

The implementation of sustainable development principles within Indonesia's national legal system: Challenges and pathways toward a green society

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Abstract

This study critically analyzes the implementation of sustainable development principles within Indonesia's national legal system, emphasizing the challenges and strategic pathways necessary to achieve a green and sustainable society. The integration of sustainability principles has become a global priority following the adoption of the Sustainable Development Goals (SDGs), compelling states harmonize their legal frameworks with environmental and social objectives. In Indonesia, these principles are embedded within several national regulations, including those governing environmental protection, spatial planning, and economic development. However, despite the existence of a comprehensive legal framework, the effectiveness of its implementation remains limited due to policy inconsistencies, weak institutional capacity, and inadequate law enforcement mechanisms. Using a normative juridical approach supported by legal and policy analysis, this study examines the extent to which the principle of sustainability has been internalized within Indonesia's legislative system and how it operates within the broader context of environmental governance. The findings reveal that the main obstacle lies not in the absence of legal norms but in their fragmented and sectoral enforcement. Therefore, strengthening institutional coordination, promoting legal awareness, enhancing public participation, and harmonizing sectoral regulations are essential to ensure a more coherent and effective realization of sustainable development objectives. Ultimately, this study aims to contribute to the development of a national legal system that is more responsive, environmentally oriented, and capable of supporting Indonesia's transition toward a green society.

Keywords

Sustainable development, National legal system, Environmental governance, Legal implementation, Green society

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Introduction

Sustainable development has constituted a principal foundation of global policy since the adoption of the Sustainable Development Goals (SDGs) in 2015 [1]. The SDGs were formulated to address a broad spectrum of critical dimensions of human well-being and environmental preservation, including poverty alleviation, public health improvement, equitable access to education, gender equality, and environmental protection [2]. However, significant obstacles continue to impede their realization, such as socio-economic inequality, disparities in health and welfare, limited access to quality education, insufficient participation and partnerships, policy an infrastructure constraint, as well as climate change and environmental degradation [3]. Among these challenges, the most prominent and urgent concern is the intensifying global pressure arising from climate change and accelerating environmental degradation. Climate change has become a transboundary threat characterized by rising global temperatures, increasing ecosystem disruptions, the melting of polar ice sheets as a result of global warming, and rising sea levels that threaten coastal regions [4].

In responding to these circumstances, the urgency of transitioning toward a green society has become increasingly evident. A green society refers to a societal order that places sustainability at its core through the use of clean energy, responsible consumption and production patterns, robust environmental governance, and active public participation in maintaining ecological balance [5]. To this concept also encompasses the integration of sustainability values into public policy, technological innovation, and legal culture, thereby ensuring that development is no longer grounded in resource exploitation but instead in efficiency, conservation, and intergenerational equity. The urgency of advancing toward a green society is directly linked to the legal domain. The legal system plays a central role in shaping regulatory frameworks, oversight mechanisms, enforcement instruments, and institutional structures that collectively determine the direction of national development [6]. In other words, the achievement of the SDGs depends not only on economic or technological policies but also significantly influenced by the extent to which sustainability principles are internalized within the national legal system. Therefore, examining the relationship between the SDGs, global pressures, and legal transformation is crucial for strengthening sustainable development at the national level.

In Indonesia, the commitment to sustainable development is reflected in various constitutional instruments and laws, and regulations. The *Undang-Undang Dasar Negara Republik Indonesia Tahun 1945* (The 1945 Constitution of the Republic of Indonesia) through *Pasal 28H ayat (1)* (Article 28H paragraph (1)) states that the state guarantees the right of every person to obtain a good and healthy living environment, while *Pasal 33 ayat (3)* (Article 33 paragraph (3)) emphasizes that the earth, water, and natural resources contained shall be controlled by the state and utilized for the greatest prosperity of the people [7]. This constitutional foundation is further reinforced by *Undang-Undang Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan*

