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Normative Dissonance Of The Precautionary Principle In Extractive Mining Governance: A Critical Analysis Of Indonesia's Achievement Of Sdg 13

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Abstract

This article examines the dissonance between the normative position of the precautionary principle in Indonesian environmental law and the practice of governance in extractive mining permits following the enactment of the Omnibus Law on Job Creation. Using a normative juridical approach supported by case studies in three locations – coal mining and forestry in Wadas Village, Kutai Kartanegara Regency, and Boven Digoel – the article shows that

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the shift in the licensing regime from a precaution-based approach to a risk-based licensing approach has weakened the legal instruments that should prevent environmental damage early on, with direct implications for the failure to achieve the 13th Sustainable Development Goal (Climate Action). Unlike existing literature, which generally frames this issue as an implementation failure or misuse of administrative discretion, this article argues that the dissonance is built-in in the architecture of risk-based licensing law itself. By combining Lawrence Friedman's Legal System Theory and Mahfud MD's Legal Politics Theory, this article argues that the weakening of the precautionary principle is a product of political configurations that deliberately prioritize the acceleration of extractive investment over the prevention of ecological and climate risks. The article concludes with a proposal for a normative reformulation so that the precautionary principle can function as a genuinely precautionary and accountable legal instrument for national climate mitigation targets.

KEYWORDS: *Precautionary Principle; Extractive Mining; SDG 13*

Introduction

Kutai National Park in East Kalimantan has a legal status as the highest conservation area in Indonesia, a classification that should keep it free from extractive activities. However, the reality on the ground shows a sharp irony: concessions from four coal mining companies, including the mining giant PT Kaltim Prima Coal with a concession area of 61,543 hectares, surround this area from all directions, covering nearly 60 percent of the remaining Kutai National Park. On a broader scale, out of 667,565 hectares of mining concessions operating in forest areas across Indonesia, only 143,602 hectares have obtained valid Forest Area Use Approvals (PPKH); the rest, about 507 thousand hectares, operate without adequate legal bases for forest area use. This data is not a standalone administrative anomaly, but rather the trace of a more fundamental question: where is the precautionary principle that should act as a guardian the gate before those permits were issued?

The precautionary principle in international environmental law is explicitly laid out in Principle 15 of the 1992 Rio Declaration, which states that when there's a threat of serious or irreversible damage, scientific uncertainty

shouldn't be used as an excuse to delay cost-effective preventive measures.[1] This principle was adopted into Indonesia's environmental legal framework through Law Number 32 of 2009 on Environmental Protection and Management, making it one of the basic principles of environmental management.[2] In constructing norms, the precautionary principle should function as an epistemic prerequisite before high-risk decisions are made, not just as an additional consideration that can be outweighed by short-term economic interest calculations. At the law in books level, it can be said that Indonesia already has a sufficient normative foundation to make this principle operational. The breaking point came when Law Number 11 of 2020 on Job Creation structurally changed the logic of environmental permitting, from a precaution-based regime to a risk-based permitting regime oriented towards accelerating investment.[3] These changes don't just stop at the administrative procedural level, but actually touch the core of how forest areas are regulated. For example, the provisions in Government Regulation Number 23 of 2021 on Forestry Administration relax rules that were strictly set out in Article 38 of the Forestry Law, which prohibits open-pit mining in protected forest areas. This kind of relaxation shows that weakening the precautionary principle isn't just an issue of implementation on the ground it's already happening at the level of the rule design itself.

This weakening pattern is validated through three cases that represent structural patterns, not isolated incidents. Research on the misuse of administrative discretion in mining permits after the Job Creation Law in Wadas Village, Kutai Kartanegara Regency, and Boven Digoel found a systematic and organized pattern of deviation, where the expanded discretionary power after the Job Creation Law was used to bypass substantive procedures like Environmental Impact Analysis, compliance with Regional Spatial Plans, as well as public consultation and approval from indigenous communities.[4] In those three locations, discretion, which was originally designed as a tool for legal flexibility, shifted into an administrative reason to legitimize policies full of

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1 United Nations, Rio Declaration on Environment and Development (1992), Principle 15.

2 Pemerintah Republik Indonesia, "UU No 39 Tahun 2009 Tentang Perlindungan Dan Pengelolaan Lingkungan Hidup" (2009), https: //peraturan. bpk.go.id/details/38771/uu-no-32-tahun-2009.

3 Pemerintah Republik Indonesia, "Undang Undang Republik Indonesia Nomor 11 Tahun 2020 Tentang Cipta Kerja" (2020), https://peraturan. bpk.go.id/Details/149750/uu-no-11-tahun-2020.

4 Baidha Nibras Nisrina et al., "Penyalahgunaan Diskresi Administratif Dalam Perizinan Tambang Pasca UU Cipta Kerja: Konflik Investasi Dan Keadilan Lingkungan," *Jurnal Hukum Dan Kewarganegaraan* 13, no. 5 (2025): 101–10.

conflicts of interest, leading to a crisis of public trust and environmentally documented damage.

This issue becomes increasingly relevant when specifically linked to the 13th Sustainable Development Goal, Climate Action. In the mining industry, SDG 13 is particularly relevant because mining operations often have significant impacts on the environment.[5] Indonesia's tropical forests, especially in Kalimantan and Sumatra, act as some of the biggest carbon sinks in the world, absorbing about a third of the total carbon released from burning fossil fuels globally.[6] Deforestasi yang diakibatkan oleh ekspansi tambang batubara, Deforestation caused by coal mining expansion, as has happened in Kutai Kartanegara, is not just a matter of losing biodiversity; it also directly contributes to increased carbon emissions, which works against Indonesia's climate mitigation commitments, including the Nationally Determined Contribution targets under the Paris Agreement. Considering that Indonesia has been recorded as one of the countries with the highest carbon emissions in the world, data shows that in 2022, Indonesia contributed about 2.3 percent of total global emissions. This contribution reflects the significant impact of various industrial and economic activities, which affects global efforts to tackle climate change.[7] This is where that normative dissonance crystallizes most sharply: at the very moment Indonesia declares its commitment to tackling the global climate crisis, its domestic legal framework actually weakens the only legal instrument designed to prevent that damage from the start.

The existing literature so far tends to stop at the level of criticizing the misuse of administrative discretion and the lack of oversight. Nisrina et al. (2025), for instance, document a systematic pattern of discretionary abuse in mining permits after the Job Creation Law, but frame the problem primarily as one of oversight and enforcement, with recommendations aimed at strengthening evaluation systems and public participation. Cahyani and

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5 Bunga Ratu Portuna Dewi Santriani and Nurul Asfiyah, "Penerapan Corporate Governance Dalam Pengelolaan Risiko Sosial Dan Lingkungan Di Industri Pertambangan (Studi Kasus Pt. Fajar Sakti Prima)," *Jurnal Manajemen* 15, no. 1 (2025): 9–18, https://doi.org/10.30738/jm.v15i1.4403.

6 Idrus Muh Rizky Hikmatullah and Alfiani Nur Usi, "Realisasi Penanganan Perubahan Iklim Di Indonesia Melalui Implementasi Sustainable Development Goals (SDGs): Tujuan 13.1.3," *Indonesian Journal of International Relations* 8, no. 1 (2024): 77–100, https://doi.org/10.32787/ijir.v8i1.509.

7 Indonesia Environment & Energy Center, "Indonesia Sumbang 2,3% Emisi Global, Lebih Tinggi Dari Jepang Hingga Industri Penyumbang Emisi Tertinggi," *Indonesia Environment & Energy Center*, June 22, 2024, https://environment-indonesia.com/indonesia-sumbang-23-emisi-global-lebih-tinggi-dari-jepang-hingga-industri-penyumbang-emisi-tertinggi/.

Anditya (2024) similarly treat weak AMDAL implementation as a gap between the letter of the law and its execution in practice, rather than as evidence that the letter of the law itself was rewritten to require less. Syahwal (2024) documents the Awyu community's litigation in Boven Digoel primarily as a case of unmet participatory rights, without tracing that outcome back to the specific provisions that redefined which parties are entitled to participate. Read together, this body of work implicitly assumes that the legal design is adequate and that the problem lies in how officials exercise the discretion the design affords them. This article draws on the same empirical terrain, three cases of licensing deviation, but reframes the underlying question: rather than asking why officials misused discretion, it asks why the post-2020 legal architecture created the specific space within which that discretion could be exercised without triggering the precautionary safeguards that were intact prior to the Job Creation Law. This article defines that condition as normative dissonance: a structural gap in which the codified content of a legal principle and the practical operation of the regime meant to give it effect diverge, not because of isolated non-compliance, but because the operative rules themselves no longer require what the principle demands. Identifying and substantiating this dissonance, rather than the misuse of discretion alone, is the original contribution this article brings to the existing discourse.

