Atma Jaya Accounting Research (AJAR)
Volume 9 Issue 2, August 2026
P-ISSN: 2654-590X, E-ISSN: 2656-0410

IMPLEMENTASI SUBSTANTIVITAS PELAPORAN *ENVIRONMENTAL, SOCIAL,* DAN *GOVERNANCE* PT. ANTAM TBK UBPN KOLAKA: ANALISIS PERSPEKTIF *STAKEHOLDER*

Elvira Trifena Tandungan[1], Fransiskus Eduardus Daromes[2]
Universitas Atma Jaya Makassar, Indonesia

Abstract: Penelitian ini bertujuan untuk menganalisis akuntabilitas implementasi Environmental, Social, and Governance (ESG) pada PT ANTAM Tbk UBPN Kolaka berdasarkan persepsi stakeholder. Penelitian ini menggunakan pendekatan kualitatif dengan metode studi kasus eksploratif melalui wawancara, observasi, dan dokumentasi yang melibatkan 14 informan, serta analisis terhadap Sustainability Report PT ANTAM tahun 2022 hingga 2024. Hasil penelitian menunjukkan bahwa akuntabilitas pada aspek lingkungan, sosial, dan tata kelola telah diimplementasikan melalui pengelolaan lingkungan, pemberdayaan masyarakat, kesejahteraan karyawan, kepatuhan, pelaporan, dan pengawasan. Namun, masih terdapat beberapa tantangan, yaitu kondisi lingkungan yang dinamis, perbedaan pemahaman mengenai program pemberdayaan masyarakat, serta kebutuhan untuk melakukan penyesuaian terhadap prosedur. Berdasarkan konsep akuntabilitas, implementasi ESG mencerminkan dimensi responsibility, transparency, answerability, dan enforcement. Secara keseluruhan, implementasi ESG pada PT ANTAM Tbk cenderung menunjukkan akuntabilitas substantif karena komitmen yang diungkapkan dalam Sustainability Report didukung oleh praktik yang diidentifikasi dan dijelaskan oleh para stakeholder.

Kata-kata kunci: akuntabilitas, e*nvironmental, social, governance, stakeholder*

Article Info:
Received: *15 July 2026* **|** ***Revised:*** *31 July 2026* **|** ***Accepted:*** *11 August 2026*

[1] *E-mail: elviratrifenaaa@gmail.com (Correspondence Author)*
[2] *E-mail: fedaromes@gmail.com*

SUBSTANTIVE ACCOUNTABILITY OF ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG) IMPLEMENTATION AT PT. ANTAM TBK UBPN KOLAKA: A STAKEHOLDER PERSPECTIVE

Elvira Trifena Tandungan[1], Fransiskus Eduardus Daromes[2]
Universitas Atma Jaya Makassar, Indonesia

Abstract: *This study aims to analyze the accountability of Environmental, Social, and Governance (ESG) implementation at PT ANTAM Tbk UBPN Kolaka based on stakeholder perceptions. The study employs a qualitative approach using an exploratory case study method through interviews, observations, and documentation involving 14 informants, as well as an analysis of PT ANTAM's Sustainability Reports from 2022 to 2024. The findings indicate that environmental, social, and governance accountability has been implemented through environmental management, community empowerment, employee welfare, compliance, reporting, and oversight. However, several challenges remain, including dynamic environmental conditions, differences in understanding regarding community empowerment programs, and the need for procedural adjustments. Based on the concept of accountability, ESG implementation reflects the dimensions of responsibility, transparency, answerability, and enforcement. Overall, the implementation of ESG at PT ANTAM Tbk tends toward substantive accountability, as the commitments disclosed in the Sustainability Reports are supported by practices identified and described by stakeholders.*

Keywords: accountability, environmental, social, governance, stakeholder

1. INTRODUCTION

Environmental, Social, and Governance (ESG) has become an increasingly important approach for assessing a company's commitment to sustainability. ESG encompasses environmental, social, and governance aspects related to how companies conduct their operations while taking responsibility for their impacts on stakeholders. In Indonesia, attention to ESG has continued to grow alongside the development of the regulatory framework for sustainable finance. The Financial Services Authority (Otoritas Jasa Keuangan/OJK) issued OJK Regulation No. 51/POJK.03/2017 concerning the Implementation of Sustainable Finance for Financial Services Institutions, Issuers, and Public Companies as one of the foundations for implementing sustainable finance in Indonesia. The regulation establishes the implementation of sustainable finance principles as well as the obligation to prepare and submit sustainability reports for entities within its scope. With these provisions, sustainability has become part of corporate reporting and management practices, while also strengthening corporate transparency in communicating sustainability performance information to stakeholders.

Challenges in ESG implementation in Indonesia remain an issue that requires serious attention. One concern is the possibility of a gap between the information disclosed by companies through sustainability reports and their actual performance. Adams (2004) discusses this condition through the concept of the reporting-performance portrayal gap, which refers to a discrepancy between the portrayal of performance presented by companies through reporting and their actual performance. This concept indicates that information disclosed through sustainability reports needs to be critically examined and should not be assessed solely based on the completeness of the disclosures, but also compared with the practices and conditions observed in the implementation of corporate activities.

A similar phenomenon can be found in various contexts within the mining industry, where companies present various environmental management and community empowerment programs in their sustainability reports. However, in some operational areas, local communities continue to express concerns regarding environmental impacts, changes in their living environment, and perceptions that the distribution of social benefits has not been entirely equitable. These differences in perspectives do not necessarily indicate a failure of ESG implementation, but rather reflect differences in stakeholder perceptions and experiences that are not fully captured in the formal narratives presented by companies. This condition provides an opportunity for a more in-depth examination of ESG accountability, particularly regarding how sustainability practices are understood and experienced by parties directly affected by corporate activities.

PT Aneka Tambang Tbk (ANTAM), particularly its Nickel Mining Business Unit (Unit Bisnis Pertambangan Nikel/UBPN) Kolaka, is a company whose operational activities are closely connected to the environment and communities surrounding its mining area. In conducting its operations, the company faces demands to manage environmental impacts, address social interests, and implement responsible governance. PT ANTAM Tbk has consistently disclosed various efforts to manage environmental, social, and governance aspects through its Sustainability Reports for 2022–2024. These reports describe the company's various efforts to manage sustainability-related aspects in accordance with ESG principles.

Nevertheless, the information presented in the Sustainability Reports represents ESG implementation primarily from the company's perspective. Therefore, further research is needed to examine how ESG implementation takes place at the operational level and how consistent it is with actual conditions in the field based on the perspectives of various stakeholders. In this regard, PT ANTAM Tbk UBPN Kolaka provides a relevant context for examining ESG accountability more comprehensively, not only based on corporate documents but also through the experiences and assessments of stakeholders who are involved in or affected by the company's activities.

