



## ENVIRONMENTAL LAW IN INDONESIA: BALANCING DEVELOPMENT AND CONSERVATION

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Article	Abstract
<p><b>Keywords:</b> <i>Net-Zero Emission, Environmental Law, Green Economy</i></p> <p>Received: July 17, 2021; Reviewed: July 20, 2021; Accepted: July 23, 2021; Published: August 10, 2021</p>	<p>With Indonesia's dynamic environment and economy, development and conservation in both factors is mandatory to maintain its continuity. The environmental law's role and prospect as an agent of balance, agent of conservation, and certainly agent of change is an issue that cannot be negotiated to achieve a healthy and sustainable development in Indonesia. With the main issue being emissions, Indonesia's progress in achieving a "green" economy lingers in a pause. However, amidst these challenges, Indonesia has set its sight towards a brighter future, aimed at mitigating emissions and fostering an energy transition. Its commitment towards net-zero emission underlines. It aims to provide a road map for bolstering Indonesia's environmental legislation, igniting revolutionary change, and cultivating a future in which development and conservation live in harmony, protecting Indonesia's natural heritage and guiding the country toward a prosperous and sustainable future in the field of the green economy and achieving the SDGs. By means of an extensive examination of legal frameworks, empirical qualitative data, case studies, and stakeholder viewpoint, this study aims to illuminate the obstacles, prospects, and possible routes for Indonesia to manage the equilibrium between development and preservation within the framework of emissions mitigation.</p>

### 1. INTRODUCTION

Indonesia's natural environment is a vibrant tapestry with unmatched biodiversity and beauty. It is one of the world's megadiverse countries, with over 17,000 islands that span tropical rainforests, volcanic topography, coral reefs, and various ecosystems. Together with an abundance of indigenous plant species, this archipelago is home to numerous iconic species. It is impossible to overestimate the importance of protecting Indonesia's environment because it not only preserves the country's amazing biological diversity but also the indigenous cultures

and livelihoods that depend on these natural resources. Additionally, Indonesia's ecosystems are vital to the management of the world's temperature, carbon sequestration, and ecological balance, making their preservation essential on a worldwide basis.

The “planetary boundaries” paradigm has placed environmental conservation at the forefront of growth in recent years. It was thought that this framework, which differs from other attempts in that it outlines the biophysical prerequisites that development cannot continue to pass, would be included in the Sustainable Development Goals (SDGs).

Indonesia is in line with international efforts to slow down climate change with its ambitious goal of reaching net-zero emissions by 2060 or sooner. But this endeavor faces significant obstacles in the complex web of environmental preservation, economic growth, and the laws and regulations that regulate these fields. While the country works to promote urbanization, industrialization, and infrastructure development, reducing emissions becomes a major problem at the same time. The conflict between environmental stewardship and developmental imperatives requires a careful analysis of the laws and policies now in place, as well as how well they work to balance these ostensibly opposing paths. The urgent need to solve the issue is to protect the nation’s rich biodiversity, which is vital for ecological stability and the survival of the ecosystem.

Strategies for sustainable development are necessary to strike a balance between emissions reduction and economic growth. This includes supporting green policies in industry, adopting eco friendly technologies, embracing renewable energy sources, protecting its natural ecosystem, and enforcing environmental laws. In addition to reducing emissions, these programs strengthen the economy, draw in capital and advance long term environmental stability.

The goal of this research is to examine the complex field of environmental law in Indonesia, with a particular emphasis on how it mediates the tension between the need to cut carbon emissions and economic growth. This study aims to evaluate the effectiveness of current laws, policies, and their implementation in promoting sustainable development and guiding the country toward its lofty net-emissions objective.

## 2. RESEARCH METHODS

The research used "Normative Juridical Legal Research" in accordance with Soerjono Soekanto's opinion that legal research is carried out by examining secondary materials or library materials or library legal research, through searching for books, laws, literature, and other legal materials.<sup>1</sup>

This article is conducted using an empirical method with a qualitative approach. Empirical method, also known as sociological law research, is an analysis method that examines the law that is understood as a social contract that is unwritten and experienced by every individual in a community.

