

Assessing the Government's Commitment to Achieving Ecological Justice for Society



Anak Agung KT Sudiana ^{a,*}, Ni Putu Noni Suharyanti ^a, Umirov Fitrat Faxriddinovich ^b

^aFaculty of Law, Universitas Mahasaraswati Denpasar, Denpasar, Indonesia

^bDepartment of Constitutional Law, Tashkent State University of Law, Taskent, Uzbekistan.

*Corresponding Author: agungsudiana63@unmas.ac.id

ARTICLE INFO

Article history

Received: July 20, 2024

Revised: March 21, 2025

Accepted: March 22, 2025

Keywords

Ecological;
Environmental;
Government's Commitment;
Justice;
Society;

ABSTRACT

Ecological justice is essential for maintaining environmental sustainability and ensuring fair access to natural resources. However, its implementation is often hindered by economic and political interests, weak institutional capacity, and inadequate legal frameworks. This research evaluates the Indonesian government's commitment to ecological justice by analyzing the effectiveness of its environmental policies. Using a normative legal research method with a conceptual approach, legislative analysis, and comparative study, this study examines Indonesia's policy framework and governance challenges. The findings show that despite various policy commitments, regulatory weaknesses, insufficient protection of indigenous rights, and limited public participation hinder progress. Indonesia prioritizes economic growth over environmental sustainability, leading to ecological degradation. Industrial dominance, legal loopholes, weak law enforcement, and corruption further exacerbate these issues. Meanwhile, Saudi Arabia has demonstrated a strong commitment through initiatives like the Saudi Green Initiative and major investments in renewable energy. To achieve ecological justice, Indonesia must strengthen environmental policies, improve law enforcement, and enhance cross-sector collaboration. By adopting Saudi Arabia's targeted strategies, increasing transparency, and integrating green technologies, Indonesia can accelerate its transition toward sustainable and inclusive development.



This is an open-access article under the [CC-BY 4.0](https://creativecommons.org/licenses/by/4.0/) license.



1. Introduction

The national development plan in Indonesia delineates the strategy for achieving sustainable development. The national development plan comprises seven agendas, including the following: enhancing economic resilience, bolstering regional development, enhancing the quality of human resources and competitiveness, fostering national values and citizen character, advancing infrastructure, enhancing the environment and resilience to the effects of natural disasters and climate change, and bolstering the stability of political

transformation, law, national security and defense, and public services.¹ The national development target is designed to achieve sustainable national development and continues to prioritize environmental sustainability. In Indonesia, ecological devastation is a frequent occurrence that has a detrimental effect on the environment, human life, and various sectors, including the economic and social sectors. Throughout the year, ecological disasters, including forest fires and floods, persist in numerous regions of Indonesia.²

Indonesia's forests are among the eight most significant in the world, as indicated by data published by the Food and Agriculture Organization of the United Nations in 2020. Indonesia accounts for 2% of the global forest cover, while Australia, the Congo, China, the United States, Canada, Brazil, and Russia each account for 3%, 5%, 8%, 9%, and 20%, respectively. This nation serves as one of the globe's respiratory systems. Indonesia's forests consist of approximately 125,795,306 hectares. Additionally, this nation encounters numerous troubles. According to the 2022 Environmental Performance Index (EPI) report, Indonesia remains in the bottom 20 of 180 countries surveyed concerning environmental sustainability issues, indicating that there is still a significant amount of work to be done in environmental conservation and climate change. Western and Eastern European countries dominate the 2022 EPI. The top five countries are Denmark (score 77.9), the United Kingdom (77.7), Finland (76.5), Malta (75.2), and Sweden (72.7). The countries of the Blue Continent typically dominate the top 20 rankings. European countries have implemented environmental protection policies and programs emphasizing sustainability. Additionally, they are regarded as the most likely to achieve the objective of zero emissions by 2050. The formation of guidelines for the sustainable protection and management of the environment, with effective patterns that can undoubtedly prevent and overcome environmental damage, has become a concern for all countries in the world, including Indonesia, in connection with the first international conference on the environment held by the United Nations (UN) in Stockholm, Sweden on June 5-16, 1972, which was also designated as World Environment Day.³

Environmental management, which includes the prevention, mitigation, and restoration of damage and pollution, has required the development of various policy instruments, programs, and activities, supported by other environmental management support systems. The interdependence and holistic nature of the environment's essence have resulted in the necessity of integrating environmental

¹ Fatma Ulfatun Najicha and others, 'The Conceptualization of Environmental Administration Law in Environmental Pollution Control', *Journal of Human Rights, Culture and Legal System*, 2.2 (2022), 87–99 <https://doi.org/https://doi.org/10.53955/jhcls.v2i3.55>

² Rahayu Subekti and others, 'Solidifying the Just Law Protection for Farmland to Anticipate Land Conversion', *International Journal of Economic Research*, 14.13 (2017), 69–79 https://doi.org/https://serialsjournals.com/abstract/38652_6.pdf

³ Jo Williams, 'Circular Cities: Planning for Circular Development in European Cities', *European Planning Studies*, 31.1 (2023), 14–35 <https://doi.org/10.1080/09654313.2022.2060707>

management, including its support systems, with all development implementations in various sectors at the center and the regions.⁴

The absence of environmental security and oversight, particularly in Indonesia, which boasts extensive forests, has resulted in an ongoing ecological imbalance. This imbalance has resulted in air pollution, environmental degradation, and even economic instability. This illustrates the forest conflagration on Mount Bromo, Indonesia, in 2023.⁵ The public's lack of understanding of environmental management also exacerbated the fire. Nevertheless, the government should be accountable for informing all members of society about the necessity of preserving the natural ecosystem's equilibrium by enacting equitable legislation.⁶ In the last two centuries, there has been a global slowdown in population development, while economic growth has accelerated due to the expansion of markets, the resulting ecological degradation, and the increasing social inequality. These conceptual and empirical advancements have further bolstered the appeal for a significant change in sustainability thinking and practice.⁷

Maintaining the forest ecosystem by ecological justice is crucial in a country such as Indonesia, which has extensive forests. By the Presidential Regulation of the Republic of Indonesia Number 111 of 2022 concerning the Implementation of the Achievement of Sustainable Development Goals, Indonesia is interested in the sustainability of forests and the issue of climate change. International conferences have become concerned with environmental conservation within ecological justice, bolstered by local government policies and safeguarded by law. March 21 has been designated as the International Day of Forests by the United Nations General Assembly since 2012. The theme of the 2022 International Day of Forests is "Forests and sustainable production and consumption," which urges all concerned parties to discontinue various unsustainable production and consumption practices that harm the sustainability of forest ecosystems. The 2024 International Day of Forests theme is "Forests and Innovation: New Solutions for a Better World." This is because technological advancements are indispensable for establishing early warning systems for forest fires and forest loss, promoting sustainable commodity production, and empowering Indigenous Peoples through the mapping and

⁴ Mattijs van Maasackers, Jeeseon Oh, and Emily Knox, 'Shrinking Democracy? Analyzing Participatory Planning for Vacancy and Abandonment in Ohio', *Journal of Urban Affairs*, 42.8 (2020), 1242–61 <https://doi.org/10.1080/07352166.2019.1694414>

⁵ I.G.A.K. Rachmi Handayani, Lego Karjoko, and Abdul Kadir Jaelani, 'Model Pelaksanaan Putusan Mahkamah Konstitusi Yang Eksekutabilitas Dalam Pengujian Peraturan Perundang-Undangan Di Indonesia', *Bestuur*, 7.1 (2019), 36–46 <https://jurnal.uns.ac.id/bestuur/article/view/42700>

⁶ Gunwoo Kim, Galen Newman, and Bin Jiang, 'Urban Regeneration: Community Engagement Process for Vacant Land in Declining Cities', *Cities*, 102 (2020), 102730 <https://doi.org/10.1016/j.cities.2020.102730>

⁷ Nabil Ahmed and others, *Inequality Kills: The Unparalleled Action Needed to Combat Unprecedented Inequality in the Wake of COVID-19*, January 2022 <https://doi.org/10.21201/2022.8465>

protection of customary lands. Several key agenda items were discussed at the COP-28 global summit on climate change, which took place at the Dubai Expo on 30 November-12 December 2023. These items included the management of forest loss and the mitigation of forest degradation. At the COP-27 Climate Summit in Egypt in November 2022, a year prior, the world summit on climate change exhorted countries to negotiate the climate crisis and find solutions to address environmental issues, including forest issues. The judicial mafia's involvement in enforcing forestry regulations has resulted in ecological injustice that has not been adequately addressed. This injustice is founded on the intervention of political forces and the ineffectiveness of criminal penalties.⁸

However, in this new era of justice, humanity is faced with increasing challenges on a global scale, which underscore the need for reconciliation in its relationship with the environment. This transformation will influence the availability of energy, the cost and distribution of land, the capacity and governance of communities, and the economic systems. In essence, the new paradigm of justice necessitates that humanity confront the fact that the causes and effects of injustice, which were previously perceived and defined as distinct, local, and with identifiable causes and effects, are now much more intricate and both local and global in their emergence and impact.⁹ The pursuit of ecological justice encourages humans to consider the impact of environmental degradation and depletion on human societies and ecosystems and to strive to support those affected. This approach aims to reconcile the broken relationship between humans and the environment. This type of reconciliation requires a multi-stakeholder approach encompassing governance, commerce, and community engagement. It also entails an ethical transformation in which the pursuit of justice is centered around the importance of healthy relationships.¹⁰

Ecological justice pertains to humans interacting with the natural world and non-human organisms. It is occasionally called justice toward nature and is intended to delineate humans' moral responsibilities toward other species. This entry examines the definitions, concepts, and issues fundamental to ecological justice as they are distinct from "environmental justice." The latter term encompasses both environmental and social justice. Ecological justice is predicated on the notion that "everything is interconnected" and that ethical behavior in the

⁸ Fitri Nur, Aini Prasetyo, and Abdul Kadir Jaelani, 'The Changing of Environmental Approval Administrative Law Perspective', *Journal of Human Rights, Culture and Legal System*, 2.3 (2022), 191–208 <https://doi.org/https://doi.org/10.53955/jhcls.v2i3.55>

⁹ Abdul Kadir Jaelani and Reza Octavia Kusumaningtyas, 'The Interests and the Conflict Vortex in Wadas Village: A Karl Marx Perspective', 2024, pp. 42–48 https://doi.org/10.2991/978-2-38476-315-3_8

¹⁰ Alexander Dunlap, 'The Politics of Ecocide, Genocide and Megaprojects: Interrogating Natural Resource Extraction, Identity and the Normalization of Erasure', *Journal of Genocide Research*, 23.2 (2021), 212–35 <https://doi.org/10.1080/14623528.2020.1754051>

environmental sector is essential to social justice.¹¹ The Government, however, encounters various obstacles in its efforts to maintain ecological justice, which are rooted in the intricacies of legal, social, and institutional systems. These challenges impede the practical implementation of environmental laws and policies, ultimately affecting efforts to attain ecological justice.¹²

