

Towards Quality Economic Growth: An Overview of the Green Economy Legal Framework in Indonesia

Loso Judijanto

IPOSS Jakarta

Corresponding Author: Loso Judijanto losojudijantobumn@gmail.com

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ABSTRACT

This article reviews the legal and policy framework governing the relationship between economic growth and sustainable development in Indonesia through a qualitative literature review method. Rapid economic growth is often seen as conflicting with environmental conservation efforts, but the concept of decoupling indicates that separation between economic growth and environmental pressures can be achieved through appropriate regulation. Indonesia, as the ninth largest carbon emitter in the world, has ratified the Paris Agreement and set emission reduction targets based on the constitutional foundation in Article 33 paragraph (4) of the 1945 Constitution, which requires a sustainable economy with an environmental perspective. This article analyzes the evolution of the legal basis for sustainable development, environmental economic instruments such as carbon taxes and carbon trading (IDXCarbon), sustainable finance taxonomy, as well as legal approaches in the blue and circular economy. The findings indicate that although the legal framework has developed significantly – such as Presidential Regulation No. 98 of 2021 on the Carbon Economic Value – its implementation faces obstacles from regulatory fragmentation, the absence of standardized Measurement, Reporting, and Verification infrastructure, and weak environmental law enforcement. This article recommends the enactment of an umbrella law on climate change, the optimization of administrative sanctions based on strict liability, a revision of the Limited Liability Company Law to integrate climate risks as the responsibility of the board of directors, and the harmonization of inter-agency regulations to achieve sustainable quality growth

INTRODUCTION

Economic growth and environmental sustainability are two global agendas that are interconnected, yet often viewed as a difficult dichotomy to reconcile. From a traditional economic perspective, rapid economic development often comes at the expense of environmental quality, while efforts to preserve the environment are frequently seen as a hindrance to economic growth. This phenomenon has drawn the attention of the international community, especially after the adoption of the Paris Agreement in 2015, which requires participating countries to significantly reduce carbon emissions in order to limit global warming to a maximum of 1.5°C above pre-industrial levels. The urgency of this issue has become more apparent given that 2024 is recorded as the first year to exceed the 1.5°C threshold above pre-industrial averages, while carbon emissions from fossil fuels have also reached a new record high. This situation indicates that even though a global agreement has been reached, the implementation of policies at the national level is still inadequate to offset the environmental impact of continued economic growth (Jiang et al., 2025; Meinshausen et al., 2022; UNCTAD, 2025).

The concept of decoupling, or separating economic growth from environmental pressure, has emerged as a theoretical solution to address this dilemma. A comprehensive empirical study by Pathirana (2024) on 170 countries over the period 2000-2020 shows that although there has been a relative decoupling between GDP growth and CO₂ emissions, the level of decoupling is still insufficient to mitigate the overall rise in emissions. Cluster analysis in the study reveals that high-GDP economies still face significant challenges in separating growth from emissions, while low-GDP countries have a smaller carbon footprint but struggle to scale up renewable technologies. These findings require different policy strategies: advanced economies must accelerate decarbonization and clean energy innovation, while developing countries need to prioritize leapfrogging to renewable technologies with international support. In this context, the Environmental Kuznets Curve (EKC) hypothesis, which asserts that pollution will rise with economic growth up to a certain point and then decline, does not universally apply, particularly in developing countries such as Indonesia, which show no clear correlation between economic growth and environmental quality improvement (Anwar et al., 2022; Pathirana, 2024; Wang et al., 2024).

Indonesia, as a developing country with rapid economic growth, faces unique challenges in aligning its development agenda with global climate commitments. As the world's ninth-largest carbon emitter, Indonesia has ratified the Paris Agreement through Law Number 16 of 2016 and set emission reduction targets of 31.89% (unconditional) and 43.20% (conditional) compared to the business-as-usual scenario in the Nationally Determined Contribution (NDC) updated in September 2022. These ambitious targets are integrated with the Long-Term Low Carbon Development Strategy (LTS-LCCR 2050), which aims to achieve net-zero emissions by 2060 or earlier. Nevertheless, projections from the Climate Action Tracker indicate that the strengthened NDC is actually expected to increase emissions by 1.7-1.8 gigatons of CO₂ equivalent by 2030, or 70-80%

higher than the emissions recorded in 2019. The gap between the targets and the actual projections highlights the need for a more solid legal framework and policies to ensure that a low-carbon economic transformation can be realized (Hastuti, 2024; Kanugrahan & Hakam, 2023; UNDP, 2025).