Qualitative research approach is an approach conducted in a specific environment found in real or natural life with the goal of examining and comprehending phenomena—what occurs, why it occurs, and how the reality under study occurs. Thus, the idea of "going exploring" is the foundation of qualitative research, which is executed by a thorough and case-focused analysis of several distinct situations. Encouraging people to grasp the facts is the main goal of qualitative research (comprehensible).<sup>2</sup>

The legal materials for this article was conducted by a study using a document study, with the data summaries derived from:

- 1) Primary legal materials: Strict legal regulations,<sup>3</sup> such as Law No. 32 of 2009 on the Protection and Management of the Environment (Law-PPLH)
- 2) Secondary legal materials: Legal theories related to the law, such as literary criticism that offers explanations or interpretations of the positive law (Soekanto, 2015).<sup>4</sup>

The primary legal materials used in this article are related to secondary legal materials, such as research papers including journal articles that are related to net-zero emissions' impact on Indonesia's economy and the related regulations.

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<sup>1</sup> Soerjono soekanto, *Penelitian Hukum Normatif, Suatu Tinjauan Singkat*, (RajaGrafindo Persada, Jakarta, 2011, hal.12)

<sup>2</sup> Sumarna, D., Kadriah, A., *Penelitian Kualitatif Terhadap Hukum Empiris*, Vol. 16 No. 2, (Jurnal Serambi Hukum 2023) [109]

<sup>3</sup> Wibowo, R. J. A., Rasji, *Kebijakan Hukum Insentif Perpajakan pada Sektor Energi dan Transportasi untuk Mendukung Net Zero Emission Tahun 2060*, Vol. 7 No. 1, (Jurnal Pajak Indonesia 2023 [94]

<sup>4</sup> Wibowo, R. J. A., Rasji, *Loc.Cit*

### 3. DISCUSSION

Problem Formulation : Based on the explanation above regarding the goal of this research, we can conclude that Indonesia needs to emphasize its stronghold in policies and laws to regulate economic growth and environmental conservation.

- 1) Balancing Economic growth and Environmental Conservation: How to realize it despite being contradictory to one another?
- 2) Policies that enforces economic growth and environmental conservation: What are laws and policies that promote Indonesia's aims?

#### 3.1 Balancing Economic Growth and Environmental Conservation

Maintaining development and reducing environmental effects in Indonesia requires striking a balance between economic expansion and environmental protection, especially with regard to emission. The nation's economic growth, driven by urbanization and industry, is a major factor in rising emissions. As a result of Indonesia's ambition in economic expansion, the nation "donates" 600 million tonnes of carbon dioxide annually, only on its energy sector, making the country the world's ninth-largest emitter. Emissions itself are defined as the amount of greenhouse gasses and/or their precursors that are released into the atmosphere over a given area and time period. Emissions are pollution, and Indonesia ranks 46 in the world, with Jakarta being the top of the list of the most polluted cities.

Shortly, improvements in economic growth are linked to an increase in material usage, energy usage, and so on, which puts stress on environmental capacity. Surely, sustainable development goals often don't fit well with economic goals.<sup>5</sup>

Numerous studies have supported this result. When the SDGs were first finalized, it was noted that there is tension between economic growth and climate action, with the latter being achievable without a considerable decarbonization of the economy.<sup>6</sup> This point was emphasized when potential inconsistencies were found between a number of goals, such as food security, energy access, resilient infrastructure, and sustainable production. These contradictions were found not only between climate change and economic growth alone, rather in several aspects as

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<sup>5</sup> Pothen, F., Welsch, H., *Economic Development and Material Use. Evidence From International Panel Data*, Vol. 27, (World Development 2019) [107-119]

<sup>6</sup> Griggs, D., Stafford-Smith, M., Gaffney, O., Rockström, J., Öhman, M. C., Shyamsundar, P., Steffen, W., Glaser, G., Kanie, N., & Noble, I., *Sustainable Development Goals for People and Planet*, Vol. 495, (Nature 2013) [305-307]

well. While a lot are still struggling with this issue, Indonesia has somehow found a possible solution.

