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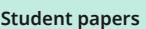
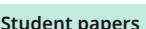
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Legal Enforcement Challenges in Implementing Environmental Impact Assessment (AMDAL) Regulations in the Mining Sector in Kalimantan

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Abstract

This study examines the challenges of legal enforcement in implementing the Environmental Impact Assessment (AMDAL) regulations within the mining sector in Kalimantan, Indonesia. Although AMDAL serves as a central preventive legal instrument designed to integrate environmental considerations into development planning, its enforcement in practice remains weak, inconsistent, and politically influenced. Using a qualitative socio-legal approach, this research draws on documentary analysis, semi-structured interviews with government officials, mining company representatives, and community members, as well as field observations across three provinces: East, Central, and South Kalimantan. The findings reveal three interrelated dimensions of enforcement failure: (1) institutional fragility, marked by limited technical expertise, inadequate budgets, and fragmented coordination among environmental agencies; (2) selective legal enforcement, characterized by corporate-political collusion that weakens the rule of law and turns AMDAL into a bureaucratic formality; and (3) restricted community participation, as local residents remain excluded from decision-making and denied access to environmental information. These factors collectively transform AMDAL from a substantive tool for environmental protection into a symbolic administrative requirement. The study concludes that effective enforcement of AMDAL requires institutional strengthening, political decoupling of environmental governance from vested interests, and genuine community empowerment. By revealing how power asymmetries and institutional weakness shape environmental regulation, this study contributes to a deeper understanding of the political economy of environmental law enforcement in Indonesia's extractive sectors.

INTRODUCTION

Environmental Impact Assessment (EIA), known in Indonesia as *Analisis Mengenai Dampak Lingkungan* (AMDAL), represents one of the most fundamental preventive legal instruments in environmental governance (Wisnumurti, 2024; Susilawati, 2022). It embodies the principle that environmental protection must precede economic exploitation a normative framework designed to ensure that development activities, particularly those with significant ecological risks, are subjected to prior

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evaluation and control. In the context of Indonesia, a resource-rich archipelagic state where extractive industries constitute a substantial part of the national economy, AMDAL serves as both a regulatory mechanism and a moral commitment to balance economic growth with environmental sustainability. However, despite its strong normative foundation and alignment with international environmental principles, the practical enforcement of AMDAL has been persistently weak, particularly in resource-abundant yet politically complex regions such as Kalimantan.

The Indonesian government has, since the enactment of Law No. 32 of 2009 on Environmental Protection and Management, emphasized the centrality of AMDAL in the environmental licensing process (Irawan, 2021). The law mandates that any business or activity with potential environmental impacts must conduct an AMDAL as a prerequisite for obtaining an environmental permit (*izin lingkungan*), which in turn forms the legal basis for operational licensing. In theory, this framework integrates environmental considerations into every stage of industrial decision-making from planning and approval to monitoring and compliance. In practice, however, AMDAL has often been reduced to a mere procedural formality, serving as an administrative requirement rather than a substantive tool for environmental prevention. This gap between normative aspiration and empirical reality has led to a phenomenon of *paper compliance* where environmental obligations are fulfilled on paper, but environmental degradation continues on the ground.

The mining sector in Kalimantan provides a compelling and troubling example of this enforcement gap. Kalimantan home to vast reserves of coal, gold, and other minerals has long been a focal point of Indonesia's extractive economy (Hasibuan et al., 2022; Rizal & Idrus, 2024; Sunuhadi et al., 2024). Over the past two decades, the region has experienced rapid industrial expansion accompanied by widespread ecological degradation, including deforestation, water pollution, soil erosion, and the displacement of local and indigenous communities. The AMDAL mechanism, which was intended to mitigate such impacts, has failed to perform its regulatory function effectively. Field evidence and civil society reports consistently indicate that many mining companies operate without proper AMDAL approval or ignore the mitigation commitments outlined in their environmental management plans (*Rencana Pengelolaan Lingkungan/RKL* and *Rencana Pemantauan Lingkungan/RPL*). Provincial environmental agencies, in turn, often lack the institutional capacity and political autonomy to monitor and enforce compliance, particularly when confronted with powerful corporate and political actors.

