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Analysis of Environmental, Social and Governance (ESG) Performance in Mineral and Coal Mining Companies

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Abstract

This study aims to analyse Environmental, Social and Governance (ESG) performance, which includes: 1) analysing the performance of ESG implementation through disclosures in the sustainability report, 2) analysing challenges in ESG implementation, and 3) analysing strategies in facing challenges in ESG implementation. This research uses qualitative methods in analysing ESG performance through disclosures based on the International Council on Mining & Metal (ICMM) Principles framework, challenges faced in implementing and improving ESG performance, and strategies applied to improve ESG performance. The subjects of this study are coal mining companies (PT A and PT B) and mineral mining companies (PT C and PT D), which were selected by purposive sampling, taking into account the largest capitalisation in the mineral mining and coal mining sub-sector companies, which are listed on the Indonesia Stock Exchange (IDX), and represent mineral and coal mining companies, both private and state-owned. The results showed that in the disclosure of the performance of the ICMM principles in the sustainability report from 2018 to 2022, it is known that the highest disclosure is the performance indicator on Principle 5 - Occupational Health and Safety (75%) and the lowest performance indicator on Principle 3 - Human Rights (30%). The challenges in ESG implementation are the lack of adoption of several international standards and guidelines for corporate social management. This study also found that the presence of top management support, the existence of clear policies and roadmaps for ESG implementation, a clear organisational structure, and the preparation of competent human resources are strategies to improve ESG performance.

Keywords: International Council on Mining & Metals (ICMM), Environmental, Social & Governance (ESG), Challenges, Strategies, Sustainable Development Goals (SDGs)

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INTRODUCTION

Indonesia is one of the world's largest coal producers and exporters. Since 2005, when it surpassed Australia's production, Indonesia has been the leading exporter of thermal coal. A significant portion of the exported thermal coal consists of medium quality types (between 5100 and 6100 cal/gram) and low quality types (below 5100 cal/gram), most of which are demanded from China and India. Based on information provided by the Indonesian Ministry of Energy and Mineral Resources, Indonesia's coal reserves are expected to be depleted in approximately 83 years if current production levels continue.

In terms of global coal reserves, Indonesia currently ranks 9th with approximately 2.2 per cent of total proven global coal reserves according to the BP Statistical Review of World Energy. About 60 per cent of Indonesia's total coal reserves consist of cheaper, low-grade coal (sub-bituminous) that contains less than 6100 cal/gram. There are many small pockets of coal reserves on the islands of Sumatra, Java, Kalimantan, Sulawesi and Papua, but these are the three regions with the largest coal reserves in Indonesia.

The Indonesian coal industry is fragmented with only a few large producers and many small-scale players owning coal mines and coal mining concessions (mainly in Sumatra and Kalimantan).

Since the early 1990s, when the coal mining sector was reopened to foreign investment, Indonesia has experienced an increase in production, exports and domestic sales of coal. However, domestic sales were rather insignificant as domestic coal consumption is relatively small in Indonesia. However, in recent years there has been a rapid increase in domestic coal sales as the Indonesian government is committed to its ambitious energy programme (implying the construction of various power plants, most of which use coal as an energy source as Indonesia has ample coal reserves). In addition, several large Indonesian mining companies (e.g. coal miner Adaro Energy) have expanded into the energy sector as low commodity prices make it unattractive to remain focused on coal exports, thus becoming integrated energy companies that consume their own coal.

While global awareness has been built to reduce dependence on fossil fuels, the development of renewable energy sources shows no indication that dependence on fossil fuels (especially coal) will decrease significantly in the near future, so coal continues to be a vital energy source. However, clean coal technologies in coal mining will be indispensable in the future (partly due to commercial factors) and Indonesia is expected to be actively involved in the process as one of the main players in the coal mining sector. These clean coal technologies are focussed on reducing emissions produced by coal-fired power plants but they are not yet

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well developed. Upstream activities related to coal mining, such as the development of coalbed methane (CBM) reservoirs, of which Indonesia has much potential, have started to receive attention recently. As the social responsibility of mineral and coal companies in Indonesia today.