Hidup (Law No. 32/2009 on Environmental Protection and Management) [8], as amended by *Undang-Undang Nomor 11 Tahun 2020 tentang Cipta Kerja* (Law No. 11/2020 on Job Creation) [9], which regulates sustainable development principles through instruments such as AMDAL, environmental licensing, administrative and criminal enforcement, and precautionary natural resource management. Moreover, the direction of national development policy articulated in the *Rencana Pembangunan Jangka Menengah Nasional (RPJMN)* explicitly incorporates sustainability as a strategic priority, including climate change mitigation, disaster resilience, and sustainable environmental governance. Indonesia has also asserted its commitment through its Nationally Determined Contribution (NDC) to reducing greenhouse gas emissions in alignment with the Paris Agreement and the overarching objectives of the SDGs. Collectively, these legal and policy frameworks indicate that Indonesia not only recognizes the urgency of sustainable development but also endeavors to integrate it into national governance, despite ongoing implementation challenges.

Despite the existence of a relatively comprehensive legal and policy framework supporting sustainable development, implementation remains fragmented and not yet fully internalized within the national legal system [10]. Deficiencies within current law enforcement frameworks constitute a significant barrier that diminishes the capacity and impact of adaptation efforts [11]. Sectoral regulations often operate inconsistently with sustainability principles, inter-agency coordination remains weak, and environmental law enforcement frequently encounters constraints related to institutional capacity, political dynamics, and regulatory certainty, thereby generating a persistent gap between normative legal strength and practical execution [12]. Various studies and official reports continue to demonstrate that environmental issues in Indonesia are shaped by weaknesses in regulatory design and natural resource management practices. The study in book by A. Kurniawan, et al. [13] underscores that policy changes following the Omnibus Law have narrowed public participation, heightened environmental risks, and strengthened the influence of extractive sectors in policymaking processes [14]. Similarly, analyses published in *Majalah Hukum Nasional* [12] show that environmental regulations remain sectoral, non-integrated, and have yet to clearly embed climate change mitigation and adaptation principles as binding legal norms. Taken together, these findings reaffirm that Indonesia's environmental challenges have long been identified by scholars and institutions, particularly regarding weak ecological protection and the limited effectiveness of the existing regulatory framework.

Most previous studies have tended to focus on sectoral issues such as weak inter-agency coordination, regulatory overlap, or misalignment between economic policies and environmental protection. However, there remains a limited body of research that provides a comprehensive assessment of how the principles of sustainable development are fully internalized within the overall legal framework from foundational norms and licensing instruments to enforcement mechanisms. This condition indicates

a significant research gap in evaluating the coherence of existing regulations and the extent to which institutional structures and legal instruments support the effective implementation of sustainability principles.

This study addresses that gap by systematically examining the relationship between the normative framework, institutional structure, and practical challenges in the implementation of environmental policies. A normative approach is employed to present a more holistic understanding of how various legal instruments, sectoral regulations, and development policies interact in efforts to realize sustainable development. By focusing on the integration of sustainability principles into the legal system, this research offers an analytical perspective that illustrates how the strengths and weaknesses of the current regulatory framework influence Indonesia's efforts toward a green society.

In line with these objectives, this study aims to:

1. Evaluate the extent to which the principles of sustainable development have been accommodated within Indonesia's national legal framework;
2. Identify implementation barriers and challenges arising from regulatory, institutional, and political dynamics; and
3. Provide recommendations for strengthening environmental law and governance to support long-term sustainability.

Method

This study employs a normative juridical method that focuses on analyzing the legal norms governing sustainable development in Indonesia. Normative legal research views law as a set of norms; therefore, the entire analytical process is conducted through a literature-based review of primary, secondary, and tertiary legal sources. In this type of research, data are obtained from legal documents, including legislation, court decisions, policy papers, legal theories, and expert opinions [15]. Accordingly, this method does not utilize empirical data but instead examines the prevailing normative provisions and evaluates their coherence within the sustainable development framework.

The primary legal sources in this study include the:

1. Undang-Undang Dasar Negara Republik Indonesia Tahun 1945 (The 1945 Constitution of the Republic of Indonesia);
2. Undang-Undang Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup (Law No. 32/2009 on Environmental Protection and Management);
3. Undang-Undang Nomor 11 Tahun 2020 tentang Cipta Kerja (Law No. 11/2020 on Job Creation);

4. Peraturan Pemerintah Nomor 22 Tahun 2021 tentang Penyelenggaraan Perlindungan dan Pengelolaan Lingkungan Hidup (Government Regulation No. 22/2021 on the Implementation of Environmental Protection and Management);
5. Putusan Nomor 59/G/LH/2023/PTUN.JKT, Perkara Pembatalan SK Kelayakan Lingkungan PT Dairi Prima Mineral, 2023; and
6. Putusan Nomor 44/Pdt.G/LH/2018/PN.Bgl, Perkara WALHI vs. PT Kusuma Raya Utama, 2018.