This situation reflects a deeper structural issue in Indonesia's environmental governance: the disjunction between law and enforcement (Abdurrachman et al., 2021; Tarigan & Hafandi, 2024; Salim & Palullungan, 2021). While Indonesia's environmental legal framework is among the most comprehensive in Southeast Asia, its enforcement remains inconsistent, selective, and politically influenced. The problem is not merely legal but institutional and political. Environmental agencies at the provincial and district levels (Dinas Lingkungan Hidup/DLH) operate under chronic resource constraints insufficient budget, lack of trained personnel, and weak inter-agency coordination. Furthermore, the politicization of environmental licensing often results in regulatory capture, where enforcement decisions are shaped more by political patronage and economic interests than by legal or ecological considerations. The AMDAL process, in this context, becomes a negotiated instrument, used to legitimize extractive activities rather than to safeguard environmental integrity.

Beyond the institutional and political dimensions, there exists a persistent problem of public exclusion and information opacity (Splitter et al., 2023; Cuadrado & Bisogno, 2022; Sari & Muslim, 2023). AMDAL, by law, mandates public participation during its formulation stage. Yet, in practice, affected communities in mining regions especially indigenous and rural populations are often uninformed, uninvolved, or

deliberately excluded from consultation processes. Access to AMDAL documents remains limited, and community grievances are frequently ignored or dismissed. This exclusionary pattern not only violates the participatory principles embedded in environmental law but also undermines the social legitimacy of environmental regulation itself. The result is a widening gap between the state's regulatory discourse and the lived realities of environmental injustice on the ground.

Academic discourse on AMDAL enforcement has identified these systemic weaknesses but often treated them in isolation focusing either on legal formalism, institutional design, or community participation without integrating the three dimensions into a unified analytical framework. This study, therefore, adopts a socio-legal approach to bridge that gap, examining AMDAL not merely as a legal text but as a socio-political process shaped by power relations, institutional capacity, and community agency. The research focuses on Kalimantan's mining sector as an empirical locus where environmental regulation, corporate power, and local governance intersect most visibly. It explores how AMDAL enforcement operates within this complex landscape where legal mandates are clear but political and institutional realities continuously subvert them.

By employing a qualitative, field-based methodology including documentary analysis, semi-structured interviews with key stakeholders, and direct observation this study aims to uncover the structural and political dynamics that hinder effective AMDAL enforcement. Specifically, it investigates (1) the institutional capacity of environmental agencies to enforce AMDAL provisions, (2) the extent and patterns of corporate compliance and legal sanctioning, and (3) the role and limitations of community participation in environmental decision-making. Through this lens, the study seeks to explain not only *what* the enforcement challenges are, but *why* they persist, despite decades of legal reform and administrative decentralization.

4 This research contributes to the growing body of literature on environmental law enforcement and governance in the Global South by revealing the interplay between legal formalism, political economy, and environmental justice (Azzahra, 2024; Hou et al., 2024). It argues that AMDAL's enforcement challenges cannot be resolved merely through legal amendment or bureaucratic restructuring but require a transformation of governance culture toward one that values transparency, accountability, and community empowerment as integral to environmental law. Ultimately, the study contends that the credibility of Indonesia's environmental governance, and the sustainability of its natural resource management, depend on its ability to move beyond procedural legality toward substantive enforcement and ecological integrity.

16 METHODS

This study employed a qualitative legal research approach with a socio-legal orientation, aiming to examine how Environmental Impact Assessment (AMDAL) regulations are implemented and enforced within the mining sector in Kalimantan. The socio-legal approach was chosen because the challenges of AMDAL enforcement cannot be understood solely through the lens of normative law; they are embedded within broader social, political, and economic contexts that shape how legal norms are applied in practice. Thus, this research integrates legal analysis with field-based exploration of the institutional and behavioral dynamics influencing environmental governance in the mining industry.