From the perspective of stakeholder theory, companies have a responsibility to consider the interests of various parties involved in and affected by their operations. Companies are no longer solely oriented toward the interests of shareholders but must also consider the sustainability of their relationships with other stakeholders. Corporate decisions concerning environmental and social aspects have direct implications for stakeholders' lives, while stakeholder responses can also influence the continuity of corporate operations. Understanding stakeholder experiences therefore provides an important foundation for companies to improve their sustainability strategies. When stakeholders feel involved and have adequate opportunities for communication, more constructive relationships can be established. Conversely, limited participation may create challenges in relationships between companies and stakeholders. Therefore, stakeholder relationship management constitutes an integral part of ESG accountability.

Academic studies that explore stakeholder views and experiences in depth can provide a more comprehensive perspective on ESG implementation. A qualitative approach enables researchers to understand social dynamics, perceptions, and practices that are not always reflected in quantitative data. Through this approach, stakeholders can express their experiences, expectations, and challenges in interacting with companies. ESG research in Indonesia has also begun to employ qualitative approaches to understand ESG from the perspectives of relevant parties. Zaini et al. (2025) employed a qualitative approach to understand how executives in Indonesia's sustainable energy sector interpret and respond to ESG principles. In the mining sector, Tackie (2020) examined environmental accountability practices from the perspectives of various stakeholders, while Muhammad et al. (2024) examined corporate social responsibility programs in the Indonesian mining sector based on the perspectives of stakeholder groups.

Nevertheless, relatively few studies have integrated environmental, social, and governance aspects to examine accountability in mining companies based on the experiences and perspectives of various stakeholder groups. Therefore, research examining ESG implementation accountability from the perspectives of various stakeholders in the context of mining companies is important. Based on this consideration, this study focuses on ESG accountability at PT ANTAM Tbk UBPN Kolaka from a stakeholder perspective in order to provide a more comprehensive and in-depth understanding. ESG implementation is understood as a process that should be assessed not only through corporate standards and reports but also through how different parties interpret and evaluate the impacts of corporate activities within the local social and ecological context.

Based on this focus, this study aims to analyze the accountability of ESG implementation at PT ANTAM Tbk UBPN Kolaka based on stakeholder perceptions and to understand how the company addresses the challenges of ESG implementation in the mining context. The accountability analysis employs the accountability dimensions of responsibility, transparency, answerability, and enforcement. Accordingly, ESG implementation is examined not only in terms of the existence of programs and reporting practices but also in terms of responsibility, openness, the provision of explanations, and mechanisms for monitoring and enforcing their implementation.

2. LITERATURE REVIEW

Stakeholder Theory

Stakeholder theory, proposed by Freeman (1984), explains that companies have relationships with various parties who can influence or are affected by the achievement of corporate objectives. Companies are not only oriented toward the interests of shareholders but also need to consider the interests of other stakeholders, such as employees, communities, government, customers, suppliers, and other parties with an interest in the company's activities. In the context of sustainability, companies have a responsibility to consider stakeholder interests in conducting their operations.

Stakeholder theory is relevant to this study because the implementation of ESG at PT ANTAM Tbk UBPN Kolaka is directly connected to various stakeholder groups. Communities are concerned with environmental conditions and the benefits of corporate programs; government agencies are concerned with the company's compliance with regulations; employees are concerned with occupational safety, welfare, and career development; while the company has an interest in maintaining operational continuity and its relationships with stakeholders. Therefore, ESG implementation needs to be understood as a process involving reciprocal relationships between the company and various parties affected by its operational activities.

The Concept of Accountability

Accountability explains how companies are responsible for their decisions and the impacts of their activities on relevant stakeholders. Gray, Owen, and Adams (1996) argue that accountability is not merely a matter of reporting but involves a relationship between companies and society that requires explanation, transparency, and responsibility. In the modern context, accountability encompasses moral, social, and ecological obligations. This concept is based on the understanding that corporate activities inevitably generate impacts, whether positive or negative. Therefore, companies are expected to explain what they do, why they do it, and how the resulting impacts are managed. For the mining industry, accountability is a particularly important issue because mining activities can have significant effects on the environment, health, and the social lives of surrounding communities.

In this study, the concept of accountability is analyzed through four dimensions: responsibility, transparency, answerability, and enforcement. Responsibility refers to the company's responsibility to conduct its activities appropriately and in accordance with applicable requirements. Transparency concerns the disclosure of relevant information to stakeholders. Answerability refers to the company's ability to provide explanations and maintain channels of communication when questions arise or when impacts require the company to account for its actions. Meanwhile, enforcement concerns mechanisms of oversight, auditing, compliance, and evaluative actions that ensure commitments do not remain merely statements or declarations.

In the mining sector, enforcement mechanisms may take the form of internal oversight, audits, regulatory compliance, as well as external oversight conducted by government, communities, the media, and other stakeholders. The presence of enforcement is important to ensure that accountability does not stop at communicating commitments but is reflected in the company's operational practices. Accordingly, these four dimensions are used to examine how PT ANTAM UBPN Kolaka fulfills its ESG responsibilities, communicates information, provides explanations to stakeholders, and ensures that its commitments are implemented consistently.

Substantive Accountability and Symbolic Accountability

Accountability in the implementation of Environmental, Social, and Governance (ESG) is not assessed solely based on the extent to which a company discloses sustainability information, but also on the consistency between its stated commitments and the practices implemented in its operations. Based on this perspective, accountability practices can be distinguished into substantive accountability and symbolic accountability.

Substantive accountability refers to a form of accountability demonstrated through the actual implementation of a company's commitments to environmental, social, and governance aspects. Crossley et al. (2021) explain that substantive legitimacy strategies seek to implement social and environmental practices that produce real and fundamental changes in organizational behavior and practices. In contrast, symbolic practices place greater emphasis on communicating commitments than on generating actual changes in operational activities.

In this study, the concepts of substantive and symbolic accountability are used as a basis for analyzing ESG implementation at PT ANTAM Tbk UBPN Kolaka. The analysis is conducted by comparing the information disclosed by the company through its Sustainability Reports with findings from interviews, observations, and document analysis conducted during the research. This approach makes it possible to determine whether ESG implementation reflects substantive accountability, characterized by consistency between commitments and practices in the field, or whether it still exhibits characteristics of symbolic accountability, which places greater emphasis on disclosure than on actual implementation.

Environmental, Social, and Governance

The concept of Environmental, Social, and Governance (ESG) has developed alongside growing attention to corporate sustainability and the consideration of environmental, social, and governance aspects in assessing corporate performance. This concept is related to the development of sustainability thinking, including the Triple Bottom Line concept introduced by Elkington (1997). The Triple Bottom Line emphasizes that corporate success should not be assessed solely in terms of economic performance but also based on the company's contributions to environmental and social aspects.