Sustainable development aims to improve community welfare, to meet human needs and aspirations. Sustainable development is essentially aimed at seeing equitable development between generations in the present and future. According to KLH (1990), development, which is basically more economically oriented, can measure its desires based on three criteria. Namely: (1) There is no wasteful use of natural resources or depletion of natural resources; (2) No pollution and other environmental impacts; (3) Activities must be able to increase resources that can be used and resources that can be replaced.<sup>7</sup>

In the recent time being, Indonesia has shown its efforts in enforcing these aims. With the collaboration of third-party organizations with the government, the nation has found more efficient ways to handle this ongoing challenge. According to multiple experts, policy changes are the most significant way. Indonesia's government has published a number of policies regulating emissions and energy transitions, namely Net-Zero Emission Policy and Just Energy Transition Partnership, in collaboration with organizations and other countries. These aims to regulate and promote incentives that will help prioritize environmental stability. Specifically, through Net-Zero Emission, Indonesia can now collaborate with the SDGs, as it promotes low-carbon development and climate resilience that are the national platforms for achieving SDGs..

However, are there other approaches? Yes. A transition into the "Green Economy" is our best option. A framework shift is needed to promote a sustainable consumption and production, and also strengthen the institutional and policy framework. Data shows that Indonesia is fairly successful in adapting to the Green Economy, as the composite Green Economy Index score grows 25% reaching 59.17% in 2020.

To sum up, we can acknowledge that a balance in development and sustainability is possible, only that it requires an immense effort of collaboration between framework and policies. Everything lies in the hands of the government and how they plan to enforce it.

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<sup>7</sup> Hapsoro, N., A., Bangun, K., *Perkembangan Pembangunan Berkelanjutan Dilihat dari Aspek Ekonomi di Indonesia*, Vol. 3 No. 2, (Jurnal Arsitektur 2020) [2]

### 3.2 Policies Enforcing Indonesia's Aims

Indonesia's efforts of urbanization causes a lot of carbon release. Climate change is believed to be caused by the release of carbon into the atmosphere in the form of carbon dioxide, carbon monoxide, and methane (CH<sub>4</sub>). A drawback of this climatic shift is that it raises the global average temperature by a few degrees, which melts the ice in the north and south poles. The shoreline will shift as a result of this ice melting, and several islands face drowning. The hazard to Earth's ecosystems increases with the amount of carbon emitted into the atmosphere.

Indonesia's focus is now in Net-Zero Emission Policy and JET-P. Although they are relatively still very new, Indonesia sees it as a huge potential to reach a "Green Economy". Net-Zero Emission is not possible without the help of Indonesia's laws themselves.<sup>8</sup> Taken from Bappenas, there are multiple laws and regulations regarding low-carbon development that will support Net-Zero Emission, such as; laws regulating energy, land, waste, and fiscal.<sup>9</sup>

To reduce carbon emissions to the air, a number of countries have proposed multiple suggestions. One of the suggestions is to transform fossil fuels to electric-powered transportations. The government has taken bold steps to initiate this transformation by imposing an acceleration programme for battery-based electric vehicles through Presidential Regulation No. 55/2019 as low-carbon transport, but the Covid-19 pandemic has delayed the widespread implementation of electric vehicles. Despite this, the development of electric vehicles in Indonesia has started to be implemented gradually. This project is implemented by promoting electric vehicles, like cars, motorcycles, and even bicycles.

