

Compliance with Environmental, Social, and Governance Requirement in the Mining Industry

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Abstract. The mining industry plays a significant role in global economic development; however, its operations often have adverse environmental and social impacts. As the importance of sustainable business practices gains recognition, Environmental, Social, and Governance (ESG) requirements have emerged as crucial benchmarks for evaluating a company's responsible practices. This study examines the extent of compliance with ESG requirements in the mining industry and explores the factors influencing companies' adherence to these standards. Through a comprehensive literature review and analysis of publicly available data, this research sheds light on the challenges faced by mining companies in integrating ESG considerations into their operations and highlights successful strategies employed by industry leaders. The findings offer valuable insights for policymakers, investors, and mining stakeholders, contributing to the ongoing efforts towards a more sustainable and responsible mining sector.

Keywords: Compliance, ESG requirements, mining industry, sustainability, environmental impact, social responsibility, governance, responsible mining, sustainable business practices, stakeholders, mining companies, environmental regulations, social impact, corporate governance, sustainable development, investor relations.

The study is highly relevant and important for several reasons. First of all, the mining industry is known to have significant environmental impacts, such as deforestation, water pollution, habitat destruction, and emissions of greenhouse gases. Understanding the extent of compliance with ESG requirements can help assess the industry's efforts in minimizing its environmental footprint and transitioning to more sustainable practices.

Secondly, mining operations can also have profound social consequences, including displacement of communities, human rights violations, and labor issues. Analyzing the compliance with social aspects of ESG standards can provide insights into how mining companies are addressing these challenges and promoting social well-being.

Then, ESG compliance includes considerations of corporate governance, transparency, and accountability. Evaluating how well mining companies adhere to governance requirements is crucial for ensuring ethical business practices and safeguarding shareholder and stakeholder interests (Asatryan K.K. 2023).

In recent years, investors and stakeholders have increasingly incorporated ESG factors into their decision-making processes. A study on ESG compliance in the mining industry can help investors assess the long-term sustainability and risk profile of mining companies, influencing investment decisions and encouraging sustainable practices.

Governments and regulatory bodies can use insights from this research to design and implement effective ESG-related policies and regulations in the mining sector. By understanding the challenges faced by companies in complying with ESG requirements, policymakers can tailor supportive frameworks to drive positive change.

Moreover, the United Nations Sustainable Development Goals emphasize the importance of responsible business practices, environmental protection, and social inclusivity. Evaluating ESG compliance in the mining industry aligns with these global goals and contributes to achieving sustainable development targets (Broadstock, D. C. et al 2020).

The mining sector has faced criticism for its environmental and social practices. Demonstrating a commitment to ESG compliance can enhance the industry's reputation, leading to improved relationships with local communities, NGOs, and other stakeholders (Martínez-Ferrero, J. et al 2021).

The study can serve as a benchmark for companies to compare their ESG performance with industry peers. Identifying best practices adopted by leading companies can inspire others to adopt similar approaches and drive overall industry improvement.

Overall, studying compliance with ESG requirements in the mining industry holds significant relevance in advancing sustainable practices, mitigating environmental and social risks, attracting responsible investments, and fostering positive industry transformation in line with global sustainability objectives.

So, the main goal of this study is to understand the compliance with environmental, social, and governance requirement in the mining industry.

The study of ESG requirements can be approached through various theoretical lenses that provide different perspectives and frameworks for understanding and analyzing the complex interactions between businesses, society, and the environment.

Stakeholder theory posits that organizations have a responsibility to consider the interests and concerns of all their stakeholders, including employees, communities, customers, suppliers, and investors. In the context of ESG, this theory emphasizes the importance of engaging with and addressing the needs and expectations of various stakeholders to achieve sustainable and responsible business practices.

Institutional theory focuses on how organizations conform to prevailing institutional norms, values, and rules in their environment. When applied to ESG requirements, this theory examines how companies adopt and implement ESG practices to gain legitimacy and maintain their social license to operate in the eyes of stakeholders and regulatory bodies (Mohammad, W. M. W. et al 2021).