Environmental, Social, and Governance (ESG) refers to three dimensions used to assess how companies manage environmental impacts, social responsibilities, and corporate governance (Daromes, *et.al,* 2026). Through ESG disclosure, companies report not only their financial performance but also how they manage carbon emissions, treat employees and surrounding communities, and apply transparency and integrity in corporate management. Such disclosures provide investors and stakeholders with information for assessing corporate risks and sustainability performance that may not be fully reflected in conventional financial statements.

In this study, the environmental aspect relates to the management of ecological impacts, including land rehabilitation, water management, emissions, waste, and biodiversity. The social aspect concerns the company's relationships with communities and employees, occupational safety, employee welfare, and community empowerment. Meanwhile, the governance aspect concerns corporate governance, transparency, compliance, internal controls, oversight, and risk management. In this study, ESG is understood not merely as a set of reporting indicators but as a set of practices whose consistency with stakeholder experiences needs to be examined.

3. RESEARCH METHOD

This study employs a qualitative approach using an exploratory case study method. This approach was adopted to obtain an in-depth understanding of the accountability of *Environmental, Social, and Governance* (ESG) implementation at PT ANTAM Tbk UBPN Kolaka based on the experiences and perceptions of various stakeholders. A case study was selected because the research focuses on the phenomenon of ESG implementation within the operational context of a mining company characterized by specific environmental and social conditions.

The research focuses on ESG implementation at PT ANTAM Tbk Nickel Mining Business Unit (Unit Bisnis Pertambangan Nikel/UBPN) Kolaka. The study was conducted in areas associated with the company's operational activities in Pomalaa, Kolaka Regency. The study involved 14 informants selected through *purposive sampling* based on their involvement in, knowledge of, and experience with the company's activities. The informants consisted of company representatives, employees, community members, and local government representatives with relevant knowledge and experience concerning environmental, social, human capital, and governance aspects.

Data were collected through semi-structured interviews, field observations, and document analysis. The interviews were conducted to explore stakeholders' experiences, views, and assessments of ESG implementation, as well as how the company fulfills its responsibilities toward stakeholders. Field observations were conducted to obtain an understanding of the conditions and activities related to ESG implementation within the company's operational areas. Meanwhile, document analysis focused on PT ANTAM's *Sustainability Reports* for 2022–2024 and other relevant supporting documents.

Data analysis was conducted through several stages, including data reduction, data display, and conclusion drawing. Data obtained from interviews, observations, and documentation were first selected based on their relevance to the research focus and then categorized into *environmental, social,* and *governance* aspects. The data were subsequently analyzed using the accountability concept through the dimensions of *responsibility, transparency, answerability,* and *enforcement*. The analysis also considered the concepts of substantive and symbolic accountability by comparing the commitments and information disclosed by the company through its *Sustainability Reports* with practices observed in the field and stakeholders' experiences.

Data credibility was established through source and method triangulation. Source triangulation was conducted by comparing information obtained from different stakeholder groups, while method triangulation was conducted by comparing findings from interviews, observations, and document analysis. These comparisons were used to obtain a more comprehensive understanding of ESG implementation and to identify consistencies and differences between the information disclosed by the company and stakeholders' experiences.

4. RESULTS AND DISCUSSION

Environmental, Social, and Governance (ESG) Accountability at PT ANTAM Tbk UBPN Kolaka from a Stakeholder Perspective

The implementation of ESG at PT ANTAM has evolved throughout the 2022–2024 period. In the 2022 *Sustainability Report*, ANTAM adopted the MIND ID Sustainability Pathway as its strategic framework, consisting of six pillars: Environment, Economic Development, Governance, Smart Operation & Product Stewardship, People, and Society. This framework indicates that sustainability was positioned as an integral part of various aspects of the company's business rather than as a standalone program.

In the 2023 *Sustainability Report*, the strengthening of ESG implementation was reflected in the establishment of an ESG Implementation Team, which was responsible for coordinating ESG strategies across the company's business units. The company also strengthened its materiality framework and assessment by applying a risk-based approach and considering stakeholder expectations. This development indicates that the identification of sustainability issues was increasingly incorporated into a more structured process.

In the 2024 *Sustainability Report*, the MIND ID Sustainability Pathway consisted of Environment and Climate Change, Smart Operation and Product Stewardship, People, Society, Economic Development, and Corporate Governance. The materiality assessment was used to identify priority economic, environmental, social, and governance issues. Thus, throughout the research period, ESG implementation demonstrated a development from strengthening sustainability commitments toward greater integration of ESG considerations into governance and decision-making processes.

Based on the development of ESG implementation during the 2022–2024 period, ANTAM continued to refine its sustainability strategy. ESG implementation, which initially focused on strengthening commitments and sustainability pillars, subsequently developed through strengthened implementation governance, improvements in the identification of material issues, and the adoption of the MIND ID Sustainability Pathway as the company's strategic sustainability framework.

To obtain a deeper understanding of how ESG accountability at PT ANTAM is realized in practice, this study did not rely solely on the *Sustainability Reports* but also explored the perspectives of stakeholders through interviews.

Table 4.1 Informant Data

No	Code	Position/Role
1	AEP	Community Member of Hakatutobu Village
2	U	Community Member of Pomalaa Village
3	Y	Community Member of Tambea Village
4	HMJ	Community Member of Tambea Village
5	J	Environment Specialist PT ANTAM Tbk UBPN Kolaka
6	F	Community Development Senior Support 2 PT ANTAM Tbk UBPN Kolaka
7	YE	Management Representative Specialist PT ANTAM Tbk UBPN Kolaka

8	NW	East Region Payroll Senior Support 2 PT ANTAM Tbk UBPN Kolaka
9	HH	Learning Operation Support 2 PT ANTAM Tbk UBPN Kolaka
10	K	Talent Management Senior Support PT ANTAM Tbk UBPN Kolaka 2
11	CT	Employee PT ANTAM TBK UBPN Kolaka
12	YS	Employee PT ANTAM TBK UBPN Kolaka
13	NP	Environment Supervisor, Environmental Agency of Kolaka Regency
14	L	Head of Development Section, Pomalaa Dictrict

Environmental Accountability at PT ANTAM Tbk UBPN Kolaka from a Stakeholder Perspective

As a company operating in the mining sector, the operational activities of PT ANTAM Tbk UBPN Kolaka are closely connected to environmental conditions in and around its operational area. Therefore, environmental accountability is understood not only through the policies and programs implemented by the company but also through the experiences of stakeholders who directly interact with mining activities.