Secondary sources consist of academic literature, journal articles, official reports, and analytical documents related to sustainable development. Tertiary sources, such as legal dictionaries and encyclopedias, are used to reinforce conceptual understanding.

Data analysis is conducted through systematic, conceptual, and comparative interpretation. Systematic interpretation assesses the consistency among regulations within the legal system; conceptual interpretation examines the core principles of sustainability; and comparative analysis explores the relationship between the normative framework and sustainable development policy. These techniques enable the researcher to evaluate regulatory coherence, identify normative gaps, and assess the effectiveness of existing legal arrangements within the national legal context.

In addition, this research is descriptive in nature, aiming to systematically and accurately portray existing legal conditions and emerging juridical phenomena [15]. The descriptive orientation is used to explain the implementation of sustainable development principles within Indonesia's legal system and to identify normative and institutional obstacles to achieving a green society. This approach allows the research to reveal discrepancies between legal norms (*das sollen*) and development practices (*das sein*), thereby identifying critical issues and potential areas for regulatory improvement. The normative juridical method is selected because it is the most appropriate for addressing the research questions, namely how the principles of sustainable development are integrated into the national legal system and the extent to which the regulatory framework facilitates a transition toward more sustainable development.

Results and discussion

In the following section, this study presents the findings of a normative juridical analysis derived from an examination of statutory regulations and judicial practices in the field of environmental law. These findings are further analyzed to assess the consistency between normative frameworks and their practical implementation, including how the principles of sustainable development are tested and interpreted through judicial decisions. The results reveal a number of significant dynamics in the integration of sustainability principles within Indonesia's legal system. Accordingly, this section outlines the key outcomes of the normative analysis, complemented by an assessment of two judicial cases that illustrate how sustainability principles are implemented, contested, and legally scrutinized. The subsequent discussion elaborates on the

implications of these findings for the effectiveness of environmental regulation and the direction of legal reforms needed to strengthen the achievement of sustainable development objectives in Indonesia.

Results

The findings of this study indicate that the principles of sustainable development have obtained a solid normative foundation within Indonesia's national legal system; however, they have not yet been consistently internalized across implementing regulations. The analysis of the UUD 1945 (*The 1945 Constitution of the Republic of Indonesia*) shows that the constitutional guarantee of the right to a good and healthy environment as stated in *Pasal 28H ayat (1)* (*Article 28H paragraph (1): the right to a good and healthy environment*) and the mandate concerning state control over natural resources for the greatest prosperity of the people as provided in *Pasal 33 ayat (3)* (*Article 33 paragraph (3): state control of natural resources*) establish a clear legal basis for incorporating sustainability principles. However, these constitutional provisions have not been fully translated into operational policies capable of ensuring comprehensive ecological protection.

An examination of *Undang-Undang Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup* (*Environmental Protection and Management Act*) demonstrates that principles such as sustainability, precaution, and public participation are explicitly recognized. Nevertheless, their implementation remains limited, particularly in terms of institutional coordination, the effectiveness of the AMDAL (*Environmental Impact Assessment*) instrument, and legal certainty in environmental permitting. These limitations become evident through inconsistencies between AMDAL requirements and the risk-based licensing system introduced under *Undang-Undang Nomor 11 Tahun 2020 tentang Cipta Kerja* (*Job Creation Act*), which in practice tends to simplify licensing processes without proportionally strengthening environmental safeguards.

The analysis of national policy instruments, including the RPJMN (*National Medium-Term Development Plan*) and Indonesia's *Nationally Determined Contribution (NDC)*, reveals that the government has incorporated emission reduction efforts, climate resilience measures, and strengthened environmental governance as part of its strategic commitments. However, at the implementation level, sectoral policies in energy, mining, plantations, and forestry continue to prioritize short-term economic interests. This results in fragmented and non-harmonized integration of sustainability principles, thereby weakening the overall effectiveness of environmental damage control.