The development of domestic electric vehicles as a low-carbon means of transport is an important and very serious matter for the Indonesian government and makes the project a national project programme. According to the National Energy General Plan set out in Presidential Regulation No. 22/2017, it is stated that the target of electric cars by 2025 and 2050 is 2200 units and 4.2 million units respectively, and the target for electric motorcycles to reach 2.1 million in 2025. The use of electric vehicles has been assessed to play an important role in

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<sup>8</sup> Madrilzah, *Pembangunan Rendah Karbon Indonesia & Net-Zero Emission Menuju Ekonomi Hijau*, Vol. 1, (IESR 2021) [3]

<sup>9</sup> *ibid*, [14]

environmental sustainability, as it can reduce CO<sub>2</sub> emissions to the atmosphere, and can reduce emissions by 28% of total CO<sub>2</sub> emissions.<sup>10</sup>

There are still quite a lot of methods on how to reduce carbon emissions in Indonesia. Another act that Indonesia has tried is through forest carbon conservation activities. The main goal of forest carbon conservation efforts is to stop and manage the release of carbon dioxide from the forest's stored carbon. Its actions may include: stopping the destruction and devastation of forests; creating conservation and protection areas; implementing better forestry practices; and other things.<sup>11</sup>

One more cause of carbon emission is water pollution. An environmental issue known as "water pollution" arises when hazardous or surplus materials are dumped into bodies of water, such as lakes, rivers, oceans, or wells. These materials may originate from mining operations, domestic, industrial, or agricultural waste. Water pollution may harm aquatic habitats and make it unsafe for people and animals to use.

Both the environment and people may be at risk from the effects of water contamination. Aside from its negative impacts on health, contaminated water may also interfere with surrounding life and activities and produce foul odors. Law No. 32 of 2009 on the Protection and Management of the Environment governs water pollution in Indonesia. Articles 53 to 58 of this Law control water pollution. Other legislative regulations, such as Government Regulation No. 82 of 2001 on the Management of Water Quality and Wastewater and Decree of the Minister of Environment and Forestry No. 115 of 2003 on Waste Water Quality Requirements for Business Activities, also regulate water pollution in addition to Law No. 32 of 2009.<sup>12</sup>

Among all the measures that Indonesia has explored over the past few years, taxes are one significant answer that, although working in many other nations, has not been formally adopted. This method has been operating in a lot of other countries. These imposed taxes are called Carbon Taxes.<sup>13</sup>

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<sup>10</sup> Berliandaldo, M., Prasetio, A., *Analisa Hukum atas Kebijakan Pengembangan dan Pemanfaatan Kendaraan Bermotor Listrik pada Sektor Pariwisata Indonesia*, Vol. 1 No. 2, (Sanskara Hukum dan HAM 2022) [2-3]

<sup>11</sup> Wibowo, A., *Kajian Penurunan Emisi Gas Rumah Kaca Sektor Kehutanan untuk Mendukung Kebijakan Perpres No. 61/2011*, Vol. 10 No. 3, (Jurnal Analisis Kebijakan Kehutanan 2013) [245]

<sup>12</sup> Febriani, S. R., Sajidah, U., Saputri, B. R., Prasasti, P. F., Rosyada, F., *Analisis Kebijakan Penanganan Pencemaran Limbah Cair di Sungai Kalisari Damen Kota Surabaya*, Vol. 1 No. 5, (Madani: Jurnal Ilmiah Multidisiplin 2023) [528-529]

<sup>13</sup> Salim, A., Sidiq, M., *Dampak Pajak Karbon Terhadap Kelangsungan Bisnis*, Vol. 3 No. 1, [s.n] [s.a] [79]

As of right now, numerous countries throughout the world are working together to address the environmental issue that is mostly caused by many carbon emissions. If continued, carbon emissions might have a negative impact on human society, such as causing extreme weather events and global warming. After acknowledging the previously mentioned urgency, Indonesia proceeded to implement and strengthen the *Paris Agreement*, which in its entirety required the government to contribute to reducing the amount of carbon emissions at the national level as a means of providing support for equitable global development. As part of fulfilling that commitment, the government is willing to use carbon offsets as a means of reducing carbon emissions in Indonesia.