Ineffective law enforcement frequently results from inadequate legal frameworks that fail to account for the intricacies of environmental offenses. There are instances in which conservation initiatives have led to violations of indigenous and local communities' human and territorial rights. The economic impoverishment and social marginalization of communities are frequently the result of forced evictions and the separation of communities from their ancestral territories. These impacts can be devastating. Additionally, Indonesia's ecological injustice is evident in numerous instances, particularly in the context of inadequate environmental management legislation and illegal mining.¹³ These issues underscore the intersection of environmental degradation and social injustice, which frequently have a disproportionate impact on marginalized communities.¹⁴ Next, the Central Kalimantan fires illustrate ecological inequity, in which corporate interests prioritize profits over environmental health, resulting in extensive damage. The granting of Forest Concession Rights frequently leads to the vast destruction of forests, which impedes sustainability initiatives.¹⁵

Systemic bias, socio-economic disparities, and the marginalization of indigenous and disadvantaged communities frequently fail current environmental management policies to achieve ecological justice. These policies often disregard the needs and knowledge of these groups, resulting in unequal burdens and benefits in environmental governance.¹⁶ Existing laws, such as Law No. 32 of 2009

¹¹ Haydn Washington and others, 'Ecological and Social Justice Should Proceed Hand-in-Hand in Conservation', *Biological Conservation*, 290 (2024), 110456 <https://doi.org/10.1016/j.biocon.2024.110456>

¹² Unang Mulkhan, 'Eco-Justice Perspective and Human Rights-Based Approach to Responsible Business in the Indonesian Mining Industry', in *Handbook of Business Legitimacy* (Cham: Springer International Publishing, 2020), pp. 1309–23 https://doi.org/10.1007/978-3-030-14622-1_111

¹³ Anila Robbani, Raffy Arnanda Faturrohman, and Ahmad Hananul Amin, 'Dialectical Optimization of Income Tax Revenue in Land and Building Rights Transfer Transactions Dialectical', *Jurnal Justice Dialectical*, 2.1 (2024), 28–42 <https://doi.org/https://doi.org/10.70720/jjd.v2i2.38>

¹⁴ Arif Rohman, Hartiwiningasih, and Muhammad Rustamaji, 'Illegal Mining in Indonesia: Need for Robust Legislation and Enforcement', *Cogent Social Sciences*, 10.1 (2024) <https://doi.org/10.1080/23311886.2024.2358158>

¹⁵ Jesica Lestari and others, 'Urgensi Pengadopsian Ekosida Dalam Sistem Hukum Nasional Sebagai Respon Menghadapi Ancaman Krisis Lingkungan Hidup', *PLEDOI (Jurnal Hukum Dan Keadilan)*, 3.1 (2024), 77–90 <https://doi.org/10.56721/pledoi.v3i1.320>

¹⁶ Ruhul Amin, Hitumoni Nath, and Ruhul Amin, 'Environmental Justice and Education: Bridging the Gap between Ecology, Equity, and Access', *Journal of Advanced Zoology*, 44.S-3 (2023), 1075–82 <https://doi.org/10.17762/jaz.v44iS-3.1061>

in Indonesia, are not implemented optimally, resulting in significant environmental degradation.¹⁷ For example, current reclamation laws lack a basis in ecological justice, fail to consider the rights of nonhuman entities, and lack a dedicated regulatory body.¹⁸ Economically focused government policies, such as MP3EI and MIFEE, also conflict with environmental laws, exacerbating deforestation and peatland loss. In addition, weak institutional capacity hampers the ability of regulatory agencies to enforce laws effectively, often leaving victims of environmental degradation with no recourse.¹⁹

The interconnectedness of environmental sustainability and social justice is critical to ecological justice, particularly in the Indonesian context. To cultivate a culture of environmental responsibility, a transformative approach to learning and community engagement is necessary in response to the ecological crisis exacerbated by climate change. The Middle East and North Africa (MENA) region is one of the most vulnerable regions to climate change, in contrast to Indonesia. Its ecosystems and environment are being affected by pollution, water scarcity, extreme temperatures, and desertification. Climate mitigation measures are indispensable because climate change is a threat multiplier, meaning one environmental issue can exacerbate another and have adverse economic consequences. National adaptation plans to address extreme heat, water scarcity, and declining food production are critical, given that current projections indicate that 50% of the population in the MENA region will be exposed to "super-extreme" weather events shortly. Many of these countries have considered these issues in their respective national agendas.²⁰

The energy composition of the MENA region will differ from country to country, depending on the availability of renewable resources, capital, and alternative energy sources. Countries in the area must collaborate to finance climate change adaptation and mitigation and climate-related environmental issues. The Saudi and Middle East Green Initiative, which Saudi Arabia is leading, is designed to address climate change by fostering regional collaboration. The initiative is consistent with the theme "from ambition to action," representing Saudi Arabia's dedication to achieving its climate objectives. The initiative's dedication to global cooperation is critical, as it emphasizes the exchange of knowledge and

¹⁷ Tiyas Vika Widyastuti, 'The Model Of Environmental Regulation Based On An Ecological Justice', *Jurnal Pembaharuan Hukum*, 10.1 (2023), 180 <https://doi.org/10.26532/jph.v10i1.30543>

¹⁸ Muhammad Bagus Adi Wicaksono and Wiwit Rahmawati, 'Ecological Justice-Based Reclamation and Post-Mining Regulations in Indonesia: Legal Uncertainty and Solutions', *Journal of Law, Environmental and Justice*, 2.2 (2024), 109–36 <https://doi.org/10.62264/jlej.v2i2.103>

¹⁹ Ikhsan Nurhuda and Muhammad Iqbal Baiquni, 'Ecological Justice in the Framework of Pancasila: Problems and Challenges', *Indonesian Journal of Pancasila and Global Constitutionalism*, 3.1 (2024) <https://doi.org/10.15294/ijpgc.v3i1.78909>

²⁰ Hong-Zhen Zhang, Ling-Yun He, and ZhongXiang Zhang, 'Can Policy Achieve Environmental Fairness and Environmental Improvement? Evidence from the Xin'an River Project in China', *Journal of Policy Modeling*, 46.1 (2024), 212–34 <https://doi.org/10.1016/j.jpolmod.2023.11.008>

collaborative endeavors across borders to combat climate change collectively. Furthermore, the Saudi Green Initiative illustrates the collective aspirations of the entire society, as it unites the public and private sectors, as well as citizens, to actively participate in pursuing ambitious national objectives. The initiative is designed to foster sustainable development and resilience in the face of climate-related threats, in addition to reducing carbon emissions and transitioning to greener energy sources.²¹

Previous research by Katrin Grossmann et al. shows that social and ecological goals arise with conflicts and contradictions that deserve more attention than they have received. In addition, social justice is a contested concept, with philosophical literature inspiring a variety of normative and analytical frameworks. Be it liberal or feminist approaches, distributional or procedural issues, or questions of recognition or basic capabilities.²² Afterward, Elly Kristiani Purwendah et al. researched the application of advantageous legal provisions in each specific legal event that transpires in society to accomplish the established objectives. Suppose the application of this political economy policy is not meticulous (i.e., it remains anthropocentric). In that case, it may conflict with the social ecology emerging in Indonesia through the concepts of green economy and blue economy. The socialist system's characteristics in political economy related to environmental justice began to transform in the era of globalization after the amendment to the 1945 Constitution, enabling it to respond to ecological modernization. However, the Indonesian legal system's ecological justice system contains socio-ecological justice nuances due to its opposition to socialism. This concept will significantly influence the equity of compensation for oil pollution caused by tanker accidents in Indonesia.²³

Traugott Jähnichen's subsequent research demonstrated that ecological justice expands the discourse to encompass the rights of nonhuman creatures, acknowledging that the Earth is a shared habitat. As evidenced by her study, she advocated for a departure from the techno-economic perspectives prevalent in the northern hemisphere. The research recommended a transformative approach to environmental ethics that prioritizes the needs of marginalized communities and ensures justice for all life forms. This approach necessitates reassessing our

²¹ Fatma Ayu, Jati Putri, and Jasurbek Rustamovich, 'The Impact of Land Reform Policies on the Sustainable Management of Natural Resources in Local Communities', *Journal of Human Rights, Culture and Legal System*, 4.2 (2024), 510–37 <https://doi.org/10.53955/jhcls.v4i2.197>

²² Katrin Grossmann and others, 'From Sustainable Development to Social-Ecological Justice: Addressing Taboos and Naturalizations in Order to Shift Perspective', *Environment and Planning E: Nature and Space*, 5.3 (2022), 1405–27 <https://doi.org/10.1177/25148486211029427>

²³ Elly Kristiani Purwendah and others, 'Ecological and Social Justice as Basis on Marine Environment Protection and Preservation in The System of Indonesian Law', *Jurnal Ilmiah Pendidikan Pancasila Dan Kewarganegaraan*, 7.2 (2022), 413 <https://doi.org/10.17977/um019v7i2p413-428>

language and frameworks for addressing ecological issues.²⁴ Furthermore, Jennifer Rasmussen's research indicates that environmental justice will be indispensable in ensuring that the costs and burdens of addressing these threats are shared equitably, borne by all individuals worldwide, as the planet becomes increasingly vulnerable to severe and frequent environmental threats as a result of climate change (including threats to biodiversity). Nevertheless, impoverished communities and communities of color, including Indigenous communities, are disproportionately affected by environmental problems and their solutions, if the past is any indication.²⁵ The objectives of ecological justice, the application of law and political economy to ecological justice, and the global perspective on environmental justice have been the focus of most previous studies. This study explicitly examines the government's dedication to ecological justice, with a particular emphasis on implementing policies and their consequences, as well as assessing the degree to which current policies contribute to achieving ecological justice for its citizens.

This research is significant because ecological justice is not solely an environmental issue; it also pertains to the rights of communities to a sustainable and healthy environment. The government's role is essential in ensuring that policies are oriented towards economic growth and consider ecological equilibrium and social welfare in climate change and the increasing exploitation of natural resources. Furthermore, despite numerous policies being implemented, there is still a discrepancy between regulations and practices in the field. Consequently, an assessment of government commitment is necessary to determine how current policies can safeguard community rights and establish genuine ecological justice. This research has the potential to offer a deeper understanding of the efficacy of policies, the challenges associated with their implementation, and the suggestions for enhancing government accountability in the pursuit of more sustainable and inclusive ecological justice.

