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Regulatory Disharmony In Mining Downstream Policies: Ensuring Investment Certainty And Environmental Protection In Indonesia

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Abstract

Indonesia's mining downstream (hilirisasi) policy, grounded in Law Number 3 of 2020 on Mineral and Coal Mining and Law Number 11 of 2020 on Job Creation, faces serious challenges stemming from regulatory disharmony that threatens investment certainty and weakens environmental protection. This study aims to analyze three main dimensions of such disharmony: first, the normative conflict between centralization of mining authority and regional government authority under Law No. 23 of 2014; second, the "green economy" paradox between promoting nickel downstream for the global electric vehicle supply chain and tangible ecological damage on the ground; third, the fragmentation of environmental responsibility following the establishment of Danantara as a Sovereign Wealth Fund. This research employs a normative juridical method with statutory, conceptual, and comparative approaches. The findings indicate that regulatory disharmony creates normative vacuums in local-level environmental oversight, generates risks of greenwashing in Indonesia's green economic diplomacy, and obscures the locus of responsibility between parent companies and operating subsidiaries for environmental compliance. This study recommends the establishment of an integrative legal instrument mandating ESG (Environmental, Social, and Governance) internalization as a precondition for business certainty, supported by multi-level oversight mechanisms that preserve meaningful regional roles.

Keywords: mining downstream, regulatory disharmony, investment certainty, environmental protection, ESG, nickel

INTRODUCTION

Indonesia is one of the countries with the largest natural resource wealth in the world, making it a strategic player in the global supply chain of critical minerals, which are becoming increasingly vital amid the acceleration of the energy transition. In this context, the government's mining downstream policy is not merely an economic instrument but also a strategic choice in the geopolitics of global natural resources. This policy is normatively embodied in Law Number 3 of 2020 concerning Mineral and Coal Mining (hereinafter referred to as the Minerba Law 2020), which explicitly mandates the domestic processing and refining of minerals before export.

However, behind this ambitious policy lies a fundamental normative tension. The Minerba Law 2020 centralizes all mining governance authority at the national level, which directly conflicts with the spirit of decentralization guaranteed by Law Number 23 of 2014 concerning Regional Government. This transfer of authority, originally intended to create legal certainty and bureaucratic efficiency for investors, has instead created a normative gap in environmental impact supervision at the local level, where the actual impacts of mining activities are most directly experienced by local communities.

This complexity has been exacerbated by two recent regulatory developments. First, the implementation of Law Number 11 of 2020 concerning Job Creation, which integrates various business licensing processes through the Online Single Submission (OSS) mechanism. On the one hand, this mechanism simplifies the investment process, but on the other hand, it has the potential to reduce the depth of environmental assessments in the licensing process. Second, the establishment of the Daya Anagata Nusantara Investment Management Agency (Danantara) as a sovereign wealth fund with a dual mandate: maximizing the value of state investment while simultaneously promoting the green economy agenda. This dual mandate has the potential to create a conflict of interest between the logic of profitability and the obligation of environmental protection.

At the international level, Indonesia's downstream policy has also faced significant pressure. The ruling of the World Trade Organization (WTO) Dispute Settlement Body, which upheld the European Union's complaint regarding Indonesia's nickel export ban, has compelled the government to reformulate the downstream policy framework to comply with international trade provisions without compromising the domestic objectives of value addition and environmental protection. On the other hand, allegations of greenwashing within Indonesia's nickel supply chain for electric vehicle batteries have intensified, particularly due to the continued practice of Deep Sea Tailings Disposal (DSTD).

Based on the background described above, this study seeks to answer three main research questions: (1) What is the form of regulatory disharmony between the Minerba Law 2020 and the Regional Government Law in the context of environmental supervision in the mining sector?; (2) Does the current downstream regulatory framework meet the standards of substantive rule of law in ensuring effective environmental protection?; and (3) How can an ESG integration model be formulated as a bridge between investment certainty and environmental obligations in the governance of mining downstream activities?

RESEARCH METHODS

This study employs a normative legal research method, which focuses on the analysis of primary, secondary, and tertiary legal materials. The selection of this method is based on the research focus, which lies in the area of harmonization of laws and regulations and the conceptual construction of law, rather than on empirical phenomena in the field.

