



Regulatory Framework for Gold Mining in Ghana: An Analysis of Damongo's Mining Sector

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Abstract: *This study offers a comprehensive analysis of the regulatory framework governing gold mining in Ghana, with a specific focus on Damongo, a rapidly growing mining hub in the Northern Region. Ghana's gold mining sector, a major contributor to the nation's economy, faces significant challenges despite its economic benefits. These challenges include severe environmental degradation, mercury contamination, and social issues exacerbated by inadequate regulatory enforcement. This article examines the existing regulatory framework, which includes key legislative acts such as the Minerals and Mining Act, 2006, and the Environmental Protection Agency Act, 1994, alongside a network of regulatory institutions like the Ministry of Lands and Natural Resources and the Minerals Commission.*

Utilizing Damongo as a case study, this research reveals critical inefficiencies in the local regulatory system, particularly in combating illegal mining activities and managing environmental and social impacts. Findings indicate that while gold mining has stimulated economic growth and provided employment opportunities, it has also led to negative consequences such as increased health problems, social vices, and reduced agricultural productivity. The study underscores the need for more robust regulatory practices, improved institutional capacity, and enhanced community involvement in environmental governance.

Comparative insights from regulatory practices in other jurisdictions, such as Australia and Canada, highlight the potential benefits of adopting stricter environmental regulations, comprehensive impact assessments, and better coordination among regulatory agencies. The article concludes with recommendations for strengthening Ghana's regulatory framework, including increased investment in regulatory institutions, improved enforcement mechanisms, and the promotion of sustainable mining practices. This study aims to contribute to the ongoing discourse on mining regulation and sustainability, providing actionable insights for policymakers and stakeholders involved in the governance of Ghana's gold mining sector.



Key Words: Gold Mining, Regulation, Ghana Mining Sector, Environmental Impact and Illegal Mining (Galamsey).

1. INTRODUCTION

Ghana, a country rich in mineral resources, has a well-established gold mining sector that has played a pivotal role in the nation's socio-economic development. Over the past three decades, gold mining has significantly contributed to revenue generation, employment creation, and foreign direct investment. For instance, gold production increased from 59 percent in 2018 to 65 percent in 2019, and mining's contribution to government revenue rose from 4.9 percent in 2018 to 7.6 percent in 2019. Despite these economic benefits, the gold mining sector has also been associated with several adverse impacts, such as environmental degradation, mercury contamination, deforestation, and the displacement of communities.

To regulate this critical sector, Ghana has enacted various laws, most notably the Minerals and Mining Act of 2006, which has undergone several amendments, alongside the Environmental Protection Agency Act of 1994 and the Environmental Assessment Regulations of 1999. However, the effective implementation and enforcement of these laws have been hampered by significant challenges within the regulatory institutions. These challenges include inadequate logistical, technological, and human resource capacity, poor remuneration, and a lack of modern equipment, all of which contribute to a failure to ensure compliance with mining laws and policies. This article aims to analyze the regulatory framework governing gold mining in Ghana, using Damongo as a case study to explore whether the existing institutional structures are equipped to enforce these regulations effectively. The discussion will focus on the challenges facing regulatory bodies, assess their capacity to implement and enforce mining laws, and propose recommendations to address gaps in the regulatory framework, with the goal of improving the governance of Ghana's mining sector. The regulatory framework governing gold mining in Ghana is a critical area of analysis due to the sector's substantial influence on the country's economy and environment. Despite the significant contributions of gold mining to Ghana's socio-economic development, the sector is fraught with challenges, particularly concerning environmental degradation, community displacement, and compliance with legal standards. These issues are exacerbated in specific regions, where local conditions and regulatory enforcement can vary widely. The town of Damongo, located in the Savannah Region of Ghana, presents a unique case for examining these regulatory challenges. As a growing hub for gold mining activities, Damongo faces increasing pressure from both large-scale mining operations and illegal small-scale mining (galamsey). The regulatory institutions responsible for overseeing these activities are often under-resourced and face significant obstacles in enforcing mining laws and environmental regulations effectively. Analyzing the regulatory framework in the context of Damongo is crucial because it can reveal the specific gaps and inefficiencies that exist at the local level. Understanding these local dynamics is essential for crafting more effective policies that can address the environmental and social impacts of mining, ensure fair compensation for affected communities, and improve compliance with existing laws. Moreover, this analysis can provide insights into how national policies are being implemented in practice, shedding light on the broader challenges facing Ghana's mining



sector. By focusing on Damongo, this research aims to contribute to the ongoing discourse on sustainable mining practices and the need for regulatory reform in Ghana.