2. Research Method

This research employs a normative juridical research method with a conceptual and legislative approach to assess the Indonesian government's commitment to achieving ecological justice. The research analyzes laws, regulations, and policies related to environmental protection and justice, examining their effectiveness in practice.²⁶ The conceptual approach explores the theoretical foundations of

²⁴ Traugott Jähnichen, "Ecological Justice": Towards an Integrative Concept of the Protection of Creation', *HTS Teologiese Studies / Theological Studies*, 78.2 (2022) <https://doi.org/10.4102/hts.v78i2.7738>

²⁵ Jennifer B. Rasmussen, 'Advancing Environmental Justice through the Integration of Traditional Ecological Knowledge into Environmental Policy', *Challenges*, 14.1 (2023), 6 <https://doi.org/10.3390/challe14010006>

²⁶ Lucky Putri Selomitha, Lego Karjoko, and Abdul Kadir Jaelani, 'Fair Legal Protection for Actual Land Owners Against Land Grabbing Disputes', in *Proceedings of the International Conference on*

ecological justice, emphasizing the interplay between legal frameworks, governance, and sustainability.²⁷ A comparative analysis with Saudi Arabia also highlights differences and best practices in environmental governance. Saudi Arabia and the Middle East Green Initiative firmly commit to combating climate change through policy integration and international collaboration. By comparing Indonesia's ecological policies with Saudi Arabia's proactive approach, this study identifies key challenges and potential improvements in Indonesia's environmental justice framework, emphasizing the need for stronger enforcement mechanisms, policy coherence, and sustainable development strategies.²⁸

3. Results and Discussion

Government Initiatives for Ecological Justice in Indonesia

Ecological justice necessitates a fair and equitable distribution of environmental benefits and burdens within society to guarantee that all individuals have access to a pure and healthy environment. The broader concept of environmental justice is closely associated with ecological justice, which incorporates fundamental principles for promoting sustainability, equity, and fairness in environmental decision-making processes.²⁹ These principles aim to guarantee that all individuals, irrespective of their nationality, income, or race, are treated equitably and actively engaged in environmental issues. Ecological justice principles are founded on achieving a sustainable environment and fostering good environmental governance by harmonizing ecological, economic, and social justice.³⁰

One of the core principles of ecological justice is the precautionary principle, which emphasizes the proactive measures necessary to avoid environmental harm and protect vulnerable populations from harmful exposures. In addition, the compensatory principle plays a critical role in ecological justice by highlighting the need to redress individuals or communities disproportionately affected by environmental harm. Furthermore, strict liability is also integral to ecological

Cultural Policy and Sustainable Development (ICPSD 2024), 2024, pp. 713–19
https://doi.org/10.2991/978-2-38476-315-3_98

²⁷ Ahmad Dwi Nuryanto, Reza Octavia Kusumaningtyas, and Bukhadyrov Habibullo, 'The Imperative of Social Justice on the Insolvency and Workers' Wage', *Journal of Sustainable Development and Regulatory Issues*, 2.3 (2024), 209–32 <https://doi.org/10.53955/jsderi.v2i3.50>

²⁸ Chairul Fahmi and Peter-Tobias Stoll, 'Measuring WTO Approaches in Resolving Palm Oil and Biofuel Trade Disputes from Indonesia', *BESTUUR*, 12.2 (2024), 172
<https://doi.org/10.20961/bestuur.v12i2.94203>

²⁹ Hudali Mukti and Bobur Baxtishodovich, 'Environmental Justice at the Environmental Regulation in Indonesia and Uzbekistan', *Journal of Human Rights, Culture and Legal System*, 3.3 (2023), 476–512 <https://doi.org/https://doi.org/10.53955/jhcls.v3i3.171>

³⁰ Myrna A. Safitri and Achmad Jaka Santos Adiwijaya, 'Realizing Ecological Justice in Urban Development Laws: Indonesian Experiences and Challenges to Protect Biodiversity in Its New Capital City', *IOP Conference Series: Earth and Environmental Science*, 1447.1 (2025), 012021
<https://doi.org/10.1088/1755-1315/1447/1/012021>

justice, holding polluters responsible for all environmental harms caused, regardless of fault or intent, which serves as a deterrent to environmentally damaging activities and reinforces the notion of environmental responsibility.³¹ Finally, the principles of sustainable development underscore the importance of promoting practices that support the long-term well-being of human societies and ecological systems. These principles provide a framework for integrating environmental considerations into decision-making processes, promoting accountability, harm prevention, compensation for impacts, and sustainable practices. By upholding these principles, societies can work toward creating a more equitable, resilient, and sustainable environment for all individuals and ecosystems.³²

The forestry and energy sectors are the main contributors to reducing emissions by up to 97.2% to achieve the national emission reduction target. This aligns with the importance of maintaining ecological balance, where sustainable forest management and the transition to clean energy can help mitigate climate change. The role of the forestry sector in reducing emissions is outlined in the Forestry and Other Land Use (FOLU) Net Sink 2030 policy. In addition, the government has also adopted guidelines to maximize biodiversity conservation and sustainable forest management.³³ Nevertheless, the Government has incorporated a clause that specifies that open mining is the sole prohibited activity in protected forest areas, citing Article 38 of the Forestry Law in conjunction with the Job Creation Law. Indeed, this regulation can be interpreted as allowing mining activities to continue with open mining activities. According to Central Government policy, using protected forest areas for mining is a borrowing method. Does this policy achieve ecological justice, even though Article 38 of the Forestry Law mandates that mining activities be conducted considering environmental sustainability without sacrificing the forest's fundamental functions?³⁴

The Forestry Law's amendment to Article 38 has sparked controversy. This article initially captivated the attention of various organizations, including environmentalists, due to its provision of the government with the authority to

³¹ Bambang Manumayoso and others, 'Oil and Gas Fiscal Term Regulations Based on Ecological Justice', *Journal of Sustainable Development and Regulatory Issues*, 2.3 (2024), 233–63 <https://doi.org/https://doi.org/10.53955/jsderi.v2i3.50>

³² Agung Basuki, Lego Karjoko, and I Gusti Ayu Ketut Rahmi Handayani, 'Exploring Ecological Justice in the Regulatory Framework of Land Ownership, Utilization, Control, and Inventory in Indonesia', *Journal of Environmental Management and Tourism*, 14.7 (2023), 2944–53 [https://doi.org/https://doi.org/10.14505/jemt.v14.7\(71\).11](https://doi.org/https://doi.org/10.14505/jemt.v14.7(71).11)

³³ Richard Sikkema and others, 'How Can Solid Biomass Contribute to the EU's Renewable Energy Targets in 2020, 2030 and What Are the GHG Drivers and Safeguards in Energy- and Forestry Sectors?', *Renewable Energy*, 165 (2021), 758–72 <https://doi.org/10.1016/j.renene.2020.11.047>

³⁴ Mary Menton and others, 'Environmental Justice and the SDGs: From Synergies to Gaps and Contradictions', *Sustainability Science*, 15.6 (2020), 1621–36 <https://doi.org/10.1007/s11625-020-00789-8>

conduct mining operations in protected forest areas. Human activities are prohibited from altering the forest's primary function, as Article 38 of the Forestry Law stipulates.³⁵ The relevant party must submit a permit application to the ministry through a borrow-use process, considering the permitted area and time limits to maintain the ecosystem to conduct mining activities in this area. Management of mines through an open-pit mining approach is not appropriate for mine administrators.³⁶ Open mining can damage forest areas and disrupt the forest's primary function. The government must implement policies to restore the forest's ecological function and condition to resolve this issue.³⁷

The Forestry Law defines justice as distributive justice in the context of forest management. The Forestry Law's principle of justice is evident, juxtaposing democracy with the principle of justice. The private sector, specifically Private Enterprises (BUMS) and cooperatives that collaborate with Community cooperatives, is granted access to forest management opportunities through the implementation of this aspect. In reality, Article 34 and Article 37 of the Forestry Law guarantee that the Community, exceptionally customary law communities, will continue to have the ability to manage customary forest areas. Nevertheless, the Forestry Law's state guarantee is restricted to black ink on white paper.³⁸ This is due to the Forestry Law, which creates opportunities for private parties to privatize forest area management, which threatens the forest's public benefits. The absence of explicit regulations regarding forest area management has resulted in the emergence of this hazard, as it creates loopholes that can be exploited to conduct forest exploitation activities that are not deemed appropriate.³⁹ This demonstrates that the Forestry Law has not entirely accounted for environmental justice. This situation does not fulfill the concept of ecological justice, as it should

³⁵ Muhammad Yofian Roesjdiansyah, Raka Widya Nugraha, and Yolva Febreight Arthania, 'Dialectical Policy of Taxation of Premium Value Addition Tax (Ppnbm) on Motorwages for the Purpose of Tax Collection in Indonesia Dialectical', *Jurnal Justice Dialectical*, 2.1 (2024), 56–69 <https://doi.org/https://doi.org/10.70720/jjd.v2i2.45>

³⁶ Onil Banerjee and others, 'The Economics of Decarbonizing Costa Rica's Agriculture, Forestry and Other Land Uses Sectors', *Ecological Economics*, 218 (2024), 108115 <https://doi.org/10.1016/j.ecolecon.2024.108115>

³⁷ Alfian Hidayat and Purnami Safitri, 'The Ecological Politic of Forestry: Industrial Plantation Forest Policy in Sambelia, East Lombok', *Jurnal Penelitian Sosial Dan Ekonomi Kehutanan*, 18.3 (2021), 205–18 <https://doi.org/10.20886/jpsek.2021.18.3.205-218>

³⁸ Kevin Lo, 'Authoritarian Environmentalism, Just Transition, and the Tension between Environmental Protection and Social Justice in China's Forestry Reform', *Forest Policy and Economics*, 131 (2021), 102574 <https://doi.org/10.1016/j.forpol.2021.102574>

³⁹ Nenad Šimunović, Franziska Hesser, and Tobias Stern, 'Frame Analysis of ENGO Conceptualization of Sustainable Forest Management: Environmental Justice and Neoliberalism at the Core of Sustainability', *Sustainability*, 10.9 (2018), 3165 <https://doi.org/10.3390/su10093165>

be that living organisms and non-living entities in nature have the same right to justice as humans.⁴⁰

From the energy sector, the Geothermal Law also shows inequality in terms of environmental justice. Although this regulation aims to encourage renewable energy use, geothermal development often threatens protected forest ecosystems and customary areas. Article 5 of Law No. 21 of 2014 concerning Geothermal, for example, opens up opportunities for geothermal exploitation in forest areas under the pretext of national interests. This has the potential to ignore the rights of indigenous peoples who depend on forests as a source of life and local wisdom. In addition, this law's lack of strict environmental protection mechanisms opens up loopholes for companies to exploit resources excessively without considering long-term ecological impacts. The potential for increased environmental damage is created by the non-comprehensive legal umbrella regarding environmental protection for geothermal utilization efforts. Therefore, the Geothermal Law has not completely incorporated the principle of ecological justice, which stipulates that environmental protection should be a priority equivalent to economic and development interests. Furthermore, the Geothermal Law and *Permenlhk 4/2019* have been unable to satisfy the ecological justice component because of their inadequate sanctions for perpetrators of environmental harm resulting from geothermal utilization. In contrast, the principle of ecological justice requires that sanctions be implemented against those who cause environmental damage.⁴¹