2 Data were collected through a combination of documentary review, in-depth interviews, and field observations. The documentary review focused on relevant legal instruments, including Law No. 32 of 2009 on Environmental Protection and Management, Government Regulation No. 27 of 2012 on Environmental Permits, and several Ministerial Regulations of the Ministry of Environment and Forestry (KLHK)

2 concerning the procedures for AMDAL preparation and approval. In addition, regional policies and local regulations in the provinces of East Kalimantan, Central Kalimantan, and South Kalimantan were examined to identify local adaptations and enforcement mechanisms. Reports from the Ministry of Energy and Mineral Resources, environmental NGOs, and academic publications were also analyzed to provide secondary data and contextual understanding.

15 To capture the realities of AMDAL implementation, semi-structured interviews were conducted with various stakeholders involved in the mining and environmental governance sectors. These included officials from provincial environmental agencies (Dinas Lingkungan Hidup), representatives of mining companies, community leaders affected by mining operations, environmental activists, and local academics. A purposive sampling technique was used to ensure the inclusion of participants who had direct involvement or significant knowledge of AMDAL enforcement processes. In total, 25 key informants participated in the interviews, conducted between June and September 2025, across major mining areas in East and Central Kalimantan.

18 The data collection process prioritized ethical considerations. Informants were provided with information regarding the research purpose and were asked for their consent prior to participation. Confidentiality was maintained throughout the study to ensure that participants could speak freely about sensitive institutional and political issues surrounding mining operations and environmental monitoring. Observations were also conducted at several mining sites and local government offices to understand the practical challenges faced in monitoring compliance with AMDAL commitments, including resource limitations, bureaucratic constraints, and power asymmetries between regulators and mining corporations.

18 Data analysis was carried out using a thematic and interpretative approach. Interview transcripts and documentary materials were coded inductively to identify recurring themes such as "institutional fragmentation," "weak sanctions," "political interference," "corporate influence," and "community marginalization." These themes were then interpreted within the framework of environmental governance theory and legal enforcement models, which emphasize the interaction between regulatory capacity, political economy, and the rule of law. The analytical process involved iterative comparison between normative legal expectations and empirical findings to uncover the gap between regulation and enforcement practice.

4 To ensure credibility and trustworthiness, the study employed triangulation by cross-checking data from different sources legal documents, interviews, and field observations. Peer debriefing with environmental law scholars and practitioners was also undertaken to validate interpretations and strengthen analytical consistency. The results were then synthesized into a comprehensive account of how enforcement challenges manifest in the Kalimantan mining sector, highlighting the tensions between environmental protection goals and economic development interests.

Overall, this qualitative socio-legal method allowed the research to move beyond formalistic readings of AMDAL law and instead reveal the lived realities of enforcement in resource-rich yet environmentally vulnerable regions like Kalimantan. The methodological choice thus aligns with the study's goal to expose not only what the law stipulates but how the law operates or fails to operate in practice.

RESULT AND DISCUSSION

The results of this study demonstrate the multifaceted challenges involved in enforcing the Environmental Impact Assessment (AMDAL) regulations within the mining sector in Kalimantan, Indonesia. This section explores three key dimensions that influence the enforcement effectiveness of AMDAL: institutional capacity,

corporate compliance behavior, and community participation and transparency. Each of these dimensions highlights the systemic obstacles to effective enforcement and reflects the broader socio-political and institutional dynamics in the region.

3.1 Institutional Capacity and Enforcement

The enforcement of AMDAL regulations in Kalimantan is severely constrained by the limited institutional capacity of provincial environmental agencies (Dinas Lingkungan Hidup, DLH). Despite the legal mandates established under Law No. 32 of 2009, which requires environmental monitoring and assessment, the technical and administrative resources necessary to carry out these tasks effectively are lacking.

Table 1. Institutional Capacity and Regulatory Enforcement

Indicator	Description	Key Findings	Implication
Staffing and Expertise	Number and competency of officers handling AMDAL evaluation and monitoring	Only 30–40% of staff within provincial environmental agencies possess formal training in environmental law, impact analysis, or compliance auditing.	Technical and legal limitations lead to procedural rather than substantive assessment.
Monitoring Frequency	Average number of field inspections per company per year	Average of 1 visit per company per year; in remote districts, gaps of 2–3 years between inspections are common.	Lack of regular monitoring enables ongoing violations without detection.
Budget Allocation	Percentage of local environmental budget devoted to AMDAL enforcement	Less than 10% of environmental management budget allocated to AMDAL enforcement in East, Central, and South Kalimantan.	Chronic underfunding weakens institutional presence and credibility.
Inter-Agency Coordination	Communication and collaboration between DLH, ESDM, and local governments	Coordination largely fragmented and ad hoc; limited data sharing on permit holders.	Regulatory silos delay responses and weaken cross-sectoral oversight.