The findings further show that Indonesia's legal framework has not yet consistently operationalized climate change mitigation and adaptation principles across all sectors. The absence of binding cross-sectoral standards leads to regulatory fragmentation and challenges in harmonizing sectoral policies. Moreover, environmental law enforcement

remains constrained by limited institutional capacity, weak monitoring systems, and overlapping authorities between central and regional governments.

The assessment of judicial decisions and academic literature indicates that, although environmental litigation has increased in recent years, the judicial application of sustainability principles remains uneven. Some decisions reflect a progressive ecological orientation, whereas others maintain a narrow administrative interpretation. This inconsistency demonstrates that the judicial understanding of sustainability continues to evolve and requires further reinforcement through legal doctrine and clearer judicial guidelines.

Overall, these findings suggest that the primary obstacles do not lie in the availability of legal norms, but in weak implementation, insufficient cross-sectoral coordination, and the suboptimal functioning of legal instruments intended to ensure effective environmental governance. Policy fragmentation, regulatory uncertainty, and limited public participation further hinder the realization of sustainable development within Indonesia's legal system.

Discussion

The findings of this study show that Indonesia's national legal system has, in principle, provided an adequate normative framework to support sustainable development. However, its implementation continues to face fundamental challenges. This can be seen from regulatory disharmony, weak interinstitutional coordination, and inconsistencies in law enforcement. These findings reinforce the understanding that the gap does not lie solely in the availability of legal norms, but rather in the way those norms are translated into administrative actions and judicial decisions.

First, the analysis of the *Undang-Undang Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup* (Law No. 32/2009 on Environmental Protection and Management), the risk-based licensing system in the *Undang-Undang Nomor 11 Tahun 2020 tentang Cipta Kerja* (Law No. 11/2020 on Job Creation), and national development policies indicates a lack of coherence between ecological protection objectives and sectoral economic interests. This policy fragmentation directly affects the effectiveness of implementing the precautionary principle, intergenerational justice, and public participation. Although sustainability principles are clearly articulated in statutory regulations, they are often not treated as primary considerations in administrative decision-making. This condition reflects a policy shift towards deregulation and investment acceleration, which may weaken environmental protection instruments.

Second, inconsistencies in the application of sustainability principles are also evident in judicial decisions. Some rulings demonstrate a strengthening of environmental protection principles, while others reflect a formalistic or administrative tendency that does not prioritize ecological interests. This divergence can be observed through several real and verifiable cases.

1. Revocation of the Environmental Feasibility Decree for PT Dairi Prima Mineral (PTUN Jakarta 59/G/LH/2023/PTUN.JKT)

The findings of this study [15] indicate that although Indonesia's national legal framework has substantially accommodated the principles of sustainable development, its implementation continues to face serious challenges. Regulatory disharmony, weak administrative oversight, and licensing practices that disregard the precautionary principle constitute major obstacles. These systemic issues are reflected in concrete legal practice, one notable example being the case of PT Dairi Prima Mineral (PT DPM), adjudicated by the Jakarta Administrative Court (PTUN Jakarta) in Case No. 59/G/LH/2023/PTUN.JKT.

This case illustrates how sustainability principles failed to be substantively implemented in the environmental licensing process. The Panel of Judges found that the Environmental Feasibility Decree for PT DPM was issued without due regard to the precautionary principle, despite the project being located in an area with high geological disaster risk. The Court held that the licensing authority failed to consider potential hazards and scientific uncertainties, contrary to *Pasal 10 ayat (1) UU Administrasi Pemerintahan (Article 10(1) of the Administrative Procedure Act)*. This demonstrates that although the precautionary principle exists normatively, it is frequently neglected in practice [16].

Furthermore, the case documents show that the project's AMDAL (Environmental Impact Assessment) did not include a disaster risk analysis, despite this being an explicit requirement under *Pasal 45 ayat (3) PP 22/2021 (Article 45(3) Government Regulation No. 22/2021)*. This deficiency indicates that AMDAL intended as the core environmental safeguard instrument within the sustainable development framework has been reduced to a mere administrative formality. The inconsistency between normative obligations and practical implementation aligns with the findings of this study: *de jure*, the legal framework supports sustainability, but *de facto* it remains ineffective.