2. RELATED WORKS

The regulatory framework for mining in Ghana is shaped by a combination of constitutional provisions, primary legislation, subsidiary regulations, and related laws that collectively govern the sector's operations. The foundation of mining law in Ghana is rooted in the 1992 Constitution, which provides the overarching legal framework for the country's governance and natural resource management. The central piece of legislation regulating mining in Ghana is the Minerals and Mining Act, 2006 (Act 703), which has been amended by the Minerals and Mining (Amendment) Act, 2015 (Act 900), and the Minerals and Mining (Amendment) Act, 2019 (Act 995). Additionally, the Minerals Commission Act, 1993 (Act 450), establishes the Minerals Commission, which is the principal institution responsible for overseeing the management and regulation of Ghana's mineral resources. Other key enactments include the Minerals Development Fund Act, 2016 (Act 912), which ensures that portions of mineral royalties are allocated to communities affected by mining activities. The Minerals Income Investment Fund Act, 2018 (Act 978), as amended by the Minerals Income Investment Fund (Amendment) Act, 2020 (Act 1024), governs the management of income derived from mining investments. Furthermore, the Kimberley Process Certificate Act, 2003 (Act 652), regulates the trade in rough diamonds to prevent conflict diamonds from entering the legitimate market. In addition to the primary laws, several subsidiary regulations provide detailed rules on specific aspects of the mining industry. These include the Minerals and Mining (General) Regulations, 2012 (L.I. 2173); Minerals and Mining (Support Services) Regulations, 2012 (L.I. 2174); Minerals and Mining (Compensation and Resettlement) Regulations, 2012 (L.I. 2175); and the Minerals and Mining (Licensing) Regulations, 2012 (L.I. 2176). Other important regulations are the Minerals and Mining (Explosives) Regulations, 2012 (L.I. 2177); Minerals and Mining (Health, Safety and Technical) Regulations, 2012 (L.I. 2182); and the Minerals and Mining (Ground Rent) Regulations, 2018 (L.I. 2357). More recent regulations include the Minerals and Mining (Mineral Operations - Tracking of Earth Moving and Mining Equipment) Regulations, 2020 (L.I. 2404); Minerals and Mining (Local Content and Local Participation) Regulations, 2020 (L.I. 2431); and the Income Tax (Minerals Income Investment Fund Exemptions) Regulations, 2020 (L.I. 2433). The mining industry in Ghana is primarily administered by the Ministry of Lands and Natural Resources and the Minerals Commission. The Ministry is responsible for the overall management and regulation of Ghana's natural resources, including minerals. The Minerals Commission, established under the Minerals Commission Act, 1993 (Act 450), has the statutory purpose of regulating and managing the utilization of mineral resources and coordinating related policies. Beyond mining-specific laws, several other legal frameworks affect the industry, particularly in areas related to environmental protection, land use, and corporate governance. The Environmental Protection Agency Act, 1994 (Act 490) and its subsidiary legislation govern environmental management and protection related to mining activities. The Forestry Commission Act, 1999 (Act 571) and Water Resources Commission Act, 1996 (Act 522) regulate the use of natural resources that may be impacted by mining.