The constitutional framework of Indonesia has actually accommodated the principle of sustainable development with an environmental perspective. Article 33, paragraph (4) of the 1945 Constitution of the Republic of Indonesia explicitly states that the national economy is to be organized based on sustainable and environmentally sound principles, which provides constitutional legitimacy for the concept of a Green Constitution. This constitutional mandate is then elaborated in various laws and regulations, such as Law Number 32 of 2009 on Environmental Protection and Management, which serves as the main foundation for environmental regulation in Indonesia. However, the enactment of the Job Creation Law (Law Number 6 of 2023), which integrates environmental permits into risk-based environmental approvals, has sparked academic debate regarding the effectiveness of environmental protection under the new licensing regime. Environmental law scholars criticize that the simplification of licensing procedures has the potential to weaken the state's control function over economic activities that impact the environment (Diamantina & Yulida, 2023; Hakim Rianta & Imron, 2023; Nugraha & Rosmawiah, 2025; Pinilih, 2018). The transition towards a green economy in Indonesia also faces significant structural challenges. A study by Keumala et al. (2024) identified that Indonesia's energy sector is still dominated by the use of fossil-based energy sources, accounting for around 90.4% of domestic energy supply, making it a major contributor to emissions. The development of renewable energy is progressing slowly, achieving only 0.97 GW of the 3.4 GW target by the fourth quarter of 2023. The main barriers to this transformation include limited financing for technological innovation, inadequate long-term environmental policies, limited human resources, a fragmented institutional structure, weak regulatory coherence, and the need to balance economic trade-offs. A global survey conducted by the Green Economy Coalition in 2024 involving more than 10,000 respondents in 10 countries, including Indonesia, showed that 71% of the global population prefer stronger environmental protection even at the cost of slower economic growth, with the highest support coming from developing countries. These findings indicate that public demand for ambitious climate policies is actually very high, but the lack of government support is the main factor hindering people from making the best decisions for the environment (Abyan, 2025; Dakhi et al., 2025; Keumala et al., 2024).

In a global context, the relationship between economic growth and sustainable development is increasingly receiving serious attention from the academic community and policymakers. Research by Fertő & Harangozo (2025), which investigates the complex relationship between globalization, economic growth, urbanization, and ecological footprint, shows that relatively high GDP per capita and various dimensions of globalization positively influence the achievement of the Sustainable Development Goals (SDGs), whereas rapid urbanization and a large ecological footprint have a negative impact. SDG target

8.4 explicitly mandates progressive improvements in the efficiency of global resource use in both consumption and production, as well as efforts to decouple economic growth from environmental degradation. Nevertheless, progress toward this target remains unsatisfactory, with economic productivity measured as real GDP growth per worker only recovering to 1.5% in 2024 after stagnating during the 2022–2023 period. This situation calls for a more holistic approach in formulating policies that can balance economic, social, and environmental priorities in order to accelerate progress toward the SDGs and create a sustainable future for all (Ahmed & Alvi, 2024; Fertó & Harangozó, 2025; Hirai, 2022; Zafarullah & Mehnaz, 2025).

Based on the background narrative, this article is intended to comprehensively examine the legal and policy framework governing the relationship between economic growth and sustainable development in Indonesia. Specifically, this article will analyze: (1) the evolution of the legal basis for sustainable development within Indonesia's national legal system; (2) legal instruments that promote green growth, including sustainable finance taxonomy, carbon economic valuation, and carbon trading; (3) legal approaches in the development of the blue economy and circular economy; (4) implementation challenges and litigation risks faced in the transition to a sustainable economy; and (5) recommendations for regulatory improvements to achieve quality growth without compromising environmental sustainability. Therefore, this article is expected to contribute to the development of an increasingly comprehensive and effective economic legal framework in supporting the development agenda.

LITERATURE REVIEW

A. Theoretical Framework and Law: Decoupling Economy and Emissions

1. *The Concept of Decoupling from a Policy Perspective*

Conceptually, decoupling refers to efforts to break the positive correlation between economic growth and environmental pressure. The literature distinguishes between two types of decoupling: relative and absolute. Relative decoupling occurs when the economy grows faster than the rate of emissions increase, while absolute decoupling—which is the ultimate goal of sustainable development—occurs when the economy grows while total emissions decrease in absolute terms. For developing countries like Indonesia, achieving absolute decoupling presents unique legal challenges: how to formulate regulations that do not hinder the right to development while still complying with the global climate regime (Degirmenci et al., 2025; Naseem et al., 2022; Yaremova & Mytrofanova, 2022).

The Environmental Kuznets Curve (EKC) is often cited in the drafting of academic policy papers, with the hypothesis that pollution will increase with economic growth up to a certain point, and then decrease with technological advancement and public awareness. However, in the context of the urgent climate crisis, the law cannot wait for market mechanisms to work according to the EKC. Strict regulatory intervention is needed to accelerate this turning point. Recent studies show that without a binding legal framework, market

mechanisms fail to significantly correct carbon emissions (Guo & Shahbaz, 2024; Leal & Marques, 2022; Leitão et al., 2022).

2. Legal Basis for Low-Carbon Economic Transformation

The ratification of the Paris Agreement through Law Number 16 of 2016 marks a legal milestone that transforms the status of emission reduction targets from voluntary commitments to a state legal obligation. The legal consequence of this ratification is that every macroeconomic policy must be aligned with the NDC targets. The government no longer has absolute freedom to pursue growth targets without considering the national "carbon budget" (Ahimsaning Gandhi et al., 2024; Leiserowitz et al., 2023; Wendra & Sutrisno, 2023).

As a strategic implementing regulation, Presidential Regulation Number 98 of 2021 concerning the Implementation of Carbon Economic Value (CEV) serves as a legal enabler. This presidential regulation not only regulates the technical mechanisms for recording emissions but also lays the legal foundation for the commodification of carbon. Carbon, which was previously considered a worthless chemical element (*res nullius*), is now recognized as an economic commodity that can be traded, taxed, and used as collateral. This transformation of carbon's legal status is fundamental in shifting the economic incentives for business actors (Herlucky et al., 2024; Loudoe & Sakti, 2024; Wahyuningsih et al., 2025).