Furthermore, Indonesia's climate change regulations are fragmented and have not been fully integrated. This leads to climate change mitigation being less effective and frequently given less priority than other sectoral policies, including energy, mining, and forestry.⁴² Consequently, various stakeholders have made a concerted effort to establish a climate justice law that will serve as the primary legal framework for coordinating policies and initiatives to address climate change. Nevertheless, the pursuit of ecological justice necessitates not only robust regulations but also the backing of a robust democratic system and the observance of human rights. The erosion of democracy and oligarchic practices can impede the legislative process that benefits society and the environment. Consequently, to

⁴⁰ Adrian Martin and others, 'Environmental Justice and Transformations to Sustainability', *Environment: Science and Policy for Sustainable Development*, 62.6 (2020), 19–30 <https://doi.org/10.1080/00139157.2020.1820294>

⁴¹ Ramazan Caner Sayan, 'Exploring Place-Based Approaches and Energy Justice: Ecology, Social Movements, and Hydropower in Turkey', *Energy Research & Social Science*, 57 (2019), 101234 <https://doi.org/10.1016/j.erss.2019.101234>

⁴² Maija Halonen, Annukka Näyhä, and Irene Kuhmonen, 'Regional Sustainability Transition through Forest-Based Bioeconomy? Development Actors' Perspectives on Related Policies, Power, and Justice', *Forest Policy and Economics*, 142 (2022), 102775 <https://doi.org/10.1016/j.forpol.2022.102775>

fortify democracy and guarantee public involvement in environmental decision-making, a collective commitment must be made.⁴³

The government remains dedicated to implementing sustainable development as a critical component of equitable and inclusive development while considering environmental factors. To accomplish economic growth, the government also continues prioritizing sectors that prioritize sustainability. This is consistent with Indonesia's dedication to realizing the Vision of Golden Indonesia 2045, which aims to establish a "Sovereign, Advanced, and Sustainable Archipelago" and become a high-income nation. Economic transformation is necessary to achieve this, which includes optimizing added value, innovation, and implementing a green and inclusive economy.⁴⁴

The government's initiatives include promoting renewable energy, particularly its commitment to increase the use of renewable energy to 23% in 2025 and 31% in 2050. New Renewable Energy (EBT) has attained 15% in the electricity sector since Semester I of 2023.⁴⁵ Additionally, the government is currently engaged in the construction of on-grid renewable energy power plants, including floating solar power plants, rooftop solar power plants, and co-firing biomass of existing PLTUs. Currently, biomass utilization has reached 306,000 tons.⁴⁶ The government thinks that the EBT PLT will expedite the attainment of the EBT mix objective in 2025 and contribute to a reduction in greenhouse gas emissions of 31.89% from business as usual and 43.20% with international assistance. As an innovative approach to environmental financing, the Ecological Fiscal Transfer (EFT) policy has been implemented by as many as 40 local governments.⁴⁷ The total funds collected amounted to IDR 355.4 billion and have benefitted 21 districts/cities, 1,518 villages, and 104 sub-districts.⁴⁸ The implementation of EFT has positively impacted the

⁴³ Régis Gourdel, Irene Monasterolo, and Kevin Gallagher, 'Climate Transition Spillovers and Sovereign Risk: Evidence from Indonesia', *Energy Economics*, 143 (2025), 108211 <https://doi.org/10.1016/j.eneco.2025.108211>

⁴⁴ Sapriani Sapriani, Reza Octavia Kusumaningtyas, and Khalid Eltayeb Elfaki, 'Strengthening Blue Economy Policy to Achieve Sustainable Fisheries', *Journal of Sustainable Development and Regulatory Issues (JSDERI)*, 2.1 (2024), 1–19 <https://doi.org/10.53955/jsderi.v2i1.23>

⁴⁵ Lego Karjoko and others, 'Islamic Court ' s Approach to Land Dispute in Inheritance Cases', *AHKAM: Jurnal Ilmu Syariah*, 21.2 (2021), 213–38 <https://doi.org/https://doi.org/10.15408/ajis.v21i2.21864>

⁴⁶ Zaidah Nur Rosidah, Lego Karjoko, and Mohd Rizal Palil, 'The Government ' s Role in Interfaith Marriage Rights Protection : A Case Study of Adjustment and Social Integration', *Journal of Human Rights, Culture and Legal System*, 3.2 (2023), 265–87 <https://doi.org/https://doi.org/10.53955/jhcls.v3i2.105>

⁴⁷ Hongjie Cao and others, 'Incentive and Coordination: Ecological Fiscal Transfers' Effects on Eco-Environmental Quality', *Environmental Impact Assessment Review*, 87 (2021), 106518 <https://doi.org/10.1016/j.eiar.2020.106518>

⁴⁸ Aditia Syaprih and Fuad Shehab Shyyab, 'Legislative Framework for Decentralized Administration in Addressing River Pollution', *Journal of Sustainable Development and Regulatory Issues (JSDERI)*, 3.1 (2025), 55–77 <https://doi.org/10.53955/jsderi.v3i1.39>

local economy by increasing the allocation of funds for environmental conservation, reducing the incidence of forest and land fires, and encouraging reforestation programs and ecotourism management.⁴⁹

Nevertheless, several deficiencies in Indonesia still compromise the efficacy of EFT in attaining ecological justice. Ecological indicators, such as the General Allocation Fund (DAU), have not been completely incorporated into the national fiscal transfer formula.⁵⁰ This results in the allocation of funds not fully reflecting environmental needs and performance in the region.⁵¹ Protecting forest areas within official forestry zones is the primary focus of EFT in Indonesia, while forested areas outside these zones receive less attention. Furthermore, the implementation of EFT is not uniformly distributed across all regions of Indonesia. To ensure that the benefits of EFT are felt uniformly and effectively throughout Indonesia, it is necessary to enhance policy design, integrate ecological indicators more broadly, increase regional capacity, and expand EFT implementation.⁵²

The implementation of each policy to achieve ecological justice is contingent upon community support participation and policy enhancements. The Indonesian government has acknowledged the significance of community involvement in developing laws and regulations, particularly those pertaining to ecological justice. Nevertheless, although the legal framework has regulated the right to community participation, its implementation in the field has encountered various obstacles.⁵³ For instance, the Awyu indigenous community in Papua demonstrates that legal decisions do not always prioritize protecting their rights despite their efforts to engage and advocate for their interests. The Supreme Court rejected the Awyu community's appeal to cancel the oil palm concession permit on their ancestral land in November 2024, implying that the rights of indigenous peoples have not been completely realized in practice. A more resolute dedication from all parties is required to guarantee that community involvement is genuinely

⁴⁹ Elma Satrovic, Muhammad Wasif Zafar, and Phassawan Suntraruk, 'Achieving Ecological Sustainability in European Union: The Role of Fiscal Decentralization and Green Innovation', *Journal of Cleaner Production*, 445 (2024), 141316 <https://doi.org/10.1016/j.jclepro.2024.141316>

⁵⁰ Mengqi Niu and Yukun Wang, 'Greening the Economy: How Territorial Spatial Planning Policy Promotes Ecological and Economic Integration', *Environmental Impact Assessment Review*, 112 (2025), 107844 <https://doi.org/10.1016/j.eiar.2025.107844>

⁵¹ Chengwu Lu and others, 'Achieving Ecological Sustainability in OECD Countries: The Role of Fiscal Decentralization and Green Energy', *Journal of Cleaner Production*, 466 (2024), 142814 <https://doi.org/10.1016/j.jclepro.2024.142814>

⁵² Silvia Irawan, Luca Tacconi, and Irene Ring, 'Designing Intergovernmental Fiscal Transfers for Conservation: The Case of REDD+ Revenue Distribution to Local Governments in Indonesia', *Land Use Policy*, 36 (2014), 47–59 <https://doi.org/10.1016/j.landusepol.2013.07.001>

⁵³ Abdur Rohim. Abdul Kadir Jaelani, Resti Dian Luthviati, Muhammad Jihadul Hayat, 'Halal Tourism Sector and Tax Allowance Policy: A Case Study Observed from Normative Problems to Effective Implementation', *Ijtihad: Jurnal Wacana Hukum Islam Dan Kemanusiaan*, 23.2 (2023), 185–210. <https://doi.org/https://doi.org/10.18326/ijtihad.v23i2.185-210>

considered and that their rights are upheld in every environmental decision-making process.⁵⁴

Despite the government's demonstrated commitment to ecological justice through numerous policies, there are still substantial obstacles to ensuring that these principles are effectively and equitably applied to all communities. The attainment of genuine ecological justice is significantly impeded by the absence of protection for the rights of indigenous peoples, deficiencies in regulations, and restricted public participation in decision-making processes. Consequently, it is imperative to implement tangible measures to fortify inclusive environmental policies, enhance transparency in natural resource management, and guarantee that communities, particularly vulnerable groups, have equitable access to environmental legislation and protection processes. For the sake of environmental sustainability and the welfare of future generations, the vision of ecological justice can only be genuinely realized with a more rigorous commitment from the government, private sector, and civil society.

Challenges and Limitations in the Government Commitment of Indonesia

Economic growth, population, and technology contribute to the complexity and diversity of current environmental issues. Environmental issues are perennially on the rise and are often uncontrollable. This suggests that the environment is deteriorating at an accelerating rate. Pollution is becoming increasingly uncontrollable, which is why the current environmental conditions are of growing concern. Ecological issues in developing countries like Indonesia differ from those in developed countries. Underdevelopment is the root cause of Indonesia's ecological problems. A decline in environmental quality is a direct and indirect consequence of various environmental issues in Indonesia.⁵⁵

The current national development is more concerned with economic development. Indonesia's growth is contingent upon economic development; however, the sustained emphasis on short-term financial gains over long-term environmental sustainability poses substantial risks. A paradigm shift is necessary to achieve sustainable growth by incorporating ecological considerations into economic planning.⁵⁶ Indonesia's multifaceted challenges, caused by the conflict between economic development and environmental

⁵⁴ Yunpeng Sun and others, 'Transition towards Ecological Sustainability through Fiscal Decentralization, Renewable Energy and Green Investment in OECD Countries', *Renewable Energy*, 190 (2022), 385–95 <https://doi.org/10.1016/j.renene.2022.03.099>

⁵⁵ Herman Cahyo Diartho, 'Alternative Strategies for Economic Sustainability and Increased Environmental Protection in Indonesia Incorporate the Green Growth Framework and Financial Deepening', *Society*, 11.2 (2023), 697–714 <https://doi.org/10.33019/society.v11i2.566>

⁵⁶ Sudarmo Sudarmo and others, 'Critical Study of the Implementation of the Right of Self-Determination in Protecting Indonesia's Environmental and Economic Sovereignty', ed. by S. Ta Wee and others, *E3S Web of Conferences*, 611 (2025), 05002 <https://doi.org/10.1051/e3sconf/202561105002>

preservation, are primarily driven by exploiting natural resources for financial gain, which frequently compromises ecological integrity.⁵⁷ This tension is evident in various sectors, notably mining and industrial activities, where regulatory frameworks cannot reconcile economic benefits with environmental sustainability.

