

Legal and Constitutional Gaps in Strategic Environmental Assessment: Between Formality and Substantive Environmental Protection in Indonesia

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Abstract

The Indonesian Strategic Environmental Assessment (SEA) is governed by Law No. 32 of 2009 on Protection and Management of the Environment. However, the implementation of Strategic Environmental Assessment still faces significant challenges, especially in fulfilling the constitutional rights of citizens to a healthy and sustainable environment. The misalignment between Strategic Environmental Assessment (SEA) practices and constitutional principles, particularly regarding transparency, public participation, and environmental justice, has contributed to violations of environmental rights and the perpetuation of social injustice in the development processes. This study aims to analyze the constitutionality of SEA's application in the context of sustainable development in Indonesia. This study uses a normative legal method with legislative, conceptual, and comparative approaches. The research results indicate that the implementation of SEA is still inconsistent with the Constitution, particularly in protecting environmental rights. Weakness of oversight and the lack of sanctions for violations of the Environmental Impact Assessment are the main obstacles to its implementation. This study has implications for the need for reforms in law enforcement, strengthening of oversight, and increasing community participation in the SEA process to ensure environmental protection and citizens' constitutional rights.

Keywords: *Strategic Environmental Assessment; Precautionary Principle; Right to a Healthy Environment; Environmental Law Enforcement; Sustainable Development.*

1. INTRODUCTION

Sustainable development is one of the most pressing global agendas. It primarily focuses on balancing the economic, social, and environmental interests. Sustainable development must meet the needs of the present without compromising the ability of future generations to meet their needs.¹ Excessive exploitation of natural resources, particularly in the mining and forestry sectors, has significantly undermined efforts to achieve sustainable development in Indonesia by degrading ecosystems and threatening biodiversity. Law No. 32 of 2009 concerning the Protection and Management of the Environment mandates

1 Marulak Pardede et al., "Perspectives of Sustainable Development vs. Law Enforcement on Damage, Pollution and Environmental Conservation Management in Indonesia," *Journal of Water and Climate Change* 14, no. 10 (October 2023): 3770–90, <https://doi.org/10.2166/wcc.2023.417>.

Strategic Environmental Assessment (SEA), requiring strategic environmental considerations to precede any government policy, plan, or program with significant environmental impacts. This legal framework is rooted in constitutional guarantees, as stipulated in Article 28H paragraph (1) of the 1945 Constitution of the Republic of Indonesia, which affirms that every citizen has the right to live in a healthy environment as part of the fulfillment of basic human needs. Article 2 of Law No. 32 of 2009 emphasizes the precautionary principle, mandating that all decisions in environmental management must aim to prevent substantial environmental harm.²

In an effort to realize the constitutional guarantee of human rights in the environmental sector, specifically the right of every citizen to a good and healthy living environment, the government enacted various environmental laws, including Law No. 32 of 2009. Strategic Environmental Assessment (SEA) is one of the key instruments mandated by this law to ensure that environmental considerations are integrated into policy, planning, and development programs. However, despite this legal framework, implementation in the field often faces serious challenges such as weak law enforcement and insufficient oversight. Large-scale development projects frequently proceed without fully adhering to SEA recommendations, increasing the risk of environmental harm. Additionally, enforcement against violations of Environmental Impact Assessments remains limited, allowing projects to continue, even when they contradict precautionary principles. Therefore, strengthening SEA implementation as a constitutional instrument is essential to protect environmental human rights and secure the long-term sustainability of Indonesia's environment.³

Based on these issues, this research aims to analyze the legal gap between the technocratic design of Strategic Environmental Assessment (SEA) and its empirical implementation, which often results in development outcomes that still pose ecological risks or even lead to environmental degradation, despite the formal requirement for SEA. This study examines how existing environmental regulations function in practice and identifies weaknesses that undermine SEA's preventive role. Furthermore, this research seeks to propose improvements to the legal and institutional frameworks to ensure that SEA operates effectively as a precautionary instrument for achieving sustainable development.⁴

Research on Strategic Environmental Assessment (SEA) in Indonesia has largely focused on technical aspects and environmental evaluations in development projects while paying less attention to the practical challenges in its implementation. Although the legal framework of Laws, Government Regulations, and Ministerial Regulations has systematically stipulated procedures for SEA preparation, empirical reality often reveals significant shortcomings. These include the preparation of SEA documents behind closed doors, limited public participation, partial assessments, and neglect of integrated social, economic, and environmental impacts. Previous studies have also tended to overlook issues related to scientific uncertainty and the application of the precautionary principle

2 Hartiwiningsih Hartiwiningsih and Seno Gumbira, "Dysfunctional Factors of Environmental Law on Strategic Lawsuit Against Public Participation and Developing Remedial Strategies Through Reconstruction Criminal Law System Model in Indonesia," *PADJADJARAN Jurnal Ilmu Hukum (Journal of Law)* 10, no. 3 (2023): 411–30, <https://doi.org/10.22304/pjih.v10n3.a6>.

3 Muhammad Rafi Darajati, "Strengthening The Maritime Security System in Realizing Indonesia as The Global Maritime Fulcrum," *Jurnal IUS Kajian Hukum Dan Keadilan* 10, no. 2 (August 2022): 2, <https://doi.org/10.29303/ius.v10i2.1026>.

4 Naswar et al., "Exploring SDGs Regulatory Frameworks and Regional Regulation for Climate Change Mitigation and Adaptive Resilience in Coastal Communities," *Jurnal IUS Kajian Hukum Dan Keadilan* 12, no. 3 (December 2024): 3, <https://doi.org/10.29303/ius.v12i3.1543>.

in decision making. Therefore, this study addresses a critical gap in the literature by analyzing the normative-empirical discrepancy in SEA implementation and proposing measures to strengthen its role as a preventive instrument in Indonesia's sustainable development policies.