3. Paradigm Shift in Business Licensing Law

One of the most crucial and debated legal issues in the context of economic growth and the environment is the change in the licensing regime following the enactment of Law Number 6 of 2023 concerning the Establishment of Government Regulations in Lieu of Law Number 2 of 2022 on Job Creation into Law (Job Creation Law). This law introduces a Risk-Based Approach (RBA) to business licensing (Ketut Parikesit, 2025; Nurhayati et al., 2025).

Under the previous regime (Law No. 32 of 2009), Environmental Impact Analysis (AMDAL) and Environmental Permits were absolute independent prerequisites. However, the Job Creation Law integrates the "Environmental Permit" into "Environmental Approval," which forms the basis for the issuance of Business Licenses. Theoretically, this simplification is aimed at increasing ease of doing business to drive economic growth (Abigail Praise et al., 2022; Erdiawati, 2023; Mirozul et al. 2025).

However, environmental law scholars, such as Indradjaja & Chamdani (2023), criticize that these changes in nomenclature and procedures have the potential to weaken the state's control functions. The shift from permits (which are preventive and can be revoked administratively in case of violations) to integrated approvals creates ambiguity in law enforcement. If the Environmental Approval is revoked, does the Business Licensing automatically become void? This legal uncertainty can, in fact, act as a disincentive for high-quality green investments that require strict Environmental, Social, and Governance (ESG) standards. On the other hand, proponents of this regulation argue that such integration actually strengthens oversight because administrative sanctions are applied directly to business licensing, rather than to a separate environmental permit (Indradjaja & Chamdani, 2023; Prananingtyas, 2023; Rachmania, 2025).

B. Legal Instruments to Promote Green Growth (Green Growth Enablers)

1. Green Taxonomy and Sustainable Finance

The financial services sector plays a pivotal role in allocating capital toward sustainable economic activities. The Financial Services Authority (OJK) has responded to this by issuing the Indonesian Green Taxonomy (THI) Edition 1.0, which later evolved into the Indonesian Sustainable Finance Taxonomy (TKBI). Legally, this taxonomy serves as a dictionary for classifying economic activities based on their environmental impact (L. K. Larasati & Mafira, 2023; Lin, 2025; Putri et al., 2024).

The "Traffic Light" classification system (Red, Yellow, Green) in taxonomy has significant legal implications in credit and financing agreements. Activities categorized as "Green" (do no significant harm) receive incentives, while the "Red" category faces capital access restrictions. Uncertainty has arisen concerning the "Yellow" category (transition), where interpretations by banks and regulators often differ. The ongoing policy revisions carried out by the OJK aim to provide legal certainty for debtors and creditors, preventing what is referred to as interpretative greenwashing (L. K. Larasati & Mafira, 2022; Masdar et al., 2022; Prakoso et al., 2025).

In addition, the sustainability reporting obligation regulated by POJK No. 51/POJK.03/2017 serves as a transparency instrument that compels issuers to disclose non-financial performance. This report is not merely a public relations document but a legal document that can be subject to audit and disputes if it contains materially misleading information (Antoni, 2025; Hartanto et al., 2025; Novianto et al., 2025).

2. Economic Valuation of Carbon as a New Source of State Revenue

The Indonesian government has adopted a hybrid approach to carbon economic valuation, combining market-based and non-market-based instruments (Astuti & Muna, 2025; Malihah, 2022).

3. Cap-and-Tax Mechanism in the Harmonization of Tax Regulations

Law Number 7 of 2021 concerning the Harmonization of Tax Regulations (HPP Law) introduced a Carbon Tax. The adopted scheme is Cap-and-Tax, where tax is imposed only on emissions that exceed the upper limit (cap) set by the government. Legally, this is a breakthrough because it implements the Polluter Pays Principle fiscally (Astuti & Muna, 2025; Ginting, 2024; Sabrina et al., 2025; Wijaya et al., 2025).

However, the implementation of a carbon tax faces technical regulatory challenges. The multiple delays in the enactment of the carbon tax (from the initial plan in April 2022) indicate a tug-of-war between fiscal-environmental urgency and concerns over the short-term economic impact on industry competitiveness. Agustina et al. (2025) highlight that the absence of rigid secondary regulations regarding the measurement, reporting, and verification (MRV) mechanisms for emissions constitutes a major legal obstacle. Without legally binding and standardized MRV, the tax base becomes vulnerable to disputes in the Tax Court (Agustina et al., 2025; Sutanty et al., 2023).

4. Carbon Trading (IDXCarbon Carbon Exchange)

The launch of IDXCarbon in September 2023 marks a new era in emissions commercialization. The OJK Regulation (POJK) Number 14 of 2023 on Carbon Trading through the Carbon Exchange provides legal certainty regarding trading mechanisms, exchange organizer requirements, and user protection (Cadizza & Rizanizarli, 2024; Kosasih & Frederick, 2025).

A crucial legal issue in carbon trading is the ownership of carbon units. Are Carbon Units securities, commodities, or intangible property rights? POJK 14/2023 defines Carbon Units as Securities, bringing them under the capital market legal regime. This means that information disclosure standards, prohibitions against market manipulation, and insider trading regulations that apply to the stock market also apply to the carbon market. It is strongly emphasized that legal certainty in transaction settlement and the validity of emission reduction certificates (SPE-GRK) is vital for building international investor confidence (Pramana & Dewi, 2023; Sipayung, 2024; Syahroni, 2024).