One such experience was shared by AEP, a community member of Hakatutobu Village. As a resident living in a coastal area, he explained that changes in water quality were among the most noticeable impacts experienced by the community. The condition became more apparent during the rainy season, when seawater turned reddish and muddy, affecting fishing activities as the community's primary livelihood. He stated:

> *"The impact we feel the most is on water quality. The seawater here turns red and muddy when it rains, while our main livelihood is fishing. ANTAM itself has implemented many programs to address the impacts, but the pollution we experience is significant, making it difficult to find a solution that can truly reduce the existing pollution." (*AEP*, 15 April 2026).*

The interview findings indicate that the community assesses environmental accountability not only based on the existence of programs implemented by the company but also on the environmental impacts that they continue to experience in their daily lives. For coastal communities whose livelihoods depend on fishing, changes in water quality have broader consequences because they are directly related to their economic activities. Thus, from the community's perspective, the success of environmental management is measured by the company's ability to minimize impacts, rather than merely by the number of programs it has implemented.

Experiences regarding changes in water quality were also expressed by Y, a community member of Tambea Village. According to her, changes in water color remain one of the environmental issues experienced by the community, particularly during rainfall. Complaints regarding this condition are sometimes submitted to the government and subsequently conveyed to ANTAM as a means of communicating community concerns. She stated:

> *"Regarding the impacts of mining activities here, the water becomes contaminated and turns red, especially when it rains. Sometimes we submit our complaints to the government, and the government then conveys them to ANTAM." (Y, 18 April 2026).*

In addition to water quality, the community experiences environmental impacts in different forms. U, a community member of Pomalaa Village, explained that the issues most frequently experienced were increasing temperatures and dust around the company's operational area. She stated:

> *"The impact is that it is hotter and increasingly dusty. Complaints regarding the activities are usually discussed directly with the company." (U, 17 April 2026).*

This statement indicates that for communities living around the operational area, air conditions are part of their everyday experience in assessing the company's environmental responsibility.

Another perspective was provided by HMJ, a fisherman from Tambea Village. Rather than focusing solely on water and air quality, he observed changes in the condition of the coastal area. In addition to changes in water color, changes in the color of beach sand were also among the conditions he experienced. He explained:

> *"Actually, recently, it is not only ANTAM that operates here; there are other companies as well. However, the impacts we experience include changes in the color of the sand. It used to be white, but now it is red, and the water, which used to be clear, has become muddy." (HMJ, 18 April 2026).*

These various experiences demonstrate that environmental conditions are among the issues most closely connected to the daily lives of communities surrounding PT ANTAM UBPN Kolaka's operational area. Although the informants live in relatively close proximity to one another, the impacts they experience are not entirely the same. These differences are influenced by the activities they undertake and the environments in which they interact on a daily basis. Community members whose livelihoods depend on fishing tend to emphasize changes in water quality because of its direct relationship with their livelihoods. Meanwhile, those who spend more time in residential areas experience dust and increased temperatures, while those whose activities are concentrated in coastal areas pay greater attention to changes in coastal and marine conditions.

Based on these perspectives, the community understands environmental accountability through the direct experiences they encounter. Information about environmental programs forms part of their assessment, but the environmental conditions they experience on a daily basis remain an important consideration. Thus, there is a difference in emphasis between the company's narrative, which largely describes programs and management systems, and the community's measure of success, which is more closely related to changes in actual environmental conditions.

Although community members continue to experience various changes in environmental conditions, their accounts do not focus solely on the impacts. The informants also acknowledged the various efforts undertaken by PT ANTAM to reduce environmental impacts. This indicates that community perceptions are not entirely negative. Their assessments are shaped by two experiences occurring simultaneously: experiencing the impacts themselves and witnessing the company's efforts to manage those impacts.

For AEP, one of the environmental programs most frequently implemented in Hakatutobu Village is mangrove planting in coastal areas. The program involves the company, the community, youth organizations, and the local government. Before implementation, the company conducts socialization activities with the community. He stated:

> *"One of the environmental programs frequently carried out here is mangrove planting, which involves the community, youth organizations, and the local government. Before implementing the program, ANTAM directly conducts socialization with the community. Through this involvement, we as community members can see that ANTAM and the community are both trying to improve our environmental conditions. It also makes us more aware of the importance of protecting the environment and avoiding additional pollution." (AEP, 15 April 2026).*

The experience shows that the community pays attention not only to the programs being implemented but also to the implementation process. Socialization and involvement provide opportunities for community members to understand the objectives of the programs while participating in their implementation. The community therefore does not merely act as a beneficiary but also becomes part of the environmental activities.

A similar view was expressed by Y. According to her, environmental programs are not limited to coastal areas but also include reforestation activities in mountainous areas. The company involves the government and provides seedlings for planting. She stated:

> *"For environmental programs, ANTAM carries out mangrove planting along the coast and reforestation in the mountains. In implementing these programs, ANTAM involves the government and provides seedlings for planting. However, perhaps what needs to be improved is environmental protection so that pollution does not become excessive, especially because there are currently several companies operating here, not only ANTAM." (Y, 18 April 2026).*

This statement demonstrates that the community acknowledges the implementation of various environmental programs while simultaneously expecting their effectiveness to be continuously improved. The community recognizes that environmental conditions in Pomalaa are also influenced by the presence of other companies. Therefore, not every environmental change is automatically attributed to ANTAM. Nevertheless, as a company that has operated in the area for a considerable period, ANTAM is still expected to maintain and strengthen its environmental management practices.

U also assessed that the company had made various efforts to maintain environmental conditions through tree-planting activities involving the community. She stated:

> *"ANTAM's efforts to protect the environment are supported by tree-planting activities involving the community." (U, 17 April 2026).*

A similar view was expressed by HMJ:

> *"The environmental programs carried out here include sea cucumber cultivation, coral reef activities, and the distribution of seedlings." (HMJ, 18 April 2026).*

These statements indicate that community members are aware of the environmental programs implemented by the company, including mangrove planting, reforestation, coral reef rehabilitation, sea cucumber cultivation, and the distribution of seedlings. Programs that are most easily recognized by the community are those that are visible and directly involve community members.

Community involvement also emerged as an important finding. Almost all community informants stated that the programs involved both the community and the local government. From a stakeholder perspective, such involvement provides community members with opportunities to participate and become part of the environmental restoration process.

However, recognition of these programs does not eliminate expectations that the company will continue to improve its environmental management. Y considered that environmental protection efforts need to be strengthened because mining activities in the area are not carried out by ANTAM alone. U also explained that complaints regarding company activities could be discussed directly with the company. This mechanism demonstrates the existence of communication channels as part of accountability.

Expectations regarding environmental management were also expressed by L, Head of the Development Section of Pomalaa District:

> *"In the future, we hope that ANTAM will become even more responsive to environmental issues affecting the community, such as pollution, particularly the air quality pollution here, which could certainly have an impact on the health of the local community." (L, 21 May 2026).*

The district government acknowledges the company's various efforts while continuing to encourage greater responsiveness to the issues experienced by the community.