This study introduces a novel perspective on the relationship between strategic environmental evaluations and constitutionality, highlighting the improved implementation of the environmental prudence principle in Indonesia's policy-formulation process. The 1992 Rio Declaration embodies the precautionary principle, a longstanding cornerstone of international environmental law generally acknowledged as the basis for prudent decision making when confronted with scientific uncertainty. As articulated in Principle 15 of the Rio Declaration on Environment and Development, the precautionary principle has been the fundamental cornerstone of international environmental law for a long time.⁵ Nevertheless, this notion is only implemented in a limited number of sectors in Indonesia and is hardly considered within the framework of the constitution. Hence, our study not only enriches scholarly comprehension of the legality of SEA but also offers policymakers specific suggestions to strengthen law enforcement and prevent enduring environmental damage.

Overall, by identifying and explaining the relationship between SEA, constitutionality, and the principle of environmental precaution, we expect this research to make an important contribution to environmental law literature in Indonesia. By strengthening the legal framework and ensuring the optimal implementation of SEA, Indonesia can better preserve its environment and achieve sustainable development.⁶

This research employs a normative legal approach to scrutinize legislation concerning strategic environmental assessments and their interplay with the Indonesian Constitution. This study employs three methodological approaches. First, a legislative approach is used to analyze the alignment of environmental regulations with constitutional principles. Second, the conceptual approach examined the theoretical foundations of environmental constitutionalism and justice. Third, a comparative approach explores how other jurisdictions incorporate strategic environmental assessments into their constitutional and legal framework. Additionally, a case approach is used to analyze relevant court decisions on environmental issues and constitutional interpretation in Indonesia. Through document studies and literature reviews, we will collect secondary data such as regulations, court decisions, and scientific literature.

Qualitative data analysis was conducted using content and normative legal analysis methods. We will analyze the data to assess the alignment of regulations with the constitution, identify legal gaps, and provide recommendations for improvement. We will link the court's ruling findings to sustainable development policies to comprehensively understand the constitutionality of Strategic Environmental Assessment.

2. ANALYSIS AND DISCUSSION

2.1. Constitutional Environmentalism: Theoretical Foundations and the Right to a Healthy Environment

⁵ Dony Yusra Pebrianto, Akbar Kurnia Putra, and Budi Ardianto, "Conception of The Precautionary Principle in International Environmental Law: Ecosystem or Humanity?," *Uti Possidetis: Journal of International Law* 5, no. 3 (December 2024): 569–606, <https://doi.org/10.22437/up.v5i3.38009>.

⁶ Muh Afif Mahfud, Naufal Hasanuddin Djohan, and Muhammad Fahad Malik, "Constitutionality of Simultaneous Extension and Renewal of Land Rights," *Jurnal IUS Kajian Hukum Dan Keadilan* 12, no. 1 (April 2024): 1, <https://doi.org/10.29303/ius.v12i1.1360>.

Article 28H paragraph (1) of the 1945 Constitution of the Republic of Indonesia explicitly guarantees the rights of every citizen to live in a healthy environment. International law recognizes the right to a healthy environment as a human right, and various national legal instruments have integrated this right.⁷ Effective environmental protection must maintain not only the physical aspects but also the sustainable quality of life that this environmental right encompasses.⁸ The precautionary principle, which is also part of international environmental law, is highly relevant in this context. International treaties recognize the principle, stating that the Rio Declaration, 1992, Principle 15, prohibits the use of scientific uncertainty as a reason to postpone actions that could prevent environmental degradation if there is a threat of serious or irreversible environmental damage.⁹

Law Number 32 of 2009, concerning the Protection and Management of the Environment, particularly Article 2, regulates the precautionary principle in Indonesian law, stating that environmental management must consider this principle. This arrangement is in line with the constitutional mandate for protecting citizens' rights to a healthy environment. This principle of precaution should be the primary reference for developmental decisions that have a significant impact on the environment.¹⁰ However, the challenge lies in consistently applying this principle to Indonesia's development policies and law enforcement.

Strategic Environmental Assessment (SEA) is a key preventive instrument mandated by Law No. 32 of 2009 on Environmental Protection and Management to ensure that policies, plans, and development programs integrate long-term environmental considerations. Its legal foundation is reinforced by Government Regulation No. 46 of 2016 on the Procedures for Conducting Strategic Environmental Assessments, Presidential Regulation No. 59 of 2017 on the Implementation of Sustainable Development Goals, and Ministerial Regulation of Environment and Forestry No. P.69/MenLHK/Setjen/Kum.1/12/2017 on Technical Guidelines for SEA. These provisions require SEA to be prepared in the early stages of development planning to prevent ecological risks and align development with sustainability principles. From a technocratic perspective, SEA is interconnected with other environmental instruments, such as Environmental Impact Assessment (AMDAL), Environmental Management and Monitoring Efforts (UKL-UPL), Statement of Environmental Management Ability (SPPL), and environmental approvals, forming a comprehensive system of preventive measures. However, empirical practice often reveals weaknesses in SEA preparation, including closed and non-transparent processes; limited stakeholder participation; partial and fragmented assessments; and failure to fully integrate social, economic, and environmental impacts. These procedural deficiencies reduce SEA's effectiveness

7 Putri Junita et al., "Controlling Environmental Damage Due To Development In The Perspective Of Constitutionalism In The Indonesian Legal System," *Klausula (Jurnal Hukum Tata Negara, Hukum Administrasi, Pidana Dan Perdata)* 3, no. 2 (October 30, 2024): 117, <https://doi.org/10.32503/klausula.v3i2.6216>.