Based on this background, and building on the definition of normative dissonance set out above, this article raises three research questions: (1) how has the normative position of the precautionary principle within Indonesia's mining and forestry legal framework shifted following the enactment of the Omnibus Law on Job Creation and its derivative regulations? (2) to what extent do patterns of deviation in coal mining licensing practices in Wadas Village, Kutai Kartanegara, and Boven Digoel reflect a structural dissonance between normative commitments and Indonesia's achievement of SDG 13 targets? (3) what model of reformulating the precautionary principle is needed so that Indonesia's extractive mining governance is genuinely accountable to climate change mitigation targets, rather than merely fulfilling procedural formalities?

To answer these research questions, this article uses a legal theory framework that combines Lawrence Friedman's Legal System Theory to dissect dissonance across three layers: legal substance, institutional structure, and bureaucratic legal culture, with Mahfud MD's Legal Politics Theory to explain the political configurations behind choosing risk-based licensing design as a legal product favoring the acceleration of extractive investments. This study employs

a normative legal research method (doctrinal legal research) combined with a socio-legal case study approach, examining primary legal materials such as legislation related to the environment, forestry, and mining, as well as secondary legal materials like previous research results, investigative journalism reports, and official data from the government and civil society organizations related to the three selected case studies. The discussion is organized into four main parts: the genealogy of the weakening of the precautionary principle in Indonesia's mining and forestry regulations, an empirical analysis of three case studies linked to SDG 13 indicators, an elaboration of the argument on legal design failures as the main theoretical contribution, and normative reformulation recommendations to close..

Method

This article employs a normative legal research approach (doctrinal legal research) combined with a case study approach, integrated sequentially rather than run in parallel. The doctrinal component first establishes the normative baseline of the precautionary principle, tracing its codification from the 1992 Rio Declaration through Law No. 32/2009 and Law No. 41/1999 to its transformation under the Job Creation Law and its implementing regulations (Government Regulation No. 22/2021 and No. 23/2021), using grammatical, systematic, and historical interpretation of the relevant provisions. Each case is then tested against this baseline to identify whether, and at which procedural juncture (AMDAL/environmental approval, spatial-plan compliance, public consultation, or indigenous consent), licensing practice departs from it. This benchmark-and-test structure allows both components to jointly answer a single question: whether the gap between norm and practice originates in the design of the norm itself or in its implementation.

Legal Materials and Data Sources. This study utilizes three types of legal materials. Primary legal materials include laws and regulations relevant to environmental, forestry, and mining sectors, including Law No. 32/2009, Law No. 41/1999, Law No. 11/2020 along with its amendments (Government Regulation in Lieu of Law No. 2/2022 and Law No. 6/2023), Government Regulation No. 22/2021, and Government Regulation No. 23/2021, as well as the Constitutional Court Decision No. 91/PUU-XVIII/2020. Secondary legal materials comprise previous research findings, scientific journals, and academic

literature concerning the principles of prudence, administrative discretion, and mining governance. Tertiary legal materials consist of verified journalistic investigation reports, official government data, and documentation from civil society organizations (such as WALHI) related to the three case study locations. Within this body, the analysis concentrates on specific operative provisions rather than each instrument in its entirety: Article 2(a) and Articles 22–33 of Law No. 32/2009 (the precautionary principle and the AMDAL/Environmental Approval requirement); Article 38 of Law No. 41/1999 (the prohibition on open-pit mining in protected forest areas); the provisions of Law No. 11/2020 and its later legal forms that convert environmental permits into risk-based environmental approvals; the risk-tier classification in Government Regulation No. 22/2021 underlying the Online Single Submission Risk-Based Approach system; and the provisions in Government Regulation No. 23/2021 that relax Article 38. These provisions were selected because each marks a point at which the precautionary principle was either established or subsequently weakened, forming the chain of change traced in the Genealogy section. Constitutional Court Decision No. 91/PUU-XVIII/2020 is read specifically for its finding that the Job Creation Law was formally, though not substantively, defective, a distinction used in the Discussion section to separate procedural from substantive critiques of the law.

Rationalization of Case Selection. Three case study loci—Wadas Village, Kutai Kartanegara Regency, and Boven Digoel—were purposively selected using the most different systems design logic, meaning cases were chosen that differ across as many variables as possible (geographical regions: Java, Kalimantan, Papua; types of extractive commodities: andesite rock, coal, and forestry/palm oil plantations; dominant actors: central government, local government, and large-scale corporations) yet exhibit similar outcome patterns (avoidance of substantive environmental impact assessments, disregard for spatial planning, minimal public participation). This logic is employed to reinforce the claim that the observed patterns are structural and systemic rather than local coincidences, as the similarity in patterns emerges despite significant differences in contextual variables. Beyond these most-different variables, the three loci were selected against three further criteria: verification by at least two independent source types (e.g., investigative journalism corroborated by NGO or court records), so findings do not rest on a single account; traceability to a formal legal or administrative process linked to the specific provisions identified above, anchoring the vertical analysis to a concrete decision rather than general

allegations; and an unresolved or still-contested status at the time of writing (e.g., the Awyu community's court petition, the pending constitutional review, and the continuing expansion of concessions in Kutai), which reduces the risk of retrospective bias. Applying these criteria, Wadas Village represents central-government-driven licensing through a National Strategic Project, Kutai Kartanegara represents the longest-documented history of local-government permitting with the most extensive quantitative data, and Boven Digoel represents licensing where a large-scale corporate actor and indigenous customary rights are the central point of contention. This documentation-based selection is likely biased toward cases that have already attracted public attention and may under-represent undocumented deviations, a limitation addressed further below.

Data Collection and Analysis Techniques. Data collection was conducted through document studies of legislation, court decisions, and academic literature, as well as literature reviews of investigative reports and secondary data that have been published by credible institutions. Data analysis was carried out using a qualitative-descriptive approach in two stages. First, vertical analysis of the hierarchy of norms to trace the shift in the licensing regime from a precautionary-based to a risk-based approach. Second, horizontal cross-case analysis to identify recurring deviation patterns across the three locations. The vertical analysis proceeds in three steps: identifying the corresponding provision for each substantive protection (AMDAL/environmental approval, the Article 38 prohibition, and participation rights) at each level of the norm hierarchy; comparing its pre- and post-Job Creation Law formulation to classify the change as deletion, substitution, or procedural shift; and coding each change as substantive weakening, procedural weakening, or no material change, producing the hierarchy-of-change account in the Genealogy section. The horizontal analysis likewise proceeds in three steps: constructing a case narrative for each locus from the triangulated sources described above; coding each narrative against five indicators derived from the normative baseline (AMDAL/environmental approval, spatial-plan compliance, public consultation, indigenous consent, and accuracy of self-declared risk classification); and cross-tabulating results to distinguish deviations recurring across all three loci, treated as structural, from deviations specific to a single locus.

Limitations of the Study. Relying on documentary rather than primary field data (interviews, direct observation, environmental measurement), this

study establishes the normative-practical gap in licensing but cannot independently quantify the ecological or climate impact of a weakened precautionary principle; such claims remain bounded by the secondary sources cited. Reliance on journalistic and civil-society documentation carries a residual risk of source bias, mitigated, though not eliminated, by requiring at least two independent source types per case. As a purposive three-case sample, the findings support analytical generalization, namely that the identified deviations trace to features of the risk-based licensing design itself, rather than statistical generalization to all extractive licensing decisions under the Job Creation Law regime.