From the perspective of legal substance, it is evident that there are obstacles in the form of legislation. For instance, the Job Creation Law has simplified environmental permits, prioritizing economic development over environmental protection, which inevitably exacerbates ecological damage. Furthermore, corporations frequently exploit regulatory loopholes, prioritize profits, and evade pollution accountability, weakening the Polluter Pays Principle. Companies that violate environmental regulations often incur minimal penalties that fail to serve as a deterrent.⁵⁸ Then, Law No. 32 of 2009 concerning Environmental Protection and Management has regulated administrative, civil, and criminal sanctions for environmental violators. However, implementing these sanctions is frequently ineffective due to corruption and conflicts of interest. Obtaining justice is challenging for numerous communities impacted by environmental pollution or destruction. This is often the result of a lack of legal access or pressure from the government and corporations.⁵⁹ Then, Law No. 3 of 2020 concerning Mineral and Coal Mining eliminates the authority of local governments to supervise mining, resulting in reduced control over environmental impacts, particularly in regions that are susceptible to the exploitation of natural resources. Indonesia's environmental laws are still ineffective in achieving ecological justice due to the limited participation of the community in supervision, the dominance of industrial interests, and weak law enforcement.⁶⁰

Nevertheless, Ecological Justice is a significant policy concern. In the past, the primary objective of conventional environmental advocacy and policy has been to safeguard the natural environment without considering the effects on individuals or the environments in which they reside and work. As a social movement and concept, Ecological Justice has endeavored to guarantee that communities,

⁵⁷ Muhammad Irfan Dhiaulhaq AR and Dodik Setiawan Nur Heriyanto, 'Striking A Balance Between Job Creation and Sustainability: The Need to Establish A True Environmental Protection Authority in Indonesia', *Jambe Law Journal*, 7.1 (2024), 1–23 <https://doi.org/10.22437/home.v7i1.317>

⁵⁸ Muhammad Arrifky Komaruddiansyah, Ahmed Farid, and Rahmat Mubaroh, 'Pengaruh Kebijakan Penggunaan Izin Pinjam Pakai Kawasan Hutan Lindung Untuk Pertambangan Di Kabupaten Morowali', *ALADALAH: Jurnal Politik, Sosial, Hukum Dan Humaniora*, 2.3 (2024), 74–82 <https://doi.org/10.59246/aladalah.v2i3.859>

⁵⁹ Vu Ngoc Xuan, 'Determinants of Environmental Pollution: Evidence from Indonesia', *Journal of Open Innovation: Technology, Market, and Complexity*, 10.4 (2024), 100386 <https://doi.org/10.1016/j.joitmc.2024.100386>

⁶⁰ Chengzhang Zou, Weizhen Gao, and Fengyi Ai, 'Strategic Mineral Policies for Indonesia: Enhancing Global Competitiveness, Economic Growth, and Environmental Sustainability through Innovation and Renewable Energy', *Renewable Energy*, 244 (2025), 122593 <https://doi.org/10.1016/j.renene.2025.122593>

particularly historically marginalized or vulnerable groups, are included in environmental policy.⁶¹ Nevertheless, numerous instances of environmental pollution and ecosystem destruction are still not rigorously enforced. Regulations frequently prioritize administrative aspects over genuine ecological protection.

Several institutional and organizational barriers exist from the perspective of the legal structure. The most notable of these barriers are structures that impede opportunities for meaningful public engagement, ambiguity in the definition and application of distributive justice, and the absence of substantive requirements to address potential distributional injustice. Differing perceptions and interests regarding the management and utilization of natural resources between the government and local indigenous communities are the primary causes of ecological damage, economic losses, and socio-cultural damage. In this scenario, the government typically enforces state laws, including laws and regulations, to manage resources for national development. Conversely, Indigenous communities employ customary laws to access and exploit the natural environment in the regions they rely on for survival. Therefore, it is inevitable that conflicts over the control and utilization of natural resources between the government and indigenous communities will arise in this country. The conditions of unfair treatment of Indigenous communities as citizens, particularly in terms of access to and utilization of the natural environment in the areas on which they depend for survival, are reflected in this legal phenomenon.⁶²

The enforcement of environmental damage laws remains inadequate due to the absence of human resources and technology in ecological supervision. Consequently, numerous violations remain undetected. Environmental cases are frequently handled by law enforcement officers, including prosecutors and police, who often lack technical expertise. Many institutions responsible for environmental protection cannot effectively supervise and enforce the law due to budget and personnel constraints. Consequently, the demand to establish an Environmental Protection Authority underscores the necessity of a specialized entity to guarantee adherence to environmental standards. It underscores the "Polluter Pays Principle," which mandates that polluters bear the expenses of ecological restoration.

The rights of indigenous peoples in terms of access, control, and utilization of resources in the areas that are their subsistence are frequently disregarded and disregarded by the current government. Furthermore, communities are rendered

⁶¹ Nicola Ulibarri, Omar Pérez Figueroa, and Anastasia Grant, 'Barriers and Opportunities to Incorporating Environmental Justice in the National Environmental Policy Act', *Environmental Impact Assessment Review*, 97 (2022), 106880 <https://doi.org/10.1016/j.eiar.2022.106880>

⁶² Nanang Subekti, I. Gusti Ketut Ayu Rachmi Handayani, and Arief Hidayat, 'Convergence of Green and Sustainable Principles from the Perspective of Economic Democracy in Indonesia', *International Journal of ADVANCED AND APPLIED SCIENCES*, 11.5 (2024), 36–43 <https://doi.org/10.21833/ijaas.2024.05.004>

impotent in the face of the government when their rights to the natural resources and areas that are the foundation of their livelihoods are disregarded and eliminated in the pursuit of national development, as evidenced by empirical and political circumstances.⁶³ In contrast, the global principles of ecological justice focus on the philosophy of justice in the management and policies of natural resources, as well as the equitable treatment and meaningful involvement of all individuals in developing, implementing, and enforcing environmental laws and policies. This encompasses the equitable allocation of ecological risks and benefits, the equitable and meaningful engagement in environmental decision-making, the acknowledgment of human traditions, local knowledge, and cultural distinctions, and the capacity of communities and individuals to flourish and function within society. The objective is to safeguard and preserve the environment's and nature's sustainability through the planning, implementation, monitoring, and evaluation of such policies. This implies that state laws and policies regarding resource management and utilization must be equitable in their allocation.⁶⁴

To gain a more comprehensive understanding of the socio-cultural context of law, it is imperative to concentrate on the relationship between law and culture. Law is a component of culture; as such, it must be examined as an essential component of culture as a whole rather than as an independent institution from the perspective of legal culture. Consequently, it is imperative to consider various cultural factors, including economics, politics, social and cultural aspects, and ideology, when discussing the development of state law. In reality, the development of state law is significantly influenced by these cultural aspects. Consequently, numerous challenges must be overcome in the context of the development of national law, including the formulation of the law and the enforcement and implementation of the law.⁶⁵

Several environmental legal products indicate a trend toward the unification and codification of laws established and directed by the government. This rule-centered paradigm leads to the neglect, marginalization, and domination of other living legal systems, such as customary law. In reality, empirical law is more accurate and more effectively implemented, and it functions in the daily lives of customary law communities in a region. Administrative processes and procedures can be intricate, necessitating legal expertise or specialized knowledge. It can be challenging for individuals or communities with limited resources or

⁶³ Preeya Mohan and Diego Morris, 'Climate Finance and Innovation with Natural Resource Dependence Thresholds', *Journal of Environmental Management*, 377 (2025), 124683 <https://doi.org/10.1016/j.jenvman.2025.124683>

⁶⁴ R Arifin, R Rodiyah, and R Wulansarie, 'Climate Justice in Indonesian Environmental Protection: Past, Present and Future Challenges', *IOP Conference Series: Earth and Environmental Science*, 1248.1 (2023), 012037 <https://doi.org/10.1088/1755-1315/1248/1/012037>

⁶⁵ Sam J. Buckton and others, 'The Regenerative Lens: A Conceptual Framework for Regenerative Social-Ecological Systems', *One Earth*, 6.7 (2023), 824–42 <https://doi.org/10.1016/j.oneear.2023.06.006>

understanding of the legal system to navigate administrative processes effectively due to their complexity.⁶⁶

The environment and natural resources must be viewed as a human life system and an ecological system, necessitating the adoption of environmentally aware principles for the development of national laws and policies on environmental and natural resource control and management. The primary objective of managing and utilizing natural resources and the environment is to enhance the prosperity of the community and all individuals. The environmental wisdom passed down from generation to generation is reflected in customary law, which is a natural process by which customary law communities are involved in controlling and managing natural resources that are the foundation of their existence. The Government's most effective partners and direct actors in managing this country's environment and natural resources are customary law communities. The national legal system must inherently acknowledge and respect the customary law of customary law communities. Basic principles in the pattern of relations between Customary Law Communities and the Government must be the foundation for community-based environmental and natural resource management. In developing ecological and natural resource legislation, it is imperative to acknowledge the environmental wisdom of Customary Law Communities and to respect the community's fundamental rights and customary law of customary law communities as legal entities.⁶⁷

The government continues to encounter significant obstacles in its pursuit of ecological justice, particularly from economic interests, inadequate law enforcement, and inadequate community engagement. The primary solution to this issue is to enhance regulations, increase transparency, safeguard local communities, implement sustainable development, and inform the public about the significance of a fair and sustainable environment. The government must prioritize the principle of intergenerational justice, which emphasizes the necessity of sustainable resource management to ensure that future generations can access them; participatory justice, which emphasizes the significance of community involvement in environmental decision-making; and recognition justice, which demands the recognition of the rights of Indigenous peoples, to increase commitment to the realization of ecological justice.⁶⁸

⁶⁶ Kartika Widya Utama and others, 'Environmental Protection Barriers in Indonesia in the Form of Administrative Effort', *IOP Conference Series: Earth and Environmental Science*, 1270.1 (2023), 012019 <https://doi.org/10.1088/1755-1315/1270/1/012019>

⁶⁷ Mohammad Jamin and others, 'The Impact of Indonesia's Mining Industry Regulation on the Protection of Indigenous Peoples', *Hasanuddin Law Review*, 9.1 (2023), 88–105 <https://doi.org/10.20956/halrev.v9i1.4033>

⁶⁸ Craig Duckworth, 'Intergenerational Justice', in *Encyclopedia of Corporate Social Responsibility* (Berlin, Heidelberg: Springer Berlin Heidelberg, 2013), pp. 1484–92 https://doi.org/10.1007/978-3-642-28036-8_500

Government's Commitment to Realizing Ecological Justice in Saudi Arabia

Every nation's primary objective today is to achieve sustainable economic growth. The rapid increase in energy consumption to support economic growth has resulted in environmental damage. All living beings must utilize resources judiciously to prevent environmental damage and sustain economic growth.⁶⁹ According to EPC2021, environmental pollution affects social life and increases mortality, and natural life. Environmental damage prompts thinking about how effectively humans can use natural resources. In line with the International Energy Agency report presented in 2022, environmental pollution has been increasing for years. One of the causes of environmental pollution is the use of fossil fuels in the energy sector, which represents two-thirds of total greenhouse gas emissions. Nevertheless, global energy consumption, investment in energy sources, and initiatives to reduce the negative consequences of economic expansion on the environment must be considered.⁷⁰