Additionally, the Ghana Geological Survey Authority Act, 2016 (Act 928) provides for geological surveys and research related to mineral resources. The Land Act, 2020 (Act 1036), Local Governance Act, 2016 (Act 936), and Land Use and Spatial Planning Act, 2016 (Act 925) govern land ownership, use, and spatial planning, all of which are critical in mining operations. In Minerals and Mining (Support Services) Regulations, 2012 (L.I. 2174) addition, the administrative aspects of mining operations are regulated by laws such as the Companies Act, 2019 (Act 992); the Incorporated Partnership Act, 1962 (Act 152); the Ghana Investment Promotion Centre Act, 2013 (Act 865); the Income Tax Act, 2015 (Act 896); the Labour Act, 2003 (Act 651); and the Workmen's Compensation Act, 1987 (PNDCL 187). These laws collectively ensure that mining operations in Ghana are conducted within a structured legal framework, balancing economic interests with environmental and social considerations.

Ghana has developed a comprehensive institutional framework to oversee and regulate its gold mining industry. The Ministry of Lands and Natural Resources (MLNR) and the Minerals Commission (MC) are the two primary bodies responsible for the sector's oversight. The MLNR, established under the Civil Service Law of 1993 (PNDCL 327), plays a crucial role in managing the nation's lands, forests, and wildlife resources, as well as overseeing the mineral resources sector. It is tasked with ensuring sustainable resource management and facilitating socio-economic development through effective policy formulation and market regulation. The Ministry is responsible for the exploration and management of mineral resources, and it oversees the implementation of mining laws and policies through its various sector departments. Its responsibilities include formulating policies and granting licenses for mining and mineral exploration. The Ministry's structure includes three main sub-sectors: Lands, Forestry, and Mining. The Minerals Commission (MC) was established under Article 269 of the Ghanaian Constitution and the Minerals Commission Act of 1993. As the primary regulatory body for the mining sector, the MC is responsible for regulating, managing, and developing the nation's mineral resources. It coordinates and implements mining policies, providing technical advice to the government. The MC administers the Minerals and Mining Act, 2006, overseeing policy recommendations, promoting mineral development, and ensuring compliance with mining regulations. Its Inspectorate Division is specifically tasked with enforcing mining laws and regulations. Several other key institutions contribute to the regulation of the mining sector. The Geological Survey Department (GSD) conducts geological research, including map production and maintenance of geological records. The Environmental Protection Agency (EPA) handles environmental concerns related to mining operations. The Land Commission (LC) manages legal records of mining licenses and examines new applications. Additionally, the Inspectorate Division of the Minerals Commission (IDMC) is responsible for health and safety inspections and maintaining comprehensive mining records. Despite the challenges faced by these institutions, particularly the MLNR and MC, they have made significant strides in improving the sector. Noteworthy initiatives include the introduction of advanced technologies such as the Minerals Commission Administrative System (MCAS), drones, and tracking systems to better regulate small-scale mining activities. Training programs have been established to enhance the skills of small-scale miners, and the Community Mining Scheme (CMS) has been launched to address illegal mining. The CMS encourages local communities to engage in responsible and



sustainable small-scale mining practices under the framework of the Minerals and Mining Act, 2006, aiming to balance economic development with environmental stewardship.

3. METHODOLOGY

The study was conducted in Damongo, located in the Northern Region of Ghana. The target population consisted of residents aged 18-65 who have lived in the area for at least five years. According to the 2024 population data, Damongo has approximately 13,115 residents, with about 49% (6,426 individuals) falling within the 18-65 age range. Among this group, 60% are engaged in farming, making it the predominant occupation, while students constitute about 2% of the population. Sampling Technique a stratified random sampling method was employed, focusing on occupational categories to ensure representative coverage. The population was divided into strata based on occupation, and a sample size of 65 households was selected from four key communities in Damongo: Ngbaripe, Zongo, Attributo, and Langbonto. This stratification allowed for a more precise examination of the socio-economic impacts of small-scale gold mining within different occupational groups. Primary data was collected using validated and assisted questionnaires administered to 65 households. The questionnaires were pre-tested in 10 households to ensure reliability and validity, with adjustments made based on the feedback from the pre-test. The data collection focused on socio-economic characteristics such as occupation, educational level, and age structure, along with residents' perceptions of small-scale gold mining's impact on their living conditions.