The Court also highlighted violations of spatial planning regulations, as the project site was located on functional agricultural land protected under the *RTRW Kabupaten Dairi (Dairi Regency Spatial Plan)*. Spatial planning violations reflect broader misalignment among environmental, mining, and spatial policies sectors that should operate cohesively within a sustainable development framework. Such regulatory incoherence is one of the central challenges identified in this research, and the PT DPM case demonstrates how conflicting sectoral regulations can lead to decisions that undermine ecological protection.

Another key finding relevant to this study concerns the lack of meaningful public participation in the AMDAL process. Based on the Court's examination, affected communities were not adequately involved, contravening *Pasal 26 UU PPLH (Article 26 of the Environmental Protection and Management Act)*. This reinforces the argument that one of the core pillars of sustainable development social justice and public participation

is frequently ineffective in licensing practices. Without meaningful community involvement, development decisions lose social and scientific legitimacy and increase the risk of future ecological and social conflict [17].

The PTUN decision ultimately annulled the Environmental Feasibility Decree, demonstrating that Indonesia's legal system does offer corrective mechanisms against deviations from sustainability principles. However, these corrections operate *ex post*, only after litigation is initiated. This reflects the reality that sustainable development is not yet integrated at the policy formulation stage and remains reliant on public scrutiny and judicial interventions to ensure compliance. As such, the case clearly illustrates the persistent gap between *das sollen* (normative expectations) and *das sein* (practical implementation) within Indonesia's development governance.

The PT DPM case underscores that the primary issue is not the absence of legal norms but the quality of implementation and environmental governance. When environmental permits are issued without adequate risk analysis, without spatial planning consistency, and without meaningful public participation, development cannot be considered sustainable even if formal administrative procedures are fulfilled. Effective institutions, transparency and accountability provide a foundation for aligning governance with sustainable development goals. The Worldwide Governance Indices (WGI) provides six dimensions of governance: control of corruption, government effectiveness, political stability, regulatory quality, rule of law, and voice and accountability [18]. In essence, the PT DPM case empirically reinforces this study's conclusion that the integration of sustainability principles within Indonesia's legal system remains ineffective in practice.

Accordingly, incorporating this case into the broader discussion demonstrates that progress toward a green society requires strengthening implementation, not merely reformulating regulations. Harmonization across sectors, improvements in AMDAL quality, meaningful public participation, and the operationalization of the precautionary principle must be prioritized. Without these reforms, the law will remain a normative document that falls short of addressing real sustainability challenges on the ground.

2. WALHI vs. PT Kusuma Raya Utama (Supreme Court Decision No. 44/PDT.G/LH/2018)

The Supreme Court decision recorded in the *JDIH Provinsi Bengkulu* demonstrates the complexities of environmental litigation within Indonesia's general court system. In this case, WALHI filed a lawsuit against PT Kusuma Raya Utama (PT KRU), alleging significant environmental damage resulting from the company's mining operations. The Court's findings reveal a substantial gap between the normative framework of sustainable development and its practical enforcement in environmental governance.

Based on witness testimonies and documentary evidence contained in the judgment, the Court established that the company's underground mining activities were located within the *Taman Buru Semidang Bukit Kabu*, a designated nature conservation area. A witness from the *Dinas Lingkungan Hidup (Environmental Office)* confirmed that the mining site fell squarely within a conservation zone. Further testimony from mine

workers described ecological degradation, including soil subsidence, extensive fissures, and substantial alteration of soil structures extending several meters deep. These findings indicate severe ecological harm directly attributable to the mining operations.

Despite these facts, the company submitted administrative evidence such as wastewater treatment permits (IPAL), laboratory test results for liquid waste, and a PROPER environmental rating indicating a “blue” performance category. However, testimony from supervisory officials revealed that inspections were conducted solely at the surface level without any assessment of underground mining tunnels or evaluation of impacts on soil stability and watershed systems. This underscores a critical issue: administrative compliance does not equate to substantive compliance with sustainability principles.