5. Potential of Non-Tax State Revenue (PNBP) and Regulatory Challenges

In addition to taxes, carbon is also a source of Non-Tax State Revenue (PNBP). Claims for carbon credits from state forests raise legal questions regarding the profit-sharing between project developers and the government. The regulations of the Ministry of Environment and Forestry (KLHK) governing validation and verification emphasize the state's sovereignty over the carbon stored within Indonesia's jurisdiction, preventing carbon claim leakage abroad without providing economic benefits to the country (double counting) (Andrian et al., 2025; Hasjanah, 2024; Muryanto et al., 2025).

METHODOLOGY

This article uses a qualitative literature review method as the main methodological approach to examine the relationship between economic growth and sustainable development in Indonesia. Unlike a systematic literature review, which requires strict search protocols, rigid inclusion-exclusion criteria, and standardized article selection procedures, a qualitative literature review provides relatively broad flexibility for researchers to explore and interpret the literature in depth according to the context of the issues being studied. This approach was chosen because it allows for a comprehensive synthesis of various theoretical perspectives, legal frameworks, and empirical evidence spread across different disciplines—including environmental law, development economics, public policy, and sustainability studies—which cannot be fully accommodated by systematic approaches that tend to be reductive. As noted by research methodology experts, qualitative literature reviews are particularly suitable for topics that are interdisciplinary in nature and require a deep contextual understanding of complex socio-legal phenomena (Pawar, 2020; Snelson, 2016).

The data collection process in this study was carried out through a review of academic literature from various reputable academic databases, including Scopus, Web of Science, Google Scholar, as well as national and global legal repositories. The keywords used in the search included: economic growth and sustainable development, decoupling economic growth from carbon emissions, green economy Indonesia, environmental law Indonesia, carbon pricing policy,

climate litigation, and circular economy regulation. The selected literature includes peer-reviewed journal articles, textbooks, policy documents, legislation, and reports from international organizations such as the United Nations, OECD, World Bank, and Climate Action Tracker. The criteria for selecting literature were based on substantial relevance to the study theme, source credibility, and the recency of publication, with a preference for literature published between 2020 and 2025 to ensure up-to-date data and analysis. Nevertheless, classic literature that serves as the fundamental theoretical foundation, such as the concept of the Environmental Kuznets Curve and decoupling theory, is still included to provide historical context and the development of academic thought in this field (Pare & Kitsiou, 2017).

The data analysis in this study used a descriptive-analytical approach with thematic analysis techniques to identify patterns, themes, and conceptual relationships across studies. The analysis process began with an in-depth reading (close reading) of all relevant literature, followed by coding to identify key concepts, and then grouping the codes into major themes that formed the structure of the article discussion. The main themes identified include: the theoretical framework of economic and emission decoupling, the legal basis for low-carbon economic transformation, legal instruments promoting green growth, challenges in implementing environmental regulations, and climate litigation risks as a new legal phenomenon. The validity of the findings was ensured through source triangulation by comparing and confirming information from various sources, as well as critical discussion of findings that are contradictory in the literature. A methodological limitation of this approach is the potential for selection bias because it does not use a fully replicable search protocol as in a systematic review; however, this limitation is mitigated through transparency in describing the search and literature selection process, as well as the use of sources that have undergone peer review from reputable journals (Snyder, 2019).

RESULTS AND DISCUSSION

1. The Dilemma of Growth and Ecological Limits

The discourse on economic growth and environmental conservation over the past decade has shifted from merely an ethical debate to an urgent legal issue. Historically, the classical economic paradigm regarded nature as an externality – a limitless resource and a free dumping ground for waste. However, in the Anthropocene era, where human activities are the primary drivers of Earth system changes, law plays a central role in internalizing these externalities. The concept of Planetary Boundaries introduced by Earth system scientists demands a legal framework capable of limiting economic activities to always remain within the 'safe operating space' for humanity (Chen et al., 2022; Persson et al., 2022; Rockström et al., 2024).

Dalam konteks Indonesia, transisi dari Brown Economy (ekonomi berbasis ekstraksi fosil) menuju Green Economy bukan lagi pilihan, melainkan mandat konstitusional dan kewajiban internasional. Tantangan hukum terberatnya adalah menciptakan regulasi yang mampu memfasilitasi pertumbuhan PDB (Produk Domestik Bruto) tanpa memperburuk degradasi

lingkungan. Fenomena ini menuntut reorientasi hukum ekonomi: dari yang bersifat eksploitatif menjadi regeneratif. Hukum tidak lagi hanya berfungsi sebagai "penjaga malam" yang menyelesaikan sengketa, tetapi sebagai instrumen rekayasa sosial (tool of social engineering) untuk mengarahkan pasar menuju keberlanjutan (Fauzi & Zahrolazizah, 2025; Wardana, 2022; Wardani et al., 2023).