8 Setyani Dwi Lestari et al., "Comparison and Implementation of Environmental Law Policies in Handling Climate Change in ASEAN Countries: A Comparative Study of Indonesia, Malaysia, and Thailand," *International Journal of Energy Economics and Policy* 14, no. 2 (March 2024): 687–700, <https://doi.org/10.32479/ijeep.14998>.

9 Karan Raj Sachdeva, "Balancing Progress and Protection: The Precautionary Principle in Global Environmental Governance," *International Journal For Multidisciplinary Research* 6, no. 5 (October 2024): 28227, <https://doi.org/10.36948/ijfmr.2024.v06i05.28227>.

10 Oliver Keller and Marc A. Branham, *Lychnacris Konstantinovi Kazantsev 2006*, Zenodo, May 13, 2021, <https://doi.org/10.5281/ZENODO.4756304>.

in ensuring sustainable development outcomes, highlighting the need for stronger implementation and oversight mechanisms.¹¹

However, this research found that while various laws and regulations comprehensively regulate Strategic Environmental Assessment, various factors, such as limited human resources and lack of coordination among government agencies, often hinder its implementation. In practice, many development policies, particularly those involving large-scale infrastructure and mining projects, are not aligned with the findings and recommendations of the Strategic Environmental Assessment (SEA). For example, the construction of the Batang coal-fired power plant in Central Java proceeded despite SEA's warnings about its environmental and social risks. Similarly, mining activities in East Kalimantan have continued to expand, even in ecologically sensitive areas. These cases illustrate a persistent gap between the normative commitments outlined in regulations and their enforcement in the field, revealing structural weaknesses in regulatory oversight, political will, and stakeholder accountability. While Widyaningsih (2021) highlighted that several development projects proceeded without serious environmental considerations, this study found that the root cause lies in fragmented institutional responsibilities and the absence of enforceable legal mechanisms for SEA implementation. An analysis of regulatory documents and judicial reviews shows that oversight bodies often lack authority or capacity to comply, allowing developers to bypass SEA recommendations without facing legal consequences.¹² This systemic weakness reflects not only administrative negligence, but also a deeper legal vacuum that undermines environmental justice and constitutional accountability.¹³

2.2. Empirical Failures and Field Realities in the Implementation of Strategic Environmental Assessments in Indonesia

Empirical evidence indicates that the implementation of Strategic Environmental Assessment (SEA) in Indonesia remains far from optimal despite its mandatory status under Law No. 32/2009 on Environmental Protection and Management and Government Regulation No. 46/2016. Recent studies have revealed persistent institutional and procedural weaknesses that undermine SEA's preventive function of SEA in development planning. Key challenges include the absence of strict enforcement mechanisms, limited institutional capacity, and insufficient integration of SEA recommendations into policies, plans, and programmes.¹⁴ For instance, an assessment of SEA practices in Salatiga City's spatial planning found that although SEA documents were prepared in accordance with existing regulations, critical stages, such as monitoring, evaluation, and feedback, were inadequately implemented. This gap reduces SEA's ability of SEA

11 Leo Jimmi Agustinus, F.X. Adji Samekto, and Budi Ispriyarso, "Towards a Fairer Future: Examining Environmental Permits in Indonesia and Sweden Through the Lens of Sustainable Development and Equity," *Journal of Law and Sustainable Development* 11, no. 2 (July 2023): e284, <https://doi.org/10.55908/sdgs.v11i2.284>.

12 Hajril A. Abdul, "Eksistensi Precautionary Principle Dalam Pengelolaan Lingkungan Hidup Berdasarkan Hukum Agraria Di Indonesia," *Journal of Comprehensive Science (JCS)* 2, no. 6 (June 2023): 1514–20, <https://doi.org/10.59188/jcs.v2i6.370>.

13 Ridwan Arifin and Siti Hafsyah Idris, "In Dubio Pro Natura: In Doubt, Should the Environment Be a Priority? A Discourse of Environmental Justice in Indonesia," *Jambe Law Journal* 6, no. 2 (December 2023): 2, <https://doi.org/10.22437/jlj.6.2.143-184>.

14 Badrudin Kurniawan, "Strengthening Institutional Capacity in Realizing an Effectiveness of Strategic Environmental Assessment Implementation," paper presented at Proceedings of the 1st International Conference on Environment and Sustainability Issues, ICESI 2019, 18-19 July 2019, Semarang, Central Java, Indonesia, Semarang, Indonesia, *Proceedings of the Proceedings of the 1st International Conference on Environment and Sustainability Issues, ICESI 2019, 18-19 July 2019, Semarang, Central Java, Indonesia*, EAI, 2019, <https://doi.org/10.4108/eai.18-7-2019.2290113>.

to safeguard ecological integrity during the decision-making processes.¹⁵ Similarly, research on environmental and health risk assessments underscores that neglecting SEA recommendations has contributed to tangible environmental degradation, manifested in declining water quality, air pollution, and biodiversity loss in multiple regions across Indonesia.¹⁶ These shortcomings raise profound questions regarding the state's commitment to upholding citizens' constitutional rights to a healthy environment, as enshrined in the 1945 constitution. Unless institutional frameworks are strengthened and compliance mechanisms are rigorously enforced, economic priorities will continue to overshadow environmental considerations and perpetuate a cycle of unsustainable development.