In addition to the surveys, semi-structured interviews were conducted with selected community members and local authorities to gain deeper insights into the effects of small-scale mining. These interviews provided qualitative data that complemented the quantitative findings from the questionnaires.

4. RESULTS AND DISCUSSION

The target population for this study consisted of residents of Damongo, Northern Region of Ghana, aged 18-65 who have lived in the area for at least five years. As of 2024, Damongo has a population of approximately 13,115, with about 49% in the 18-65 age range, totaling around 6,426 individuals. Among this group, 60% are engaged in farming, making them the predominant occupation, while students constitute about 2% of the population. Primary data was collected from 65 households across four communities in Damongo: Ngbaripe, Zongo, Attributo, and Langbonto, using validated and assisted questionnaires. These questionnaires were pre-tested in 10 households to ensure accuracy and reliability. The study focused on socio-economic characteristics such as occupation, educational level, and age structure, as well as perceptions of small-scale gold mining's impact on living conditions. Due to resource constraints, the number of households surveyed was limited to 65, and data was collected using stratified random sampling by occupation. The analysis, incorporating both quantitative and qualitative methods. Semi-structured interviews were conducted to gain deeper insights into the effects of small-scale mining, with content analysis used to identify emerging themes. The study found that small-scale gold mining significantly increased farm acreage among 55



% of farmers involved in mining activities, attributed to reinvested mining revenues. However, 75% of respondents reported a negative impact on agriculture, as many food crop farmers shifted focus to mining, resulting in reduced food production and higher prices, contributing to a higher cost of living. Small-scale mining has notably improved employment opportunities, with 80% of respondents indicating increased job availability, especially for illiterate youth and women in petty trading. Despite this, 40% of respondents reported increased school dropout rates due to children being withdrawn from school to work in mining or parental neglect. Health impacts were significant, with 45% of respondents noting deteriorated health conditions from mercury contamination, including respiratory problems and eye irritation. Additionally, social vices such as prostitution and substance abuse have increased, with 30% of respondents identifying these issues, and theft of domestic animals has become more common. Although miners have experienced improved financial conditions, the overall cost of living has risen, affecting the general population, with ed valuable insights into the regulatory challenges faced in the region. The findings revealed that over 70% of respondents view illegal mining as a significant problem in their community, citing environmental degradation and loss of natural resources as major concerns. When assessing the effectiveness of current regulatory measures, only 30% of respondents felt that these measures were effective in curbing illegal mining activities. Many pointed out the lack of enforcement and inadequate monitoring as key factors contributing to this ineffectiveness. Furthermore, more than 60% of respondents indicated that illegal mining has negatively impacted their livelihoods, with common issues including loss of agricultural land, decreased fish stocks, and increased health problems due to pollution. The survey also highlighted a strong community support for increased government intervention and community-based monitoring initiatives. Respondents suggested that more resources and better coordination among regulatory agencies could significantly improve the effectiveness of mining regulations. The regulatory challenges in Damongo particularly concerning illegal mining and enforcement difficulties pose significant threats to environmental sustainability, economic development, and social cohesion. Addressing these issues requires a comprehensive approach that enhances regulatory capacity, improves inter-agency coordination, and fosters community engagement in environmental governance. The questionnaire findings underscore the need for stronger enforcement and more effective regulatory measures to address the adverse impacts of illegal mining and promote sustainable development in the region.

Comparative Analysis

Mining is a significant activity throughout Ghana, with both formal and informal operations in various regions. However, the impact of mining varies between northern and southern Ghana due to differences in mining practices, regulatory frameworks, and economic conditions. In the Northern Region, particularly in Damongo, small-scale mining has been a growing economic activity. Despite the region's rich geological formations, including valuable minerals such as gold, mining activities are often informal and less regulated compared to other parts of the country. This lack of formal regulation has led to several issues: environmental degradation, health hazards from mercury contamination, and a rise in social vices such as prostitution and drug abuse. Moreover, the absence of effective



regulatory mechanisms has resulted in inadequate infrastructure and social amenities, as funds are diverted to address health problems caused by mining activities.