2. *The Evolution of the Sustainable Development Concept in National Law*

The normative foundation of sustainable development in Indonesia has strong roots in the constitution. Article 33 paragraph (4) of the 1945 Constitution of the Republic of Indonesia (UUD 1945) explicitly states that "The national economy is organized based on economic democracy with the principles of togetherness, efficiency with justice, sustainability, environmental insight, independence, and by maintaining the balance of progress and national economic unity." The phrase "with environmental insight" provides constitutional legitimacy for the concept of a Green Constitution, which obligates the state not to sacrifice the environmental rights of future generations for short-term economic gains (W. Nugroho, 2022; Pathirana, 2024; Yogi Subandi, 2022). This constitutional mandate has subsequently been translated into various laws and regulations, including the integration of the Sustainable Development Goals (SDGs) into the National Medium-Term Development Plan (RPJMN). Specifically, for SDG Goal 8 (Decent Work and Economic Growth), national law is challenged to create a framework that enables inclusive economic growth while still breaking the cycle of environmental degradation. This is reflected in the shift of Indonesia's legal policy, which has begun adopting environmental economic instruments, such as carbon taxes and carbon trading, as key mechanisms to achieve the Nationally Determined Contribution (NDC) targets (Indradjaja & Chamdani, 2023; N. Larasati, 2021; Octavia et al., 2023).

B. Strategic Sector: Legal Approach in the Blue and Circular Economy

Blue Economy and Maritime Legal Certainty

As the largest archipelagic country, Indonesia's economic growth potential heavily depends on the maritime sector. The concept of the Blue Economy goes beyond the conventional exploitation of marine resources, encompassing marine renewable energy, biotechnology, and marine tourism (Hendarman et al., 2024; Maqfirah & Laba, 2025; Marwa et al., 2024).

1. *Measured Fish Catch (PIT)*

The Measured Catch Fishery policy based on quotas is a legal effort to balance ecology and economy. Government regulations that govern fishing zones and quotas for investors and local fishermen aim to prevent overfishing. However, the challenge in its implementation lies in supervision and law enforcement at sea. Medina & Enggriyeni (2023) noted that overlapping authorities among maritime agencies often create legal gaps exploited by perpetrators of Illegal, Unreported, and Unregulated (IUU) Fishing, which significantly harms blue economic potential (Ananta & Cabral, 2026; Medina & Enggriyeni, 2023; Rahmayanti et al., 2025).

2. Blue Carbon: The Complexity of Property Rights

Coastal ecosystems, such as mangroves and seagrass beds, have a much greater carbon absorption capacity than tropical terrestrial forests. A legal issue that arises is regarding carbon rights in coastal areas. Who has the right to claim carbon credits from mangrove forests: the central government, local governments, or the indigenous coastal communities that protect them? The lack of clear regulations regarding tenure in coastal areas and small islands is an obstacle for Blue Carbon project investments. Harmonization between the Coastal and Small Islands Management Law and Carbon Economic Value regulations is needed to provide legal certainty for community management rights (Agunsoye et al., 2025; Kamal Putra & Asri, 2023; Razladova & Nyoko, 2022).

Circular Economy and Extended Producer Responsibility (EPR)

The circular economy model requires a shift from the take-make-dispose model to reduce-reuse-recycle. Legally, this demands a redefinition of the concept of "waste" not as a useless residue, but as a secondary resource (Pramiati, 2025; Pramiati et al., 2021; Widyarsana & Nurawaliah, 2023).

1. Regulatory Gap in Waste Management

Law Number 18 of 2008 concerning Waste Management has mandated a shift in paradigm, but its implementing regulations often lag behind innovations in circular business models. For example, the rigid legal status of hazardous and toxic waste (B3) often hinders the reuse of certain materials that are actually safe if processed with the latest technology (Johannes et al., 2021; Sachdeva & Srivastava, 2022).

2. Harmonization of CSR and EPR Obligations

The concept of Extended Producer Responsibility (EPR) requires producers to be responsible for their products until the end of their life cycle. In Indonesia, this obligation is stipulated in regulations concerning waste reduction by producers. Sunaryo (2025) analyzes that the legal framework for Corporate Social Responsibility (CSR) under the Limited Liability Company Law No. 40 of 2007 needs to be revitalized so that it is not merely philanthropic, but integrated with the principles of EPR. This integration requires companies to design products that are easy to recycle as a legal compliance, not just a voluntary initiative (Novemyanto, 2025; Sunaryo et al., 2025).

C. Legal Challenges And Litigation Risks (Legal Risks)

The transition to a sustainable economy not only creates opportunities but also new legal risks for corporations and governments.

1. The Risks of Greenwashing and Taxonomy Uncertainty

The phenomenon of greenwashing – false or misleading claims about a product's or investment's environmental friendliness – has become a concern for global regulators. In Indonesia, greenwashing has the potential to violate Law Number 8 of 1999 concerning Consumer Protection. The articles that prohibit businesses from providing false or misleading information can be applied to 'green', 'eco-friendly', or 'net-zero' label claims that lack scientific verification (Lebie & Br. Sihombing, 2025; Pradipta, 2023; Yuanitasari et al., 2024).

In addition to criminal and civil consumer risks, greenwashing also carries reputational risks and administrative sanctions from the Financial Services

Authority (OJK) for capital market issuers. The absence of a single global ESG standard exacerbates this risk. Indonesian exporters face legal challenges from the European Union's Carbon Border Adjustment Mechanism (CBAM) regulations, which unilaterally set emission standards. If Indonesian products do not meet the EU's carbon accounting standards, these products will be subject to additional tariffs, effectively hindering export growth. This demonstrates how foreign jurisdiction laws can act as non-tariff barriers to the national economy (Huang et al., 2025; Irawati et al., 2023; Zych et al., 2021).