Result & Discussion

A. The Genealogy of the Weakening Precautionary Principle in Indonesia's Mining and Forestry Regulations

To understand the dissonance at the heart of this article's argument, it's important to first trace how the precautionary principle was placed within Indonesia's environmental law framework before the regulatory reforms under the Omnibus Law on Job Creation. Law Number 32 of 2009 on Environmental Protection and Management positions the precautionary principle as one of the foundational principles guiding the entire regulation, in line with Principle 15 of the Rio Declaration, which has been widely accepted in international environmental law. The most concrete implementation of this principle in the Indonesian context is seen in the obligation to prepare Environmental Impact Assessments (AMDAL) for any business or activity that could potentially have significant environmental impacts, including mining activities and the use of forest areas. AMDAL is not just a permit document, but a source of early environmental data that's crucial for monitoring environmental status and achieving national SDG targets.[8] In the context of environmental approvals in Indonesia, AMDAL is a key requirement that must be met, and the precautionary principle is ensured to be upheld optimally

[8] Ega Saputra et al., "Peran Analisis Dampak Mengenai Lingkungan Dalam Mewujudkan Tujuan Sustainable Development Goals (SDGs)," *SOSIAL: Jurnal Ilmiah Pendidikan IPS* 3, no. 4 (2025): 218–32, https://doi.org/10. 62383/sosial.v2i4.1375.

throughout the preparation, implementation, monitoring, and evaluation process.[9]

AMDAL, within the framework of the precautionary principle, serves as an ex ante mechanism that allows the country to assess potential risks before damage occurs, rather than just an administrative procedure completed after investment decisions have essentially been made. Ignoring the precautionary principle in AMDAL directly contributes to massive ecological damage like deforestation, water pollution, and even natural disasters.[10] Similarly, Law Number 41 of 1999 on Forestry, especially Article 38, explicitly bans the use of open-pit mining in protected forest areas, a ban that is a concrete expression of the precautionary logic applied to areas with vital ecological functions, including their role as water catchments and carbon sinks.[11]

A big shift happened with the passing of Law Number 11 of 2020 on Job Creation, which then went through several legal format changes until it was re-established through Government Regulation in Lieu of Law Number 2 of 2022 and Law Number 6 of 2023.[12] The most fundamental change in the environmental context is the transformation of the environmental permit regime into environmental approval integrated into risk-based business licensing.[13] In this new regime, the level of environmental study required for businesses is determined based on the classification of low, medium, or high business risk, most of which is set through self-declaration by the businesses themselves via the Online Single Submission Risk-Based Approach (OSS-RBA) system. Placing that classification in the hands of the business applicant is not a neutral administrative choice: it assigns the initial judgment of whether precaution is warranted to the party with the clearest economic interest in

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9 Ferina Ardhi Cahyani and Ariesta Wibisono Anditya, "Implementation of Precautionary Principles in Environmental Impact Assessment (EIA) in Indonesia," *Unifikasi : Jurnal Ilmu Hukum* 11, no. 1 (2024): 40–45, https://doi.org/10.25134/unifikasi.v11i1.9662.

10 Ayu Maha Putri Nyimas and Satory Agus, "Kelemahan Implementasi Kebijakan Amdal Dalam Mencegah Kerusakan Lingkungan Hidup," *Jurnal Impresi Indonesia* 5, no. 3 (2026): 1275–92.

11 Pemerintah Republik Indonesia, "Undang-Undang Nomor 41 Tahun 1999 Tentang Kehutanan" (1999), https://peraturan.bpk.go.id/Details/45373/uu-no-41-tahun-1999.

12 Pemerintah Republik Indonesia, "Undang Undang No 6 Tahun 2023 Tentang Penetapan Peraturan Pemerintah Pengganti Undang-Undang Tentang Cipta Kerja" (2023).

13 Pemerintah Republik Indonesia, "Peraturan Pemerintah Republik Indonesia Nomor 22 Tahun 2021 Tentang Penyelenggaraan Dan Pengelolaan Lingkungan Hidup" (2021), https://peraturan.bpk.go.id/Details/161852/pp-no-22-tahun-2021.

avoiding it, embedding a conflict of interest into the structure of the norm itself rather than leaving one to be introduced later by a lax official.[14]

The consequences of this shift are twofold. On one hand, there is a significant reduction in the space for public participation in environmental decision-making processes. As noted in the legal annotation prepared for the Job Creation Law, one critical issue in the law is the disregard for the precautionary principle, which previously guided the AMDAL process, along with the distortion of the range of people entitled to participate from the broader community concerned with environmental sustainability, including universities and civil society organizations, to being limited only to the 'directly affected communities'.[15] Narrowing the definition of participants like this structurally reduces the capacity for external oversight, which used to be one of the control mechanisms for applying caution in practice. Legally, this narrowing does more than shrink the pool of objectors: it removes the very actors institutionally positioned to supply the scientific and technical scrutiny that lay bureaucratic self-assessment cannot provide, so the loss of external oversight is a direct subtraction from the precautionary function of AMDAL, not merely an incidental side effect of it.

On the other hand, this change also relaxes the substantive rules on forest area use: Government Regulation Number 23 of 2021 on Forestry Management permits non-forestry activities, including mining, in areas previously protected by the strict prohibition in Article 38 of the Forestry Law, with mechanisms substantially more lenient than the original provision.

The licensing reform through the OSS-RBA system, on one hand, has indeed managed to speed up the business licensing bureaucracy. However, this acceleration was found to happen without adequate institutional strengthening to protect the environment and ensure oversight accountability, so the overall implementation of the Job Creation Law tends to prioritize short-term economic interests without being accompanied by a strong technical oversight system.[16] Administrative discretion, which was originally intended as a flexibility

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[14] Devara Evan, Priyanta Maret, and Adharani Yulinda, "Inovasi Pendekatan Berbasis Risiko Dalam Persetujuan Lingkungan Berdasarkan Undang-Undang Cipta," *LITRA Jurnal Hukum Lingkungan, Tata Ruang, Dan Agraria* 1, no. 1 (2021): 102–16, https://doi.org/https://doi.org/10.23920/litra.v1i1.641.

[15] Aprita Serlika, "Perubahan Kebijakan Perlindungan Dan Pengelolaan Lingkungan Hidup Berdasarkan Undang-Undang Cipta Kerja," *Eksekusi:Jurnal Ilmu Hukum Dan Adminitrasi Negara* 2, no. 2 (2024), https://doi.org/https://doi. org/10.55606/eksekusi.v2i2.1108.

[16] Sapta Samudera Regina, "Implementation of the Job Creation Law Policy in the Governance of Employment, Environment, and Risk-Based Bussines Licensing in the Post-Pandemic Indonesia," *Jurnal*

tool in risk-based decision making, in practice is often used to avoid the substantive obligations at the core of the prudence principle, a pattern that will be further elaborated through three case studies in the next section.

This shift in the licensing regime also needs to be seen in the context of the evolution of thinking about the relationship between caution and business certainty in the broader discourse of administrative law. Before the era of the Job Creation Law, Indonesian environmental administrative law generally placed administrative officials' discretion within relatively strict limits, where the issuance of environmental permits required meeting measurable substantive criteria, completing AMDAL documents, compliance with the spatial plan (RTRW), and approval from relevant technical agencies before discretion could be exercised to decide the feasibility of an activity. This approach aligns with the principle of legality in administrative law, which sees discretionary authority as an exception strictly limited by rules, rather than as broad and open authority.

The shift toward a risk-based regime fundamentally changes that logic. When the classification of business risk levels mostly relies on self-assessment by business operators through the OSS-RBA electronic system, the discretionary authority of administrative officials actually expands at a different point: no longer on the decision to issue or deny permits based on a substantive review, but on deciding how much field verification will be conducted on the self-declared risk classification. This discretion at the verification stage, as shown in findings from three case studies in the next section, is consistently used to allow extractive activities without adequately meeting the prudence principle.

Another dimension that needs to be noted in this genealogy is how the narrative of ease of doing business also shapes public discourse about the principle of prudence itself. In various policy forums and media, the principle of prudence and strict environmental impact assessment (EIA) obligations are often mistakenly perceived as bureaucratic obstacles that hinder investment, rather than as risk prevention tools that fundamentally protect the long-term interests of the nation, including interests related to climate change. Such perceptions, which also influenced the legislative process of the Job Creation Law, ignore the fact that the social and ecological costs of failing to apply prudence are ultimately much greater than the administrative costs of a proper EIA process. There is a clear imbalance between the economic benefits gained and the social-ecological risks that society and the environment have to bear.

Development Policy and Management Review 5, no. 1 (2025): 68–80, https://doi.org/https://doi.org/10.61731/dpmr.v5i1.44206.

The negative impacts of mining are often not reflected in market prices and are not fully borne by the economic players who create them.[17]

It is important to note that the contestation against this weakening does not stop at the academic level. In June 2025, during the commemoration of World Environment Day, civil society organizations, together with an advocacy team for ecological justice, officially submitted a constitutional review request against the Environmental Cluster of the Job Creation Law to the Constitutional Court, challenging several articles that were deemed to contradict constitutional principles and the values of ecological justice. The petition explicitly called for the ruling to be based on the principle of in dubio pro natura, stating that in situations of doubt, preference should be given to the interests of environmental preservation.[18] This constitutional litigation has become the most concrete indicator that the normative dissonance discussed in this article is not merely an academic construct, but an actual legal issue currently being formally tested within Indonesia's constitutional system, a process that also continues the previous precedent when the Constitutional Court, through Decision Number 91/PUU-XVIII/2020, declared the Job Creation Law conditionally unconstitutional.[19] Read against the argument advanced in this article, the significance of Decision No. 91/PUU-XVIII/2020 is that it corrected the formation process of the Job Creation Law without revisiting the substance of the environmental provisions it produced: the Court's finding of a formal, rather than substantive, defect left the risk-based licensing architecture, and the weakening of the precautionary principle embedded within it, legally intact. This is precisely why the dissonance identified in this article persisted after the Court's 2021 intervention and required the fresh constitutional challenge lodged in 2025.