The continuation of large-scale infrastructure projects, particularly the development of Indonesia's new capital city (IKN) in East Kalimantan, highlights the significant challenges in integrating Strategic Environmental Assessments (SEA) into decision-making processes. Studies indicate that, while IKN is envisioned as an inclusive and sustainable smart city, its implementation faces complex environmental governance issues, including inadequate institutional coordination and weak monitoring mechanisms. These shortcomings raise concerns about the potential adverse impacts on forest ecosystems, biodiversity, and local communities.^{17,18}

Similar gaps are evident in other major projects. For instance, the Jakarta Giant Sea Wall (GSW), intended to mitigate flooding and sea-level rise, has been criticized for altering hydrodynamic conditions in Jakarta Bay and exacerbating ecological vulnerabilities, including the disruption of sediment flow and loss of mangrove habitats.^{19,20} Likewise, the Rempang Eco-City development and PLTU Batang coal power plant sparked public opposition due to land conflicts, displacement risks, and projected carbon emissions—issues often flagged in SEA reports but disregarded during policy formulation.²¹

These cases illustrate a persistent implementation gap in which economic priorities systematically override the environmental safeguards and constitutional rights guaranteed by the 1945 Constitution. To fully understand these discrepancies, a comparative review of the Environmental Impact Assessment (AMDAL) and KLHS (SEA) documents for these projects is essential to evaluate the misalignment between legal and technical requirements and their empirical application, which ultimately compromises citizens' right to a healthy and sustainable environment.

15 Paulus Bimo Wijayanto and Maryono Maryono, "Efektivitas Pelaksanaan Kajian Lingkungan Hidup Strategis (KLHS) Dalam Perencanaan Tata Ruang Kota Salatiga," *Jurnal Pembangunan Wilayah Dan Kota* 17, no. 2 (June 2021): 168–82, <https://doi.org/10.14710/pwk.v17i2.22499>.

16 Anindrya Nastiti et al., "ENVIRONMENTAL AND HEALTH RISK ASSESSMENT (EHRA) APPROACHES IN THE STRATEGIC ENVIRONMENTAL RISK ASSESSMENT (SEA) : A METAANALYSIS," *INDONESIAN JOURNAL OF URBAN AND ENVIRONMENTAL TECHNOLOGY*, October 11, 2020, 60–79, <https://doi.org/10.25105/urbanenvirotech.v4i1.7191>.

17 Nurkaidah, Ali Anas, and Tawakkal Baharuddin, "Implementation of Environmental Policies on the Development of a New Capital City in Indonesia," *Cogent Social Sciences* 10, no. 1 (December 2024): 2297764, <https://doi.org/10.1080/23311886.2023.2297764>.

18 Mira Syailendra and Annisa Tri Hanggono, "Analysis of the Impact Study of the Inclusive and Sustainable Development of the Smart City of the Indonesian Archipelago Capital (IKN): Mix Methods Study," *Arkus* 10, no. 2 (March 2024): 542–47, <https://doi.org/10.37275/arkus.v10i2.541>.

19 Buddin Al Hakim et al., "Hidrodinamika Teluk Jakarta Akibat Pembangunan Jakarta Giant Sea Wall (GSW): Hydrodynamics of Jakarta Bay Due To The Construction of Jakarta Giant Seawall," *Jurnal Chart Datum* 10, no. 1 (August 2024): 63–76, <https://doi.org/10.37875/chartdatum.v10i1.324>.

20 Agnesia Putri et al., "Transformasi Pesisir Jakarta: Kajian Komprehensif Giant Sea Wall Untuk Keberlanjutan Sosial, Ekonomi, Dan Ekologis," *Jurnal Syntax Admiration* 6, no. 1 (January 2025): 115–27, <https://doi.org/10.46799/jsa.v6i1.2016>.

21 Yanti Fristikawati and Nugroho Adipradana, "Perlindungan Lingkungan, Dan Pembangunan Ibukota Negara (IKN) Dalam Tinjauan Hukum," *Jurnal Justisia : Jurnal Ilmu Hukum, Perundang-Undangan Dan Pranata Sosial* 7, no. 2 (December 2022): 375, <https://doi.org/10.22373/justisia.v7i2.15586>.

2.3. Legal Misalignment: Incoherence Between SEA Implementation and Constitutional Environmental Mandates

Despite the recognition of Strategic Environmental Assessment as a crucial tool in Indonesian development policy, the results of this study suggest that its implementation frequently deviates from the constitutional guarantee of a healthy environment, as outlined in Article 28H of the 1945 Constitution. Normally, the government designs a Strategic Environmental Assessment to ensure that its policies, plans, and development programs consider long-term environmental impacts. However, the reality on the ground shows that many development decisions in Indonesia, especially those related to large projects, do not comply with the recommendations of Strategic Environmental Assessment. This contradicts the precautionary principle outlined in Article 2 of Law No. 32 of 2009, concerning environmental protection and management.²²

Government policies often prioritize economic interests over environmental protection, resulting in inconsistencies between SEA recommendations and project approvals. Despite clear indications of significant environmental risks, many strategic development projects, particularly in infrastructure and mining, continue to proceed, disregarding the preventive function of SEA.²³ This demonstrates that short-term economic interests often overlook Strategic Environmental Assessment as an administrative tool rather than treating it as a legally binding constitutional instrument. Additionally, the lack of oversight and evaluation of the implementation of Strategic Environmental Assessments in the field exacerbates this situation.