2. Climate Litigation as a New Economic Risk

The global trend of climate litigation is beginning to extend into Indonesian jurisdictions. Lawsuits are no longer only directed at the government (such as the Citizen Lawsuit on Jakarta air pollution) but are also starting to target major corporations ("Secondary Litigation") (Putra, 2025; Wardana, 2023). The basis for civil lawsuits in environmental cases is increasingly evolving, utilizing the theory of Strict Liability as regulated in Law No. 32 of 2009. Victims of hydrometeorological disasters triggered by climate change are beginning to explore legal actions to claim compensation from major carbon-emitting companies (Carbon Majors). This litigation risk is real and can erode a company's economic valuation. Recent studies indicate that courts in Southeast Asia are becoming more receptive to climate science arguments as evidence of legal causation (Cornelius, 2025; Sulistiawati, 2023).

In addition, judicial review of strategic legal products such as the Omnibus Law on Job Creation in the Constitutional Court creates persistent legal uncertainty. The Constitutional Court's rulings declaring conditional unconstitutionality in the early years of its implementation provide a lesson that accelerating economic regulation should not overlook formal procedures and meaningful public participation. This regulatory instability is the main enemy of long-term investment needed for sustainable development (Cornelius, 2024; Jong, 2025; Sulistiawati, 2024).

3. Fragmentation of Central and Regional Regulations

The classic challenges of regional autonomy also manifest in the green economy agenda. Conflicts of norms often arise between the Provincial/District Spatial Planning (RTRW) and National Strategic Projects (PSN) related to renewable energy. Local governments that still rely on local revenue (PAD) from extractive sectors may resist central conservation policies that reduce mining or plantation concession areas. Disparities in environmental law enforcement capacity at the regional level also lead to uneven implementation of sustainability standards, creating "pollution havens" in areas with weak oversight (Karim, 2020; Widiatedja, 2021).

Harmonization of laws through the supervision mechanism of Regional Regulations (Perda) by the central government has become crucial. However, the mechanism for repealing Perda following Constitutional Court rulings that limit the executive's authority to annul Perda adds a layer of legal complexity that must be addressed through a judicial review mechanism at the Supreme Court, which consumes time and incurs costs (Mukhlis, 2025; Setiadi, 2025).

D. Challenges in Implementing Economic Growth and Sustainable Development

Although the legal and regulatory framework for aligning economic growth with sustainability has been progressively developed in Indonesia, implementation on the ground still faces significant multidimensional challenges. These challenges are not only operationally technical but also rooted in structural barriers within the legal architecture, institutional capacity, and a legal culture that has not yet fully transformed. This section will outline these obstacles as a basis for a critical evaluation of the effectiveness of existing legal instruments (Mahoro & Samekto, 2021; Sukirno, 2025).

1. Complexity and Fragmentation of Environmental Regulations Post-Omnibus Law

The main obstacle to effectively realizing green growth is the fragmentation and regulatory uncertainty following the enactment of the Job Creation Law. Although aimed at simplifying investment bureaucracy, the paradigm shift from 'Environmental Permit' to 'Environmental Approval' integrated into Risk-Based Business Licensing (RBA) has created new challenges in monitoring and law enforcement (Ayyasi et al., 2025; Maarif, 2024).

A study conducted by Maulidi et al. (2024) in the journal *In-Prolegurit* highlights that the existing legal framework is still not optimal in bridging environmental protection with the massive exploitation of natural resources. The centralization of licensing authority to the central government often creates tensions with local governments, which feel deprived of direct oversight over environmental impacts in their areas. As a result, there is a supervision gap at the field level, where violations of environmental quality standards often go undetected early due to the limited number of central monitoring personnel in the regions (Isti Puspitasari et al., 2024; Maulidi et al., 2024).

In addition, ambiguities in the interpretation of derivative regulations, such as Government Regulation No. 22 of 2021, have caused confusion among business actors and law enforcement officers. The lack of clarity regarding the mechanism for revoking business licenses due to environmental violations—whether it must go through a tiered administrative sanction process or can be revoked immediately—is often exploited to delay compliance, ultimately undermining legal certainty for green investments themselves (BPHN, 2024; Kususiyanah et al., 2024; Sihombing & Hamid, 2023).

2. Structural Constraints in the Implementation of Carbon Tax and Carbon Market

The implementation of environmental economic instruments, particularly carbon taxes and carbon trading, faces serious technical and institutional barriers. Although the HPP Law mandated a carbon tax starting in 2022, the delay in its implementation so far reflects a tug-of-war between fiscal urgency and concerns about the competitiveness of the national industry (Chintya & Lores, 2025; Judijanto, 2025a; P. A. Nugroho & Aziz, 2024; Purnama et al., 2025).

Sulistyowati et al. (2025) in their analysis emphasized that the uneven readiness of MRV (Measurement, Reporting, and Verification) infrastructure across sectors is a major obstacle. Without valid and real-time verified emissions data, the basis for carbon taxation becomes vulnerable to legal disputes. Businesses often

question the emissions calculation methodologies used by regulators, which could potentially trigger a wave of tax disputes in the future (Dewi et al., 2025; Lisya Septiani Putri & M. Zuman Zillah, 2025; Sipayung, 2024; Sulistyowati et al., 2025)..