From the perspective of the Environmental Agency of Kolaka Regency, NP explained that the agency conducts inspections once a year, with the inspection areas adjusted according to the aspects specified in the environmental documents. The inspection also covers emissions from chimneys and includes reminders to ensure that chimney filters are regularly replaced or cleaned. According to her, ANTAM is considered a company that complies with regulations and routinely submits semiannual and quarterly reports, including reports concerning hazardous waste and wastewater treatment facilities (IPAL). Communication between the Environmental Agency and ANTAM was also considered to be functioning relatively well.

Thus, there are differences in emphasis among the stakeholders. The community primarily assesses environmental accountability based on impacts they experience, such as changes in water quality, dust, temperature, and coastal conditions. Government authorities assess it through compliance, reporting, and oversight. Meanwhile, the company explains accountability through environmental management systems, reclamation, water control, monitoring, and evaluation. These differences are consistent with stakeholder theory because each party has different positions, interests, and experiences.

From the company's perspective, J as an *Environment Specialist*, explained that two major issues receiving attention are the reclamation of former mining areas and the management of mine runoff. Reclamation is carried out through land reshaping, *cutting and filling*, application of *topsoil* and *cover crops*, followed by planting *fast-growing* plants at 60% and local plant species at 40%. This process demonstrates that reclamation is understood as a gradual process of land restoration rather than merely a tree-planting activity.

Reclamation areas are maintained for three years, with a target growth rate of 95% and canopy cover approaching 100%. The Normalized Difference Vegetation Index (NDVI) is used to measure reclamation performance, while flora and fauna monitoring is conducted to assess whether the ecosystem is beginning to recover. These practices indicate the use of more concrete evaluation indicators.

Mine runoff is managed through compartments or settling ponds designed according to the size of the opened mining area. According to J the larger the opened area, the greater the need for appropriately sized settling ponds to ensure that discharged water meets the required quality standards. Reclamation and runoff management are also interconnected because reducing exposed areas helps reduce the runoff load.

The company also collaborates with 11 youth organizations (*karang taruna*) in Pomalaa District in tree-planting activities and conducts watershed rehabilitation involving community members. Environmental evaluation is carried out through daily water sampling reported to the Ministry of Environment and Forestry (KLHK), as well as independent monthly sampling conducted by certified parties.

These interview findings are consistent with PT ANTAM's Sustainability Reports for 2022–2024, which identify reclamation, watershed rehabilitation, biodiversity conservation, water management, emissions control, and mangrove planting as part of the company's environmental strategy. By comparing the documented information with stakeholder experiences, it can be observed that the commitments disclosed in the reports are supported by practices implemented in the field.

Social Accountability at PT ANTAM Tbk UBPN Kolaka from a Stakeholder Perspective

The social aspect of ESG concerns how a company builds relationships with its stakeholders, particularly surrounding communities and employees as internal stakeholders. In the context of mining, social accountability is not measured solely by the amount of assistance provided, but also by the company's ability to understand community needs, involve communities, create sustainable benefits, and fulfill the rights and welfare of its employees.

AEP, a community member of Hakatutobu Village, explained that various social programs had been implemented in his area, including programs involving schoolchildren from three villages. He stated:

> *"Many of ANTAM's social programs have reached our area. One of them involves schoolchildren from three villages, including Hakatutobu, through a stunting prevention program." (AEP, 15 April 2026).*

Y, a community member of Tambea Village, explained that the company's social programs also addressed basic community needs, particularly during the dry season. She stated:

> *"For social programs here, there is a distribution of basic necessities to help those who are less fortunate. During the dry season, ANTAM also helps distribute water to the community, and we have been provided with a bore well. Before implementing the programs, ANTAM usually comes directly to*

conduct socialization accompanied by the local government." (Y, 18 April 2026).

U, a community member of Pomalaa Village, also described the social programs she experienced directly:

"The social programs that we have experienced here include the distribution of basic necessities and free health check-ups." (U, 17 April 2026).

These statements indicate that community members understand social accountability through the benefits they receive as well as through the communication process that takes place before programs are implemented. The involvement of the company and local government in communicating programs demonstrates an effort to ensure that community members understand the programs being implemented.

HMJ explained that fishermen receive assistance in the form of boat engines and boats, while the company directly engages with them to inquire about their needs and concerns. This process demonstrates the existence of opportunities for community participation in determining programs. Community members are not merely positioned as beneficiaries but also as parties who can communicate their needs before programs are implemented.

From the perspective of the local government, L, Head of the Development Section of Pomalaa District, explained the Mepokoaso program, which is intended to bring the company, government, and community together. He stated:

"Here, ANTAM's CSR has a program called Mepokoaso, which in the local language means 'unity.' This program is intended to bring the company and the community together through the government. Each year, there is a budget based on identified needs, and the government is given the opportunity to determine what is needed and what should be built that has not been funded by the government. We also hold regular meetings, where the local government and community usually submit proposals to ANTAM. For socialization, ANTAM also comes directly to the community." (L, 21 May 2026).

From the company's perspective, F explained several community empowerment programs, including Pesona Karamba in Hakatutobu, Mattirowallie in Tambea, and Konasara in several villages. These programs include grouper fish farming, sea cucumber cultivation, cattle fattening, grocery stores, poultry farming, and horticulture. The programs are designed to utilize local potential so that communities can develop and sustain economic activities.

The Sustainability Report 2024 supports the findings concerning the Mattirowallie program, which was developed through sea cucumber cultivation, egg-laying poultry farming, cattle farming, and grocery store businesses. In addition to providing assistance, the company provides training and mentoring. This consistency indicates that the social programs are directed toward improving community capacity and independence.

The Micro and Small Business Funding Program (Program Pendanaan Usaha Mikro Kecil/PUMK) is also part of the company's economic support initiatives. F explained that PUMK provides funding to MSME partners and applies a mentoring mechanism through a revolving fund scheme. This mechanism demonstrates an effort to maintain the sustainability of program benefits because support is not provided only once but is accompanied by repayment and mentoring mechanisms. Stakeholder involvement in social programs also emerged as an important finding. The company collaborates with Universitas Sembilan Belas November, Tim Nampah Kolaka, community members, and other parties throughout the stages of socialization, mentoring, and evaluation. The company also seeks input from program facilitators to assess program implementation. This indicates that stakeholder engagement is incorporated into the program process.

Among internal stakeholders, social accountability is reflected in the fulfillment of employee rights and welfare. CT, an employee of PT ANTAM UBPN Kolaka, stated that the company provides housing, healthcare facilities, and support when employees require medical referrals. This experience indicates that social accountability is directed not only toward external communities but also toward employees. In this regard, NW explained that the company provides remuneration, allowances, health insurance, employment social security, death insurance, and the Financial Institution Pension Fund (Dana Pensiun Lembaga Keuangan/DPLK). Healthcare facilities also cover employees' families in accordance with applicable provisions. These findings are consistent with the Sustainability Report 2023 regarding health protection for employees and their families.

