

Sustainable Mining Initiatives

Facing ESG Challenges and Opportunities using different approaches

The concept of ESG is an acronym for "Environmental, Social, and Corporate Governance," initially proposed in 2004 through the report "Who Cares Wins." However, the application of this idea is longstanding, with the integration of the three ESG areas seeing the beginning of joint and individualized development over time. While more institutions have adopted this ideology, some sectors have not progressed at the same pace. This is evident in the mining industry, where, according to the Australian Institute AusIMM, "Environmental, Social, and Corporate Governance represents one of the greatest risks for the mining field."

The first pillar, Governance for the Environment, is currently one of the most discussed. It symbolizes the implementation of pro-environment initiatives, such as the adoption of renewable energies like biodiesel and solar power in facilities to supply energy and even vehicles. Biodiversity conservation is essential, as it is a legal and ethical matter often neglected by companies. Inappropriate disposal of mineral waste and insufficient ecosystem rehabilitation in extraction fields are some effects of this neglect. Lastly, the implementation of Artificial Intelligence in ore exploration has proven to be highly effective in identifying faults and inefficiencies in mines.

It is essential to highlight the social role that mining companies can play locally and nationally. On a regional level, compliance with labor laws and the promotion of ethnic, sexual, and age diversity are necessary. Beyond labor, mining companies can engage with the community, creating a sustainable relationship with various communities, with a particular emphasis on indigenous populations. For example, the Brazilian company VALE has a significant civil role, creating programs, especially in the health sector, as a way to address the damage caused by mining. On a national level, these institutions can provide financial incentives and training for students and employees interested in specializing in the mineral sector. The opportunities for successful social governance application are diverse, always reflecting ethical and dignified principles.

Furthermore, the third pillar of the ESG triad is linked to corporate governance. As with the other two pillars, ethics must always be considered. For instance, transparency in reporting financial, operational, and environmental results is a crucial initiative regarding customer and investor respect. Corporate governance must apply environmental and social ideals throughout the various stages of the mining process, in compliance with the law, even if it is often complex and discouraging.

Despite appearing distant due to challenges, the implementation of this governance method is not entirely uninteresting for institutions. The realization of the ESG method implies several advantages, including increased third-party investments and long-term operational viability. Although initially complying with three pillars may seem like a cost and obligation for mining companies, today's world requires cooperation among all societal agents. Examples of how adopting this ideology can benefit companies include gaining local support, exploring mines less aggressively for greater natural resource longevity, or using a sustainability reputation as a competitive advantage.

There are factors hindering the accelerated progress of ESG initiatives, with one of the most solvable being the reluctance of certain mining companies to adopt advanced technologies for pro-environmental exploration. The balance between economic viability and the practice of the three pillars is precisely what hinders ESG progress in this area.

Therefore, there is a clear need for an improvement in the relationship between mining companies and the three pillars. Studies, such as those conducted by Ernst & Young with IBRAM, indicate that sector leaders prioritized the ESG agenda in 2022. This research is just one piece of evidence that in the near future, the watershed moment for mining companies will be how well they can coordinate the implementation of this discussed philosophy.

Works Cited

K-Mine. (n.d.). Intelligent Environmental Management: AI in ESG Initiatives. Acessado em 11 de janeiro de 2024, de <https://k-mine.com/articles/intelligent-environmental-management-ai-in-esg-initiatives/>

Exal. (n.d.). 3 pilares do ESG e como implementar suas práticas. Acessado em 20 de janeiro de 2024, de <https://exal.com.br/pilares-do-esg/>

CGI. (n.d.). What is the history of ESG?. Acessado em 20 de janeiro de 2024, de <https://www.thecorporategovernanceinstitute.com/insights/lexicon/what-is-the-history-of-esg/#:~:text=The%20UN%20makes%20it%20official,to%20embrace%20ESG%20long-term>

Ausimm. (n.d.). 7 reasons why ESG issues present the biggest risk for the mining sector today. Acessado em 20 de janeiro de 2024, de <https://www.ausimm.com/bulletin/bulletin-articles/7-reasons-why-esg-issues-present-the-biggest-risk-for-the-mining-sector-today/>

Brandon Stobart. (n.d.). ESG Insights: Four reasons why the Mining industry should act on ESG. Acessado em 20 de janeiro de 2024, de <https://www.slrconsulting.com/insights/esg-insights-four-reasons-why-the-mining-industry-should-act-on-esg/>

Jorge G. Santos. (n.d.). Recuperação e Reabilitação de Áreas Degradas pela Mineração. Acessado em 20 de janeiro de 2024, de <https://educapes.capes.gov.br/bitstream/capes/175225/2/recuperacao.pdf>

Vale. (n.d.). Social. Acessado em 20 de janeiro de 2024, de <https://vale.com/pt/social-reparacao>

MTS. (n.d.).5 ways AI is helping miners improve safety and reduce environmental impact. Acessado em 20 de janeiro de 2024, de <https://minetechservices.com/2023/09/5-ways-ai-is-helping-miners-improve-safety-and-reduce-environmental-impact/>