Ecological footprint and energy consumption growth are increasing the world's resource shortage. According to statistics, energy consumption and production processes worldwide account for 25% of environmental pollution. Consequently, failure to meet the pollution reduction targets of the United Nations Sustainable Development Goals (SDGs) will result in an ecological deficit. Thus, the main goal is to achieve economic growth without compromising environmental quality by balancing energy demand and exploring more sustainable ways to prevent socio-ecological disasters.⁷¹ Increasing global warming constantly threatens sustainable development objectives, resulting from the loss of natural resources and high energy consumption and waste. Conversely, the depletion of natural resources, including agriculture and forests, is considered a significant factor in ecological degradation despite their assumed significance in economic development. Furthermore, industrialization is stimulated by monetary expansion, which increases the consumption of natural resources.⁷²

Natural resources can be depleted by agriculture and deforestation, which can have detrimental effects on ecosystems. The rate of resource depletion in sectors such as agriculture and forestry will be diminished by the integration of

⁶⁹ Asif Raihan and others, 'Nexus between Economic Growth, Energy Use, Urbanization, Agricultural Productivity, and Carbon Dioxide Emissions: New Insights from Bangladesh', *Energy Nexus*, 8 (2022), 100144 <https://doi.org/10.1016/j.nexus.2022.100144>

⁷⁰ Ghazala Aziz, Rida Waheed, and Majid Ibrahim Alsaggaf, 'Investigating the Impact of Green Natural Resources and Green Activities on Ecological Footprint: A Perspective of Saudi Vision 2030', *Sustainability*, 15.11 (2023), 8639 <https://doi.org/10.3390/su15118639>

⁷¹ Jian-Zhou Teng and others, 'Effect of Foreign Direct Investment on CO2 Emission with the Role of Globalization, Institutional Quality with Pooled Mean Group Panel ARDL', *Environmental Science and Pollution Research*, 28.5 (2021), 5271–82 <https://doi.org/10.1007/s11356-020-10823-y>

⁷² Furat Dawood, Martin Anda, and G.M. Shafiullah, 'Hydrogen Production for Energy: An Overview', *International Journal of Hydrogen Energy*, 45.7 (2020), 3847–69 <https://doi.org/10.1016/j.ijhydene.2019.12.059>

sustainable management techniques into production and consumption, thereby enabling the replenishment of those resources. Fiscal decentralization is a practical approach to promoting the use of environmentally favorable land resources. Developing policies for using land for environmental purposes is more influenced by local governments with effective fiscal decentralization.⁷³

The 26th UN Climate Change Conference (COP26) was centered on the following objectives: preventing deforestation, reducing the demand for fossil fuels in the energy sector, and investing in renewable resources to stabilize global temperatures. The significance of this investigation is derived from the environmental pollution that is a result of the combustion of fossil fuels. Due to their substantial carbon emissions, fossil fuels significantly contribute to environmental degradation. Saudi Arabia is the most prolific oil producer in the Middle East, producing approximately three million barrels daily. Despite its efforts, the Saudi economy has not been fully oriented toward non-oil resources to attain the Sustainable Development Goals and Saudi Vision 2030. The country's environment is adversely affected by the substantial energy consumption in transportation, electricity, and industrialization.⁷⁴

Saudi Arabia emits 586.4 million metric tons of carbon dioxide from fossil fuels and manufacturing activities, or about 19 metric tons per capita. Saudi Aramco, one of the world's largest carbon emitters, is a state-owned oil and gas company. Saudi Aramco has emitted more than 60 billion metric tons of carbon emissions into the environment since the 1960s.⁷⁵ Modifying the nation's present energy mix and introducing new, environmentally favorable energy sources is imperative to accomplish sustainability objectives. Nevertheless, Saudi Arabia has implemented a sustainable environmental policy to resolve these concerns. In October 2021, approximately 60 programs were initiated with an estimated cost of SR600 billion. The significance and incorporation of a circular carbon economy have been emphasized and are being considered for implementation in the upcoming years. Subsequently, the Saudi public investment fund concluded a \$3 billion green bond auction by auctioning 1.4 million tons of carbon. The sovereign fund has

⁷³ Udi Joshua and Festus Victor Bekun, 'The Path to Achieving Environmental Sustainability in South Africa: The Role of Coal Consumption, Economic Expansion, Pollutant Emission, and Total Natural Resources Rent', *Environmental Science and Pollution Research*, 27.9 (2020), 9435–43 <https://doi.org/10.1007/s11356-019-07546-0>

⁷⁴ Qiang Wang and others, 'An Empirical Analysis of the Impact of Renewable and Non-Renewable Energy Consumption on Economic Growth and Carbon Dioxide Emissions: Evidence from Seven Northeast Asian Countries', *Environmental Science and Pollution Research*, 30.30 (2023), 75041–57 <https://doi.org/10.1007/s11356-023-27583-0>

⁷⁵ Haider Mahmood, 'The Effects of Natural Gas and Oil Consumption on CO2 Emissions in GCC Countries: Asymmetry Analysis', *Environmental Science and Pollution Research*, 29.38 (2022), 57980–96 <https://doi.org/10.1007/s11356-022-19851-2>

established a goal of \$1 trillion by 2026, with an additional \$10 billion to be added by 2025.⁷⁶

Saudi Arabia's sole dependence on oil and natural gas as its primary sources of energy and revenue implies that the nation generates substantial CO₂ emissions, thereby contributing to the global climate change crisis. Consequently, Saudi Vision 2030 is formulated with particular emphasis on coordinating and realizing environmental, economic, and social objectives.⁷⁷ Saudi Vision 2030 seeks to establish itself as a global champion in the energy sector's export of blue and green hydrogen. In summary, the Saudi Vision 2030 initiative is designed to transition to a green economy by 2026. Using the ecological footprint method, a population's consumption of natural resources is compared to its sustainability.⁷⁸ Renewable energy is key to transforming the environment into a more sustainable one due to its lower greenhouse gas emissions, immense power, and rapid power generation capacity with less land area. Renewable energy sources provide significant advantages in optimizing energy structure, ecological stability, and pollution reduction. In addition, renewable energy increases industrial production and energy efficiency, lowers electricity costs, and reduces energy dependence, contributing to a green environment.⁷⁹ Consequently, renewable energy is an optimal solution for Saudi Arabia, the world's largest petroleum producer, to bolster environmental policies designed to achieve ecological stability and green development.⁸⁰

The Saudi Arabian government has implemented the Saudi Green Initiative policy, a Middle East Green Initiative (MGI) policy component. The Saudi Green Initiative establishes a comprehensive agenda with ambitious objectives and targets that must be accomplished by 2030. Included in these objectives are the planting of an impressive 10 billion trees, the rehabilitation of 40 million hectares of land, and the preservation of 30% of land and marine areas. Additionally, 50% of the country's energy will be generated from renewable sources. There is an unwavering dedication to transforming these objectives into tangible outcomes, as evidenced by the robust portfolio of 77 initiatives in progress.

⁷⁶ Naif Alajlan and Amirah Alreshaidi, 'The Nexus of Carbon Dioxide Emissions, Economic Growth, and Urbanization in Saudi Arabia', *Environmental Research Communications*, 4.12 (2022), 125009 <https://doi.org/10.1088/2515-7620/acabb6>

⁷⁷ Alajlan and Alreshaidi.

⁷⁸ Tomiwa Sunday Adebayo, 'Revisiting the EKC Hypothesis in an Emerging Market: An Application of ARDL-Based Bounds and Wavelet Coherence Approaches', *SN Applied Sciences*, 2.12 (2020), 1945 <https://doi.org/10.1007/s42452-020-03705-y>

⁷⁹ Wang and others.

⁸⁰ Ali AlArjani and others, 'A New Framework for the Sustainable Development Goals of Saudi Arabia', *Journal of King Saud University - Science*, 33.6 (2021), 101477 <https://doi.org/10.1016/j.jksus.2021.101477>

Furthermore, the Middle East Green Initiative was established to advance the SDG agenda. To effectively address climate challenges and promote sustainable development, the 7 Saudi Green Initiative is guided by four fundamental principles. The Circular Carbon Economy (CCE) framework, which has generated more than 30 initiatives incorporating climate action and economic progress throughout the energy system, is prominently featured in these principles. The initiative is committed to achieving net zero emissions through a balanced approach that promotes economic growth and environmental sustainability. This is accomplished by employing inclusive strategies to encourage investment, employment creation, and opportunities. This initiative's dedication to global cooperation is critical, as it underscores the exchange of knowledge and collaborative endeavors across borders to address climate change collectively.⁸¹

Saudi Arabia is also the lead country of the Middle East Green Initiative, a comprehensive strategy designed to promote sustainable development and resolve climate change in the region. At its launch, the initiative aims to reduce emissions by approximately 670 million tonnes of carbon dioxide, roughly equivalent to 10% of global carbon emissions. This underscores its dedication to the considerable environmental impact.⁸²

The initiative's substantial environmental accomplishments in sustainability are underscored by its achievements through 2023. Highlights include the installation of 10 million smart electricity meters, the construction of 11.4 GW of renewable energy capacity, and the provision of sustainable energy to 150,000 households. These initiatives have led to an annual reduction of 1.8 million tons of CO₂ emissions. The initiative's global influence is underscored by its leadership of the Middle East Green Initiative for regional collaboration and its facilitation of the Circular Carbon Economy approach, which is supported by G20 countries. Furthermore, conservation initiatives have made significant progress, including reducing agricultural water consumption by an impressive 9.6 billion cubic meters. In one year, this commitment is demonstrated by the sowing of 18 million trees, the restoration of 60,000 hectares of degraded land, and the cultivation of 250,000 shrubs in AIUla nurseries, all intended to address desertification. In addition to prioritizing environmental preservation, these comprehensive actions

⁸¹ Ahmed Altouma and others, 'An Environmental Impact Assessment of Saudi Arabia's Vision 2030 for Sustainable Urban Development: A Policy Perspective on Greenhouse Gas Emissions', *Environmental and Sustainability Indicators*, 21 (2024), 100323 <https://doi.org/10.1016/j.indic.2023.100323>

⁸² Adel M. Ghanem and Yosef A. Alamri, 'The Impact of the Green Middle East Initiative on Sustainable Development in the Kingdom of Saudi Arabia', *Journal of the Saudi Society of Agricultural Sciences*, 22.1 (2023), 35–46 <https://doi.org/10.1016/j.jssas.2022.06.001>

have successfully reintroduced more than 1,200 animals to their natural habitats, thereby demonstrating tangible progress toward the initiative's holistic vision.⁸³

The Kingdom is actively engaged in developing and implementing comprehensive and coordinated collaborative programs, policies, initiatives, and platforms designed to address climate challenges at various scales, from national to global, within the framework of the Saudi Green Initiative. This encompasses critical initiatives, including the Saudi Energy Efficiency Program, the National Renewable Energy Program, and the National Circular Carbon Economy Program. Saudi Arabia actively participates in critical international initiatives, including the Clean Energy Ministerial, Mission Innovation, the Global Methane Initiative, and the Net-Zero Producers Forum. The country has ratified the Paris Agreement and is committed to aligning its domestic climate actions with its objectives, making it an active participant in international climate negotiations.⁸⁴

Each nation has an environmental policy shaped by its unique political, social, economic, and geographical interests. Due to its abundant biodiversity and natural resources, Indonesia faces a significant challenge in reconciling economic development with environmental sustainability. In contrast, Saudi Arabia, which is characterized by a desert-dominated geography and an oil-based economy, employs a distinct approach to environmental protection and resource management. To attain ecological justice, the subsequent table compares the design and implementation of environmental policies in the two countries.