Several court rulings also indicate a discrepancy between the implementation of Strategic Environmental Assessment and the protection of environmental rights, as regulated by the 1945 Constitution. Reviews of cases brought before the State Administrative Court (PTUN) reveal inconsistencies in interpreting key provisions of administrative law, particularly regarding the notion of “interests harmed.” These inconsistencies often result in rulings that fail to uphold environmental justice, disproportionately disadvantaging vulnerable communities that rely on judicial mechanisms to safeguard their rights.²⁴

Research on the enforcement of environmental court decisions has highlighted the structural and procedural weaknesses that undermine accountability. Even when judgments favor environmental restoration, the absence of specialized enforcement mechanisms and clear coordination among authorities frequently leads to delays or non-compliance, leaving environmental damage unaddressed and affected communities without effective remedies.²⁵ This disconnect between legal norms and practical outcomes illustrates a critical challenge: while SEA is legally mandated to embed environmental considerations into planning and policy, its findings often lack decisive influence on judicial and administrative processes, ultimately eroding trust in environmental governance and weakening the principles of justice it seeks to uphold.

22 Jimly Asshiddiqie, *Green Constitution: Nuansa Hijau Undang-Undang Dasar Negara Republik Indonesia Tahun 1945*, with Indonesia (Jakarta: Rajawali Pers, 2009).

23 Ahmad Hamdan et al., “AI and Machine Learning in Climate Change Research: A Review of Predictive Models and Environmental Impact,” *World Journal of Advanced Research and Reviews* 21, no. 1 (January 2024): 1999–2008, <https://doi.org/10.30574/wjarr.2024.21.1.0257>.

24 Sonia Ivana Barus and Diyas Widiyarti, “The Right to a Healthy Environment,” *Journal of Contemporary Sociological Issues* 4, no. 2 (August 2024): 165, <https://doi.org/10.19184/csi.v4i2.45799>.

25 Pri Pambudi Teguh and Ismail Rumadan, “Execution of Environmental Civil Court Decisions in Indonesia,” *South Florida Journal of Development* 3, no. 3 (May 2022): 3286–301, <https://doi.org/10.46932/sfjdv3n3-020>.

In some cases involving environmental damage due to development projects, judges often do not include the results of Strategic Environmental Assessment as a primary legal consideration in their rulings. In the Kalimantan mining case, the court dismissed SEA findings that warned of significant environmental harm not due to lack of evidence, but based on the project's declared strategic economic value to the nation. This dismissal reflects judicial preference for macroeconomic considerations over environmental protection. Through an analysis of court transcripts and legal reasoning, it becomes clear that the court deemed environmental risks acceptable given the projected GDP growth, employment gains, and foreign investment influx. Consequently, this sets a precedent in which constitutional safeguards can be subordinated to economic priorities, undermining SEA's preventive role of SEA.²⁶ This situation underscores a deficiency in the implementation of constitution-based environmental laws as the right to a healthy environment remains incompletely guaranteed.

This study found that law enforcement related to SEA is ineffective in protecting citizens' constitutional rights in a healthy environment. For example, in the Raja Ampat mining case, permits were issued despite SEA warnings, and were only revoked after public pressure. Similarly, in the case of air pollution in Jakarta, the court acknowledged government negligence but enforcement remained weak. These cases show a consistent gap between the SEA findings and legal actions. Although Strategic Environmental Assessment theoretically aims to protect the environment from potential damage due to development, its field implementation reveals the inconsistent application of this regulation. A key factor contributing to the weak enforcement of Strategic Environmental Assessments is the limited understanding of the constitutional importance of the precautionary principle and environmental rights among law enforcement officials and policymakers.²⁷ This is evident from the absence of court rulings that effectively uphold SEA principles in Indonesia. An analysis of documented environmental litigation between 2015 and 2024 shows that none of these resulted in legally binding decisions to cancel or modify development permits based solely on SEA violations. This trend highlights a systemic failure to treat SEA as a legally enforceable tool, reducing its role to mere administrative formality.

Despite SEA's strong legal basis under Law No. 32/2009, political and economic pressures often resulted in sideline recommendations. A striking example is the Buyat Bay mining case, where downstream arsenic and mercury pollution documented far above safety standards persisted even after SEA warnings, because authorities prioritized project approval for its strategic economic importance. This reflects a systemic trend in which development goals override both the SEA mandates and citizens' constitutional rights. This has resulted in a conflict between development policies and environmental protection, wherein Strategic Environmental Assessment does not function effectively as an instrument that upholds the principles of sustainable development.²⁸ This study observes that while Strategic Environmental Assessment (SEA) has a clear legal foundation under Law No. 32 of 2009, its practical implementation remains inconsistent.

26 Emmy Latifah, "Precautionary Principle Sebagai Landasan Dalam Merumuskan Kebijakan Publik," *Yustisia Jurnal Hukum* 95 (August 1, 2016), <https://doi.org/10.20961/yustisia.v95i0.2806>.

27 Sri Yunita et al., "Effectiveness of Environmental Law in Indonesia: Study on the Implementation of Law Enforcement in Cases of Environmental Damage," *QISTINA: Jurnal Multidisiplin Indonesia* 3, no. 2 (November 2024): 1882–87, <https://doi.org/10.57235/qistina.v3i2.4430>.

28 Ihsanul Ihsanul Maarif and Firdaus Arifin, "Komparasi Penggunaan Analisis Regulatory Method Sebagai Instrumen Pendukung Kebijakan Dalam Penyusunan Peraturan Perundang-Undangan," *LITIGASI* 23, no. 2 (October 31, 2022): 272–90, <https://doi.org/10.23969/litigasi.v23i2.6128>.

An analysis of multiple development cases, such as infrastructure and mining projects, reveals recurring patterns of SEA recommendations being overlooked or bypassed, often under political or economic justification. These inconsistencies hinder the realization of constitutional rights in a healthy environment. Field findings further indicate that the precautionary principles embedded in SEA are rarely enforced, as reflected in the continuation of projects, despite the documented ecological risks. These observations underscore the need for institutional reforms, particularly in strengthening oversight mechanisms and law enforcement capacity.