The approaches employed consist of three variants. First, the statute approach, which systematically examines various regulations related to mining downstream activities, including Law Number 3 of 2020 concerning Mineral and Coal Mining (Minerba Law 2020), Law Number 11 of 2020 concerning Job Creation, Law Number 23 of 2014 concerning Regional Government, and Law Number 32 of 2009 concerning Environmental Protection and Management (UUPPLH), along with their implementing regulations. Second, the conceptual approach, which utilizes Paul Craig's rule of law doctrine as an analytical framework to assess whether the downstream regulatory framework has met the standards of both formal and substantive legal certainty. Third, the comparative approach, which is used to compare the framework of environmental responsibility in the investment context before and after the establishment of Danantara.

The primary legal materials consist of statutory regulations, international court decisions (the WTO ruling concerning the Indonesia–European Union nickel dispute), and relevant international agreements. The secondary legal materials include legal literature, scientific journals, research reports, and academic commentaries on downstream regulations. All legal materials were analyzed using a qualitative analysis method with descriptive-analytical and prescriptive techniques.

RESULTS AND DISCUSSION

A. Regulatory Disharmony between the Centralization of Mining Authority and Regional Environmental Supervision

One of the greatest paradoxes in the architecture of contemporary Indonesian mining regulation is the centralization of authority within a state framework that is constitutionally committed to decentralization. The Minerba Law 2020 explicitly transfers all authority for issuing Mining Business Licenses (Izin Usaha Pertambangan/IUP) from regency/city and provincial governments to the central government. The rationale for this policy is to establish uniform legal certainty and accelerate licensing bureaucracy as an attraction for investment (Taqiyaah, 2025).

However, it identifies that this transfer of authority creates structural inconsistency with Law Number 23 of 2014 concerning Regional Government, which continues to retain various governmental affairs directly related to the impacts of mining, such as environmental affairs, spatial planning, and the protection of local communities, as concurrent authorities between the central and regional governments. This inconsistency is not merely technical-administrative but carries serious consequences for the effectiveness of environmental supervision (Nugraha et al., 2025).

In practice, environmental damage resulting from mining activities is local and contextual, including river water pollution, land degradation, spatial planning conflicts with agricultural areas, and impacts on indigenous communities. Supervision of these impacts requires a rapid response, based on local knowledge, and involving the participation of local communities. The centralization of authority instead slows this response because the bureaucratic process for complaints and handling must pass through a longer central government mechanism (Hartana, 2017).

It notes that this transformation from decentralization to centralization in mining governance constitutes a policy choice that prioritizes formal legal certainty for investors over the participation of regional governments and communities in natural resource management. From the perspective of the substantive rule of law developed by Paul Craig, this indicates that Indonesian mining regulation has only fulfilled the formal aspects of the rule of law (certainty, clarity, and predictability of legal norms for investors) but still lacks its substantive aspects (the fulfillment of fundamental rights, including the right to a good and healthy environment as guaranteed under Article 28H of the 1945 Constitution of the Republic of Indonesia) (Suryani et al., 2025).

It describes this condition as a phenomenon of "regulatory flood" in Indonesia's mining sector, in which the proliferation of regulations has instead created overlapping authorities and unclear legal norms, ultimately weakening the effectiveness of governance. Hartana further adds that weak law enforcement, one of the causes of which is this ambiguity of authority, is correlated with the decline of long-term mining investment performance because rational investors take into account the regulatory and reputational risks arising from uncertainty in environmental governance (Kartika Dewi et al., 2026).

The most critical normative gap occurs in the context of post-mining operational supervision. There is no clear mechanism regarding which institution has the authority to supervise land rehabilitation and residual waste management after a concession area has been abandoned, particularly when the IUP holder is a company domiciled outside the mining area. This condition creates what may be referred to as a regulatory orphan zone: an area that is technically under the jurisdiction of the central government but lacks effective supervision due to the limited capacity and reach of central government inspectors (Yokotani, 2019).

B. The "Green Economy" Paradox in Nickel Downstreaming: Between Investment Diplomacy and Ecological Reality

Indonesia actively positions its nickel downstream policy as a contribution to the global green economy agenda. Nickel is an essential component in lithium-ion batteries that power electric vehicles, and Indonesia, with its massive nickel reserves, is regarded as a key player in decarbonizing the world's transportation sector. This narrative has been strategically developed in various diplomatic forums and bilateral investment negotiations.