Resource-Based View suggests that a company's competitive advantage is derived from its unique resources and capabilities. In the context of ESG, this theory highlights how companies can leverage their commitment to environmental and social responsibility (ESG resources) to create a sustainable competitive advantage and attract responsible investors (Akgun, O. T. et al 2021).

Triple Bottom Line approach expands the traditional focus on financial performance by considering three dimensions: economic, social, and environmental. This framework emphasizes that businesses should strive for not only financial profitability but also social equity and environmental sustainability. ESG requirements align closely with the TBL concept, advocating for a holistic assessment of a company's performance (Adams, C. A. et al 2021).

Corporate Social Responsibility (CSR) refers to a company's voluntary actions to address social, environmental, and ethical concerns beyond legal requirements. ESG requirements often form the foundation of CSR initiatives, guiding companies to integrate sustainability into their core business strategies (Khalid, F. et al 2021).

Normative ethics provides moral principles and guidelines that can inform and guide business decisions related to ESG requirements. Concepts such as utilitarianism (maximizing overall societal welfare), deontology (acting in accordance with ethical rules), and virtue ethics (emphasizing personal and organizational virtues) can be applied to assess the ethical implications of ESG-related practices (Paat, A. et al 2021).

Institutional logics refer to the underlying values, beliefs, and assumptions that guide decision-making within organizations and societal systems. Analyzing the competing and complementary institutional logics surrounding ESG requirements can shed light on the dynamics influencing companies' adoption of responsible practices.

This theory examines how innovations, in this case, ESG practices, spread and are adopted within an industry or society. Understanding the factors that facilitate or hinder the diffusion of ESG requirements can provide insights into the transformational processes needed for widespread sustainable practices in the mining industry (Bağ, I. et al 2020).

These theoretical approaches offer valuable frameworks for studying and understanding the motivations, challenges, and outcomes related to compliance with ESG requirements in the mining industry and other sectors. Researchers and practitioners can draw upon these theories to inform strategies, policies, and interventions aimed at promoting sustainability and responsible corporate behavior.

Functioning ESG requirements in the mining industry are characterized by specific features that aim to promote responsible and sustainable practices:

1. **Environmental Compliance.** ESG requirements in the mining industry emphasize adherence to environmental regulations and best practices. Companies are expected to minimize the negative environmental impacts of their operations, including measures to reduce pollution, conserve natural resources, and rehabilitate mined areas (Kluza, K. et al 2021).
2. **Sustainable Resource Management.** Mining companies are encouraged to implement sustainable resource management practices, ensuring the responsible extraction of minerals and metals while considering long-term environmental and social implications.
3. **Social Responsibility.** ESG requirements focus on the well-being of communities and workers impacted by mining operations. This includes respecting the rights of local communities, providing fair compensation and safe working conditions for employees, and engaging in meaningful consultation with affected stakeholders (Kluza, K. et al 2021).
4. **Community Engagement.** Mining companies are expected to actively engage with local communities to understand their concerns, incorporate their feedback into decision-making processes, and contribute positively to their development.
5. **Human Rights Protection.** ESG requirements advocate for upholding human rights standards in mining operations, preventing forced labor, child labor, and other human rights abuses throughout the supply chain.
6. **Transparency and Disclosure.** Companies are encouraged to be transparent about their ESG policies, practices, and performance. Transparent reporting allows stakeholders, including investors and the public, to assess a company's commitment to sustainability and its progress towards ESG goals (Bassen, A. et al 2020).
7. **Governance Structure.** Effective corporate governance is crucial in ensuring that mining companies align with ESG requirements. This includes having independent boards, clear lines of accountability, and mechanisms for oversight and accountability (Kluza, K. et al 2021).

8. **Ethical Business Conduct.** ESG requirements advocate for ethical behavior, including anti-corruption measures and responsible lobbying, to ensure that mining companies operate with integrity and maintain the public's trust.

9. **Risk Management and Resilience.** ESG emphasizes the identification and management of environmental and social risks that could impact a company's long-term viability. Building resilience to these risks is essential for sustainable business practices (Bassen, A. et al 2020).