YS, also an employee of PT ANTAM UBPN Kolaka, explained that the company provides socialization and training as well as workplace facilities. Employee concerns regarding rights and facilities can be communicated through the labor union. The Sustainability Report 2024 also indicates the existence of communication forums such as the Bipartite Cooperation Institution (Lembaga Kerja Sama Bipartit) and Quarterly Meetings. This condition demonstrates that the relationship between the company and its employees is supported by structured communication mechanisms.

Competency development is also part of social accountability. HH explained that the company provides mandatory training, soft skills training, leadership training, communication training, and technical competency training. The determination of training priorities considers regulatory and job-related requirements, while evaluations are conducted to assess training outcomes. This indicates that human resource development is viewed as part of the company's sustainability.

K explained the Career Development Program and Internal Job Posting mechanisms. Available positions can be announced internally, and employees undergo administrative evaluations, tests, and interviews. This mechanism provides opportunities for competency-based career development.

These findings reinforce Muhammad et al. (2024), who found that social programs in mining areas are associated with the interests of various stakeholder groups. Social accountability cannot be assessed solely based on the number of activities conducted but also on the alignment of programs with stakeholder needs, the involvement process, the benefits generated, and the company's ability to explain and improve its programs.

Governance Accountability at PT ANTAM Tbk UBPN Kolaka from a Stakeholder Perspective

The *governance* aspect relates to transparency, accountability, regulatory compliance, monitoring, control, and integrity. In this study, the governance perspective was obtained primarily from the local government and company representatives.

From the perspective of the local government, governance is understood through the company's consistency in fulfilling reporting obligations, providing information, and maintaining coordination. NP, an environmental supervisor at the

Environmental Agency of Kolaka Regency, explained that ANTAM routinely submits semiannual and quarterly reports concerning environmental management, including hazardous waste and wastewater treatment facilities (IPAL). These reports serve as a basis for conducting field supervision. The information submitted by the company provides the government with a basis for verification, while inspections ensure that the reported information can be compared with actual conditions in the field. Effective communication also supports the supervisory function.

In addition to fulfilling its reporting obligations, the relationship between PT ANTAM and the Environmental Agency is maintained through continuous communication. During the interview, NP explained that communication with the company had been relatively good, enabling the government to carry out its supervisory and supporting functions in accordance with its authority. She stated:

> *"Recently, I had communication with ANTAM regarding the wastewater treatment facility (IPAL). ANTAM's programs related to environmental matters are also communicated to us. So, it can be said that our communication is quite good." (NP, 21 May 2026).*

This statement indicates that communication between the company and the government is an important part of governance accountability. Information regarding environmental activities enables the Environmental Agency to remain informed about the company's activities and supports the government in carrying out its supervisory function. Thus, governance is not limited to formal reporting but also involves ongoing communication between the company and external stakeholders.

From the company's perspective, *governance* is understood as a system that directs all work units to perform their duties consistently, in a documented manner, and in accordance with established standards. This perspective was expressed by YE, Management Representative Specialist at PT ANTAM UBPN Kolaka. According to him, the implementation of corporate governance begins with a management system that serves as a guideline for all of the company's operational activities. The system is implemented to enable the company to evaluate each work process and continuously improve it according to organizational needs. He stated:

> *"The purpose of all these management systems is to ensure that, in managing the company, we can continuously make improvements. So, this system is not only intended to fulfill requirements, but also serves as a guideline for improving work processes so that they become better over time." (YE, 19 May 2026).*

This statement demonstrates that the management system is not merely viewed as an administrative requirement. Instead, it functions as an instrument for evaluating and improving operational processes. From this perspective, governance is connected to the company's ability to ensure that established procedures remain relevant and support continuous improvement.

The management system is translated into Standard Operating Procedures (SOPs) and Work Instructions. These guidelines ensure that activities are carried out effectively, safely, and in a controlled manner. Work documents also serve as a basis for monitoring and evaluation. This indicates that governance is not limited to policies at the corporate level but is also implemented in day-to-day operational activities.

The company also applies ethical standards through its Code of Conduct. This commitment indicates that governance is developed not only through formal procedures but also through a culture of integrity. Employees are expected to perform their duties based on the ethical standards established by the company.
The Sustainability Report 2022 indicates the use of management systems such as ISO 9001, ISO 14001, and ISO 45001. The Sustainability Report 2024 also demonstrates the strengthening of governance policies and compliance monitoring systems. The consistency between these disclosures and the information provided by the informants indicates that the management systems described in the interviews are supported by the company's formal documentation.

Governance challenges are related to changes in actual conditions, work processes, organizational needs, and regulatory developments. YE explained that when there is a discrepancy between established procedures and actual conditions in the field, the procedures need to be updated. This indicates that governance is a dynamic system that needs to adapt to changes in operational conditions.

The company addresses these challenges through internal audits, monitoring, evaluation, and management reviews. When nonconformities are identified, the evaluation results become the basis for improvement. The company also provides information channels so that its activities can be communicated to stakeholders.
These responses indicate that governance does not merely function as an administrative compliance mechanism but also serves as a mechanism for organizational control and continuous improvement. Governance accountability is therefore reflected in the company's ability to fulfill reporting obligations, maintain communication with external stakeholders, implement internal management systems, monitor operational activities, and continuously improve its processes when discrepancies or changing conditions are identified.

Addressing Challenges in the Implementation of the Environmental Aspect

The findings show that the main environmental challenges faced by PT ANTAM Tbk UBPN Kolaka are related to dynamic environmental conditions, particularly changes in rainfall patterns that may affect surface runoff, sedimentation, and land conditions. J explained that such conditions cannot always be predicted. When rainfall lasts longer than expected, the company needs to adjust its water management practices and operational area conditions. Therefore, the company seeks to restore ecosystems and environmental conditions as quickly as possible.

To address these challenges, the company manages surface runoff through settling ponds, water quality monitoring, and the reclamation of former mining areas. Reclamation is carried out through land reshaping, the application of *topsoil*, planting *cover crops*, and the use of *fast-growing plants* and local species. Maintenance and monitoring are also conducted to ensure the success of the reclamation process. In addition, the company implements environmental rehabilitation activities, such as mangrove planting, while involving local communities in environmental activities. Thus, environmental challenges are addressed through a combination of prevention, control, restoration, and continuous improvement.

Addressing Challenges in the Implementation of the Social Aspect

In the *social* aspect, the main challenge relates to differences in understanding between the company and the community regarding the objectives of empowerment programs. The company directs its programs toward increasing community capacity and independence, while some community members still expect assistance in the form of direct support. This difference indicates that the success of empowerment programs is determined not only by the programs provided but also by the community's understanding of the objectives and processes involved.