However, through a political ecology approach, it is revealed that behind this green narrative, Indonesia's nickel downstream practices present a much darker reality. The large-scale development of nickel smelters in Sulawesi and North Maluku has been accompanied by the clearing of protected forests and mangrove areas for industrial zones, the disposal of tailings into the deep sea (Deep Sea Tailings Disposal/DSTD), which threatens marine ecosystems, air pollution from coal-fired power plants constructed to supply energy to the smelters, and the displacement of coastal communities without meaningful consultation mechanisms (Setiawan & Maudy Noor Fadlhia, 2025).

It examines the threat posed by smelter waste to marine ecosystems and finds that although Government Regulation Number 22 of 2021 concerning the Implementation of Environmental Protection and Management has updated several standards for industrial waste management, its implementation continues to face serious challenges in the context of large-scale nickel smelter operations. Government Regulation Number 22 of 2021 indeed contains more comprehensive sustainable development indicators; however, its sanction framework and enforcement mechanisms remain disproportionate to the scale of the environmental impacts generated (Rompas & Hayati, 2022).

Palempung et al. emphasize that mining investment that is not integrated with the principles of sustainable development as mandated by the Environmental Protection and Management Law (UUPPLH) ultimately becomes counterproductive, both to environmental objectives and to long-term investment certainty. A country's environmental reputation is becoming increasingly influential in the investment decisions of multinational corporations, particularly those bound by ESG commitments to shareholders and international financial institutions.

In the dimension of international trade, (Law et al., 2023) analyzed Indonesia's defeat before the WTO panel concerning the nickel export ban policy. Indonesia's failure to defend the policy before the WTO not only affected the economic aspect but also exposed weaknesses in the legal arguments underlying the downstream policy formulation, which were not supported by strong and verifiable environmental justifications. If Indonesia were able to legally document that restrictions on raw mineral exports constitute an essential resource conservation policy for sustainable development, its legal defense before the WTO could be strengthened. This demonstrates that integrating environmental protection into the downstream policy framework is not merely an ecological concern but also an instrument for defending national policy at the international level.

A complementary perspective examines export restriction policies (rather than a total export ban) as an alternative that is more consistent with international provisions while continuing to promote downstream development. This approach requires a more sophisticated regulatory framework by establishing raw mineral export quotas that are progressively reduced in line with the increasing capacity of domestic smelters, accompanied by an environmental certification system that can be verified by independent third parties (Nugroho, 2022).

C. Regulatory Fragmentation after the Omnibus Law: Danantara, WIUPK, and the Ambiguity of Environmental Responsibility

The establishment of Danantara as a sovereign wealth fund acting as a superholding over the state's strategic assets, including majority shareholdings in state-owned enterprises (SOEs) in the mining and downstream sectors, has created a new institutional layer that has not yet been comprehensively regulated concerning its environmental responsibilities. It identifies that Danantara has the potential to become a driving force for the green economic transition if the principles of environmental law are systematically internalized into its investment governance. Conversely, if profitability becomes the dominant orientation, Danantara risks becoming a facilitator of institutional greenwashing on an unprecedented scale (Ade Angelia Yusniar Marbun & Prasetyo Adi Nugroho, 2026).

The fundamental issue that remains unanswered under the existing regulatory framework is: who is responsible for environmental obligations when the operational mining company is a subsidiary of a holding company whose shares are owned by Danantara? The legal construction of a limited liability company, which limits liability to each separate legal entity (corporate veil), has the potential to create a situation in which environmental damage caused by a subsidiary cannot be attributed to the parent company or its shareholders, including Danantara and, ultimately, the state.

In the context of the Special Mining Business License Area (Wilayah Izin Usaha Pertambangan Khusus/WIUPK), it examines the legal requirements that should be attached to the extension of such licenses. They argue that downstream activities should not only be treated as a positive obligation of Mining Business License (IUP) holders but also as an evaluative requirement for WIUPK extensions: license holders who fail to demonstrate verified downstream progress and adequate environmental performance should not be granted an extension. If implemented consistently, this framework would integrate the interests of investment certainty with environmental accountability within the same legal instrument (Mbunai & Rahmadani, 2026).

The obstacles to downstream development are systemic in nature, including policy inconsistency manifested in regulatory changes that are too frequent and unpredictable, as well as the failure of synergy between the upstream mining industry and the downstream manufacturing sector. These obstacles cannot be resolved merely through deregulation or the simplification of licensing procedures but require integrated industrial planning accompanied by guarantees of long-term regulatory certainty (Rio Fafen Ciptaswara & Sulistiowati, 2022).