In the context of sustainable development, this case reflects the inadequate implementation of the principles of prevention and ecosystem protection. Although the company possessed complete administrative documentation, the ecological damage observed in the field demonstrates that a predominantly formalistic inspection regime remains a major barrier to effective environmental protection. The proximity of the mining site to rivers and residential areas approximately 100 to 500 meters further heightened the risk of contamination and environmental degradation, thereby undermining the community’s right to a good and healthy environment as guaranteed by *Pasal 28H ayat (1) UUD 1945 (Article 28H (1) of the 1945 Constitution)*.

Both cases examined in this study exhibit a similar pattern: a persistent divergence between administrative compliance and actual ecological conditions. This indicates that the development of sustainable legal frameworks is not merely a matter of drafting normative rules but also ensuring their effective implementation through integrated governance, substantive oversight, and consistent judicial interpretation aligned with sustainability principles.

Theoretically, these findings reinforce the argument that sustainable development can only be achieved through the harmonious integration of legal norms, policy instruments, and institutional capacity. Sustainability requires that every administrative decision be grounded in robust scientific assessment, meaningful public participation, and careful consideration of long-term ecological risks. Absent these elements, the law functions merely as a procedural instrument incapable of ensuring environmental protection in practice.

Consequently, the challenges to implementing sustainable development principles in Indonesia include:

1. Weak application of the precautionary principle in licensing processes;
2. Insufficient in-depth assessment of ecological risks;
3. Overlapping and fragmented sectoral policies;

4. Predominantly administrative rather than substantive environmental supervision;
5. Divergent interpretations of environmental law across judicial bodies.

These weaknesses underscore the need for substantive reform that moves beyond regulatory drafting toward strengthening the operational capacity of environmental governance and judicial enforcement

Comparative analysis and implications

A comparative review of the two cases examined in this study reveals a consistent pattern of challenges in implementing the principles of sustainable development. Although each case involves different contexts, actors, and forms of environmental violations, both demonstrate a similar structural problem: the weak integration of the precautionary principle, ecological protection, and public participation within administrative decision-making and environmental law enforcement.

From a procedural standpoint, the case of *PT Dairi Prima Mineral (PT DPM)* illustrates fundamental weaknesses in environmental permitting, particularly with respect to the preparation of the Environmental Impact Assessment (AMDAL) and the mandatory disaster-risk analysis. Court documents show that the AMDAL failed to include the disaster-risk assessment required under *PP 22/2021 (Government Regulation No. 22/2021)*, and that the issuance of the Environmental Feasibility Decree did not consider the precautionary principle despite the project's location in a high-risk geological zone. These findings demonstrate substantive defects in environmental administration, which should serve as the foundation for sustainable development. Within the framework of international environmental law, the precautionary principle requires states to undertake effective preventive actions despite existing scientific uncertainties [19].

In contrast, the case *WALHI vs. PT Kusuma Raya Utama (PT KRU)* as decided in *Putusan MA No. 44/Pdt.G/LH/2018 (Supreme Court Decision No. 44/Pdt.G/LH/2018)* highlights issues at the operational and supervisory stages. Although the company possessed various administrative documents, including an environmental license, wastewater treatment documentation, laboratory test results, and a "blue" PROPER rating, trial evidence revealed severe ecological damage such as land subsidence, extensive cracks, and alterations in soil structure. The mining site was also located within *Taman Buru Semidang Bukit Kabu*, a designated conservation area. Testimony from the Environmental Office (*Dinas Lingkungan Hidup*) confirmed that government inspections assessed only surface-level compliance and did not include an evaluation of underground mining tunnels. This indicates that administrative compliance does not necessarily reflect substantive adherence to sustainability principles.

Viewed through the lens of sustainable development, the comparison demonstrates that although the legal framework contains obligations regarding risk assessment, spatial protection, and monitoring mechanisms, these norms are not consistently applied in practice. In the *PT DPM* case, violations occurred at the permitting stage

(*ex ante*), whereas in the PT KRU case, violations were evident during operational implementation (*ex post*). These differences show that Indonesia's sustainability challenges are not confined to a single stage of the regulatory cycle; rather, they span from initial licensing to monitoring and judicial enforcement.