B. Empirical Analysis of Three Case Studies: Dissonance in Practics Its Connections

[17] Hatta Djuanda, Musa, and Fatmawati, "Mining Externalities in Indonesia and Their Implications for Sustainable Development : A Systematic Literature Review," *Journal of Environtmental Economics and Sustainability* 3, no. 2 (2026): 1–12, https://doi.org/https://doi.org/10.47134/jees.v3i2.994.

[18] Tim Advokasi untuk Keadilan Ekologis WALHI, "Memperingati Hari Lingkungan Hidup, WALHI Ajukan Uji Materiil UU Cipta Kerja Ke Mahkamah Konstitusi," WALHI, 2025, https://www.walhi.or.id/memperingati-hari-lingkungan-hidup-walhi-ajukan-uji-materiil-uu-cipta-kerja-ke-mahkamah-konstitusi.

[19] Mahkamah Konstitusi, "PUTUSAN Nomor 91/PUU-XVIII/2020," Mahkamah Konstitusi Republik Indonesia (2020).

This section analyzes three case studies, namely mining in Wadas Village, mining in the national park area in Kutai Kartanegara Regency, and mining in Bouven Digoel. It aims to show that the weakening of the precautionary principle at the normative level, as outlined in the previous section, finds its concrete manifestation in recurring patterns of administrative deviations in the field, with direct implications for Indonesia's capacity to achieve SDG 13 targets.

1. The Case of Kutai Kartanegara: Coal Mining Deforestation and Carbon Emission Contribution

Kutai Kartanegara Regency in East Kalimantan is one of the regions with the highest concentration of coal mines in Indonesia, while also directly bordering Kutai National Park, which has the status of a conservation area and a Key Biodiversity Area. Verified journalistic investigations found that four coal mining companies, with PT Kaltim Prima Coal as the largest concession covering 61,543 hectares, surround Kutai National Park from various directions, with a total concession area equivalent to nearly 60 percent of the remaining national park area. Furthermore, deforestation and forest degradation in this area have reached a critical point since the period from 1996 to 2009, when waves of land-based permits were loosely enacted by local governments without adequate oversight mechanisms, encroaching not only on production forests but also on protected forests and conservation forests that are legally supposed to be free from extractive activities.[20] The latest data shows that out of a total of 667,565 hectares of mining concessions located in forest areas across Indonesia, only 143,602 hectares have obtained legitimate Forest Area Utilization Approval, while the remaining approximately 507 thousand hectares operate without an adequate legal basis for the use of these forest areas.[21] These findings are directly relevant to the analysis of normative dissonance that lies at the heart of this article: the legal provisions regarding PPKH are basically a precautionary tool designed to ensure that any conversion of forest areas for extractive activities goes through proper risk assessments. The high proportion of concessions operating without a valid PPKH shows that this

[20] Kartikasari Retna, Rachmansyah Arief, and Setyo Leksono Amin, "The Impact of Coal Mining on Deforestation Rates in Kutai Kartanegara Regency of East Kalimantan Province," *The Indonesian Green Technology Journal* 7, no. 1 (2018): 14–19, https://doi.org/10.21776/ub.igtj.2018.007.01.03.

[21] Ulet and Rona, "Taman Nasional Kutai: Dari Warisan Alam Ke Zona Eksploitasi Batubara."

precautionary tool, although normatively in place, fails to serve as an effective barrier against uncontrolled mining expansion. In statutory terms, the precautionary principle is bypassed at two linked points here: the AMDAL/environmental approval requirement under Articles 22–33 of Law No. 32/2009, which should have screened each concession before operation, and the PPKH requirement itself, which functions as the forestry-sector counterpart to that screening for activities located inside forest areas; the coexistence of extensive mining activity with an absent PPKH indicates that neither checkpoint was allowed to operate as a binding precondition.

The connection of this case to SDG 13 is direct and can be conceptually quantified. The tropical forests of Kalimantan and Sumatra serve as significant carbon dioxide absorbers, with an estimated carbon absorption capacity equivalent to one-third of the total emissions released from global fossil fuel combustion. The conversion of forest areas into coal mining zones, as has occurred extensively in Kutai Kartanegara, therefore results in a dual impact on climate change: the loss of carbon absorption capacity from the converted forests, along with the additional carbon emissions from the mining and burning of coal itself. In addition to the direct impact on emissions, it was also found that unreclaimed former mining pits cause further environmental disaster impacts in the form of floods, landslides, and groundwater contamination due to acidification[22], a series of impacts that worsen the region's vulnerability to climate change, rather than strengthening its resilience as mandated in SDG 13 targets related to enhancing adaptive capacity to climate-related hazards.

2. The Case of Wadas Village: Administrative Discretion and the Neglect of Public Participation

The conflict in Wadas Village, Purworejo Regency, Central Java, related to the plan for andesite rock mining to support the national strategic project Bener Dam, is a paradigmatic example of how the expanded administrative discretion following the Job Creation Law can be utilized to circumvent substantive procedures that embody the precautionary principle.[23] Research on the pattern of administrative discretion abuse in mining permits following the Job Creation

[22] Retna, Arief, and Amin, "The Impact of Coal Mining on Deforestation Rates in Kutai Kartanegara Regency of East Kalimantan Province."

[23] Kismunthofiah, Masyitoh Dewi, and Fauzan Hidayatullah Ahmad, "Socio-Ecological Analysis of Andesite Mining Plans in Wadas Village, Purworejo, Central Java," *MASYARAKAT: Jurnal Sosiologi* 26, no. 1 (2021): 21–43, https://doi.org/10.7454/mjs.v26i1.13251.

Law found that the Wadas case demonstrates a systematic pattern of avoiding alignment with the Spatial Planning Regulation and minimal public consultation and approval from the affected communities, a pattern that consistently recurs in other locations studied.[24]

The significance of the Wadas case in the context of normative dissonance arguments lies in the fact that andesite mining in this area impacts a region that functions as a water catchment area and an ecological buffer for the surrounding areas. Findings from civil society organizations even explicitly indicate that there are no environmental impact assessment (AMDAL) documents for mining activities in Wadas Village at the initial stage of the permitting process[25], a concrete indication that even the most fundamental precautionary instruments were not fulfilled before an administrative decision was made, this blatantly places the indigenous community in a subordinate position. This legal irony is reinforced by an official statement from the Minister of Energy and Mineral Resources who asserted that andesite mining in Wadas does not require a Mining Business License or a Rock Mining Permit, on the grounds that the activity is part of the Bener Dam National Strategic Project[26], an interpretation that effectively exempts the mining activities from even stricter mining licensing regimes. Caution, in this context, should require an in-depth study of the long-term impacts on the hydrological functions of the area before a mining decision is made. However, the identified pattern indicates that the interest in completing national strategic projects on time tends to override such cautionary considerations, in line with the investment acceleration logic that underpins the spirit of the Job Creation Law. In statutory terms, the precautionary principle is bypassed here at its most basic point of entry: the AMDAL/environmental approval requirement under Articles 22–33 of Law No. 32/2009, which the civil society findings above indicate was never satisfied before permitting proceeded, compounded by the use of the National Strategic Project designation to exempt the activity from the mining-specific licensing (IUP)

[24] Nisrina et al., "Penyalahgunaan Diskresi Administratif Dalam Perizinan Tambang Pasca UU Cipta Kerja: Konflik Investasi Dan Keadilan Lingkungan."

[25] CNN Indonesia, "Walhi Jogja Sebut Tak Ada Amdal Tambang Di Wadas," CNN Indonesia, 2022, https://www.cnnindonesia.com/nasional/20220211090740-12-757839/walhi-jogja-sebut-tak-ada-amdal-tambang-di-wadas.

[26] CNBC, "Menteri ESDM, Ungkap Tambang Di Desa Wadas Tak Perlu Izin!," CNBC Indonesia, 2022, https://www.cnbcindonesia.com/news/20220217153301-4-316219/menteri-esdm-ungkap-tambang-di-desa-wadas-tak-perlu-izin.

requirement that would otherwise have supplied an additional layer of precautionary review.