Interviews with DLH officials revealed that approximately 30–40% of the staff responsible for evaluating and monitoring AMDAL compliance lacked formal training in environmental law, impact analysis, or compliance auditing. This technical gap leads to a situation where environmental assessments are often based on procedural rather than substantive evaluations. Furthermore, monitoring activities are infrequent, with an average of only one site visit per company per year. In remote areas such as Kutai Barat and Murung Raya, this gap extends to 2–3 years between inspections, allowing violations to persist without detection.

Additionally, the provincial environmental agencies face significant budgetary constraints, with less than 10% of the allocated environmental management budget directed toward AMDAL enforcement. This chronic underfunding weakens institutional presence and hampers the ability to conduct regular field inspections or provide necessary training for staff.

A major challenge identified in the study is the fragmented nature of inter-agency coordination. Key agencies such as the Ministry of Environment and Forestry (KLHK), the Ministry of Energy and Mineral Resources (ESDM), and local government bodies often operate in silos, with limited data sharing or collaboration. This lack of coordination creates regulatory vacuums, where environmental assessments and

monitoring activities are not fully aligned, leading to inconsistent enforcement across districts

Corporate Compliance and Political Influence

Table 2. Corporate Compliance and Legal Sanctioning Patterns

Aspect	Observation	Frequency/Example	Interpretation
Submission of Environmental Reports (RKL–RPL)	Frequency of companies submitting required monitoring reports	42% regular submission; 36% late; 22% non-submission	Indicates that compliance is mostly formal and lacks enforcement follow-up.
Sanctions Applied	Administrative, civil, or criminal sanctions for non-compliance	Only 4 out of 27 recorded violations led to formal sanctions between 2020–2024	Demonstrates a high tolerance for non-compliance and selective enforcement.
Political Influence	Evidence of lobbying or elite networks affecting AMDAL approval	11 out of 25 informants reported direct or indirect political interference	Reveals the entanglement of business interests and local politics.
Self-Monitoring Practice	Reliance on company-reported data for environmental performance	Over 80% of enforcement actions based on company self-reporting	Reflects weak verification capacity and structural dependency on corporate data.

Corporate compliance with AMDAL regulations is another major area of concern. Data from the study showed that while mining companies submit environmental reports (RKL–RPL) as required, the quality of these submissions varies significantly. About 42% of companies submitted reports on time, while 36% submitted late, and 22% failed to submit reports altogether. However, even when violations are detected, sanctions are rarely applied. Between 2020 and 2024, only 4 out of 27 recorded violations led to formal sanctions, highlighting a permissive enforcement environment.

A significant finding of the study is the influence of political and corporate networks on enforcement outcomes. Eleven out of twenty-five informants reported that political interference played a role in the approval and monitoring processes of AMDAL, with local government officials under pressure to avoid imposing stringent sanctions on major mining companies due to economic and political considerations. Mining companies, which are major contributors to local revenue and political campaign financing, often enjoy a form of impunity, particularly when enforcement decisions are shaped by political patronage.

Additionally, the reliance on self-reported data from mining companies exacerbates the enforcement challenges. More than 80% of enforcement actions are based on company-submitted reports, which are rarely verified. This situation results in what is referred to as "paper compliance," where formal adherence to regulatory requirements masks the lack of real environmental accountability.