On the other hand, the development of the Carbon Exchange (IDXCarbon) faces challenges related to market liquidity and integrity. The Indonesian carbon market ecosystem is not yet solid due to the limited number of products and business participants. Another fundamental challenge is the legal status of carbon units as "Securities" regulated under POJK 14/2023, which differs from the commodity-based approach in futures exchanges. This duality of perception creates complications in accounting records and tax treatment for companies, as well as posing a risk of double counting if there is no strong data integration between the National Registry System (SRN) of PPI and international standards (Mukti et al., 2025; Nur, 2023; Puteri & Ekaptiningrum, 2024; Sebastian et al., 2025).

3. Challenges of Transitioning Toward a Circular Economy and ESG

The transition from a linear to a circular economy is hindered by the absence of an integrated legal framework. Current regulations are still scattered across sectors and focus more on downstream management (waste) rather than upstream intervention (product design). An article in the Socio-Economic and Humanities journal (2024) identifies that the lack of standardized recycling benchmarks and minimal fiscal incentives make it difficult for the recycling industry to compete with new products made from cheap virgin materials. Without regulatory intervention that requires producers to use recycled content (recycled content mandate), the circular economy struggles to achieve competitive economic scale (Judijanto, 2025b; Nafisah, 2025).. Similar challenges also occur in the adoption of ESG (Environmental, Social, and Governance) standards. Sujatmoko et al. (2025) found that disparities in readiness across sectors and high compliance costs are major barriers, especially for SMEs that are part of the supply chains of large companies. Increasingly stringent sustainability reporting requirements demand significant investment in data technology and human resources, which medium-sized companies often lack. This is compounded by the absence of social taxonomy standards as clear as the green taxonomy, making the "S" (Social) aspect in ESG often a blind spot in corporate legal compliance assessment (Setiatin, 2025; Sujatmoko et al., 2025).

4. Weak Law Enforcement and Legal Culture

The most fundamental obstacles may lie in the aspects of legal culture and law enforcement. A study by Pramana & Dewi (2023) shows that although green investment regulations exist, their implementation is slow because investors still doubt the consistency of law enforcement in Indonesia. Environmental violations are often resolved through non-transparent "out-of-court" mechanisms, or administrative sanctions that are too lenient, which companies consider merely as operational costs (cost of doing business) (Nafisah, 2025; Pramana & Dewi, 2023; Zahroh & Najicha, 2022).

Furthermore, in the context of litigation, proving the causality of environmental damage caused by climate change remains a major challenge in Indonesian courts. Judges often still use conventional paradigms that require evidence of direct and tangible loss (actual loss), whereas the impacts of climate change are often latent, cumulative, and probabilistic. The gap in law enforcement officials' understanding of climate science has become a serious obstacle in realizing climate justice through litigation (Sembiring et al., 2020; Sulaiman, 2023).

CONCLUSIONS

Based on the analysis in this article, it can be concluded that the dichotomy between economic growth and sustainable development is not an inevitable condition, but rather a policy and legal challenge that can be overcome through an appropriate regulatory framework. The concept of decoupling, or separating economic growth from environmental pressure, has been shown to be achievable by several developed countries, although the level of separation is still insufficient to offset the pace of rising global emissions. In the context of Indonesia, the transition from a brown economy to a green economy is no longer merely a policy choice, but has become a constitutional mandate as stipulated in Article 33 paragraph (4) of the 1945 Constitution, which requires the administration of the national economy based on sustainable principles and with environmental insight. The ratification of the Paris Agreement with Law Number 16 of 2016 further emphasizes that the emission reduction targets are no longer voluntary commitments, but legal obligations of the state that must be integrated into all national economic development policies.

Indonesia's legal framework in regulating the relationship between economic growth and environmental sustainability has experienced significant development, although it still leaves various implementation challenges. Presidential Regulation Number 98 of 2021 concerning the Implementation of Carbon Economic Value has laid the legal foundation for the transformation of carbon from merely a chemical element into an economic commodity that can be traded and taxed. The launch of the Carbon Exchange (IDXCarbon) in September 2023 and its regulation through POJK Number 14 of 2023 marked a new era of emissions commercialization in Indonesia with clearer legal certainty. Similarly, the Indonesian Green Taxonomy and sustainability reporting obligations for capital market issuers have created transparency instruments that compel businesses to consider environmental aspects in their decision-making. However, regulatory fragmentation among different ministries and agencies, as well as the unclear relationship between environmental approvals and business licensing following the enactment of the Omnibus Law on Job Creation, remain major obstacles to effective environmental law enforcement.

Environmental economic instruments such as carbon taxes and carbon trading are promising mechanisms for internalizing environmental externalities into the economic system; however, their implementation faces serious technical and institutional challenges. The repeated postponement of the carbon tax implementation since the initial plan in April 2022 reflects a tug-of-war between the fiscal-environmental urgency and concerns over short-term economic

impacts. The absence of standardized and legally enforceable Measurement, Reporting, and Verification (MRV) infrastructure remains a fundamental obstacle in ensuring a tax and carbon trading base that is accurate and not prone to disputes. In addition, Indonesia's carbon market ecosystem, which is still in the early stages of development, faces challenges of liquidity and market integrity that require further regulatory strengthening to build trust among both domestic and international investors.

The transition towards a circular economy and the adoption of ESG (Environmental, Social, and Governance) standards also face various structural obstacles that require more comprehensive policy intervention. The absence of an integrated legal framework for the circular economy results in regulations that remain fragmented by sector and focus more on downstream management rather than upstream interventions, such as environmentally friendly product design. The concept of Extended Producer Responsibility (EPR), which requires producers to take responsibility for products until the end of their life cycle, has not been optimally integrated with the CSR legal framework in the Limited Liability Company Law, meaning corporate environmental responsibility remains more philanthropic than a binding legal obligation. On the other hand, the disparity in readiness between sectors and the high compliance costs are major barriers to the adoption of ESG standards, especially for SMEs that are part of the supply chains of large companies. This situation requires the government to provide adequate fiscal incentives and technical support to accelerate the transformation towards sustainable business models.