Discussions about companies that focus on corporate social responsibility (CSR) practices are always interesting. The preparation of sustainable reports is also currently the focus of world trends in recent years (Fuente et al., 2022; Juniarti, 2021; Wang et al., 2018; Yoon et al., 2018; Yu & Zheng, 2020). The reason is the awareness of business actors who consider other aspects besides corporate profits alone, namely social, environmental, and good corporate governance.

This is also driven by the adoption of the Sustainable Development Goals (SDGs) in 2015, which encourages companies to implement the importance of businesses that heed aspects of sustainability. In particular, goal number 6 of the SDGs (which states 'ensure sustainable consumption and production patterns) encourages companies to implement sustainability practices including conveying sustainability information to interested parties (FIHRRST, 2019). However, in contrast to developed countries where CSR practices are mandatory, companies in Indonesia implement corporate CSR practices due to appeals from the government.

Along the way, CSR practices have moved to become more comprehensive and meaningful. In recent years, reports on CSR practices have become holistic. As stated by Hahn & Kühnen (2013), CSR reports focus more on social and environmental (either or both), while sustainability reports are much more comprehensive by also involving economic elements in it.

CSR practices then evolved into practices that consider Environment, Social, and Corporate Governance (ESG) aspects, which are packaged in sustainability reports. In 2017, the Financial Services Authority (OJK) issued rules for the implementation of sustainable finance as contained in OJK Regulation Number 51/POJK.03/2017. The regulation emphasises that financial services institutions, issuers and public companies are required to prepare a sustainability report and submit the report to OJK. Therefore, the nature of the preparation of sustainability reports for all public companies changes from voluntary to mandatory.

A summary of empirical studies found shows mixed results, such as the results of research by Rafianto (2015) on mining industry companies which simultaneously show that there is an influence between environmental performance and corporate social responsibility disclosure on financial performance. The results of research from both Rafianto (2015) and Angela (2015), Meiyana and Aisyah (2019) partially show that environmental performance is not significant to financial performance, but research from Camilia (2016) shows that environmental performance has an influence on financial performance.

Studies from developed countries in the financial industry found that banks that consider

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environmental factors in making lending decisions will be able to select borrowers who are lower risk and more innovative (Gangi et al. 2019). Green building certification is another option for environmental banks, as it allows them to capitalise on public demand for corporate environmental sensitivity (Chang and Dine, 2019). corporate environment (Chang and Devine, 2019). The relationship between the quality of business environmental management and financial financial performance appears to be beneficial (Albertini 2013; Dixon-Fowler et al. 2013).

Based on data from the Ministry of Energy and Mineral Resources' Minerba One Data Indonesia (MODI) quoted by CNBC Indonesia, Friday (02/07/2021), total coal production until June 2021 was 287.84 million tonnes or 46.05% of this year's target of 625 million tonnes. In detail, coal production in January was 47.81 million tonnes, then fell in February to 45.91 million tonnes and rose again in March to 49.77 million tonnes. Production did not increase in April compared to the previous month at 49.77 million tonnes, then fell slightly in May to 48.52 million tonnes, and fell again in June to 46.06 million tonnes.

According to Sujatmiko, Director of Coal Business Development at the Ministry of Energy and Mineral Resources, this achievement is equivalent to 23 per cent of the production target set for this year. 'The realisation of coal production in the first quarter of 2021 was 144 million tonnes or 23 percent of the production target of 625 million tonnes,' said Sujatmiko. For information, coal production was originally targeted at 550 million tonnes. However, the government through Ministerial Decree Number 66.K/HK.02/MEM.B/2021 on Amendments to the Decree of the Minister of Energy and Mineral Resources Number 255.K/30/MEM/2020 on Fulfilling Domestic Coal Needs in 2021 increased the quota by 75 million tonnes.

The rapid development of the mining sector that has occurred in Indonesia in recent years has attracted investors to invest in this sector. Financial statements that describe the financial condition of a company are information that can be used to help investors and other capital market participants to make decisions and assess the condition or financial performance of a company.

Investment is a term with several meanings related to finance and economics. It is related to the accumulation of assets in the hope of getting profits in the future. Sometimes, investment is also referred to as capital investment. One industry sector that attracts investors is the mining sector. As we know, in recent years the mining industry in the country has experienced rapid growth. The existence of production restrictions, especially in regional Mining Business Licences (IUP) so that there is no over supply and the growing consumption needs in Asia that encourage this sector is still very attractive to investors.