Community Participation and Transparency

3. Community Awareness and Participation in AMDAL Processes

Dimension	Observation	Data Summary	Analytical Note
Public Consultation	Inclusion of local communities in	Only 25% of community respondents	Participation often limited to ceremonial meetings

	AMDAL hearing processes	confirmed meaningful participation	dominated by company representatives.
Access to AMDAL Documents	Availability of AMDAL reports to affected residents	70% of respondents unable to access AMDAL reports	Bureaucratic opacity undermines transparency and public oversight.
Complaint Mechanism	Functionality of formal complaint and grievance channels	Only 3 cases officially processed between 2020–2024	Indicates institutional neglect and limited responsiveness to community concerns.
Local Knowledge Integration	Use of indigenous or local ecological knowledge in AMDAL assessment	0 documented cases	Exclusion of local epistemologies leads to alienation and ecological misjudgment.

The third critical dimension is community participation and transparency in the AMDAL process. Legally, the AMDAL process mandates public consultation and access to information, but in practice, these requirements are often reduced to ceremonial events with limited meaningful engagement. According to the study, only 25% of community respondents confirmed their active participation in the AMDAL hearing processes. In many cases, consultations were restricted to village heads or district representatives rather than directly affected communities.

Access to AMDAL documents is another major issue. Seventy percent of respondents reported that they were unable to access AMDAL reports, despite the legal requirement for public availability. This lack of transparency undermines the potential for effective community oversight and environmental monitoring. Moreover, formal grievance and complaint mechanisms are largely ineffective, with only three cases officially processed between 2020 and 2024. This suggests that community concerns are often dismissed or ignored, preventing affected residents from seeking justice or redress.

An important finding is the systematic exclusion of local and indigenous ecological knowledge in the AMDAL process. Indigenous communities, particularly the Dayak and Banjar groups, possess extensive traditional ecological knowledge that could contribute significantly to environmental assessments. However, this knowledge is rarely integrated into AMDAL processes, which are dominated by external consultants and expert-driven models. This exclusion perpetuates a technocratic bias, where local wisdom is sidelined in favor of formal scientific methods that may not fully capture the ecological realities on the ground.

. Discussion

This study highlights the critical challenges in enforcing the Environmental Impact Assessment (AMDAL) regulations in Kalimantan's mining sector. While the findings align with the broader literature on environmental governance in the Global South, they also reveal unique, context-specific dynamics that influence the effectiveness of legal frameworks like AMDAL. In this discussion, we explore the implications of these findings, contextualizing them within existing theories on environmental law enforcement and governance, and suggest potential paths forward.

4.1 Institutional Capacity and Structural Weaknesses

One of the most striking findings of this study is the fragility of institutional capacity within Indonesia's environmental agencies. While Law No. 32 of 2009 and its derivative regulations offer a solid legal framework for AMDAL enforcement, the

practical implementation of these laws is undermined by severe institutional weaknesses. The lack of trained personnel, insufficient funding, and inadequate coordination between agencies are not new challenges in the context of Indonesia's environmental governance, as similar issues have been reported in studies by Abdurrachman et al. (2021) and Irawan (2021). These structural limitations create a system where enforcement is sporadic and primarily procedural, with limited on-the-ground monitoring.

This institutional fragility has significant implications for environmental governance. As observed, monitoring agencies, particularly at the provincial level, are often understaffed and ill-equipped, resulting in a reliance on desk-based evaluations and self-reported data from companies. The absence of regular inspections allows violations to persist, particularly in remote regions like Kutai Barat and Murung Raya, where infrastructure and access are limited. This is a classic example of what legal scholars refer to as "paper compliance," where the formal submission of reports fulfills regulatory requirements, but there is little actual verification or enforcement.

Such a scenario reflects a deeper issue within the governance system: a disconnect between legal mandates and administrative realities. This disconnection is not just a procedural problem but a systemic one, deeply embedded in the way environmental institutions operate. To address this, it is essential to reimagine the institutional framework, moving beyond mere compliance to fostering genuine regulatory capacity. Capacity-building initiatives, along with a realignment of the environmental budget to prioritize enforcement, are critical for transforming the role of agencies from passive regulators to active enforcers of environmental law.

4.2 Corporate Influence and Political Economy of Enforcement

The study's findings reveal that corporate compliance with AMDAL is shaped not only by regulatory requirements but also by political and economic factors. The influence of local elites and corporate power in shaping enforcement decisions is a major barrier to effective legal enforcement. As noted in the study, political interference is widespread, with local governments reluctant to impose sanctions on powerful mining companies that contribute significantly to local revenues and political campaigns.