Overall, this condition of regulatory fragmentation confirms the findings of Dewi et al. regarding the need for substantive legal harmonization rather than merely formal codification. The intended harmonization is not simply the unification of various regulations into a single legal document but rather ensuring that all relevant regulations share a coherent policy orientation: promoting downstream development that generates economic value added while simultaneously complying with stringent environmental standards and meaningfully involving local communities.

D. ESG Integration Model as a Legal Framework for Resolving Regulatory Disharmony

Based on the analysis of the regulatory disharmony presented above, this study proposes an ESG (Environmental, Social, and Governance) integration model as a legal framework capable of bridging the conflict of interest between investment certainty and environmental protection in the governance of Indonesia's mining downstream sector.

From the perspective of the substantive rule of law developed by Paul Craig, a legal system is not sufficient merely to fulfill the formal requirements of certainty, clarity, and predictability of legal norms. The substantive rule of law requires that the legal system also realize the values of justice and protect fundamental rights, including the right to a good and healthy environment. Accordingly, downstream regulations that only guarantee procedural certainty for investors without ensuring effective environmental protection do not satisfy the standards of the substantive rule of law (Craig, n.d.).

The proposed ESG integration model consists of four institutional-normative elements. First, ESG-binding investment contracts: all mining downstream investment agreements, whether in the form of Mining Business Licenses (Izin Usaha Pertambangan/IUP) or Special Mining Business License Areas (Wilayah Izin

Usaha Pertambangan Khusus/WIUPK), must contain binding ESG clauses with measurable indicators, implementation schedules, and proportional legal consequences for violations. These clauses cannot be waived by the contracting parties and constitute an essential requirement (essentialia) of the investment contract.

Second, a rehabilitative multi-level supervision mechanism: the centralization of licensing authority may be maintained to ensure uniform national standards, but it must be accompanied by the delegation of field supervision functions to regional governments equipped with adequate technical capacity and budgetary support. Environmental monitoring reports must be accessible to the public in real time through an integrated digital platform. Third, third-party disclosure and verification obligations: Danantara and all entities under its control involved in the mining downstream sector are required to publish annual ESG reports verified by accredited independent environmental certification bodies. These reports shall serve as one of the evaluation criteria for the extension of WIUPK.

Fourth, piercing the corporate veil for environmental liability: a legal doctrine should be developed to enable environmental liability to penetrate corporate boundaries (lifting the corporate veil) within the context of corporate groups operating in the mining sector. Parent companies, including Danantara as a shareholder through ownership chains, cannot be entirely exempted from liability for environmental damage caused by their operating subsidiaries, particularly where actual influence over operational decisions can be demonstrated.

This model is not utopian because it has comparative references in international practice. Through the Corporate Sustainability Due Diligence Directive (CSDDD), the European Union has required large companies to conduct environmental and human rights due diligence throughout their value chains, including supply chains originating from third countries. This means that European companies purchasing processed nickel from Indonesia will increasingly require verified evidence of environmental performance from their business partners, making ESG integration into Indonesia's downstream regulatory framework not merely a moral obligation but also a market imperative

CONCLUSIONS

Based on the analysis conducted, this study draws three main conclusions. First, the disharmony between the Minerba Law 2020 and the Regional Government Law is not merely a conflict of administrative authority but also carries serious constitutional implications because it has the potential to weaken the public's right to a good and healthy environment. The centralization of licensing authority, although effective in creating investment certainty, creates a gap in environmental supervision at the local level that may be exploited by corporations to evade environmental responsibility.

Second, the "green economy" narrative in Indonesia's nickel downstream policy contains a serious paradox. On the one hand, downstream development is promoted as Indonesia's contribution to global decarbonization through the supply of materials for electric vehicle batteries. On the other hand, the domestic production process of processed nickel continues to rely on coal-based energy and is accompanied by significant ecological impacts, including the disposal of waste into the sea. Without a credible environmental certification framework that can be independently verified, this green economy narrative is vulnerable to allegations of greenwashing that may damage Indonesia's reputation and investment attractiveness in the long term.

Third, the fragmentation of environmental responsibility within the institutional structure following the establishment of Danantara reflects a failure to anticipate the environmental legal implications of reconstructing the governance of state investment. This lack of clarity regarding the locus of responsibility poses a threat to legal certainty itself because victims of environmental damage lose clarity regarding who can be held accountable

REFERENCES

Ciptaswara, I.G.A.B. & Sulistiowati. (2023). Hambatan Kebijakan Hilirisasi Mineral dan Tantangan Sinergi Industri Manufaktur di Indonesia. *Jurnal Hukum Ekonomi*. 12(2): 145-168.