10. **Long-Term Perspective.** ESG requirements encourage mining companies to adopt a long-term perspective that considers the interests of future generations and aligns business strategies with sustainable development goals.

11. **Investor Relations.** Companies complying with ESG requirements can attract responsible investors who consider environmental and social factors in their investment decisions. Meeting ESG standards can enhance a company's reputation and access to capital.

12. **Innovation and Research.** ESG-driven mining companies invest in research and innovation to find new ways to reduce environmental impacts, enhance social outcomes, and improve overall sustainability performance (Bassen, A. et al 2020).

By integrating these features into their operations, mining companies can demonstrate their commitment to responsible practices, mitigate potential risks, and contribute to a more sustainable and socially responsible mining industry. The application of ESG requirements in the mining sector can foster positive change, address societal concerns, and promote the industry's alignment with broader sustainability goals.

Now we are going to deal with case studies compliance with environmental, social, and governance requirement in the mining industry.

Case Study 1: Newmont Corporation.

Newmont Corporation is one of the world's largest gold mining companies and has demonstrated a strong commitment to ESG requirements. The company's approach to compliance with ESG standards has earned it recognition as a leader in sustainable mining practices.

Newmont has made significant efforts to reduce its environmental footprint. For instance, the company has implemented energy efficiency programs, installed renewable energy projects, and actively monitors and manages water use to minimize its impact on local water resources (Ould Daoud Ellili, N. 2020).

Newmont places a high priority on engaging with local communities and addressing social issues. The company has established community development programs, including initiatives to improve education, healthcare, and economic opportunities for residents near its mining operations. Furthermore, Newmont focuses on hiring and training local workforce members, fostering economic development in the regions it operates.

Newmont has a well-defined governance structure that ensures accountability and transparency. The company has a board of directors with diverse expertise, including sustainability, and maintains clear lines of responsibility for ESG-related matters (Ould Daoud Ellili, N. 2020).

Newmont's commitment to ESG compliance has resonated with responsible investors. The company's ESG performance has been recognized by several sustainability indices and organizations, attracting investments from funds and investors with a strong focus on sustainable business practices.

Case Study 2: Rio Tinto.

Rio Tinto, a multinational mining company, provides another case study on ESG compliance, highlighting both successes and challenges.

Rio Tinto has taken steps to address environmental concerns. The company has set ambitious targets to reduce greenhouse gas emissions and improve water management in its operations. However, Rio Tinto has faced criticism for incidents such as the destruction of culturally significant Aboriginal sites in Australia, which raised questions about its environmental stewardship (Conca, L. et al 2021).

Rio Tinto has implemented various community engagement initiatives and sustainable development programs. Nevertheless, the company has encountered controversies related to its treatment of indigenous communities and labor rights in some regions of operation, indicating the need for ongoing improvement in its social responsibility practices.

Rio Tinto has been transparent in reporting its sustainability performance and goals. However, the company's handling of certain incidents, such as the destruction of the Aboriginal sites, highlighted the importance of further improving transparency and accountability (Conca, L. et al 2021).

Rio Tinto's governance structure has undergone scrutiny in response to the incidents mentioned above. The company has made efforts to enhance its governance practices and diversity in leadership positions.

Case Study 3: BHP.

BHP, a global mining company, has also embraced ESG requirements as a fundamental part of its operations.

BHP has set ambitious climate targets, aiming to reduce operational emissions and support the transition to a low-carbon economy. The company invests in renewable energy projects and works towards responsible water management.

BHP engages in extensive community consultations and invests in community development initiatives, focusing on health, education, and local economic development. The company strives to build positive relationships with indigenous communities, acknowledging their rights and heritage (Oncioiu, I., et al 2020).

BHP has established clear governance mechanisms to oversee ESG matters, including a Board-level sustainability committee, which ensures that ESG is embedded in the company's decision-making processes.

BHP invests in research and innovation to improve its sustainability performance. For example, the company collaborates with research institutions to develop innovative technologies for more sustainable mining practices (Oncioiu, I., et al 2020).