Based on the interviews, F explained that the company responds to this challenge by strengthening communication with the community and local government and by explaining the objectives and long-term benefits of the programs being implemented. Communication is important to ensure that the community does not perceive the programs merely as forms of assistance but also as efforts to strengthen their capabilities and independence. Thus, challenges in the *social* aspect are primarily addressed through strengthening relationships and communication between the company and its stakeholders.

Addressing Challenges in the Implementation of the Governance Aspect

In the *governance* aspect, changes in work processes, organizational needs, and regulatory developments require the company's procedures to be continuously evaluated. In response to these conditions, YE explained that when existing procedures are no longer fully aligned with actual conditions, the company makes adjustments through evaluation, audits, monitoring, and *management reviews*. These processes are necessary to ensure that the management system remains relevant to changing operational conditions and applicable regulatory requirements.

Furthermore, the implementation of *governance* is not only concerned with the existence of procedures but also with how those procedures are implemented and monitored. Audits and *management reviews* form part of the mechanisms used to assess whether implementation is consistent with established requirements. Thus, changes in operational conditions are not addressed merely by developing new procedures but also through the evaluation and improvement of existing systems.

Analysis of Environmental, Social, and Governance Accountability at PT ANTAM Tbk UBPN Kolaka

A Simple ESG Accountability Model for PT ANTAM Tbk UBPN Kolaka

ESG Implementation

1. Environmental
   - Land reclamation
   - Mine runoff control
   - Mangrove rehabilitation
   - Tree planting
2. Social
   - Community empowerment programs
   - Health facilities and the Micro and Small Business Funding Program (PUMK)

- Occupational Health and Safety (OHS)
- Employee competency and career development

3. Governance
   - Regulatory compliance
   - Information transparency
   - Risk Management

ESG Accountability

1. Responsibility
2. Transparency
3. Answerability
4. Enforcement

Sustainability

The ESG Accountability Model of PT ANTAM Tbk UBPN Kolaka shows that the implementation of Environmental, Social, and Governance (ESG) serves as a foundation for realizing corporate accountability. This implementation is reflected in various programs under the Environmental aspect, such as land reclamation, mine runoff control, mangrove rehabilitation, and tree planting. Under the Social aspect, implementation is carried out through community empowerment programs, the provision of health facilities and the Micro and Small Business Funding Program (PUMK), the implementation of Occupational Health and Safety (OHS), as well as employee competency and career development. Meanwhile, under the Governance aspect, implementation is reflected in regulatory compliance, information transparency, and risk management.

The findings show that ESG accountability at PT ANTAM Tbk UBPN Kolaka cannot be assessed solely based on the number of programs implemented or the amount of information disclosed in the Sustainability Report. Accountability is also determined by the company's ability to take responsibility for program implementation, explain its policies, respond to stakeholder feedback, and make improvements in addressing emerging challenges. These findings are consistent with Freeman's (1984) Stakeholder Theory, which emphasizes that companies have responsibilities toward parties that affect or are affected by their activities. In this study, ESG implementation demonstrates efforts to address the interests of various stakeholders through environmental management, community empowerment programs, fulfillment of employee rights, and corporate governance.

The responsibility dimension is reflected in the company's actual actions. Environmental responsibility is demonstrated through land reclamation, water management, monitoring, and environmental rehabilitation. Social responsibility is reflected in community empowerment, MSME support, health programs, employee welfare, training, and career development. Meanwhile, governance responsibility is demonstrated through the management system, SOPs, Work Instructions, Code of Conduct, and regulatory compliance.

The transparency dimension is reflected in the Sustainability Report, reports submitted to the government, program socialization, and communication channels. Such transparency provides stakeholders with opportunities to obtain information about the company's activities and serves as a basis for monitoring.

The answerability dimension is reflected in communication and dialogue. The company interacts with communities, government authorities, program facilitators, and employees. Stakeholder feedback is taken into consideration in the evaluation of programs and procedures. Thus, the relationship between the company and its stakeholders is not entirely one-directional.

The enforcement dimension is reflected in government inspections, internal audits, monitoring, evaluation, management reviews, regulatory compliance, and procedural updates. Enforcement demonstrates that the company's commitments are supported by mechanisms that enable evaluation and improvement.

The study also identifies external recognition of certain aspects of the company's performance, as well as reprimands or findings that form part of the oversight mechanism. Within the accountability framework, both indicate that ESG implementation is connected to external evaluation mechanisms. A reprimand does not automatically indicate an overall failure of ESG implementation but may instead form part of a corrective process when the company follows up on the identified issues.

Overall, the findings indicate that ESG implementation at PT ANTAM Tbk UBPN Kolaka tends toward substantive accountability. This conclusion is based on the consistency between the commitments disclosed by the company and the practices identified and experienced by stakeholders. Land reclamation, water management, community empowerment, employee welfare, management systems, audits, communication, and evaluation were supported by empirical evidence obtained in this study.

However, substantive accountability does not imply that implementation is without shortcomings. Continued community concerns regarding water quality and dust, differences in understanding regarding empowerment programs, and the need to update procedures indicate that the company continues to face challenges. The existence of communication, monitoring, and improvement mechanisms is therefore important in maintaining and strengthening the substantive character of ESG accountability.

5. CONCLUSION

Based on the research findings regarding the accountability of *Environmental, Social, and Governance* (ESG) implementation at PT ANTAM UBPN Kolaka from the perspectives of *stakeholders*, it can be concluded that ESG implementation is perceived differently depending on the relationships, interests, and experiences of each *stakeholder*. The community assesses ESG accountability based on the benefits of environmental and community empowerment programs that they experience, while the government emphasizes regulatory compliance and coordination. Employees assess ESG implementation through the fulfillment of their rights, welfare, protection, as well as opportunities for competency and career development. Meanwhile, the company views ESG as part of its management system to support operational sustainability. These differences indicate that ESG accountability is not only assessed based on the implementation of programs but also on the company's ability to meet the expectations of various *stakeholders*.

In its implementation, PT ANTAM UBPN Kolaka faces several challenges, including dynamic environmental conditions, differences in community understanding regarding the objectives of empowerment programs, and the need to adjust systems and procedures to developments in regulations and operational conditions. The company responds to these challenges through continuous environmental management, improved communication with the community, program evaluation, and the refinement of management and governance systems.

Based on the concept of accountability, ESG implementation reflects the dimensions of *responsibility, transparency, answerability,* and *enforcement*. These four dimensions are reflected in the company's fulfillment of its responsibilities toward environmental and social aspects, disclosure of information, communication with *stakeholders*, as well as monitoring and evaluation mechanisms. Overall, the ESG implementation of PT ANTAM UBPN Kolaka tends toward substantive accountability because the commitments disclosed in the *Sustainability Report* are also supported by practices identified during the research. Nevertheless, the management of operational impacts and communication with *stakeholders*, particularly the surrounding community, still need to be continuously strengthened to ensure that ESG implementation becomes increasingly effective and sustainable.