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In the midst of increasingly competitive competition, this encourages companies to create continuous innovation and develop new concepts or methods in the company so that the company still has added value in the eyes of its investors. From the company's performance report, investors can find out, estimate the state or position and direction of a company.

Investors, in evaluating investment opportunities, rely heavily on company performance reports. This report provides a comprehensive picture of the company's performance, thus enabling investors to make better investment decisions in the midst of increasingly fierce business competition.

Previous research tends to isolate the measurement of social, environmental and governance aspects. However, recent studies by Durlista and Wahyudi (2023) and Hoang (2023) highlight the importance of a more integrated approach in measuring ESG performance, especially in the mining sector. The results show a significant correlation between ESG disclosure and company performance.

Hoang (2023) used GRI, a general standard, to measure ESG performance. Meanwhile, Gunawan, Thamrin, & Uksan (2022) chose SASB which is more specific to the mining industry. This shows that the selection of measurement standards can affect the results of ESG performance evaluation.

The various ESG measurement standards that exist today have their own advantages and disadvantages. However, to get the most accurate picture of the ESG performance of mining companies, this study chose to use the International Council on Mining and Metals (ICMM). ICMM, as a globally recognised industry standard, offers a framework that is more specific and relevant to the unique challenges faced by the mining sector (Ivic, Saviolidis & Johannsdottir, 2021). Thus, the use of ICMM allows us to make more valid comparisons and make more informed decisions.

So that from this background it is interesting to research the Performance of ESG Implementation, entitled 'Analysis of Environmental, Social and Governance Implementation Performance in Mineral Mining and Coal Mining Companies'.

RESEARCH METHODS

This study uses a qualitative method to analyse the disclosure of ESG implementation in mineral mining and coal mining companies based on the ICMM framework, the challenges faced in implementing ESG as well as the strategies implemented for implementing and improving ESG performance. The subjects of this study are coal mining companies (PT A and PT B) and mineral mining companies (PT C and PT D), which were selected by purposive sampling,

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considering the following criteria:

1) Is a company listed on the Indonesia Stock Exchange (IDX) with the largest capitalisation in each industrial sub-sector, namely the mineral mining sub-sector and the coal mining sub-sector. Companies with the largest capitalisation were chosen, because large companies are expected to have a better commitment to sustainability aspects, so that the performance of ESG implementation and disclosure should also be better than that of smaller companies (Rahmawati, 2021).
2) A representation of private companies (2 companies, namely PT A and PT C) and state-owned companies (2 companies, namely PT B and PT D), each representing the mineral mining and coal mining sub-sectors.

This research was analysed using a content analysis approach of the companies' Sustainability Reports between 2018-2022. Primary data was obtained from in-depth interviews and questionnaires distributed to Vice Presidents, Senior Managers, and Managers in the sampled companies.

RESULTS AND DISCUSSION

Disclosure of Performance Indicators of ICMM Principles in Sustainability Reports Below is a presentation of the findings from the results of the content analysis for the disclosure of the 10 (ten) International Council on Mining and Metals (ICMM) Principles in the four mineral and coal mining companies.

Indicator Findings Principle 1. Ethical Business

The disclosure of Principle 1 made by PT B with an average value of 0.57 (high category) is the best disclosure compared to other companies, while PT C has very low disclosure (0.20).

The best performance indicator disclosure is Indicator 1.2 Implement policies and practices to openly prevent bribery, corruption and facilitation payments, which is 0.70 (Good), especially by PT B and PT D (BUMN coal and mineral mining companies). Public disclosure in the sustainability reports of these two companies is part of the implementation of Good Corporate Governance (CGC) which continues to be encouraged by the Ministry of SOEs to prevent the company from corrupt practices and is also a key performance indicator for the Board of Directors and Board of Commissioners.

The average disclosure score for Principle 1 is still Low (0.37), mainly due to the low disclosure of indicator 1.5 and indicator 1.4, respectively Very Low (0.17) and Low (0.27). The low disclosure of indicator 1.5 is due to the fact that the Company does not want to openly

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convey to the public the political contributions that have been made, to avoid lowering the Company's reputation in the eyes of its stakeholders. The low disclosure of indicator 1.4 is because some companies have not disclosed or disclosed very limited disclosure regarding the accountability of the Board and/or Executive Committee for the Company's sustainability performance. While there is one principle that is not relevant to mineral and coal mining companies in Indonesia, namely indicator 1.3 Apply policies and standards in accordance with the ICMM framework, because none of the Indonesian companies are already members of ICMM.