The risk of climate litigation is a new legal phenomenon that is becoming increasingly relevant and has the potential to drive climate policy transformation in Indonesia. Global trends indicate that climate lawsuits are no longer targeted solely at governments but also at large corporations considered major contributors to emissions. The basis of civil lawsuits using the strict liability theory is increasingly developing, and courts in Southeast Asia are beginning to be more open to climate science arguments as legal evidence of causation. For Indonesia, this development signals that weaknesses in environmental law enforcement by the executive can be compensated through judicial mechanisms, although the challenge of proving causation of environmental damage due to climate change remains an obstacle in Indonesian courts, which tend to use a conventional paradigm. This litigation risk should be seen as an additional incentive for corporations and the government to strengthen compliance with environmental standards in order to avoid significant financial and reputational losses.

As a policy recommendation, this article proposes several strategic steps to strengthen the legal framework for sustainable development in Indonesia. First, there is a need to draft an umbrella law on climate change (Climate Justice Omnibus) that legally binds national emission reduction targets and establishes a nationally binding carbon budget for all development sectors. Second, optimizing the administrative sanction regime toward a restorative approach by expanding the application of the strict liability concept in environmental law enforcement to provide tangible economic deterrents in accordance with the

Polluter Pays Principle. Third, revise the Limited Liability Company Law to clarify the fiduciary duties of directors and commissioners to include climate risks, so that ESG transforms from voluntary activities into a legal obligation of the company's organs. Fourth, harmonize central and regional regulations to address policy fragmentation that hampers green investment and creates legal uncertainty. With the implementation of these recommendations, Indonesia is expected to achieve quality growth that does not compromise environmental sustainability and the rights of future generations to a good and healthy environment.

RECOMMENDATIONS

Synthesis: Towards Quality Growth

The description above emphasizes that the dichotomy between economic growth and environmental preservation is an outdated premise in modern legal discourse. Law no longer functions merely as a restrictive instrument that limits capital movement, but rather transforms into a soft infrastructure that enables the creation of new high-value markets—namely, the carbon market and the green economy (Dwiyanti & Aryani, 2025).

The transition towards quality growth requires legal certainty as a *conditio sine qua non*. Global investors, who are now bound by strict ESG mandates from their home jurisdictions, view weak environmental legal frameworks not as opportunities for regulatory arbitrage, but as material investment risks. Therefore, strengthening environmental legal standards in Indonesia is actually both a defensive and offensive economic strategy: defensive to protect natural assets from devaluation due to damage, and offensive to attract global green capital flows (Latif et al., 2024).

The harmonization between fiscal instruments (carbon tax), the capital market (carbon exchange), and administrative law (risk-based licensing) should be seen as a single economic legal system. Failure in one element—such as weak verification in carbon trading—will undermine the integrity of the entire system and degrade market trust (Rizal et al., 2026).

Recommendations for Regulatory Improvement (*Ius Constituendum*)

To ensure economic growth that is in harmony with the environment's carrying capacity in the long term, legal reform must move beyond a fragmented sectoral approach. Here are strategic recommendations for lawmakers:

1. The Urgency of the Climate Justice Omnibus Law

Currently, regulations related to climate change are scattered across various legal regimes: the Environmental Protection and Management Law, the Energy Law, the Forestry Law, and the Tax Law. This fragmentation often leads to conflicts of norms and sectoral interests. A specific umbrella law—such as a Climate Change Bill—is needed to legally bind national emission reduction targets at the legislative level, rather than just through a Presidential Regulation. This law should establish a "National Carbon Budget" that is legally binding for all development sectors, provide a strong legal basis for the 2060 Net Zero Emission target, and align economic development planning with ecological limits (Isti Puspitasari et al., 2024).

2. Shifting Paradigms in Law Enforcement: The Primacy of Administrative Sanctions

In the context of corporate environmental violations, the criminal law approach is often hindered by the complexity of proving causation and the principle of *in dubio pro reo*. Therefore, future legal regimes should better optimize administrative sanctions that are restorative in nature, such as progressive administrative fines, governmental enforcement, and revocation of business licenses. The concept of Strict Liability should be expanded to apply to administrative sanctions without waiting for proof of fault in criminal court. This mechanism is more effective in forcing the internalization of environmental costs into the company's balance sheet and creating a real economic deterrent effect, in line with the Polluter Pays Principle (Indradjaja & Chamdani, 2023).

3. Integration of ESG Standards in Corporate Law

Revisions to the Limited Liability Company Law need to be considered to clarify the fiduciary duties of directors and commissioners so that they encompass climate risks. Directors must be legally responsible not only for the financial health of the company but also for the company's exposure to climate transition risks. This would transform ESG from merely voluntary philanthropic activities into a legal obligation inherent to the company's governing bodies (Sunaryo et al., 2025).

FURTHER STUDY

This research still has limitations so that further research is needed on the topic *Towards Quality Economic Growth: An Overview of the Green Economy Legal Framework* in order to perfect this research and increase insight for readers and writers.

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