3. The link between the Wadas case and SDG 13

The link between the Wadas case and SDG 13 is more indirect compared to the Kutai Kartanegara case, yet it remains significant through the pathway of climate resilience. Water catchment areas and ecological buffer zones play an important role in mitigating the risks of hydrometeorological disasters, floods, and droughts, the frequency and intensity of which are projected to increase due to climate change. Neglecting the ecological functions and constitutional rights of indigenous communities, including the right to a healthy environment in the administrative decision-making process, therefore indirectly reduces the adaptive capacity of the region to the impacts of climate change, contrary to the target of SDG 13, which emphasizes strengthening resilience and adaptive capacity to climate-related hazards and natural disasters.

4. The Boven Digoel Case: forestry conflicts, indigenous community rights, and Papua forest carbon

Boven Digoel in South Papua represents a different dimension of the normative dissonance being studied, namely at the intersection between large-scale forestry/plantation permits and the rights of indigenous communities over their customary land and forests. The significance of this case is reinforced by ongoing actual litigation: the Awyu indigenous community in Boven Digoel filed a lawsuit against the environmental permit of the palm oil company PT Indo Asiana Lestari at the Jayapura Administrative Court, with the subject of the dispute being a customary forest area of more than 36 thousand hectares equivalent to half the size of Jakarta threatened to be converted into a palm oil plantation.[27] This litigation, although ultimately dismissed by the court, serves as concrete evidence that the licensing process for the area proceeded without substantive involvement of the indigenous communities as customary land rights holders, a pattern identical to the absence of participatory cautionary principles highlighted in this article. Papua, as a region with the largest remaining primary tropical forest cover in Indonesia, holds extremely high carbon significance in the context of both global and national climate change

[27] Syahwal, "Kelindan Identitas Dan Lingkungan:Perjuangan Masyarakat Awyu Menggapai Keadilan," *Jurnal Pro Natura* 1, no. 1 (2024): 58–75, https://jurnal.ugm.ac.id/v3/Pro-Natura/article/view/13480.

mitigation. The same research on the misuse of administrative discretion found that the pattern in Boven Digoel is consistent with the two previous cases: evasion of substantive AMDAL procedures and disregard for the consent of indigenous legal communities as holders of customary land rights.[28]

A characteristic feature of the Boven Digoel case is that the disregard for the principle of caution here directly intersects with the human rights dimension of Indigenous peoples, a dimension which, within the framework of the SDGs, is also related to the principle of leaving no one behind. Recent developments reinforce this pattern: in early 2026, the Ministry of Forestry issued a decree releasing nearly 487 thousand hectares of forest areas in South Papua, including more than 143 thousand hectares in Boven Digoel, into non-forest areas for national food security, energy, and water projects, without the knowledge of the local customary rights holders.[29] Indigenous communities consider the decision to violate the principle of free, prior, and informed consent, a principle which, in the context of legal prudence, should serve as a substantive prerequisite before decisions on large-scale forest area releases are made.[30] However, in the specific context of SDG 13, the significance of this case lies in the fact that Papua's primary forests store a carbon stock that is far higher compared to secondary forests or degraded lands in other regions of Indonesia. The conversion of primary forests for industrial forestry or large-scale plantations, therefore, results in the release of carbon emissions in amounts that are proportionally much greater compared to land conversion with lower ecological quality. The disregard for the precautionary principle in the permitting process in Boven Digoel, thus, has disproportionate implications for the achievement of SDG 13 targets compared to cases in areas with less intact forest cover. In statutory terms, the precautionary principle is bypassed here at the point where Article 38 of Law No. 41/1999, as relaxed by Government Regulation No. 23/2021, permits non-forestry use of protected forest without a corresponding requirement to obtain free, prior, and informed consent from the customary community whose land is affected; the absence of that consent, notwithstanding the community's constitutionally recognized customary rights,

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28 Nisrina et al., "Penyalahgunaan Diskresi Administratif Dalam Perizinan Tambang Pasca UU Cipta Kerja: Konflik Investasi Dan Keadilan Lingkungan."

29 Asrida Elisabeth and Sarjan Lahay, "Kala Masyarakat Adat Papua Protes Pelepasan Hampir 500 Ribu Hektar Kawasan Hutan," Mongabay, 2026, https://mongabay.co.id/2026/03/27/kala-masyarakat-adat-papua-protes-pelepasan-hampir-500-ribu-hektar-kawasan-hutan/.

30 Elisabeth and Lahay.

is the specific procedural juncture at which the precautionary safeguard fails to attach.

When read together, these three case studies reveal a consistent pattern: recurrent abuse of administrative discretion in the form of avoiding environmental impact assessments (AMDAL)/environmental approvals, disregard for spatial planning compliance, and minimal public participation or consent from affected communities, across three different geographic regions (Java, Kalimantan, and Papua) and two different extractive commodities (rocks/mineral mining and forestry/plantations). The consistency of this pattern across regions and commodities forms the basis of the argument that the problems faced are structural in nature, rooted in the design of the risk-based licensing regime itself, rather than merely products of locally or incidentally failed implementation in each case.

TABLE 1. Comparison of Exceeded Provisions and Deviation Patterns in Three Case Studies

Case	Dominant Actor	Provision(s) Bypassed	Deviation Pattern
Wadas Village	Central government (National Strategic Project)	AMDAL/environmental approval (Law 32/2009, Art. 22–33); IUP exemption via NSP status	No prior AMDAL; spatial-plan and consultation bypassed via NSP designation
Kutai Kartanegara	Local-government-issued permits (long-standing)	AMDAL (Law 32/2009, Art. 22–33); Forest Area Use Approval (PPKH)	~507,000 ha of concessions operate without valid PPKH; deforestation precedes oversight
Boven Digoel	Large-scale corporate concession holder	Art. 38, Law 41/1999, as relaxed by PP 23/2021; indigenous FPIC	Protected-forest conversion approved without customary community consent

Source: Author's Processed Results, 2026

The combined implications of the three cases on SDG 13 can be mapped through three mutually reinforcing mechanisms: first, the loss of carbon sequestration capacity due to direct deforestation (most notably in the cases of

Kutai Kartanegara and Boven Digoel); second, the reduction of adaptive capacity and regional resilience to climate-related hazards due to the loss of ecological functions in buffer areas (most notably in the Wadas case); and third, the release of carbon emissions from extraction activities and the combustion of fossil fuels themselves (most notably in the case of Kutai Kartanegara). These three mechanisms indicate that the weakening of the precautionary principle in extractive mining permits is not merely an isolated domestic environmental issue but directly contributes to Indonesia's failure to fulfill its international commitments under the Paris Agreement and the targets of the Nationally Determined Contribution. This cross-case analysis also reveals an additional finding that is methodologically relevant: the identified pattern of deviations is not limited to a single type of actor or level of government. In the Kutai Kartanegara case, licensing leniency involved the local government as the issuer of permits during the period before the centralization of mining authority; in the Wadas case, the involvement of national strategic project interests positioned the central government as the dominant actor; meanwhile, in the Boven Digoel case, forestry/plantation licensing dynamics involved complex interactions between the central government, local governments, and large-scale corporations. The diversity of actors and levels of government involved in this consistent pattern of deviation reinforces the argument that the problem at hand is not a failure of governance at a specific level alone, but rather a systemic failure that spans across government structures, a characteristic that aligns with the argument of legal design failure which will be elaborated further in the following section.

These findings also have methodological relevance for socio-legal studies regarding the gap between law in books and law in action. The three cases demonstrate that this gap does not arise randomly or merely as a result of weak implementation capacity in certain cases, but rather emerges predictably at specific points in the decision-making chain, particularly at the points of self-risk classification and discretionary verification, which were identified in the genealogy section. The predictability of this gap pattern constitutes the key argument that the source of the problem lies in the design of the system itself, rather than in random variations in implementation quality in the field.

C. Legal Design Failure Versus Implementation Failure

1. Analysis through Friedman's Legal System Theory

Lawrence Friedman dissects the legal system into three interrelated components: the substance of law (the norms and rules themselves), the structure of law (institutions and enforcement mechanisms), and the legal culture (the attitudes, values, and habits of society and officials toward the law).[31] This framework allows for a more precise analysis of where the dissonance truly originates.

At the level of legal substance, it has been shown in the genealogy section that three specific textual changes constitute the failure: the relaxation of Article 38 of Law No. 41/1999 through the provisions of Government Regulation No. 23/2021, which converts an outright prohibition into a conditional permission; the narrowing, within the implementing provisions of Law No. 11/2020, of the definition of communities entitled to participate in Environmental Impact Assessment (AMDAL) under Articles 22–33 of Law No. 32/2009; and the shift of the risk assessment basis to self-declaration by business actors through the risk-tier mechanism of Government Regulation No. 22/2021 operationalized via OSS-RBA. Each is a change to the written norm itself, not to how that norm is applied. This is not a matter of weak institutional structures in enforcing good norms, but rather the norms themselves have been revised to reduce the scope and binding force of the precautionary principle. In other words, at the substantive level, the failure is of design, not implementation.