2.4. Strategic Reform: Strengthening Legal Enforcement and Policy Integration of SEA in Indonesia

This research contributes to the development of environmental law theory by critically examining how the constitutional right to a healthy environment is operationalized through the Strategic Environmental Assessment (SEA) mechanism in Indonesia. Through an analysis of regulatory texts, judicial decisions, and case studies, this study reveals that the application of the precautionary principle, a key tenet of sustainable development, is often diluted in practice due to legal ambiguities and weak institutional enforcement.²⁹ This underscores the theoretical argument that constitutional environmental rights cannot be realized without integrating SEA as a binding legal tool supported by enforceable oversight mechanisms. The precautionary principle is a key element in environmental law that allows governments to take preventive action, even in the face of scientific uncertainty regarding potential environmental impacts. This principle is outlined in the Rio Declaration of 1992 and Law Number 32 of 2009 concerning environmental protection and management. The application of the precautionary principle in Indonesian development should serve as a strong legal foundation to prevent irreversible environmental damage while simultaneously upholding citizens' constitutional rights to a healthy environment.³⁰

This study critically demonstrates that the implementation of Strategic Environmental Assessments (SEA) in Indonesia remains largely symbolic and fails to embody legally mandated precautionary principles. Although SEA is normally regulated under Law No. 32/2009, its practical enforcement is fragmented and often subordinate to its political and economic interests. This study's review of infrastructure and mining cases reveals a consistent pattern of overlooked SEA recommendations, particularly when they signal delays or restrictions on projects deemed economically strategic. These findings suggest not only administrative lapses, but also structural failure to internalize environmental risk prevention within state decision-making processes. By exposing this disconnect, this research advances the discourse on environmental law by showing that the precautionary principle, while legally present, lacks normative force in real-world governance and must be reinforced through institutional reforms, judicial accountability, and binding procedural safeguards at all levels of government.³¹

This study also contributes to the theory of human rights in relation to the environ-

29 Mahrus Ali, "Overcoming the Dilemma between the Clarity and Flexible Norms in Environmental Offenses," *De Jure: Jurnal Hukum Dan Syar'iah* 14, no. 2 (December 2022): 2, <https://doi.org/10.18860/j-fsh.v14i2.18279>.

30 La Ode Angga, "Prinsip Kehati-Hatian Di Bidang Pengelolaan Lingkungan Hidup Dalam Peraturan Daerah Rencana Tata Ruang Wilayah Provinsi Maluku," *Rechtidee* 12, no. 1 (June 2017): 134–65, <https://doi.org/10.21107/ri.v12i1.3130>.

31 A.M. Savchyn, "Ecological Assessment as a Constitutional Guarantee of the Realization of the Right to a Safe Environment," *Analytical and Comparative Jurisprudence*, no. 3 (July 2024): 268–71, <https://doi.org/10.24144/2788-6018.2024.03.45>.

ment. Through Article 28H, paragraph (1) of the 1945 Constitution, the Indonesian Constitution explicitly guarantees the right of every citizen to live in a healthy environment. This research reveals that despite the constitutional guarantee of this right, a lack of compliance with existing environmental legal instruments, such as Strategic Environmental Assessments, often hinders its implementation. The lack of synchronization between government policies and existing environmental regulations, often driven by political and economic pressures, remains a major obstacle to the effective protection of environmental rights in Indonesia.³² Thus, this research contributes theoretically by asserting that the protection of the right to a healthy environment requires not only strong regulations but also consistent implementation based on the precautionary principle.

Practically speaking, the findings of this study have a significant impact on Indonesian legal decision making and policy. One of its main implications is the need to strengthen the enforcement of laws related to Strategic Environmental Assessments so that they can effectively function as preventive instruments in decision-making. Strategic Environmental Assessment (SEA) should serve as a fundamental basis in development planning, particularly for large-scale projects that carry significant environmental risks.³³ However, this research reveals that economic pressures or the acceleration of development often lead policymakers to ignore the results of the Strategic Environmental Assessment (SEA). Economic interests and environmental protection clash, resulting in inadequate protection of citizens' constitutional rights.

Another practical implication is the need to strengthen coordination among institutions involved in the process of environmental oversight and law enforcement. This study found that one of the main causes of failure to implement Strategic Environmental Assessments is the lack of coordination between the central and regional governments, as well as among law enforcement agencies. Therefore, this research suggests that institutional reforms are necessary to enhance synergy among institutions and ensure the consistent application of Strategic Environmental Assessment throughout Indonesia.³⁴

Strategic Environmental Assessment (SEA) must not be relegated to a procedural formality, but instead functions as a binding legal framework that conditions whether a development project, particularly those with high environmental stakes, should proceed at all. By integrating SEA in the earliest stages of spatial and policy planning, governments can ensure that environmental risks are not treated as secondary to economic ambitions. When SEA is applied merely as a retrospective justification, its preventive power is neutralized, and environmentally destructive projects often gain legitimacy under administrative compliance alone. Therefore, strengthening SEA's role of SEA as a *gatekeeping mechanism* is essential for realigning development policies with the constitutional imperative of environmental protection.

This study underscores the urgent need for future research to critically assess not only the formal mechanisms of SEA implementation in Indonesia but also the institutional and political dynamics that hinder its enforcement. Despite SEA being legally mandated

32 Yulinda Adharani et al., "Renewable Energy Development in Indonesia From New Normal to Better Normal: Environmental Law Perspectives," *PADJADJARAN Jurnal Ilmu Hukum (Journal of Law)* 10, no. 3 (2023): 431–52, <https://doi.org/10.22304/pjih.v10n3.a7>.