In contrast, the Southern Region, including areas like Tarkwa, Obuasi, and the Birim North District, has a more established mining industry with a longer history of both small-scale and large-scale mining. For example, Tarkwa and Obuasi are known for their extensive gold mining operations, supported by well-developed infrastructure and stricter regulatory frameworks. Studies such as those by have highlighted issues such as the impact of illegal mining (often referred to as "Galamsey") on local communities and the environment. In the Birim North District, female participation in artisanal mining is significant, whereas in the Obuasi Municipality, concerns have been raised about high levels of arsenic and mercury exposure among miners. The Southern Region also benefits from more comprehensive regulatory oversight, which helps mitigate some of the negative impacts seen in the North. For example, Tarkwa and Bogoso have developed better waste management systems and health and safety protocols compared to the more informal operations in Damongo. Despite this, challenges such as environmental pollution and social issues persist, though they are somewhat better managed. Overall, while small-scale mining in Damongo contributes to the local economy and provides livelihood opportunities, the sector faces considerable challenges due to its informal nature and lack of effective regulation. In contrast, small-scale mining in the South, though facing its own set of problems, benefits from more structured regulatory oversight and better infrastructure. This difference in management and regulation significantly impacts the overall benefits and drawbacks of mining activities in various parts of Ghana.

Best Practices in Other Jurisdictions

Regulatory practices in the mining sector have demonstrated both successes and areas needing improvement across various regions. In Australia, self-regulation has effectively aligned with community objectives, enhancing safety standards through legislation like Queensland's Coal Mining Safety and Health Act. Additionally, Australia's mutual recognition arrangements have reduced interjurisdictional inconsistencies, streamlining operations across states. Stringent environmental regulations have also spurred innovation, with a 1% increase in policy stringency correlating with a 0.3% to 0.45% rise in clean technology patenting within the mining industry. Canada has established a robust federal regulatory system, with the Mining Association of Canada playing a key role in tracking legislation and shaping policy. However, challenges remain, such as inconsistent compliance with Regulatory Impact Assessments (RIAs) in Australia, particularly concerning community impacts and stakeholder consultation. Regions like Ghana face issues with the capacity of regulatory institutions, where progress is hindered by technical limitations and institutional independence. In Tanzania, overlapping regulations and institutional conflicts complicate enforcement and compliance, highlighting the need for clearer frameworks and better coordination. Furthermore, balancing the interests of large multinational corporations with those of local small-scale operations is crucial for sustainable development and community benefit. Overall, while there are notable regulatory successes in fostering innovation and harmonizing regulations, improvements are necessary in compliance, institutional capacity, and inter-agency coordination to enhance effectiveness.



Recommendations

To enhance the effectiveness of regulatory practices in the mining sector, it is essential to ensure that Regulatory Impact Assessments (RIAs) are comprehensive and well-integrated into the regulatory process. This involves defining regulatory problems clearly, engaging stakeholders early and throughout the process, and preparing RIAs in a timely manner. By improving these aspects, the quality of decision-making can be significantly enhanced, leading to more effective regulations that better address community impacts and support sustainable development. Strengthening regulatory institutions is another critical step towards improving mining regulation. Investment in the capacity and technical expertise of institutions such as Ghana's Minerals Commission is necessary to ensure effective oversight and enforcement. This can include increasing financial resources, providing specialized training, and enhancing institutional independence. Such measures will enable regulatory bodies to perform their duties more efficiently and address the challenges posed by mining activities more effectively. Improving coordination among various regulatory bodies is vital for addressing issues related to overlapping regulations and institutional conflicts. Developing integrated regulatory strategies and enhancing communication between agencies can help streamline regulatory processes and ensure that mining regulations are coherent and effectively enforced. This approach will help minimize confusion and inefficiencies, leading to better regulatory outcomes. Balancing the interests of large multinational corporations with those of local small-scale mining operations is crucial for promoting sustainable development. Regulatory frameworks should be designed to address the needs of both sectors equitably, ensuring that local communities benefit from mining activities while also supporting the growth and operations of larger mining enterprises. This balance will help in fostering a more inclusive and sustainable mining sector. Promoting innovation through environmental regulations can drive advancements in clean technologies within the mining industry. Stringent environmental policies can create incentives for research and development in eco-friendly mining practices. By supporting the creation and adoption of cleaner technologies, regulations can improve environmental performance while also enhancing the competitiveness of the mining sector. Expanding and refining mutual recognition arrangements can reduce regulatory inconsistencies across different jurisdictions. By standardizing regulatory requirements and promoting efficiency, these arrangements can help streamline operations and reduce the duplication of efforts. This approach will facilitate smoother regulatory processes and encourage compliance among mining operators. Finally, conducting regular reviews of regulatory practices is essential for maintaining their relevance and effectiveness. Implementing a system for periodic assessment will allow regulators to identify areas for improvement and adapt to emerging challenges. This proactive approach will help ensure that mining regulations remain effective and responsive to the evolving needs of the industry and communities.