Table 1. Comparison of Government Commitments in Realizing Ecological Justice between Indonesia and Saudi Arabia

Aspect	Indonesia	Saudi Arabia
Environmental Policy	Law Number 32 of 2009 concerning Environmental Protection and Management, the Job Creation Law (which has been widely criticized for weakening AMDAL)	Saudi Vision 2030, Saudi Green Initiative, and stricter energy conservation regulations
Environmental Permits	Tends to be more relaxed with various business permit relaxations, especially after the Job Creation Law	More stringent in water and energy resource management, especially for sustainable projects
Law enforcement	Weak, many environmental violations do not receive strict sanctions	Stricter in some aspects, especially in water and energy resource management, but still lacking in industrial pollution.

⁸³ Qusay Hassan and others, 'Saudi Arabia Energy Transition: Assessing the Future of Green Hydrogen in Climate Change Mitigation', *International Journal of Hydrogen Energy*, 55 (2024), 124–40 <https://doi.org/10.1016/j.ijhydene.2023.11.117>

⁸⁴ Md Tasbirul Islam and Amjad Ali, 'Sustainable Green Energy Transition in Saudi Arabia: Characterizing Policy Framework, Interrelations and Future Research Directions', *Next Energy*, 5 (2024), 100161 <https://doi.org/10.1016/j.nxener.2024.100161>

Reduction of Fossil Fuel Subsidies	Still providing large subsidies for coal and fuel oil	Start reducing dependence on oil and shift to economic diversification
Deforestation and Forest Conservation	Still facing major problems in deforestation due to palm oil plantations and mining.	Focusing on desert greening and reforestation through the Green Saudi Initiative
Community Involvement	Many environmental activists often experience criminalization	The government is more dominant in policy but is starting to open up space for participation.

Source: processed by the Author

Saudi Arabia has exhibited a steadfast dedication to the attainment of ecological justice through implementing a more focused strategy, which is bolstered by substantial policies and funding, as well as the stricter enforcement of environmental compliance laws. The Saudi and Middle East Green Initiative faces many obstacles despite the Saudi government's success in implementing its policies. These challenges encompass public awareness, monitoring, funding disparities, political will, and access to technology. A collaborative endeavor across the region involving government, industry, academia, and civil society is necessary to address these challenges. The initiative can create a more sustainable and environmentally friendly future for the Middle East and beyond by surmounting these obstacles. Enhancing data sharing and reporting transparency is imperative to establish trust with stakeholders and demonstrate accountability for the initiative's objectives.⁸⁵

By increasing sustainable funding, tightening environmental law enforcement, and encouraging private investment in renewable energy, Indonesia can emulate Saudi Arabia's approach to achieving ecological justice. To guarantee the efficacy of environmental policies, it is also necessary to enhance collaboration among government, industry, academia, and civil society. Furthermore, the utilization of environmentally favorable technologies, such as those implemented in the Saudi Green Initiative, can be adapted by developing digital-based environmental monitoring systems and pursuing clean energy research and innovation. Additionally, the development of public trust and participation is contingent upon promoting environmental education and policy transparency, which enhance public awareness. Adapting these strategies to the local context can expedite the realization of more sustainable and effective ecological justice in Indonesia.

4. Conclusion

Based on the discussion presented, it can be concluded that Indonesia's national development plan focuses on sustainable development with seven main

⁸⁵ Muhannad S. Al-Khelaiwi and others, 'Evaluation of Green and Blue Hydrogen Production Potential in Saudi Arabia', *Energy Conversion and Management: X*, 24 (2024), 100742 <https://doi.org/10.1016/j.ecmx.2024.100742>

agendas, including economic resilience, strengthening infrastructure, and environmental conservation. However, Indonesia still faces various challenges in environmental management, such as deforestation, disasters, and weak enforcement of environmental laws. The principle of ecological justice is becoming increasingly important in maintaining ecosystem balance. Still, policy implementation is often influenced by economic and political interests and a lack of institutional capacity. The government continues to face significant obstacles in realizing ecological well-being, especially from financial interests, inadequate law enforcement, and inadequate community involvement. Meanwhile, Saudi Arabia has shown a strong dedication to achieving ecological well-being by implementing more targeted strategies supported by substantial policies, funding, and stricter enforcement of environmental compliance laws. The Saudi Arabian government has shown a strong commitment through various policies and initiatives, such as the Saudi Green Initiative. Therefore, Indonesia needs to strengthen regulations, law enforcement, institutions, and transparency by increasing public participation and emphasizing the principles of ecological justice. Furthermore, using environmentally friendly technology, such as that implemented in the Saudi Green Initiative, can be adapted by developing a digital-based environmental monitoring system and conducting research and innovation on clean energy.

References

- Abdul Kadir Jaelani, Resti Dian Luthviati, Muhammad Jihadul Hayat, & Abdur Rohim., 'Halal Tourism Sector and Tax Allowance Policy: A Case Study Observed from Normative Problems to Effective Implementation', *Ijtihad : Jurnal Wacana Hukum Islam Dan Kemanusiaan*, 23.2 (2023), 185–210. <https://doi.org/https://doi.org/10.18326/ijtihad.v23i2.185-210>
- Adebayo, Tomiwa Sunday, 'Revisiting the EKC Hypothesis in an Emerging Market: An Application of ARDL-Based Bounds and Wavelet Coherence Approaches', *SN Applied Sciences*, 2.12 (2020), 1945 <https://doi.org/10.1007/s42452-020-03705-y>
- Ahmed, Nabil, Anna Marriott, Nafkote Dabi, Megan Lowthers, Max Lawson, and Leah Mugehera, *Inequality Kills: The Unparalleled Action Needed to Combat Unprecedented Inequality in the Wake of COVID-19*, January 2022 <https://doi.org/10.21201/2022.8465>
- Al-Khelaiwi, Muhannad S., Talal A. Al-Masaabi, Hany Farag, and Shafiqur Rehman, 'Evaluation of Green and Blue Hydrogen Production Potential in Saudi Arabia', *Energy Conversion and Management: X*, 24 (2024), 100742 <https://doi.org/10.1016/j.ecmx.2024.100742>
- Alajlan, Naif, and Amirah Alreshaidi, 'The Nexus of Carbon Dioxide Emissions, Economic Growth, and Urbanization in Saudi Arabia', *Environmental Research Communications*, 4.12 (2022), 125009 <https://doi.org/10.1088/2515-7620/acabb6>
- AlArjani, Ali, Umar Muhammad Modibbo, Irfan Ali, and Biswajit Sarkar, 'A New Framework for the Sustainable Development Goals of Saudi Arabia', *Journal of King Saud University - Science*, 33.6 (2021), 101477 <https://doi.org/10.1016/j.jksus.2021.101477>
- Altouma, Ahmed, Bashar Bashir, Behnam Ata, Akasairi Ocwa, Abdullah Als Salman, Endre Harsányi, and others, 'An Environmental Impact Assessment of Saudi Arabia's Vision 2030 for Sustainable Urban Development: A Policy Perspective on Greenhouse Gas Emissions',

- Environmental and Sustainability Indicators*, 21 (2024), 100323
<https://doi.org/10.1016/j.indic.2023.100323>
- Amin, Ruhul, Hitumoni Nath, and Ruhul Amin, 'Environmental Justice and Education: Bridging the Gap between Ecology, Equity, and Access', *Journal of Advanced Zoology*, 44.S-3 (2023), 1075–82 <https://doi.org/10.17762/jaz.v44iS-3.1061>
- Arifin, R, R Rodiyah, and R Wulansarie, 'Climate Justice in Indonesian Environmental Protection: Past, Present and Future Challenges', *IOP Conference Series: Earth and Environmental Science*, 1248.1 (2023), 012037 <https://doi.org/10.1088/1755-1315/1248/1/012037>
- Ayu, Fatma, Jati Putri, and Jasurbek Rustamovich, 'The Impact of Land Reform Policies on the Sustainable Management of Natural Resources in Local Communities', *Journal of Human Rights, Culture and Legal System*, 4.2 (2024), 510–37 <https://doi.org/https://doi.org/10.53955/jhcls.v4i2.197>
- Aziz, Ghazala, Rida Waheed, and Majid Ibrahim Alsaggaf, 'Investigating the Impact of Green Natural Resources and Green Activities on Ecological Footprint: A Perspective of Saudi Vision 2030', *Sustainability*, 15.11 (2023), 8639 <https://doi.org/10.3390/su15118639>
- Banerjee, Onil, Martín Cicowiez, Renato Vargas, Edmundo Molina-Perez, Kenneth J. Bagstad, and Žiga Malek, 'The Economics of Decarbonizing Costa Rica's Agriculture, Forestry and Other Land Uses Sectors', *Ecological Economics*, 218 (2024), 108115 <https://doi.org/10.1016/j.ecolecon.2024.108115>
- Basuki, Agung, Lego Karjoko, and I Gusti Ayu Ketut Rahmi Handayani, 'Exploring Ecological Justice in the Regulatory Framework of Land Ownership, Utilization, Control, and Inventory in Indonesia', *Journal of Environmental Management and Tourism*, 14.7 (2023), 2944–53 [https://doi.org/https://doi.org/10.14505/jemt.v14.7\(71\).11](https://doi.org/https://doi.org/10.14505/jemt.v14.7(71).11)
- Buckton, Sam J., Ioan Fazey, Bill Sharpe, Eugyen Suzanne Om, Bob Doherty, Peter Ball, and others, 'The Regenerative Lens: A Conceptual Framework for Regenerative Social-Ecological Systems', *One Earth*, 6.7 (2023), 824–42 <https://doi.org/10.1016/j.oneear.2023.06.006>
- Cao, Hongjie, Yu Qi, Jianwei Chen, Shuai Shao, and Shixian Lin, 'Incentive and Coordination: Ecological Fiscal Transfers' Effects on Eco-Environmental Quality', *Environmental Impact Assessment Review*, 87 (2021), 106518 <https://doi.org/10.1016/j.eiar.2020.106518>
- Dawood, Furat, Martin Anda, and G.M. Shafiullah, 'Hydrogen Production for Energy: An Overview', *International Journal of Hydrogen Energy*, 45.7 (2020), 3847–69 <https://doi.org/10.1016/j.ijhydene.2019.12.059>
- Dhiaulhaq AR, Muhammad Irfan, and Dodik Setiawan Nur Heriyanto, 'Striking A Balance Between Job Creation and Sustainability: The Need to Establish A True Environmental Protection Authority in Indonesia', *Jambe Law Journal*, 7.1 (2024), 1–23 <https://doi.org/10.22437/home.v7i1.317>
- Diartho, Herman Cahyo, 'Alternative Strategies for Economic Sustainability and Increased Environmental Protection in Indonesia Incorporate the Green Growth Framework and Financial Deepening', *Society*, 11.2 (2023), 697–714 <https://doi.org/10.33019/society.v11i2.566>
- Duckworth, Craig, 'Intergenerational Justice', in *Encyclopedia of Corporate Social Responsibility* (Berlin, Heidelberg: Springer Berlin Heidelberg, 2013), pp. 1484–92 https://doi.org/10.1007/978-3-642-28036-8_500
- Dunlap, Alexander, 'The Politics of Ecocide, Genocide and Megaprojects: Interrogating Natural Resource Extraction, Identity and the Normalization of Erasure', *Journal of Genocide Research*, 23.2 (2021), 212–35 <https://doi.org/10.1080/14623528.2020.1754051>