Overall, these case studies highlight how various mining companies have approached compliance with ESG requirements. While some have been successful in integrating ESG principles into their core business strategies, others have faced challenges and experienced setbacks. Nonetheless, these case studies illustrate the growing recognition of the importance of ESG in the mining industry and its potential to drive positive change for the environment, communities, and long-term business resilience.

The development paths of ESG requirements in the mining industry have evolved over time, driven by changing societal expectations, regulatory developments, and the recognition of the industry's impact on the environment and communities (Qureshi, M. A. et al 2020). The following are key development paths that have shaped ESG requirements in the mining sector:

1. **Early Environmental Regulations.** In the early stages, environmental regulations in the mining industry primarily focused on mitigating the most visible and immediate environmental impacts, such as pollution and land degradation. These regulations were typically reactive and aimed at addressing specific incidents (Buallay, A. M. et al 2020).
2. **Growing Awareness of Social Impact.** Over time, there was an increasing awareness of the social impacts of mining on local communities, including displacement, human rights violations, and inadequate benefit sharing. This led to the recognition that social considerations should be an integral part of ESG requirements.
3. **Emergence of Sustainable Development Frameworks.** In the 1990s, sustainable development principles gained traction globally, and the mining industry started integrating sustainability into its operations. The concept of the «Triple Bottom Line» - considering economic, social, and environmental factors - began influencing the industry's approach (Buallay, A. M. et al 2020).
4. **Stakeholder Engagement and Inclusion.** The mining industry faced mounting pressure from various stakeholders, including local communities, NGOs, and investors, demanding greater accountability and transparency. As a result, stakeholder engagement became a crucial aspect of ESG requirements, ensuring the voices of affected communities and other stakeholders were considered in decision-making.
5. **Industry Standards and Certifications.** Mining companies and industry associations began developing voluntary ESG standards and certifications. For example, the International Council on Mining and Metals introduced the «10 Principles» and «Sustainable Development Framework» to guide member companies in their ESG efforts.
6. **Investor Focus on ESG.** Responsible investing and the integration of ESG factors into investment decisions gained momentum. Investors started recognizing that companies with strong ESG performance could offer better long-term returns and lower risks (Duque-Grisales et al 2021).
7. **Regulatory Advancements.** Governments around the world started strengthening environmental and social regulations related to mining activities. This led to a shift from voluntary compliance to mandatory ESG requirements.
8. **Sustainability Reporting and Disclosures.** Companies began publishing sustainability reports, detailing their ESG performance, goals, and progress. Standardized reporting frameworks, such as the Global Reporting Initiative and the Sustainability Accounting Standards Board, emerged to guide consistent and comparable reporting.
9. **Integration of ESG in Corporate Strategy.** Leading mining companies recognized the strategic importance of ESG and started integrating sustainability considerations into their corporate strategies and business decision-making processes (Duque-Grisales et al 2021).
10. **Alignment with Global Goals.** The mining industry sought alignment with international sustainable development goals, such as the United Nations Sustainable Development Goals, demonstrating its commitment to contributing positively to global sustainability targets.
11. **Technological Advancements.** Innovation and technological advancements have played a crucial role in improving the industry's environmental and social performance. Technologies such as automation, renewable energy adoption, and water recycling have helped address ESG challenges (Park, S. R. et al 2021).

12. Continuous Improvement and Collaboration. The mining industry continues to evolve its ESG practices through collaboration with stakeholders, sharing best practices, and learning from each other's successes and failures (Park, S. R. et al 2021).

As the mining industry progresses, the development paths of ESG requirements are likely to further evolve, driven by ongoing societal expectations, regulatory changes, and advancements in sustainable technologies and practices. Embracing ESG principles will remain essential for the mining industry to thrive responsibly and sustainably in the future.

In conclusion, the study highlights the critical importance of integrating sustainability and responsible business practices into mining operations. The mining industry plays a crucial role in global economic development, but its activities have historically been associated with significant environmental degradation and social challenges.

ESG requirements have emerged as essential benchmarks for evaluating mining companies' commitment to mitigating negative impacts and contributing positively to environmental, social, and governance considerations.