5. CONCLUSION

In conclusion, the regulatory framework governing gold mining in Ghana, particularly in Damongo, highlights the complexity and urgency of addressing sector-specific challenges. Ghana's rich mineral resources have significantly contributed to the nation's economic



growth, yet the environmental and social impacts of gold mining present formidable challenges. Despite the advancements in legislation and institutional frameworks, the regulatory bodies responsible for overseeing mining activities often struggle with inadequate resources and enforcement capabilities. The case study of Damongo reveals a stark contrast between the formal, regulated mining operations in other regions and the more informal, poorly regulated activities prevalent in the Northern Region. The inefficiencies in regulatory enforcement, particularly concerning illegal mining, environmental degradation, and community displacement, underscore the need for a more robust and cohesive regulatory approach. The issues identified in Damongo, including the negative impacts on agriculture, health, and social stability, call for urgent reform in regulatory practices to better balance economic benefits with environmental and social responsibilities. Learning from best practices in other jurisdictions, such as Australia's innovative regulatory frameworks and Canada's comprehensive federal oversight, can provide valuable insights for improving Ghana's mining regulations. Implementing comprehensive Regulatory Impact Assessments (RIAs), strengthening regulatory institutions, enhancing inter-agency coordination, and fostering innovation in environmental practices are crucial steps towards creating a more effective and sustainable regulatory environment. Addressing these challenges requires a concerted effort to enhance the capacity of regulatory bodies, streamline processes, and involve local communities in governance. By focusing on these areas, Ghana can develop a more resilient regulatory framework that not only supports the growth of the gold mining sector but also ensures that its benefits are equitably distributed while mitigating adverse impacts. As Ghana continues to navigate the complexities of its mining industry, adopting a proactive and adaptive approach to regulation will be essential for achieving long-term sustainability and prosperity.

6. REFERENCES

1. FXD Tuokuu and others, 'Challenges and Opportunities of Environmental Policy Implementation. Empirical Evidence from Ghana's Gold Mining Sector' (2018) 59 Resources Policy 435-445.
2. The Ghana Chamber of Mines, 2019 Annual Report (Accra 2019) >http://www.ghanachamberofmines.org/wp-content/uploads/2020/05/2019-Annual-Report_Complete.pdf> accessed on 17 February 2022.
3. Minerals and Mining Act, 2006 (Act 703).
4. T Akabzaa, 'Mining in Ghana: Implications for National Economic Development and Poverty Reduction in B Campbell (ed.), Mining in Africa: Regulation and Development (Canada 2009) 25-65.
5. 1992 constitution of Ghana.
6. Minerals and Mining (Amendment) Act, 2015 (Act 900)
7. Minerals Commission Act, 1993 (Act 450)
8. The Minerals Development Fund Act, 2016 (Act 912)
9. Minerals Income Investment Fund Act, 2018 (Act 978)
10. Income Investment Fund (Amendment) Act, 2020 (Act 1024)
11. Kimberley Process Certificate Act, 2003 (Act 652)