According to the IBFD International Tax Glossary, a carbon tax is a tax applied to energy that is not renewable with the aim of reducing environmental damage and slowing down the rate of climate change.<sup>14</sup> This is in line with the definition contained in Government Regulation No. 50 of 2022 on “Regulations of Implementation and Compliance with Taxation Obligations”. These laws govern Indonesia's taxation policies, particularly the imposition of carbon taxes.<sup>15</sup> In addition, under the Law No. 7 of 2021 on “Harmonization of Taxation Regulations” (HPP), which includes consistency across other policies, a priority sector objective, a plan for reducing carbon emissions, and the development of new and renewable energy sources overall. As a result of the maintenance of the HPP Law, Indonesia is still in the stage of implementing a carbon tax with a cap and tax scheme for steam power plants with coal fuels (2022-2024).<sup>16</sup> The carbon tax itself has already been proposed to extend its application to various sectors after 2025, taking into account various readiness, economic conditions, actors, and impacts.

Other than carbon taxes, there is carbon pricing, a term that is related and very crucial to the topic of carbon emission. Carbon pricing is a tool to determine the external costs of greenhouse gas (GHG) emissions and can be used as a trigger for reducing carbon emissions. This scheme emerged because society had to bear the hidden costs of carbon emissions.

Regional Government to City/Municipality level to implement carbon pricing policy. It provides the basis for Presidential Regulation No. 98 of 2021 to communicate instruments from

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<sup>14</sup> Yudhana, F., W., Madalina, M., *Formulasi Kebijakan Penerapan Pajak Karbon Di Indonesia*, Vol. 1 No. 1, (Sovereignty 2022) [68–78]

<sup>15</sup> Sutanto, N. N., Maharati, D. D., Fachran, S., *Tinjauan Yuridis Penerapan Pajak Karbon sebagai Solusi Percepatan Green Energy di Indonesia*, Vol. 20 No.1, (Spektrum Hukum 2023) [4]

<sup>16</sup> Wibowo, R. J. A., Rasji, *Op.Cit*, [95]



the *Paris Agreement* to the domestic levels. So far, there is no specific regulation which acts as the implementation law for the Paris Agreement on a domestic level, despite the participation of the Regional Government as one of the determinants of success for achieving targets set by NDC. This absence was primarily due to the conception that environmental issues are often treated as central government issues instead of local ones, due to the lack of knowledge of environmental and climate issues.<sup>17</sup>

Indonesia's unwillingness to introduce a carbon tax was reinforced by the statement of the Minister for the Coordination of Economic Affairs Airlangga Hartarto, "To realize the commitment to reduce domestic gas emissions by 2060 or sooner and the initial implementation is a carbon trade or targeted carbon tax that will work by 2025". However, concerning a few of these policies, the government still delayed on the pretext of waiting for the preparation of the carbon market mechanisms and also considering the global and domestic economic situation.<sup>18</sup> Up to now, none exist in Indonesia that facilitate the country's transition to green energy. Indeed, given that the use of environmentally unfriendly energy is one of the main disruptions that occurs in practically all of Indonesia, it is imperative that these laws be put into place right away in order to achieve the results that would indirectly reduce the consumption of environmentally unfriendly energy that produces carbon emissions.

#### 4. CONCLUSION

The Indonesian government's plans for balancing economic growth and environmental sustainability presents a complex strategy that is necessary to balance them both. The country is facing significant emissions as a result of growing industrialization and urbanization, which need a quick response. It is admirable that Indonesia is making progress toward a "Green Economy" with programs like the Just Energy Transition Partnership and the Net-Zero Emission initiative. For these policies to be effective, careful execution, teamwork and strengthening existing frameworks are required. Actions including low carbon transportation, the preservation of forest carbon, and strict laws controlling water pollution demonstrate Indonesia's commitment to reducing emissions. However, a noteworthy lack of comprehensive legislation explicitly

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<sup>17</sup> Sulistiawati, L. Y., Buana, L., *Legal Analysis on President Regulation on Carbon Pricing in Indonesia*, Vol. 1, (NUS Asia-Pacific Centre for Environmental Law Working Paper 2023) [5]

<sup>18</sup> Sutanto, N. N., Maharati, D. D., Fachran, S., *Op.Cit*, [5-6]

addressing carbon pricing or taxation suggests that there is still opportunity to improve the alignment of policy vision with practical action.