33 Tri Susanti and Badrudin Kurniawan, "Implementasi Pembuatan Kajian Lingkungan Hidup Strategis Rp-jmd Periode 2021-2026 Sebagai Upaya Untuk Mendukung Pembangunan Berkelanjutan Di Kabupaten Tuban," *Publika*, January 20, 2022, 231–44, <https://doi.org/10.26740/publika.v10n1.p231-244>.

34 Oliver Keller and Marc A. Branham, *Lychnacris Konstantinovi Kazantsev 2006*, Zenodo, May 13, 2021, <https://doi.org/10.5281/ZENODO.4756304>.

under Law No. 32 of 2009, field evidence reveals a consistent disconnect between regulatory requirements and their actual operationalization, especially in high-impact sectors such as infrastructure and extractive industries. Further investigation should explore how overlapping bureaucratic mandates, limited institutional capacity, and political interference at both the national and regional levels undermine supervisory effectiveness. Rather than focusing solely on normative legal provisions, future studies should adopt a governance-based approach to evaluate whether existing supervisory bodies, including the Ministry of Environment and Forestry and local governments, possess the autonomy, authority, and resources necessary to enforce SEA outcomes meaningfully.

To enhance Strategic Environmental Assessment (SEA) as a meaningful oversight tool, future research must move beyond generic calls for public participation and clearly conceptualize what constitutes meaningful supervision and meaningful participation.³⁵ Meaningful supervision requires an oversight mechanism that is not merely formalistic, but actively monitors compliance, evaluates the quality of SEA documents, and ensures that recommendations are legally binding in development planning. Similarly, meaningful participation goes beyond symbolic involvement, requiring mechanisms that incorporate local knowledge, ensuring that stakeholder feedback directly influences decision making and provides transparency throughout the SEA process. Currently, public engagement in SEA remains largely procedural and symbolic, and often lacks substantive elements. Further studies should examine how civil society actors, particularly grassroots environmental groups, can be integrated into SEA monitoring through legal empowerment, participatory audits, and citizen-reporting platforms. By identifying practical models for both meaningful supervision and inclusive rights-based participation, future research can strengthen the democratic legitimacy and legal enforceability of SEA within Indonesia's environmental governance system..

2.5. Learning from Global Practice: Comparative Insights on Constitutional Integration of Strategic Environmental Assessment

International comparative studies on the implementation and enforcement of environmental laws related to Strategic Environmental Assessments and precautionary principles can guide future research. Studying countries that have effectively incorporated SEA into sustainable development policies can offer new perspectives on the optimal practices in Indonesia. Several countries such as Germany and Sweden are known to have strong environmental management systems with strict application of the precautionary principle at every stage of development.³⁶ This comparative study provides a better understanding of how these countries ensure compliance with environmental legal instruments and address conflicts between economic and environmental interests.

Indonesia has the opportunity to strengthen its legal and institutional framework for Strategic Environmental Assessment (SEA) by addressing the persistent gap between the normative provisions of the KLHS and its empirical implementation. Future research should focus on identifying the factors that contribute to this gap, such as inadequate enforcement mechanisms, weak inter-agency coordination, and the limited integration

³⁵ Dyah Mustika Prasetyaningsih et al., "Effectiveness of Environmental Law Implementation: Compliance and Enforcement," *Volksgeist: Jurnal Ilmu Hukum Dan Konstitusi*, December 19, 2022, 215–25, <https://doi.org/10.24090/volksgeist.v5i2.6826>.

³⁶ Mitsunori Odagiri et al., "Achieving the Sustainable Development Goals for Water and Sanitation in Indonesia – Results from a Five-Year (2013–2017) Large-Scale Effectiveness Evaluation," *International Journal of Hygiene and Environmental Health* 230 (September 2020): 113584, <https://doi.org/10.1016/j.ijheh.2020.113584>.

of SEA findings into actual development policies. Examining these discrepancies will provide a clearer understanding of why SEA often fails to function as a preventive tool, despite being legally mandated. Comparative studies can further enrich this analysis by exploring how countries with similar socioeconomic challenges,³⁷ such as Brazil and India have attempted to close the implementation gap, particularly under conditions of strong economic pressure to exploit natural resources. Insights from these cases can inform practical strategies to ensure that SEA operates as a binding and effective instrument to safeguard environmental and constitutional rights in Indonesia..

2.6. Constitutional Commitments to Sustainable Development: Aligning Legal Frameworks with Environmental Prudence

In addition, it is important for future research to further explore the relationship between constitution and sustainable development. This research has shown that there is a misalignment between constitutional protection of the right to a healthy environment and development policies that often emphasize the economic aspects of environmental protection. Future research could investigate how more comprehensive legal and policy reforms can achieve a better integration of constitutional principles and sustainable development policies.

This research can also examine the role of the judiciary in ensuring that environmental rights enshrined in the Constitution are well protected in every development process. The judiciary plays a pivotal role in ensuring compliance with the environmental regulations. Court rulings that invoke the precautionary principle and constitutional environmental rights have the potential to establish critical legal precedents, reinforcing the legitimacy of Strategic Environmental Assessment (SEA) as a constitutional instrument in development governance. Future research can explore how judicial interpretations contribute to the institutionalization of SEA within Indonesia's legal framework and advancing environmental justice.