This situation highlights a phenomenon commonly referred to as regulatory capture, where the interests of powerful industries override the objectives of public regulation. Similar patterns of regulatory capture have been documented in other resource-rich countries, such as Brazil and Nigeria, where extractive industries exert considerable influence over environmental regulation (Azzahra, 2024; Salim & Palullungan, 2021). The findings from Kalimantan suggest that the political economy of natural resource management in Indonesia is heavily skewed in favor of the extractive sector, resulting in weak enforcement and a failure to hold corporations accountable for environmental violations.

Addressing this issue requires a fundamental shift in how environmental regulations are enforced. The political decoupling of environmental governance from economic and political pressures is essential. Strengthening the autonomy of environmental agencies, insulating them from political interference, and ensuring that environmental decision-making is based on scientific evidence rather than economic or political considerations is crucial. Furthermore, enhancing transparency in the licensing and enforcement processes, through mechanisms such as open-data platforms and public monitoring, could help to counterbalance corporate influence and restore the legitimacy of environmental governance.

4.3 The Role of Community Participation and Social Justice

7 Another critical dimension highlighted in the study is the exclusion of local communities from the AMDAL process. Despite the legal requirement for public participation, the study found that in practice, local residents—particularly indigenous communities—were often uninformed, excluded from consultations, and unable to access relevant environmental information. This exclusion exacerbates the sense of environmental injustice, as local populations bear the brunt of environmental degradation caused by mining activities, yet have little voice in the decision-making process.

This finding aligns with broader critiques of environmental governance in the Global South, where the absence of effective community participation is a recurring issue (Splitter et al., 2023; Cuadrado & Bisogno, 2022). The marginalization of local communities in environmental decision-making is particularly concerning in Kalimantan, where indigenous groups such as the Dayak and Banjar possess deep knowledge of local ecosystems and traditional land management practices. However, this valuable knowledge is systematically excluded from the formal regulatory process, perpetuating a technocratic bias that overlooks local ecological insights.

20 The exclusionary nature of the AMDAL process calls for a rethinking of the role of communities in environmental governance. Genuine participation should not be a mere formality but an integral part of the decision-making process. This includes ensuring access to information, meaningful involvement in consultations, and the incorporation of local knowledge into environmental assessments. In addition, improving grievance mechanisms and ensuring that complaints are processed effectively are essential steps toward ensuring environmental justice for affected communities.

4.4 Moving Towards Substantive Enforcement

17 The results of this study suggest that effective enforcement of AMDAL requires a shift from procedural compliance to substantive environmental protection. This shift will require addressing the institutional, political, and social barriers that currently hinder enforcement. Strengthening the capacity of environmental agencies, decoupling environmental governance from political and corporate influence, and ensuring the genuine participation of affected communities are all essential components of this transformation.

Moreover, the study underscores the importance of a multi-dimensional approach to reform, one that recognizes the interconnectedness of institutional capacity, political economy, and community participation. Each of these dimensions must be addressed simultaneously to create a more robust and effective system of environmental governance. Only by ensuring that all stakeholders are held accountable—whether through stronger enforcement mechanisms, greater transparency, or meaningful community involvement—can Indonesia's environmental governance system evolve into a truly effective framework for sustainable development.

4.5 Future Research Directions

3 The findings from this study open several avenues for future research. One potential area of further investigation is the role of technology in improving AMDAL enforcement. Digital tools such as remote sensing, real-time monitoring systems, and blockchain for transparency could help address some of the institutional limitations identified in this study. Research into the use of these technologies, particularly in remote mining regions, could provide valuable insights into how they might be integrated into existing regulatory frameworks to improve compliance and monitoring.

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Additionally, further research is needed to explore the long-term impacts of the political economy of environmental governance on sustainable development in Kalimantan. Understanding the interplay between local power structures, corporate interests, and environmental law could shed light on the persistent challenges of achieving sustainable mining practices in Indonesia.