At the legal structural level, institutional weaknesses, minimal regional oversight capacity, suboptimal integration of OSS-RBA data, and weak supervisory accountability are indeed observed. However, it is important to note that these structural weaknesses are partially a logical consequence of the simplified substantive design: when the risk assessment basis is placed under the self-declaration of business actors, the structural supervisory burden required to verify the accuracy of such declarations increases dramatically, while the allocated institutional capacity does not receive proportional reinforcement. The dissonance at this structural level, therefore, is not an independent issue, but rather a derivative of design choices at the substantive level.

At the level of legal culture, the pattern found in the three case studies, where administrative discretion is consistently utilized to avoid substantive obligations, indicates the existence of a bureaucratic culture that internalizes the logic of "investment acceleration" as the dominant value, surpassing the value of

[31] M Lawrence Friedman, *The Legal System: A Social Science Perspective* (New York: Russel Sage Foundation, 1975). 14-16

ecological caution. This culture develops through an identifiable, self-reinforcing mechanism rather than emerging spontaneously: performance indicators for licensing officials in the OSS-RBA system are built around processing speed and the number of approvals issued rather than the accuracy of risk classification, so an official who slows an application down to interrogate a business's self-declared risk tier is penalized on the metric that matters for career advancement, while one who approves quickly is not penalized for a classification that later proves wrong, since the self-declaration itself supplies the formal justification. Repeated over thousands of licensing decisions, this incentive structure normalizes deference to self-declared risk as the default bureaucratic posture. Because the culture is produced by these substance-level incentives, it is unlikely to shift through training or exhortation alone; altering it would require reattaching accountability to the accuracy of risk classification itself, for instance by making officials and the OSS-RBA system jointly liable for downstream harm traceable to an approved but inaccurate self-declaration, so that the incentive to defer is checked by a corresponding incentive to verify. Thus, a reading through Friedman's three layers shows that the primary source of dissonance originates from the level of legal substance, which then seeps through and manifests at the levels of legal structure and culture.

2. Analysis through Mahfud MD's Legal Politics

To explain why those substantive design choices were made, Mahfud MD's Legal Politics framework provides a deeper explanation of the political power configurations underlying the formation of a legal product. Mahfud MD argues that whether the character of a legal product is responsive to the aspirations and interests of the general public, or whether the rules are orthodox/conservative reflecting the interests of dominant groups, is largely determined by the political configuration surrounding its formation process.[32]

The Job Creation Law, when read through this framework, is a product of a political configuration dominated by the interests of investment acceleration and economic growth, as reflected in its legislative process, which was carried out through the omnibus method with limited public participation, a characteristic that has been assessed by various academic circles as reflecting a more conservative/orthodox legal nature rather than being responsive to the

[32] Mahfud MD, *Politik Hukum Indonesia* (Jakarta: Rajawali Press, 2010). 26-28

interests of ecological justice and the rights of affected communities.[33] The option to shift the licensing regime from a precautionary basis to a risk-based one, largely relying on the self-declaration of business actors, is therefore not a technocratic coincidence, but a direct reflection of the underlying political priorities: that the certainty and speed of investment are positioned as values more important than careful ecological and climate risk prevention. The implications of this reading are important for the direction of recommendations in the concluding section. If the normative dissonance under review solely stems from implementation failures, then the appropriate solution is to strengthen oversight and institutional capacity without the need to alter the existing legal design. However, if, as argued in this article, the dissonance originates from design choices that are products of specific political configurations, then an effective solution requires intervention at the level of legal substance and, ultimately, at the political configuration underpinning it, a task that is far more complex than merely enhancing administrative oversight.

3. The Tension between the Innovation Principle and the Precautionary Principle in the Global Context

Contemporary academic discourse on the precautionary principle, as it has developed in European Union environmental law literature, indicates a continuously evolving tension between the precautionary principle and what is referred to as the innovation principle, a principle proposed as a counterbalance to the argument that overly strict application of the precautionary principle can lead to excessive risk aversion and hinder technological innovation.[34] The existence of a conflict between innovation and the precautionary principle is incorrect. The precautionary principle essentially regulates innovation to be conducted responsibly.[35] Such tensions are relevant to consider in the context of Indonesia, although with an important critical note: in the European Union, these tensions occur in the context of new technology regulations whose risks are not yet precisely known, whereas in Indonesia, the "innovation" used to justify the relaxation of the precautionary principle in the Job Creation Law is largely conventional extractive industries such as coal mining and forest

[33] Mahfud MD.

[34] Leonie Reins and Tellervo Ala-Lahti, "Innovation, Precaution, and Sustainable Development in EU Environmental Law—a False Trichotomy?," *Journal of Environmental Law* 38, no. 1 (2025): 1–20, https://doi.org/10.1093/jel/eqaf032.

[35] Reins and Ala-Lahti.

conversion, whose environmental and climate risks have been scientifically known with a high degree of certainty.

This contextual difference is important to emphasize because it reveals that the argument of "hindering innovation," which is often used to legitimize the relaxation of the precautionary principle in Indonesia, does not have the same strong basis as a similar argument in the context of regulating new technologies in developed countries. The relaxation of the precautionary principle in the case of coal mining and deforestation is not a trade-off between precaution and genuinely uncertain innovation, but rather a trade-off between precaution and the acceleration of investment in economic activities whose environmental and climate risk impacts have been convincingly understood by science. The nature of such relaxation arguments, therefore, is more accurately interpreted as the instrumentalization of the rationale of "balancing precaution with innovation" to legitimize the political priority of extractive economic interests, rather than as a genuine response to a real need for technological innovation. This distinction carries a direct legal-analytical implication: where the innovation principle can justify relaxing precaution only in proportion to genuine scientific uncertainty about risk, the absence of such uncertainty in Indonesia's coal and forestry cases removes the very condition the innovation principle requires to operate, so its invocation here does not balance two legitimate values but substitutes an economic preference for a precautionary requirement that the underlying facts do not permit to be relaxed; this is the analytical basis on which the reformulation proposed in the next section reattaches the scope of permissible flexibility to the actual state of scientific certainty rather than to the type of activity or the political convenience of accelerating it.

D. Normative Reformulation: Towards a Genuinely Precautionary Principle

The dissonance between normative commitments and the governance practices of extractive mining is built into the architecture of risk-based licensing, bringing methodological consequences for the direction of reformulation. If the source of the problem lies in the choice of legal design, which is a product of a particular political configuration, as explained through the framework of Friedman and Mahfud MD, then reformulation cannot stop at mere technical-administrative improvements. Studies on the regulatory

disharmony of the Job Creation Law find that the transformation of environmental permits into environmental approvals, combined with the centralization of authority from the regions to the central government, structurally reduces the quality of environmental protection and the space for public participation, rather than merely causing weaknesses in field implementation. Other findings affirm that the political-legal shift in the Job Creation Law leans more toward an exploitative nature rather than conservation, reflected in the simplification of licensing and the disorientation of the principle of strict liability. Based on this argumentative basis, this section proposes five interrelated directions of reformulation as an inseparable package of interventions.

1. Legal Substance

A fundamental weakness of the OSS-RBA regime is the placement of the burden of proving risk at the wrong point: business actors self-declare the level of risk of their activities, while the state only comes in at the verification stage, which is discretionary and not mandatory. Reformulation at this level requires three steps. First, for sectors with environmental-climate risks that have been scientifically established with a high degree of certainty such as open-pit coal mining, primary forest conversion, and high-risk peatland clearance the risk classification must be presumptively established by regulation, rather than relying on self-declaration. This approach is consistent with the original spirit of Article 38 of Law Number 41 of 1999 on Forestry before it was relaxed by Articles 90–91 of Government Regulation Number 23 of 2021. Second, independent verification of risk classification needs to be moved to the ex ante stage by a technical assessment agency separate from the licensing authority, in order to close the structural conflict of interest gaps consistently found in the three case studies. Third, the status of "National Strategic Project," which in the Wadas case was used as a basis to exempt activities from the Mining Business License obligation, should be limited so that it only accelerates administrative procedures, rather than nullifying the substance of the Risk assessment.