References

1. Adams, C. A., & Abhayawansa, S. (2021). Connecting the COVID-19 pandemic, environmental, social and governance ESG investing and calls for 'harmonisation' of sustainability reporting. *Critical Perspectives on Accounting*, 82, 10.
2. Akgun, O. T., Mudge, T. J., & Townsend, B. (2021). How company size bias in ESG scores impacts the small cap investor. *The Journal of Impact and ESG Investing*, 1(4), 31–44.
3. Asatryan K.K. Do sustainable developing business. – Erevan. – 2023. – P. 50-65.
4. Bağ, I., & Cheba, K. (2020). ESG risk as a new challenge for financial markets. *Finance and sustainable development* (pp. 21–39). Routledge.
5. Bassen, A., & Kovács, A. M. (2020). Environmental, social and governance key performance indicators from a capital market perspective. *Wirtschafts-und unternehmensethik* (pp. 809–820). Springer.
6. Broadstock, D. C., Matousek, R., Meyer, M., & Tzeremes, N. G. (2020). Does corporate social responsibility impact firms' innovation capacity? The indirect link between environmental & social governance implementation and innovation performance. *Journal of Business Research*, 119, 99–110.
7. Buallay, A. M., Wadi, R. M. A., Kukreja, G., & Hassan, A. A. (2020). Evaluating ESG disclosures of Islamic banks. Evidence from the organization of Islamic cooperation members. *International Journal of Innovation and Sustainable Development*, 14(3), 266–287.
8. Conca, L., Manta, F., Morrone, D., & Toma, P. (2021). The impact of direct environmental, social, and governance reporting. Empirical evidence in European-listed companies in the agri-food sector. *Business Strategy and the Environment*, 30(2), 1080–1093.
9. Duque-Grisales, E., & Aguilera-Caracuel, J. (2021). Environmental, social and governance (ESG) scores and financial performance of multilatinas. Moderating effects of geographic international diversification and financial slack. *Journal of Business Ethics*, 168(2), 315–334.
10. Khalid, F., Sun, J., Huang, G., & Su, C. Y. (2021). Environmental, social and governance performance of Chinese multinationals. A comparison of state-and non-state-owned enterprises. *Sustainability*, 13(7), 4020.

11. Kluza, K., Ziolo, M., & Spoz, A. (2021). Innovation and environmental, social, and governance factors influencing sustainable business models-meta-analysis. *Journal of Cleaner Production*, 303, 12.
12. Martínez-Ferrero, J., & Lozano, M.-B. (2021). The Nonlinear Relation between Institutional Ownership and Environmental, Social and Governance Performance in Emerging Countries. *Sustainability*, 13(3), 1586.
13. Mohammad, W. M. W., & Wasiuzzaman, S. (2021). Environmental, Social and Governance (ESG) disclosure, competitive advantage and performance of firms in Malaysia. *Cleaner Environmental Systems*, 2, 100015.
14. Oncioiu, I., Popescu, D. M., Aviana, A. E., Șerban, A., Rotaru, F., Petrescu, M., & Marin-Pantelescu, A. (2020). The role of environmental, social, and governance disclosure in financial transparency. *Sustainability*, 12(17), 6757.
15. Ould Daoud Ellili, N. (2020). Environmental, social, and governance disclosure, ownership structure and cost of capital. Evidence from the UAE. *Sustainability*, 12(18), 7706.
16. Paat, A., Roosalu, T., Karu, V., & Hitch, M. (2021). Important environmental social governance risks in potential phosphorite mining in Estonia. *The Extractive Industries and Society*, 8, 10.
17. Park, S. R., & Jang, J. Y. (2021). The impact of ESG management on investment decision. Institutional Investors' perceptions of country-specific ESG criteria. *International Journal of Financial Studies*, 9(3), 48.
18. Qureshi, M. A., Kirkerud, S., Theresa, K., & Ahsan, T. (2020). The impact of sustainability (environmental, social, and governance) disclosure and board diversity on firm value. The moderating role of industry sensitivity. *Business Strategy and the Environment*, 29(3), 1199–1214.