyond weak law enforcement. Instead, galamsey persists because of an ineffective environmental governance framework shaped by institutional fragmentation, political incentives, and livelihood dependence. Institutional fragmentation creates gaps and weak coordination in regulation and enforcement, allowing illegal activities to operate within unregulated or poorly monitored spaces. These gaps are further reinforced by political incentives, which shape how and when laws are applied, often resulting in selective or inconsistent enforcement. At the same time, livelihood dependence places constant pressure on individuals and communities to continue engaging in illegal mining as a means of survival. Together, these forces do not operate in isolation, they reinforce one another to sustain a system in which illegal mining is difficult to control through enforcement alone. Also, the analysis reveals that current approaches focus too heavily on enforcement rather than addressing these underlying drivers. As a result, military interventions and equipment seizures tend to produce only short-term outcomes. As Ostrom (2010a) reminds us, rules imposed without community participation produce only shallow, temporary compliance. Therefore, sustainable solutions require more than force. It requires alignment between governance structures, political incentives, and local realities.

Recommendation

Based on the findings of this study, it is important to stress that tackling galamsey cannot rely only on top-down enforcement. What is needed is a more integrated

and governance-centered policy approach. First, Ghana should establish a coordinated district-level mining governance framework that brings together the Minerals Commission, Environmental Protection Agency (EPA), Water Resources Commission (WRC), local assemblies, traditional authorities, and security agencies under a unified monitoring and enforcement structure. This is important because the current fragmented system creates regulatory gaps, duplication of responsibilities, and weak coordination, all of which allow illegal mining activities to continue largely unchecked.

Second, instead of treating all small-scale miners as criminals, the government should gradually organize them into legal and controlled community mining groups. These groups should be given clear rules, designated areas to mine, and training on environmental protection.

In addition, environmental restoration programs should be integrated into livelihood and rural development strategies in mining-affected communities. Local communities should be actively employed in land reclamation, river restoration, and reforestation projects. This way, people are not only stopped from mining illegally but are also actively involved in repairing the damage and earning a livelihood in the process.

Finally, Ghana should adopt community-based environmental monitoring systems that involve traditional leaders, youth groups, farmers, and civil society organizations in monitoring and reporting illegal mining activities. This is essential because sustainable solutions to galamsey therefore depend not only on stronger institutions and stricter laws, but also on cooperation, trust, and shared responsibility between the state and local communities.

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