Principle 2 Indicator Findings. Decision Making

The disclosure of performance indicators in Principle 2 by PT B is categorised as Very High (0.77) which is the highest disclosure score compared to other companies, while PT D has a disclosure performance in the Low category (0.33). According to the findings above, state-owned mineral and coal companies are still better at disclosing ICMM Principle 2 than private mineral and coal companies.

In Principle 2, the best disclosure of performance indicators is indicator 2.1 Integrating sustainable development principles into strategies and decision-making processes, which is 0.55 (High), especially those carried out by PT B and PT C. Both show a good commitment to making sustainable development principles a consideration in investment decisions and mining operational decisions.

The average disclosure score for Principle 2 is already categorised as High (0.53). The relatively low average disclosure score is mainly due to the absence of information on the implementation of OHS, environmental, human rights and labour policies by the company's business partners (contractors, suppliers and business partners) submitted in the 2018 to 2022 sustainability report. The low disclosure of indicator 2.2 is mainly because the company has not fully consolidated and shared information on OHS, environment, human rights and labour policies and performance.

Principle 3 Indicator Findings. Human Rights

PT C's disclosure of ICMM Principle 3 is categorised as Low (0.36) although when compared to the other companies it is still the highest disclosure score where PT A (Very Low, 0.21), PT B (Low, 0.33) and PT C (Low, 0.28). PT C's relatively better average disclosure score is expected because PT C is part of a mineral mining company with a global reputation, and has implemented a mitigation hierarchy to ensure no human rights violations occur.

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The disclosure of Principle 3 performance indicators is the disclosure with the lowest average score compared to the performance indicators of other ICMM Principles, which is 0.30 (Low). The lowest is the disclosure of indicator 3.1, Supporting the UN Guiding Principles on Business and Human Rights, with a score of 0.08 (Very Low), and the highest is the disclosure of indicator 3.5 Paying workers remuneration at wages equal to or better than applicable regulations, at 0.63 (High). However, almost all companies except PT B, have disclosure performance indicators that are not submitted to the sustainability report as part of the assessment process.

Risk Management

Almost all mining companies that are the subject of this study have not made disclosures related to the implementation of risk-based due diligence on conflict and human rights in their operations. Only PT B has made disclosures in the Company's sustainability report. Therefore, the disclosure score for indicator 4.2 is categorised as Very Low (0.02), being the lowest average disclosure score for performance indicators in Principle 4.

In general, PT C's average disclosure score for Principle 4 indicators is the highest compared to the other companies with a disclosure category of Low (0.48), mainly because it always assesses the environmental and social risks and opportunities of new projects and significant changes to its operating processes, and implements risk-based controls to avoid/prevent, minimise, mitigate and/or improve health, safety and environmental impacts on workers, local communities, cultural heritage, and the natural environment.

PT D has the lowest level of disclosure, categorised as Very Low (0.23) compared to the other companies, mainly due to its lack of optimisation in conducting risk-based due diligence on conflict and human rights.

According to the findings above, private mineral and coal companies are still better at disclosing ICMM Principle 4 than state-owned mineral and coal companies. And the average score of the level of disclosure for the whole Principle 4 is categorised as Low (0.31) or the second lowest of all disclosure scores of ICMM principles.

Health and Safety Indicator Findings

The disclosure practice of ICMM Principle 5 by PT C is categorised as Very High (1.00) compared to other companies, because it discloses detailed data related to efforts made to improve OHS performance, as well as reports the progress of physical and mental health and safety training in accordance with workers' responsibilities, in its sustainability report on a

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regular basis.

PT D has the lowest disclosure performance compared to other companies, at 0.33 (Low), because it has not disclosed what practices are carried out to continuously improve physical and mental health and safety in the workplace, including not disclosing data on OHS training attended by its employees/workers.