CONCLUSION

This study demonstrates that the enforcement of Environmental Impact Assessment (AMDAL) regulations in Kalimantan's mining sector is hindered by significant institutional, political, and social barriers. Despite the robust legal framework in place, institutional fragility, political interference, and the exclusion of local communities from the decision-making process undermine the effectiveness of environmental governance. To achieve meaningful environmental protection, it is essential to strengthen institutional capacity, decouple environmental regulation from political and corporate influence, and ensure the genuine participation of affected communities. Only through these comprehensive reforms can Indonesia's environmental governance system move from symbolic compliance to substantive enforcement, ensuring the sustainability of its natural resources and the protection of vulnerable communities.

REFERENCES

Abdurrachman, H., Hamzani, A. I., & Mariyono, J. (2021). Environmental crime and law enforcement in Indonesia: some reflections on counterproductive approaches. *Environmental Policy and Law*, 51(6), 409-416. <https://doi.org/10.3233/EPL-210024>

Azzahra, A. (2024). From Policy to Practice: Institutional Pathways Toward Environmental Justice in the Global South. *Sinergi International Journal of Law*, 2(4), 286-298. <https://doi.org/10.61194/law.v2i4.720>

Cuadrado-Ballesteros, B., & Bisogno, M. (2022). Budget transparency and financial sustainability. *Journal of Public Budgeting, Accounting & Financial Management*, 34(6), 210-234. <https://doi.org/10.1108/JPBAFM-02-2022-0025>

Hasibuan, O. P., Tjakraatmadja, J. H., & Sunitiyoso, Y. (2022). Illegal gold mining in Indonesia: structure and causes. *International Journal of Emerging Markets*, 17(1), 177-197. <https://doi.org/10.1108/IJOEM-11-2019-0964>

Hou, X., Yang, J., & Hou, C. (2024). Can strengthening environmental justice promote carbon reduction? Evidence from environmental courts in China. *Environmental Science and Pollution Research*, 31(46), 57081-57098. <https://doi.org/10.1007/s11356-024-31907-z>

Irawan, E. (2021, June). Lake and the laws: An exploratory network analysis of legal provisions for lake management. In *IOP Conference Series: Earth and Environmental Science* (Vol. 789, No. 1, p. 012038). IOP Publishing. <https://doi.org/10.1088/1755-1315/789/1/012038>

Rizal, K., & Idrus, A. (2024). GLOBAL CRITICAL MINERAL REVIEW AND CHALLENGES ON ITS EXPLORATION IN INDONESIA. *Indonesian Mining Journal*, 27(2), 97-123. <https://doi.org/10.30556/imj.Vol27.No2.2024.1605>

Salim, A., & Palullungan, L. (2021). The challenges of environmental law enforcement to implement SDGs in Indonesia. *International Journal of Criminology and Sociology*, 10, 517-524.

Sari, R., & Muslim, M. (2023). Accountability and transparency in public sector accounting: A systematic review. *Amkop Management Accounting Review*

228

(AMAR), 3(2), 90-106. <https://doi.org/10.37531/amar.v3i2.1440>

Splitter, V., Dobusch, L., von Krogh, G., Whittington, R., & Walgenbach, P. (2023). Openness as organizing principle: Introduction to the special issue. *Organization Studies*, 44(1), 7-27. <https://doi.org/10.1177/01708406221145595>

Sunuhadi, D. N., Hilman, P. M., & Suseno, T. (2024). Availability of Indonesian nickel reserves and efforts to improve reserves resistance and its impact to economic growth. *Mineral Economics*, 37(3), <https://doi.org/10.1007/s13563-024-00443-0>

Susilawati, D. (2022). *Regulating the journey of timber: legality and sustainability governance in Indonesian wood value chains* (Doctoral dissertation, The Australian National University (Australia)).

Tarigan, M. I., & Hafandi, R. (2024). Law diversities for climate change: legal pluralism and climate governance in Indonesia. *Otoritas: Jurnal Ilmu Pemerintahan*, 14(3), 589-605.

Wisnumurti, R. W. (2024). Authority Of Local Governments In Issuing Environmental Impact Assessment Permits. *Jurnal Hukum Sehasen*, 10(1), 227-236. <https://doi.org/10.37676/jhs.v10i1.5934>