Normatively, the precautionary principle, ecosystem protection, and public participation should guide every stage of environmental administration and law enforcement. However, both cases reveal that these principles are not yet embedded in practice. In PT DPM, the precautionary principle was disregarded despite clear geological risks. In PT KRU, supervisory mechanisms were formalistic and failed to uncover substantial ecological damage. These conditions indicate that sustainability has not yet evolved into a substantive governance paradigm but remains treated primarily as an administrative requirement.

The comparative analysis yields several important implications. First, cross-sector regulatory harmonization must be strengthened to ensure that environmental instruments, spatial planning, and disaster-mitigation frameworks function coherently rather than in isolation [20]. Second, environmental monitoring capacity must be enhanced so that oversight assesses not only documentary compliance but also actual ecological conditions on the ground. Third, the judiciary should adopt more consistent interpretive standards and develop judicial guidelines that expressly incorporate sustainability principles into environmental litigation.

Overall, the comparison of the two cases demonstrates that the challenges of sustainable development in Indonesia are structural and systemic. Improving legal norms alone is insufficient; reforms must also target institutional capacity, technical competencies, and the comprehensive integration of the precautionary principle throughout decision-making processes. Without such reforms, development will remain procedural in nature and will fail to guarantee environmental protection for present and future generations [20].

Conclusion

The findings of this study demonstrate that the principles of sustainable development have acquired a strong normative foundation within Indonesia's national legal system, as reflected in constitutional provisions, the *Undang-Undang PPLH (Environmental Protection and Management Act)*, and various national development policies. However, the overall results indicate that this normative strength has not been accompanied by consistent, coherent, and ecologically oriented implementation. Sectoral regulatory fragmentation, weak interinstitutional coordination, a predominantly procedural administrative approach, and limited supervisory capacity constitute key factors hindering the full internalization of sustainable development principles in legal practice.

In addition to mapping the normative accommodation of sustainable development principles, this study clarifies the distribution of legal responsibility among key actors

within Indonesia's environmental governance framework. The findings demonstrate that the failure to realize sustainability objectives is not attributable solely to deficiencies in legal norms, but rather to the conduct of administrative authorities, corporate actors, and supervisory institutions that treat sustainability as a procedural requirement rather than a substantive obligation. Corporate compliance, when limited to administrative documentation, does not automatically equate to ecological responsibility, while state authorities bear a critical duty to ensure that licensing, supervision, and enforcement mechanisms are grounded in precautionary.

The analysis of the two examined cases the annulment of the Environmental Feasibility Decree for *PT Dairi Prima Mineral (PT DPM)* and the case of *WALHI vs. PT Kusuma Raya Utama (PT KRU)* provides empirical evidence that implementation challenges are not merely technical but systemic. In the *PT DPM* case, the failure to apply the precautionary principle during the permitting process indicates that instruments such as AMDAL and spatial planning have not been effectively employed as tools for ecological risk management. Meanwhile, the *PT KRU* case reveals a significant gap between administrative compliance and the actual environmental conditions, illustrating that monitoring mechanisms remain formalistic and insufficient to ensure comprehensive ecological protection. Together, these cases highlight the persistent gap between *dassollen* (the normative ideal) and *das sein* (the empirical reality) in Indonesia's pursuit of sustainable development.

From an academic perspective, this study contributes to the discourse on environmental law by offering a systemic analysis of sustainable development implementation within Indonesia's national legal system, bridging constitutional norms, statutory regulations, policy instruments, and judicial practices. Unlike prior studies that focus on sectoral or technical dimensions, this research highlights the structural and institutional determinants that undermine sustainability in practice. By integrating normative analysis with judicial case studies, this paper provides a conceptual framework for understanding sustainable development not merely as a policy objective, but as a governance paradigm that requires coherent legal integration and institutional accountability.

Looking forward, several directions for improvement are necessary. These include strengthening environmental permitting instruments based on comprehensive risk assessments; enhancing the capacity of environmental supervisors at both national and regional levels; developing mechanisms for deeper and more meaningful public participation; and formulating judicial guidelines to ensure more consistent application of sustainability principles within the judiciary. Such measures are essential to ensure that Indonesia's national legal system not only provides a sound normative framework but also functions as an effective instrument for addressing ecological challenges and supporting the transition toward sustainable development.

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