According to these findings, private mineral and coal companies have more appropriate ICMM Principle 5 disclosure performance than state-owned mineral and coal companies. Disclosure of Principle 5 has the best average score of disclosure of performance indicators, namely 0.75 (High), compared to the disclosure of indicators of other ICMM principles. Both performance indicators in Principle 5 have relatively balanced disclosure performance.

Environmental Performance

Most Companies do not disclose indicators related to the design, construction, operation, monitoring and closure of tailings disposal/storage facilities, as some Companies consider these indicators irrelevant to their operations. Only PT D generates tailings in the course of its operations, but does not disclose data on tailings management in its sustainability report.

The disclosure performance of ICMM Principle 6 by PT C is the highest compared to the other Companies, at 0.83 (Very High), because PT C plans and designs mine closure through a stakeholder consultation process, implements a mitigation hierarchy for pollution and waste prevention, and implements measures for energy efficiency and contributes to a low carbon future, and reports the results of greenhouse gas emission measurements using internationally recognised protocols. Meanwhile, PT D has a disclosure performance of Principle 6 that is categorised as Low (0.43), because it has not properly disclosed how it designs, builds, operates and monitors tailings disposal/storage facilities using comprehensive risk-based management and governance practices, which are in line with internationally recognised best practices.

According to the findings above, private mineral and coal companies are still better at implementing ICMM Principle 6 Environmental Performance than state-owned mineral and coal companies. Overall, the disclosure score of Principle 6 performance indicators is categorised as High (0.60), where the performance indicator that shows the best disclosure is indicator 6.5, namely implementing measures for energy efficiency and contributing to a low carbon future, which is 0.80 (Very High), and the performance indicator that shows very low disclosure (0.00) is indicator 6.3, namely designing, constructing, operating, monitoring and closing tailings disposal/storage facilities.

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Biodiversity Conservation Indicator Findings

The disclosure performance with ICMM Principle 7 by PT A is the best compared to other companies, which is 0.57 (High), because the Company discloses well how to manage risks and impacts of operations on biodiversity and ecosystem services by applying the mitigation hierarchy, with the aim that there is no loss of biodiversity.

PT C and PT D's disclosure performance was categorised as Low (0.33), specifically because they did not submit disclosures regarding the Company's commitment to avoid exploration and development of new mines in World Heritage sites and respect legally designated protected areas.

According to the research findings, the disclosure performance of private mineral and coal companies is relatively balanced in ICMM Principle 7 disclosure practices compared to state-owned mineral and coal companies. The overall average disclosure score of Principle 6 performance indicators is categorised as Low (0.44), where the performance indicator that shows the best disclosure is indicator 7.2, which assesses and addresses the company's risks and impacts on biodiversity and ecosystem services and conducts a mitigation hierarchy, namely 0.73 (High), while indicator 7.1 related to efforts to avoid exploration and development of new mines in World Heritage sites shows disclosure categorised as Very Low (0.15).

Principle 8 Indicator Findings Responsible Production

The disclosure of ICMM Principle 8 by PT B is the best compared to other companies, which is 0.67 (High), because PT B has disclosed quite well the cost-effective measures in the recovery, reuse, and recycling of energy, natural resources, and materials in the design, operation and closure of the project. PT D has a very low disclosure performance (0.17), mainly because it has not disclosed the hazard assessment of mining products according to the UN Globally Harmonised System of Hazard Classification and Labelling.

Based on the research results, the disclosure performance of private mineral and coal companies (PT A and PT C) is relatively better in disclosing ICMM Principle 7 performance indicators compared to state-owned mineral and coal companies (PT B and PT D). The overall average disclosure score of Principle 8 performance indicators is categorised as Low (0.45), where the performance indicator that shows the best disclosure is indicator 8.1, namely implementing cost-effective measures in energy management, which is 0.77 (Very High), while indicator 8.2 related to hazard assessment of mining products according to the Globally Harmonised Hazard Classification and Labelling System, shows disclosure classified as Very Low (0.13).

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Social Performance

PT D's disclosure of ICMM Principle 9 is categorised as Very High (1.00), making it the best compared to other companies. PT A's disclosure performance is categorised as Very Low (0.23), because it has not made adequate disclosures, especially related to information and developments on whether it collaborates with the government to support environmental and social management practices for local miners, as well as disclosure of whether it has implemented an inclusive approach with local communities in identifying development priorities and supporting activities to improve the social and economic welfare of the community.