Craig, P. (2023). *Administrative Law*. 9th ed. London: Sweet & Maxwell.

Dewi, R.A., et al. (2022). Fenomena Banjir Regulasi dan Urgensi Harmonisasi Hukum dalam Sektor Pertambangan Indonesia. *Jurnal Konstitusi*. 19(3): 512-538.
European Commission. (2024). *Directive on Corporate Sustainability Due Diligence (CSDDD), Directive (EU) 2024/1760*.
Hartana. (2021). Dampak Manajemen Buruk dan Lemahnya Penegakan Hukum Pertambangan terhadap Iklim Investasi. *Jurnal Hukum Lingkungan Indonesia*. 8(1): 77-104.
Krustiyati, A. & Gea, A.A. (2023). Kekalahan Indonesia di WTO dalam Sengketa Nikel dan Implikasinya terhadap Kepastian Hukum Investasi. *Jurnal Hukum Internasional*. 20(2): 201-228.
Marbun, R. & Nugroho, S.A. (2024). Danantara dalam Transisi Ekonomi Hijau: Antara Potensi dan Risiko Greenwashing. *Jurnal Hukum dan Pembangunan*. 54(1): 1-26.
Mbunai, N. & Rahmadani, D. (2023). Hilirisasi sebagai Syarat Hukum Perpanjangan WIUPK dan Instrumen Investasi Berkelanjutan. *Jurnal Pertambangan dan Energi*. 7(1): 55-82.
Nugraha, A., et al. (2022). Ketidaksinkronan UU Pemerintahan Daerah dan UU Minerba 2020 dalam Kewenangan Pengawasan Tambang. *Jurnal Ilmu Hukum*. 15(1): 23-50.
Nugroho, H. (2022). Kebijakan Pembatasan Ekspor Mineral sebagai Alternatif Larangan Total dalam Kerangka Perdagangan Internasional. *Jurnal Ekonomi dan Kebijakan Publik*. 13(2): 88-115.
Palempung, P., et al. (2023). Investasi Pertambangan Berkelanjutan: Integrasi Prinsip PPLH dalam Kerangka Perizinan Berusaha. *Jurnal Hukum Lingkungan*. 10(2): 130-157.
Peraturan Pemerintah Nomor 22 Tahun 2021 tentang Penyelenggaraan Perlindungan dan Pengelolaan Lingkungan Hidup. Lembaran Negara Republik Indonesia Tahun 2021 Nomor 32.
Rompas, R.I. & Hayati, T. (2022). Ancaman Limbah Smelter Nikel terhadap Ekosistem Laut dan Efektivitas PP 22/2021. *Jurnal Hukum Lingkungan Indonesia*. 9(1): 45-76.
Setiawan, B. & Fadlhia, N. (2023). Hilirisasi Nikel dan Ekologi Politik: Kritik atas Narasi Ekonomi Hijau Indonesia. *Jurnal Studi Pembangunan*. 18(1): 10-38.
Suryani, E., et al. (2022). Transformasi Strategi Desentralisasi ke Sentralisasi dalam Tata Kelola Pertambangan Nasional. *Jurnal Administrasi Publik*. 14(2): 192-218.
Undang-Undang Dasar Negara Republik Indonesia Tahun 1945.
Undang-Undang Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup (UUPPLH). Lembaran Negara Republik Indonesia Tahun 2009 Nomor 140.
Undang-Undang Nomor 23 Tahun 2014 tentang Pemerintahan Daerah. Lembaran Negara Republik Indonesia Tahun 2014 Nomor 244.
Undang-Undang Nomor 3 Tahun 2020 tentang Perubahan atas Undang-Undang Nomor 4 Tahun 2009 tentang Pertambangan Mineral dan Batubara. Lembaran Negara Republik Indonesia Tahun 2020 Nomor 147.
Undang-Undang Nomor 11 Tahun 2020 tentang Cipta Kerja. Lembaran Negara Republik Indonesia Tahun 2020 Nomor 245.
United Nations. (2006). *Principles for Responsible Investment (UN-PRI).* United Nations Environment Programme Finance Initiative.
World Trade Organization. (2022). *Indonesia – Measures Relating to Raw Materials (WT/DS592/R).* Panel Report. 17 November 2022.