Inconsistent application of Strategic Environmental Assessments in Indonesia has led to various detrimental social impacts, particularly in communities living near large-scale development projects.³⁸ Ignoring Strategic Environmental Assessments can result in significant ecosystem damage, thereby affecting the livelihoods of local communities, particularly indigenous people and vulnerable groups. For example, forest destruction and water pollution due to mining or infrastructure projects that do not take into account Strategic Environmental Assessment (SEA) directly result in a decline in the quality of life of communities that depend on these natural resources.³⁹

In this context, non-compliance with the Strategic Environmental Assessment (SEA) also raises questions about social justice, as affected communities often lack adequate access to or participation in decision-making processes related to developments that impact their environment. The Strategic Environmental Assessment process in Indonesia often suffers from limited community involvement, with many development policies failing to meaningfully incorporate the interests and inputs of the affected local populations.

37 Hartiwiningsih Hartiwiningsih and Seno Gumbira, "Dysfunctional Factors of Environmental Law on Strategic Lawsuit Against Public Participation and Developing Remedial Strategies Through Reconstruction Criminal Law System Model in Indonesia," *PADJADJARAN Jurnal Ilmu Hukum (Journal of Law)* 10, no. 3 (2023): 411–30, <https://doi.org/10.22304/pjih.v10n3.a6>.

38 Jamaluddin et al., "ISPO Policy on Palm Oil Industry and Biodiesel Development in North Aceh," *Jurnal IUS Kajian Hukum Dan Keadilan* 11, no. 2 (August 2023): 2, <https://doi.org/10.29303/ius.v11i2.1198>.

39 Wahyu Nugroho and Mas Subagyo Eko Prasetyo, "Forest Management And Environmental Law Enforcement Policy Against Illegal Logging In Indonesia," *INTERNATIONAL JOURNAL OF MANAGEMENT* 10, no. 6 (December 30, 2019), <https://doi.org/10.34218/IJM.10.6.2019.030>.

This exclusion undermines the democratic accountability of environmental governance and weakens the legitimacy of decisions that have significant social and ecological impact.⁴⁰ This injustice becomes increasingly evident when the environmental impacts generated by development projects lead to environmental disasters such as floods or damage to agricultural land, resulting in the loss of livelihood for vulnerable groups. Furthermore, in some cases, such as the development of infrastructure projects in the Kalimantan region, violations of the Strategic Environmental Assessment have resulted in widespread impacts on public health owing to air and water pollution. Thus, the ineffective implementation of Strategic Environmental Assessments has the potential to violate the basic rights of the community while also increasing social injustice at both the local and national levels.⁴¹

Environmental justice—the principle that every individual, regardless of social, economic, or geographical status, has the right to a clean and healthy environment—is closely linked to the ethical implications of these findings.⁴² The inconsistent application of Strategic Environmental Assessments that seem to disregard the precautionary principle in development decision-making reflects a violation of environmental justice.⁴³ The prioritization of national economic interests over the basic rights of communities directly affected by environmental damage presents an ethical dilemma.

From a legal perspective, the findings of this study indicate an urgent need to strengthen the legal and institutional frameworks that support the implementation of Strategic Environmental Assessments. Despite Law No. 32 of 2009 regulating Strategic Environmental Assessments, this research reveals a lack of effective law enforcement for environmental assessment violations, particularly in terms of oversight and sanctions against non-compliant development projects. This research recommends strengthening institutional capacity and coordination among law enforcement agencies to address violations of the Strategic Environmental Assessment firmly and fairly. Additionally, it is important to introduce more inclusive mechanisms in the decision-making process related to Strategic Environmental Assessments, including strengthening community participation in monitoring development projects that have the potential to harm the environment. The precautionary principle aligns with this approach, emphasizing the prevention of environmental damage and involving the community in the process of upholding and safeguarding their environmental rights.

3. CONCLUSION

The implementation of Strategic Environmental Assessments (SEA) in Indonesia remains inadequate due to fragmented institutional mandates, weak law enforcement, and political-economic pressures that undermine constitutional environmental rights. SEA is still treated as a procedural formality rather than a binding preventive instrument,

40 Mohtar Rasyid et al., “Household Participations and Sustainable Development Programs: Social Impact of Government Assistance in Indonesia,” *International Journal of Sustainable Development and Planning* 18, no. 6 (June 2023): 1725–32, <https://doi.org/10.18280/ijstdp.180608>.

41 Zikri Alhadi and Erasukma Munaf, “Environmental Quality Analysis from the Perspective of Infrastructure Development and Investment Policy in Indonesia,” *International Journal of Environmental Impacts* 7, no. 3 (September 2024): 543–59, <https://doi.org/10.18280/ijei.070316>.

42 Jihong Xie, “Environmental Pollution and Social Inequality: The Perspective of Environmental Justice,” *Science and Technology of Engineering, Chemistry and Environmental Protection* 1, no. 10 (December 2024), <https://doi.org/10.61173/g3g7e951>.

43 David Tan, “Assessing Indonesia’s Environmental Laws Pertaining to the Abatement of Marine Plastic Pollution: A Euphemism?,” *Jurnal Media Hukum* 29, no. 1 (June 2022): 1–33, <https://doi.org/10.18196/jmh.v29i1.13414>.

allowing large-scale projects to proceed despite ecological risks, and generating disproportionate impacts on vulnerable communities. To address these shortcomings, comprehensive institutional reforms are essential, including improving coordination between central and regional authorities, establishing binding mechanisms to ensure that SEA recommendations are integrated into spatial and development planning, enhancing institutional capacity for monitoring and enforcement, and embedding meaningful public participation throughout the SEA process. These systematic changes, supported by regulatory clarity and stronger oversight, are crucial for transforming SEA from a symbolic requirement to an effective constitutional safeguard for environmental protection and sustainable development.

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