Indonesia has to take a more proactive approach and strengthen its commitment to enforcing current environmental rules in order to balance development and conservation. The necessity of taking immediate action to move toward a sustainable future is highlighted by the government's sluggish adoption of several carbon related regulations. Government agencies and third parties' involvement continue to be essential partners. Overcoming the divide between economic goals and climate actions required a paradigm change in the formulation, dissemination and application of policies.

In conclusion, Indonesia faces a pivotal moment where economic growth and environmental care must align seamlessly. Thus demands a holistic strategy filling policy gaps, embracing sustainable tech, and of course raising public awareness. Balancing development and conservation is an urgent need for Indonesia's future, needing commitment and collaboration from everyone involved.

## References

### Journal:

Alikhan Salim, Mahfud Sidiq, *Dampak Pajak Karbon Terhadap Kelangsungan Bisnis*, Vol. 3 No. 1, [s.n] [s.a]

Ari Wibowo, *Kajian Penurunan Emisi Gas Rumah Kaca Sektor Kehutanan untuk Mendukung Kebijakan Perpres No.61/2011*, Vol. 10 No. 3, (Jurnal Analisis Kebijakan Kehutanan 2013)

Dadang Sumarna, Ayyub Kadriah, *Penelitian Kualitatif Terhadap Hukum Empiris*, Vol. 16 No. 2, (Jurnal Serambi Hukum 2023)

David Griggs, Mark Stafford-Smith, Owen Gaffney, Johan Rockström, Marcus C. Öhman, Priya Shyamsundar, Will Steffen, Gisbert Glaser, Norichika Kanie & Ian Noble, *Sustainable Development Goals for People and Planet*, Vol. 495, (Nature 2013)

Fachrizar Woma Yudhana, Maria Madalina, *Formulasi Kebijakan Penerapan Pajak Karbon di Indonesia*, Vol. 1 No. 1, (Sovereignty 2022)

Frank Pothén, Heinz Welsch, *Economic Development and Material Use. Evidence from International Panel Data*, Vol. 27, (World Development 2019)

Linda Yanti Sulistiawati, Louie Buana, *Legal Analysis on President Regulation on Carbon Pricing in Indonesia*, Vol. 1, (NUS Asia-Pacific Centre for Environmental Law Working Paper 2023)

Mahardhika Berliandaldo, Ari Prasetyo, *Analisa Hukum atas Kebijakan Pengembangan dan Pemanfaatan Kendaraan Bermotor Listrik pada Sektor Pariwisata Indonesia*, Vol. 01 No. 02, (Sanskara Hukum dan HAM 2022)

Madrilzah, *Pembangunan Rendah Karbon Indonesia & Net-Zero Emission Menuju Ekonomi Hijau*, Vol. 1, (IESR 2021)

Nur Arief Hapsoro, Kresensia Bangun, *Perkembangan Pembangunan Berkelanjutan Dilihat dari Aspek Ekonomi di Indonesia*, Vol. 3 No. 2, (Jurnal Arsitektur 2020)

Nadia Nathania Sutanto, Dinda Devina Maharati, Syahreza Fachran, *Tinjauan Yuridis Penerapan Pajak Karbon sebagai Solusi Kecepatan Green Energy di Indonesia*, Vol. 20 No.1, (Spektrum Hukum 2023)

Richard Jatimulya Alam Wibowo, Rasji, *Kebijakan Hukum Insentif Perpajakan pada Sektor Energi dan Transportasi untuk Mendukung Net-Zero Emission Tahun 2060*, Vol. 7 No. 1, (Jurnal Pajak Indonesia 2023)

Shelly Regeta Febriani, Ummu Sajidah, Berlian Rizky Saputri, Putri Fiorina Prasasti, Fachrunnisa Rosyada, *Analisis Kebijakan Penanganan Pencemaran Limbah Cair di Sungai Kalisari Damen Kota Surabaya*, Vol.1 No.5, (Madani: Jurnal Ilmiah Multidisiplin 2023)