12. Mining (General) Regulations, 2012 (L.I. 2173)
13. Minerals and Mining (Support Services) Regulations, 2012 (L.I. 2174)
14. Minerals and Mining (Compensation and Resettlement) Regulations, 2012 (L.I. 2175)
15. Minerals and Mining (Licensing) Regulations, 2012 (L.I. 2176)
16. Minerals and Mining (Explosives) Regulations, 2012 (L.I. 2177)
17. Minerals and Mining (Health, Safety and Technical) Regulations, 2012 (L.I. 2182)
18. Minerals and Mining (Ground Rent) Regulations, 2018 (L.I. 2357)
19. Minerals and Mining (Mineral Operations - Tracking of Earth Moving and Mining Equipment) Regulations, 2020 (L.I. 2404)
20. Minerals and Mining (Local Content and Local Participation) Regulations, 2020 (L.I. 2431)
21. Income Tax (Minerals Income Investment Fund Exemptions) Regulations, 2020 (L.I. 2433)
22. Environmental Protection Agency Act, 1994 (Act 490)
23. The Forestry Commission Act, 1999 (Act 571)
24. Water Resources Commission Act, 1996 (Act 522)
25. Ghana Geological Survey Authority Act, 2016 (Act 928)
26. Land Act, 2020 (Act 1036)
27. Local Governance Act, 2016 (Act 936)
28. Land Use and Spatial Planning Act, 2016 (Act 925)
29. Minerals and Mining (Support Services) Regulations, 2012 (L.I. 2174)
30. Companies Act, 2019 (Act 992)
31. Incorporated Partnership Act, 1962 (Act 152)
32. Ghana Investment Promotion Centre Act, 2013 (Act 865)
33. Ghana Investment Promotion Centre Act, 2013 (Act 865)
34. Labour Act, 2003 (Act 651)
35. Workmen's Compensation Act, 1987 (PNDCL 187)
36. AK Mensah and others, 'Environmental Impacts of Mining: A Study of Mining Communities in Ghana' (2015) 3 Applied Ecology and Environmental Sciences 81-94.
37. Ministry of Lands and Natural Resources <<http://www.mlnr.gov.gh>> accessed 16 May 2024.
38. Ibid
39. Minerals Commission <<http://www.mincom.gov.gh>> accessed 22 May 2024.
40. Agyapong, K. (1999). Small Scale Mining in Ghana. An environmental Magazine of Friends of the Earth Ghana, No. 12
41. Akabzaa, T., & Darimani, A. (2001). Impact of Mining Sector Investment in Ghana: a study of the Tarkwa Mining Region. SAPRI report.
42. Dankwa, Y. (1999). Mining: Northern Ghana at Risk. Environmental Magazine of Friends of the Earth Ghana, No. 12.
43. Sinclair, Darren. "Workplace Health and Safety in the Australia coal mining industry: mistrust, management and regulation." (2014).
44. Dashwood, Hevina S. "Canadian mining companies and corporate social responsibility: Weighing the impact of global norms." Canadian Journal of Political Science/Revue canadienne de science politique 40.1 (2007): 129-156.



45. Jacobs, Scott. "Current trends in regulatory impact analysis: the challenges of mainstreaming RIA into policy-making." *Jacobs and Associates* 30 (2006).
46. Dalupan, M. Cecilia G., et al. Building enabling legal frameworks for sustainable land-use investments in Zambia, Tanzania and Mozambique: A synthesis. Vol. 140. CIFOR, 2015.
47. Kramer, Jeremiah. "Opportunities to improve efficiency and effectiveness in administrative support services by enhancing inter-agency cooperation/prepared by Jeremiah Kramer, Joint Inspection Unit." Joint Inspection Unit (2018).
48. Adamowicz, Vic. "A Good Practices Handbook for Managing Regulatory Impact Analyses."
49. Asumda, David. "An analysis of regulatory and institutional challenges in the gold mining sector of Ghana and the way forward." *UCC Law Journal* 2.1 (2022): 75-84.