2. Institutional Structure

The scope of the community entitled to participate in AMDAL/environmental approval needs to be restored to a broad definition, including universities and civil society organizations, rather than being limited to the 'directly affected community.' An independent supervisory body outside

the permit-issuing bureaucracy is also necessary, with the authority to periodically evaluate the use of administrative discretion. This proposal aligns with findings that the assessment of potential losses resulting from a State Administrative Decision in the environmental sector heavily depends on scientific evidence and evaluative capacity independent of the interests of the permit issuer. The administrative court (PTUN) pathway also needs to be strengthened as a genuine corrective mechanism, not merely a formal procedure as in the case of Boven Digoel. This reinforcement can be achieved through the explicit adoption of the principle in dubio pro natura, which holds that in cases of legal or scientific uncertainty, the interpretation by judges and administrative officials must favor environmental preservation as an interpretative norm binding in environmental cases. The practice of in dubio pro bosque in the Bolivian forestry law reform demonstrates that the explicit codification of such a principle can serve as an operational instrument, rather than merely a declarative principle. The judicial review request of the Job Creation Law's environmental cluster to the Constitutional Court in June 2025, which explicitly invoked this principle, can be seen as an initial momentum for its institutionalization within the Indonesian legal system.

3. Legal Culture

A bureaucratic culture that internalizes the logic of investment acceleration over ecological caution is a rational response of officials to normative signals from the level of legal substance, rather than a phenomenon that stands on its own. Consequently, the reformulation of legal culture cannot be achieved solely through training or ethical appeals, but requires changes in bureaucratic performance indicators. As long as the speed of permit issuance and investment realization remains the dominant indicator of licensing officials' success, the application of caution will continue to be perceived as an administrative burden. Reformulation at this level necessitates the addition of performance indicators that explicitly measure substantive compliance with environmental impact assessments (EIA) and the achievement of environmental-climate risk mitigation, parallel to investment acceleration indicators, so that officials' rational calculations no longer automatically favor mere acceleration.

4. Integration od SDG 13 and National Climate Targets

The integration between SDG 13 achievement indicators and risk assessment criteria needs to be operationalized through concrete legal instruments, not merely policy recommendations. Every proposed mining activity or forest area conversion should be required to include an estimate of its impact on the national carbon absorption capacity and its contribution to the Nationally Determined Contribution targets as an integral part of an environmental impact assessment that is legally binding, rather than as an informative annex. In this way, failure to meet certain carbon impact thresholds can serve as a legitimate legal basis for permit denial, on par with spatial planning mismatches or the absence of an environmental impact assessment, rather than merely a note that can be disregarded in the administrative decision-making process.

5. Constitutional Pathways and Strategic Litigation

Considering that legislative reformulation requires a political configuration different from that which produced the Job Creation Law, the constitutional pathway through the Constitutional Court remains relevant as an instrument of medium-term correction. The precedent of Decision Number 91/PUU-XVIII/2020, which declared the Job Creation Law conditionally unconstitutional, as well as the ongoing material test request for the environmental cluster, shows that the normative dissonance that is the focus of this article is not merely an academic construct, but an actual legal dispute that has the potential to produce structural correction without waiting for a comprehensive revision of the law. The argument that failure is a matter of design, rather than implementation, can thus serve as a framework for constitutional litigation as well as future administrative law, by shifting the focus of lawsuits from proving the abuse of authority by individual officials to testing the validity of the norms that are at the root of such deviations.

6. Comparative Learning

The reformulation of risk classification criteria in OSS-RBA can be enhanced by referring to the Communication from the Commission on the Precautionary Principle (European Commission, 2000), which sets out four prerequisites for the operational application of the precautionary principle: (1) proportionality to the chosen level of protection; (2) non-discrimination in application; (3) consistency with similar measures already taken; and (4) periodic review based on scientific developments. This framework is relevant for

addressing the weaknesses of self-declaration in OSS-RBA, as it places the burden of scientific proof not on the affected community, who would have to demonstrate harm, but on the business actors, who must prove the safety of their activities before a permit is issued a reversal of the burden of proof that is absent in the current OSS-RBA design. Furthermore, the literature on regulatory science, particularly the critique presented by Cass Sunstein in Laws of Fear (2005) regarding the potential paralysis caused by applying the precautionary principle without limits, can actually be used affirmatively in the context of this article: Sunstein himself acknowledges that the precautionary principle remains valid when strictly applied to catastrophic and irreversible risks categories that appropriately include the deforestation of primary forests and carbon emissions from coal mining, as demonstrated in the three case studies of this article. Thus, the argument for reformulation does not need to avoid criticism of the precautionary principle; rather, it can show that such criticism actually strengthens the necessity of strict application in high-risk extractive sectors rather than the generic relaxation as implemented in the Job Creation Law.

Public participation and independent evaluation can be strengthened with more concrete institutional design proposals, referring to the principle of institutional separation in the OECD literature on regulatory governance (OECD Best Practice Principles for Regulatory Policy): the agency issuing environmental permits/approvals should be structurally separate and not have a hierarchical relationship with the agency that verifies risk classification. Implementation in Indonesia could take the form of:

a. An independent Environmental and Climate Risk Verification Body, outside the structure of Ministries/Agencies issuing OSS-RBA, with the authority to conduct mandatory field verification of self-declarations by business actors in the mining sector and primary forest conversion before, not after, the permit is issued.
b. A pre-decision objection mechanism for indigenous peoples and civil society organizations, adopting the principle of free, prior, and informed consent (FPIC) which has been recognized in the Boven Digoel case but has not yet become a legally binding obligation within the OSS-RBA regime.
c. Climate due diligence as an additional administrative requirement for high-risk extractive business permits, in line with trends in supply chain due diligence regulations in the European Union (Corporate

Sustainability Due Diligence Directive) that require climate impact assessments as part of business feasibility, not merely voluntary reporting.

Conclusion

This article has shown that the dissonance between Indonesia's normative commitment to the precautionary principle and the practice of extractive mining governance is not primarily a failure of implementation, but a condition built into the design of the risk-based licensing regime itself. Tracing the norm's genealogy alongside three cases in Wadas Village, Kutai Kartanegara, and Boven Digoel, the analysis shows that the same three substantive changes, the relaxation of Article 38 of Law No. 41/1999, the narrowing of AMDAL participation, and the shift of risk classification to business self-declaration, recur across three otherwise dissimilar contexts, and traces these changes to a political configuration that, following Mahfud MD's framework, prioritizes investment acceleration over ecological caution.

The article's principal contribution to the literature on Indonesian environmental law and legal politics is the distinction it draws between design failure and implementation failure. Where prior scholarship on post-Job Creation Law licensing has largely diagnosed administrative discretion and oversight gaps, this article locates the source of dissonance in the substance of the norm itself, using Friedman's three-layer model to show how that substantive choice propagates into structural and cultural symptoms rather than originating from them. This reframing carries a specific reform implication: because the problem originates in legal substance, correcting it requires amending the identified provisions directly, restoring a scientific verification requirement to the OSS-RBA risk-classification process, reinstating Article 38's presumption against open-pit mining in protected forest areas subject to an independently reviewed necessity test, and expanding AMDAL participation rights to the pre-2020 standard, rather than confining reform to strengthening oversight capacity within the existing design.

These conclusions should be read in light of the study's limitations. As a doctrinal-case study design built on secondary and documentary sources, the article establishes the normative-practical gap in licensing but does not independently measure the resulting ecological or climate impact, and its

purposive three-case sample supports analytical rather than statistical generalization. Future research could test the generalizability of the design-failure pattern identified here through comparative analysis of risk-based licensing in other extractive sectors, such as nickel and geothermal mining, or through empirical studies of how OSS-RBA officials verify, or fail to verify, self-declared risk classifications in practice.

References

Cahyani, Ferina Ardhi, and Ariesta Wibisono Anditya. "Implementation of Precautionary Principles in Environmental Impact Assessment (EIA) in Indonesia." *Unifikasi : Jurnal Ilmu Hukum* 11, no. 1 (2024): 40–45. https://doi.org/10.25134/unifikasi.v11i1.9662.

Center, Indonesia Environment & Energy. "Indonesia Sumbang 2,3% Emisi Global, Lebih Tinggi Dari Jepang Hingga Industri Penyumbang Emisi Tertinggi." *Indonesia Environment & Energy Center*, June 22, 2024. https://environment-indonesia.com/indonesia-sumbang-23-emisi-global-lebih-tinggi-dari-jepang-hingga-industri-penyumbang-emisi-tertinggi/.

CNBC. "Menteri ESDM, Ungkap Tambang Di Desa Wadas Tak Perlu Izin!" CNBC Indonesia, 2022. https://www.cnbcindonesia.com/news/20220217153301-4-316219/menteri-esdm-ungkap-tambang-di-desa-wadas-tak-perlu-izin.