According to the findings above, SOE mineral and coal companies have better disclosure performance in disclosing ICMM Principle 2 indicators than private mineral and coal companies. The Ministry of SOEs issued SOE Ministerial Regulation No 1 of 2023 on Special Assignments and Social and Environmental Responsibility (CSR) of SOEs, which requires SOEs to implement CSR programmes including the preparation of annual reports to the Ministry of SOEs.

In Principle 2, the best disclosure of performance indicators is indicator 9.2 Opening access for local companies in procurement and contracting opportunities and increasing economic opportunities for local communities, at 0.78 (Very High), especially by PT C and PT D. While the lowest disclosure is indicator 9.4, which is collaborating with the government to support the improvement of environmental and social management practices of small-scale mining, at 0.25 (Very Low).

The average disclosure score for Principle 2 is in the High category (0.60). The relatively low average disclosure score is mainly due to the limited number of companies that disclose collaboration with the government to support improved environmental and social management practices of small-scale mining.

Principle 10 Indicator Findings. Relationship Building with Stakeholders

The disclosure of ICMM Principle 10 by all companies has a relatively balanced disclosure performance with a High category, where each score is PT A (0.67), PT B (0.67), PT C (0.69) and PT D (0.69).

Based on the research results, the disclosure performance of private mineral and coal companies (PT A and PT C) is equally good in disclosing ICMM Principle 7 performance indicators compared to state-owned mineral and coal companies (PT B and PT D). The overall average disclosure score of Principle 10 performance indicators is categorised as High (0.68), where the performance indicators that show the best disclosure are indicator 10.1 on identifying and

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fostering relationships with key external stakeholders, at 1.00 (Very High) and indicator 10.3, on reporting economic, social and environmental performance using GRI Sustainability Reporting Standards, at 1.00 (Very High).

While indicator 10.2 regarding support for the implementation of EITI openly, is an indicator with disclosure performance categorised as Very Low (0.03). And indicator 10.4, namely asking an independent third party to assess sustainability performance with ICMM guidelines, is an indicator that is not relevant to the context of mineral and coal mining companies in Indonesia, because there are no mineral and coal mining companies that have become members of ICMM.

CONCLUSION

Based on the analysis of ESG disclosure performance based on ICMM principles, it can be concluded that the average ESG performance disclosure score has a performance level classified as Low (0.5). And among the 10 ICMM Principles, the disclosure of performance indicators in Principle 5 (Occupational Health and Safety) is a principle with a disclosure level classified as Very High (0.75), while Principle 3 (Human Rights) is a principle with a disclosure level categorised as Low (0.30). The disclosure performance of the Social aspect has a High performance (0.55) compared to the Environmental and Governance aspects. ESG disclosure in coal mining companies has High performance (0.52) compared to mineral mining companies with Low performance (0.48). Meanwhile, there is no difference in ESG disclosure performance between private and state-owned mining companies, which is 0.50 or Low.

The study also concluded that the biggest challenge faced by mineral and coal mining companies in implementing ESG using the ICMM Principles as a framework is the lack of adoption of some international standards, guidelines and guidance as well as the adoption of ESG best practices into policies, strategies and roadmaps for ESG implementation, due to limited understanding from management. This study also found that the presence of top management support, clear policies and roadmaps for ESG implementation, clear organisational structure, and the preparation of competent human resources are strategies to improve ESG performance.

Managerial Implications

Public disclosure in the mineral and coal mining sector is a key factor in building better relationships with stakeholders (stakeholder engagement) and achieving sustainable performance (ESG). By comprehensively disclosing ESG information, companies provide stakeholders such as investors, regulators and local communities with a clear picture of the

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strategies and steps taken in managing environmental, social and governance aspects. This requires optimal support from various parties in an effort to improve company performance and sustainability. Companies in this sector need to focus on improving disclosures especially on Environmental (Principles 7 and 8), Social (Principle 3), and Governance (Principles 1, 4) aspects by formulating strategies, setting KPIs, as well as improving HR capacity and more effective stakeholder engagement strategies. The ICMM Mining Principles framework and its performance indicators play an important role as an effective management tool in addressing material issues related to mining operations and ESG management, covering Environmental, Social, and Governance aspects comprehensively.

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