This study has several limitations. First, the research focuses only on PT ANTAM UBPN Kolaka; therefore, the findings reflect the conditions and characteristics of the company and cannot be directly generalized to other mining companies. Second, this study employs a qualitative approach that focuses on *stakeholder* perceptions, meaning that the findings are influenced by the experiences, knowledge, and perspectives of the informants during the research period. These perceptions may change over time in response to developments in company policies, operational conditions, and relationships with *stakeholders*.

Based on the research findings and limitations, PT ANTAM UBPN Kolaka is expected to maintain its commitment to ESG implementation through continuous evaluation and improvement of its programs. The company also needs to continuously strengthen communication and *stakeholder* engagement, particularly with the surrounding community, so that the objectives of ESG programs can be better understood and their benefits can be experienced more optimally. For future researchers, this study can serve as a reference for further developing research on ESG implementation and accountability. Future research may be conducted in other mining companies or different industrial sectors to provide a broader perspective on ESG implementation and accountability.

REFERENCES

Book :

Creswell, J. W. (2013*). Qualitative inquiry and research design: Choosing among five approaches (3rd ed.).* SAGE Publications.

Elkington, J. (1997). *Cannibals with forks: The triple bottom line of 21st century business.* Capstone Publishing.

Freeman, R. E. (1984). *Strategic management: A stakeholder approach.* Pitman.

Gray, R., Owen, D., & Adams, C. (1996). *Accounting & accountability: Changes and challenges in corporate social and environmental reporting*. Prentice Hall.

Guba, E. G., & Lincoln, Y. S. (1985). *Naturalistic inquiry.* SAGE Publications.

Journal Article :

Adams, C. A. (2004). The ethical, social and environmental reporting-performance portrayal gap. Accounting, *Auditing & Accountability Journal,* 17(5), 731–757. https://doi.org/10.1108/09513570410567791

Albitar, K., Hussainey, K., Kolade, N., & Gerged, A. M. (2020). ESG disclosure and firm performance before and after IR: The moderating role of governance mechanisms. *International Journal of Accounting & Information Management,* *28*(3), 429–444. https://doi.org/10.1108/IJAIM-09-2019-0108

Ardiana, P. A. (2022). Conceptualising stakeholder engagement in sustainability reporting. *Jurnal Ilmiah Akuntansi dan Bisnis, 17*(1), 1–16. https://doi.org/10.24843/JIAB.2022.v17.i01.p01

Crossley, R. M., Elmagrhi, M. H., & Ntim, C. G. (2021). Sustainability and legitimacy theory: The case of sustainable social and environmental practices of small and medium-sized enterprises. *Business Strategy and the Environment,* *30*(8), 3740–3762. https://doi.org/10.1002/bse.2837

Daromes, F. E., Jao, R., & Synarso, B. I. (2026). Role of Environmental, Social, and Governance (ESG) on the Effect of Financial Performance on Firm Value: Understanding Types of Statistical Moderation. *Dinamika Akuntansi Keuangan dan Perbankan*, *15*(1), 1-23. https://doi.org/10.35315/dakp.v15i1.10372

Husna, G. A., Yuhertiana, I., & Susilowati, E. (2023). Pengaruh Good Corporate Governance terhadap pengungkapan ESG dan kinerja perusahaan pada perusahaan BUMN yang terdaftar di Bursa Efek Indonesia periode 2018–2022. *Jurnal Sosial dan Sains, 3*(12), 1235–1252. https://doi.org/10.59188/jurnalsosains.v3i12.1091

Liakh, O. (2021). Accountability through sustainability data governance: Reconfiguring reporting to better account for the digital acceleration. *Sustainability, 13*(24), 13814. https://doi.org/10.3390/su132413814

Lianto, M. (2024). Application of environmental, social and governance principles integrated: The case of PT. Solusi Bangun Indonesia Tbk. in reaching Gold PROPER in 2022. *Jurnal Riset Manajemen Sains Indonesia, 15*(2), 40–49. https://doi.org/10.21009/JRMSI.015.2.05

Muhammad, S., Arifin, S., Syam, R., Tamma, S., Hans, A., Hanami, Z. A., Aprianto, & Putra, B. A. (2024). Corporate social responsibility programs in mining areas: Insights from stakeholder groups in

Indonesia. *Cogent Social Sciences, 10*(1), 2357675. https://doi.org/10.1080/23311886.2024.2357675

Oktariyani, A. (2024). Analisis pengungkapan tanggung jawab sosial dan lingkungan perusahaan pertambangan di Indonesia. *Equivalent: Journal of Economic, Accounting and Management, 2*(1), 232–246. https://doi.org/10.61994/equivalent.v2i1.375

Otoritas Jasa Keuangan. (2017). *Peraturan Otoritas Jasa Keuangan Nomor 51/POJK.03/2017 tentang Penerapan Keuangan Berkelanjutan bagi Lembaga Jasa Keuangan, Emiten, dan Perusahaan Publik*. Otoritas Jasa Keuangan.

PT Aneka Tambang Tbk. (2023). *Sustainability report 2022*. PT Aneka Tambang Tbk. https://www.antam.com/id/company-report/sustainability-report

PT Aneka Tambang Tbk. (2024). *Sustainability report 2023*. PT Aneka Tambang Tbk. https://www.antam.com/id/company-report/sustainability-report

PT Aneka Tambang Tbk. (2025). *Sustainability report 2024*. PT Aneka Tambang Tbk. https://www.antam.com/id/company-report/sustainability-report

Qian, W., Tilt, C., Dissanayake, D., & Kuruppu, S. (2020). Motivations and impacts of sustainability reporting in the Indo-Pacific region: Normative and instrumental stakeholder approaches. *Business Strategy and the Environment, 29*(8), 3370–3384. https://doi.org/10.1002/bse.2577

Soobaroyen, T., & Ntim, C. G. (2013). Social and environmental accounting as symbolic and substantive means of legitimation: The case of HIV/AIDS reporting in South Africa. *Accounting Forum, 37*(2), 92–109. https://doi.org/10.1016/j.accfor.2013.04.002

Tackie, G. (2020**).** Multi-stakeholder perspectives of environmental accountability practices in the mining sector. *International Journal of Accounting and Financial Reporting, 10*(4), 38–53. https://doi.org/10.5296/ijafr.v10i4.17945

Zaini, M., Aziz, A. A., & Wirawati, A. (2025). Dinamika internal dan persepsi eksekutif terhadap ESG: Pendekatan kualitatif di sektor energi berkelanjutan. *Jurnal Ilmiah Manajemen, Ekonomi, & Akuntansi, 9*(2), 1223–1250. https://doi.org/10.31955/mea.v9i2.5752