Dewi Santriani, Bunga Ratu Portuna, and Nurul Asfiyah. "Penerapan Corporate Governance Dalam Pengelolaan Risiko Sosial Dan Lingkungan Di Industri Pertambangan (Studi Kasus Pt. Fajar Sakti Prima)." *Jurnal Manajemen* 15, no. 1 (2025): 9–18. https://doi.org/10.30738/jm.v15i1.4403.

Djuanda, Hatta, Musa, and Fatmawati. "Mining Externalities in Indonesia and Their Implications for Sustainable Development : A Systematic Literature Review." *Journal of Environtmental Economics and Sustainability* 3, no. 2 (2026): 1–12. https://doi.org/https://doi.org/10.47134/jees.v3i2.994.

Ega Saputra, Nida Annisa, Muhammad Rizky, and Cahya Darmawan. "Peran Analisis Dampak Mengenai Lingkungan Dalam Mewujudkan Tujuan Sustainable Development Goals (SDGs)." *SOSIAL: Jurnal Ilmiah Pendidikan IPS* 3, no. 4 (2025): 218–32.

https://doi.org/10.62383/sosial.v2i4.1375.

Elisabeth, Asrida, and Sarjan Lahay. "Kala Masyarakat Adat Papua Protes Pelepasan Hampir 500 Ribu Hektar Kawasan Hutan." Mongabay, 2026. https://mongabay.co.id/2026/03/27/kala-masyarakat-adat-papua-protes-pelepasan-hampir-500-ribu-hektar-kawasan-hutan/.

Evan, Devara, Priyanta Maret, and Adharani Yulinda. "Inovasi Pendekatan Berbasis Risiko Dalam Persetujuan Lingkungan Berdasarkan Undang-Undang Cipta." *LITRA Jurnal Hukum Lingkungan, Tata Ruang, Dan Agraria* 1, no. 1 (2021): 102–16. https://doi.org/https://doi.org/10.23920/litra.v1i1.641.

Friedman, M Lawrence. *The Legal System: A Social Science Perspective*. New York: Russel Sage Foundation, 1975.

Hikmatullah, Idrus Muh Rizky, and Alfiani Nur Usi. "Realisasi Penanganan Perubahan Iklim Di Indonesia Melalui Implementasi Sustainable Development Goals (SDGs): Tujuan 13.1.3." *Indonesian Journal of International Relations* 8, no. 1 (2024): 77–100. https://doi.org/10.32787/ijir.v8i1.509.

Indonesia, CNN. "Walhi Jogja Sebut Tak Ada Amdal Tambang Di Wadas." CNN Indonesia, 2022. https://www.cnnindonesia.com/nasional/20220211090740-12-757839/walhi-jogja-sebut-tak-ada-amdal-tambang-di-wadas.

Indonesia, Pemerintah Republik. UU No 39 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup (2009). https://peraturan.bpk.go.id/details/38771/uu-no-32-tahun-2009.

Kismunthofiah, Masyitoh Dewi, and Fauzan Hidayatullah Ahmad. "Socio-Ecological Analysis of Andesite Mining Plans in Wadas Village, Purworejo, Central Java." *MASYARAKAT: Jurnal Sosiologi* 26, no. 1 (2021): 21–43. https://doi.org/10.7454/mjs.v26i1.13251.

Mahfud MD. *Politik Hukum Indonesia*. Jakarta: Rajawali Press, 2010.

Mahkamah Konstitusi. PUTUSAN Nomor 91/PUU-XVIII/2020, Mahkamah Konstitusi Republik Indonesia § (2020).

Nisrina, Baidha Nibras, Dimas Fawas Ariiq Muhammad, Binsardon Sianipar Beni, and Halimatussadia'h Sayla. "Penyalahgunaan Diskresi Administratif Dalam Perizinan Tambang Pasca UU Cipta Kerja: Konflik Investasi Dan Keadilan Lingkungan." *Jurnal Hukum Dan Kewarganegaraan* 13, no. 5 (2025): 101–10.

Nyimas, Ayu Maha Putri, and Satory Agus. "Kelemahan Implementasi

Kebijakan Amdal Dalam Mencegah Kerusakan Lingkungan Hidup." *Jurnal Impresi Indonesia* 5, no. 3 (2026): 1275–92.

Pemerintah Republik Indonesia. Peraturan Pemerintah No. 23 Tahun 2021 Tentang Penyelenggaraan Kehutanan (2021). https://peraturan.bpk.go.id/Details/161853/pp-no-23-tahun-2021.

———. Peraturan Pemerintah Republik Indonesia Nomor 22 Tahun 2021 Tentang Penyelenggaraan dan Pengelolaan Lingkungan Hidup (2021). https://peraturan.bpk.go.id/Details/161852/pp-no-22-tahun-2021.

———. Undang-undang Nomor 41 Tahun 1999 Tentang Kehutanan (1999). https://peraturan.bpk.go.id/Details/45373/uu-no-41-tahun-1999.

———. Undang Undang No 6 Tahun 2023 tentang Penetapan Peraturan Pemerintah Pengganti Undang-Undang tentang Cipta Kerja (2023).

———. Undang Undang Republik Indonesia Nomor 11 Tahun 2020 Tentang Cipta Kerja (2020). https://peraturan.bpk.go.id/Details/149750/uu-no-11-tahun-2020.

Rasya, Malika Zahra, Nur Cahyanti Fhaerizha Ghieovaerina Wahyuning, Elis Rahmawati Salsabila, Putri Sisandi Fhahlish Shabina, and Hikal Fikri Muhammad Adymas. "Problematika Green Invesment Dalam Transisi Energi Sektor Pertambangan Indonesia: Kritik Terhadap Implementasi Direct Power Purchase Agreement (DPPA)." *CAUSA: Jurnal Hukum Dan Kewarganegaraan* 16, no. 7 (2026). https://doi.org/doi.org/10.3783/causa.v2i9.2461.

Regina, Sapta Samudera. "Implementation of the Job Creation Law Policy in the Governance of Employment, Environment, and Risk-Based Bussines Licensing in the Post-Pandemic Indonesia." *Jurnal Development Policy and Management Review* 5, no. 1 (2025): 68–80. https://doi.org/https://doi.org/10.61731/dpmr.v5i1.44206.

Reins, Leonie, and Tellervo Ala-Lahti. "Innovation, Precaution, and Sustainable Development in EU Environmental Law—a False Trichotomy?" *Journal of Environmental Law* 38, no. 1 (2025): 1–20. https://doi.org/10.1093/jel/eqaf032.

Retna, Kartikasari, Rachmansyah Arief, and Setyo Leksono Amin. "The Impact of Coal Mining on Deforestation Rates in Kutai Kartanegara Regency of East Kalimantan Province." *The Indonesian Green Technology Journal* 7, no. 1 (2018): 14–19. https://doi.org/10.21776/ub.igtj.2018.007.01.03.

Serlika, Aprita. "Perubahan Kebijakan Perlindungan Dan Pengelolaan Lingkungan Hidup Berdasarkan Undang-Undang Cipta Kerja."

Eksekusi:Jurnal Ilmu Hukum Dan Adminitrasi Negara 2, no. 2 (2024). https://doi.org/https://doi.org/10.55606/eksekusi.v2i2.1108.

Syahwal. "Kelindan Identitas Dan Lingkungan:Perjuangan Masyarakat Awyu Menggapai Keadilan." *Jurnal Pro Natura* 1, no. 1 (2024): 58–75. https://jurnal.ugm.ac.id/v3/Pro-Natura/article/view/13480.

Ulet, Ifansasti, and Nirmala Rona. "Taman Nasional Kutai: Dari Warisan Alam Ke Zona Eksploitasi Batubara," 2025. http://projectmultatuli.org/taman-nasional-kutai-dari-warisan-alam-ke-zona-eksploitasi-batubara/.

WALHI, Tim Advokasi untuk Keadilan Ekologis. "Memperingati Hari Lingkungan Hidup, WALHI Ajukan Uji Materiil UU Cipta Kerja Ke Mahkamah Konstitusi." WALHI, 2025. https://www.walhi.or.id/memperingati-hari-lingkungan-hidup-walhi-ajukan-uji-materiil-uu-cipta-kerja-ke-mahkamah-konstitusi.

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AUTHOR CONTRIBUTIONS

Izzul Munna contributed to the conceptualization, methodology, investigation, formal analysis, and drafting of the manuscript, as well as its review and editing; Martitah Martitah contributed to the conceptualization, supervision, validation, and critical review and editing of the manuscript; Duhita Driyah Suprapti contributed to the methodology, investigation, resources, data curation, and review and editing of the manuscript; and Karno Roso

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