- Fahmi, Chairul, and Peter-Tobias Stoll, 'Measuring WTO Approaches in Resolving Palm Oil and Biofuel Trade Disputes from Indonesia', *BESTUUR*, 12.2 (2024), 172 <https://doi.org/10.20961/bestuur.v12i2.94203>
- Fatma Ulfatun Najicha, Lego Karjoko, I Gusti Ayu Ketut Rachmi Handayania, Rosita Chandrakirana, and Dian Furqani Tenrilawa, 'The Conceptualization of Environmental Administration Law in Environmental Pollution Control', *Journal of Human Rights, Culture and Legal System*, 2.2 (2022), 87–99 <https://doi.org/https://doi.org/10.53955/jhcls.v2i3.55>
- Ghanem, Adel M., and Yosef A. Alamri, 'The Impact of the Green Middle East Initiative on Sustainable Development in the Kingdom of Saudi Arabia', *Journal of the Saudi Society of Agricultural Sciences*, 22.1 (2023), 35–46 <https://doi.org/10.1016/j.jssas.2022.06.001>
- Gourdel, Régis, Irene Monasterolo, and Kevin Gallagher, 'Climate Transition Spillovers and Sovereign Risk: Evidence from Indonesia', *Energy Economics*, 143 (2025), 108211 <https://doi.org/10.1016/j.eneco.2025.108211>
- Grossmann, Katrin, James JT Connolly, Małgorzata Dereniowska, Giulio Mattioli, Luca Nitschke, Nicola Thomas, and others, 'From Sustainable Development to Social-Ecological Justice: Addressing Taboos and Naturalizations in Order to Shift Perspective', *Environment and Planning E: Nature and Space*, 5.3 (2022), 1405–27 <https://doi.org/10.1177/25148486211029427>
- Halonen, Maija, Annukka Näyhä, and Irene Kuhmonen, 'Regional Sustainability Transition through Forest-Based Bioeconomy? Development Actors' Perspectives on Related Policies, Power, and Justice', *Forest Policy and Economics*, 142 (2022), 102775 <https://doi.org/10.1016/j.forpol.2022.102775>
- Handayani, I.G.A.K. Rachmi, Lego Karjoko, and Abdul Kadir Jaelani, 'Model Pelaksanaan Putusan Mahkamah Konstitusi Yang Eksekutabilitas Dalam Pengujian Peraturan Perundang-Undangan Di Indonesia', *Bestuur*, 7.1 (2019), 36–46 <https://jurnal.uns.ac.id/bestuur/article/view/42700>
- Hassan, Qusay, Sameer Algburi, Aws Zuhair Sameen, Marek Jaszczur, Hayder M. Salman, Haitham A. Mahmoud, and others, 'Saudi Arabia Energy Transition: Assessing the Future of Green Hydrogen in Climate Change Mitigation', *International Journal of Hydrogen Energy*, 55 (2024), 124–40 <https://doi.org/10.1016/j.ijhydene.2023.11.117>
- Hidayat, Alfian, and Purnami Safitri, 'The Ecological Politic of Forestry: Industrial Plantation Forest Policy in Sambelia, East Lombok', *Jurnal Penelitian Sosial Dan Ekonomi Kehutanan*, 18.3 (2021), 205–18 <https://doi.org/10.20886/jpsek.2021.18.3.205-218>
- Irawan, Silvia, Luca Tacconi, and Irene Ring, 'Designing Intergovernmental Fiscal Transfers for Conservation: The Case of REDD+ Revenue Distribution to Local Governments in Indonesia', *Land Use Policy*, 36 (2014), 47–59 <https://doi.org/10.1016/j.landusepol.2013.07.001>
- Islam, Md Tasbirul, and Amjad Ali, 'Sustainable Green Energy Transition in Saudi Arabia: Characterizing Policy Framework, Interrelations and Future Research Directions', *Next Energy*, 5 (2024), 100161 <https://doi.org/10.1016/j.nxener.2024.100161>
- Jaelani, Abdul Kadir, and Reza Octavia Kusumaningtyas, 'The Interests and the Conflict Vortex in Wadas Village: A Karl Marx Perspective', 2024, pp. 42–48 https://doi.org/10.2991/978-2-38476-315-3_8
- Jähnichen, Traugott, "'Ecological Justice": Towards an Integrative Concept of the Protection of Creation', *HTS Teologiese Studies / Theological Studies*, 78.2 (2022) <https://doi.org/10.4102/hts.v78i2.7738>
- Jamin, Mohammad, Abdul Kadir Jaelani, Mulyanto, Reza Octavia Kusumaningtyas, and Duc

- Quang Ly, 'The Impact of Indonesia's Mining Industry Regulation on the Protection of Indigenous Peoples', *Hasanuddin Law Review*, 9.1 (2023), 88–105 <https://doi.org/10.20956/halrev.v9i1.4033>
- Jesica Lestari, Alfarizi Dwiki Hartanto, Dimas Aditya Ashari, Maheswari Kinanthi Prabowo Putri, and Revina Agit Olivia, 'Urgensi Pengadopsian Ekosida Dalam Sistem Hukum Nasional Sebagai Respon Menghadapi Ancaman Krisis Lingkungan Hidup', *PLEDOI (Jurnal Hukum Dan Keadilan)*, 3.1 (2024), 77–90 <https://doi.org/10.56721/pledoid.v3i1.320>
- Joshua, Udi, and Festus Victor Bekun, 'The Path to Achieving Environmental Sustainability in South Africa: The Role of Coal Consumption, Economic Expansion, Pollutant Emission, and Total Natural Resources Rent', *Environmental Science and Pollution Research*, 27.9 (2020), 9435–43 <https://doi.org/10.1007/s11356-019-07546-0>
- Karjoko, Lego, Abdul Kadir Jaelani, Hilaire Tegan, and Henning Glaser, 'Islamic Court 's Approach to Land Dispute in Inheritance Cases', *AHKAM: Jurnal Ilmu Syariah*, 21.2 (2021), 213–38 <https://doi.org/https://doi.org/10.15408/ajis.v21i2.21864>
- Kim, Gunwoo, Galen Newman, and Bin Jiang, 'Urban Regeneration: Community Engagement Process for Vacant Land in Declining Cities', *Cities*, 102 (2020), 102730 <https://doi.org/10.1016/j.cities.2020.102730>
- Lo, Kevin, 'Authoritarian Environmentalism, Just Transition, and the Tension between Environmental Protection and Social Justice in China's Forestry Reform', *Forest Policy and Economics*, 131 (2021), 102574 <https://doi.org/10.1016/j.forpol.2021.102574>
- Lu, Chengwu, Xiang Hua, Yunxiang Peng, Junyi Tian, and Guixian Tian, 'Achieving Ecological Sustainability in OECD Countries: The Role of Fiscal Decentralization and Green Energy', *Journal of Cleaner Production*, 466 (2024), 142814 <https://doi.org/10.1016/j.jclepro.2024.142814>
- van Maasakkers, Mattijs, Jeison Oh, and Emily Knox, 'Shrinking Democracy? Analyzing Participatory Planning for Vacancy and Abandonment in Ohio', *Journal of Urban Affairs*, 42.8 (2020), 1242–61 <https://doi.org/10.1080/07352166.2019.1694414>
- Mahmood, Haider, 'The Effects of Natural Gas and Oil Consumption on CO2 Emissions in GCC Countries: Asymmetry Analysis', *Environmental Science and Pollution Research*, 29.38 (2022), 57980–96 <https://doi.org/10.1007/s11356-022-19851-2>
- Manumayoso, Bambang, Annissa Dewi, Rinenggo Kusumo, and Luiza Gabunia, 'Oil and Gas Fiscal Term Regulations Based on Ecological Justice', *Journal of Sustainable Development and Regulatory Issues*, 2.3 (2024), 233–63 <https://doi.org/https://doi.org/10.53955/jsderi.v2i3.50>
- Martin, Adrian, M. Teresa Armijos, Brendan Coolsaet, Neil Dawson, Gareth A. S. Edwards, Roger Few, and others, 'Environmental Justice and Transformations to Sustainability', *Environment: Science and Policy for Sustainable Development*, 62.6 (2020), 19–30 <https://doi.org/10.1080/00139157.2020.1820294>
- Menton, Mary, Carlos Larrea, Sara Latorre, Joan Martinez-Alier, Mika Peck, Leah Temper, and others, 'Environmental Justice and the SDGs: From Synergies to Gaps and Contradictions', *Sustainability Science*, 15.6 (2020), 1621–36 <https://doi.org/10.1007/s11625-020-00789-8>
- Mohan, Preeya, and Diego Morris, 'Climate Finance and Innovation with Natural Resource Dependence Thresholds', *Journal of Environmental Management*, 377 (2025), 124683 <https://doi.org/10.1016/j.jenvman.2025.124683>
- Muhammad Arrifky Komaruddiansyah, Ahmed Farid, and Rahmat Mubaroh, 'Pengaruh Kebijakan Penggunaan Izin Pinjam Pakai Kawasan Hutan Lindung Untuk Pertambangan Di

- Kabupaten Morowali', *ALADALAH: Jurnal Politik, Sosial, Hukum Dan Humaniora*, 2.3 (2024), 74–82 <https://doi.org/10.59246/aladalah.v2i3.859>
- Mukti, Hudali, and Bobur Baxtishodovich, 'Environmental Justice at the Environmental Regulation in Indonesia and Uzbekistan', *Journal of Human Rights, Culture and Legal System*, 3.3 (2023), 476–512 <https://doi.org/https://doi.org/10.53955/jhcls.v3i3.171>
- Mulkhan, Unang, 'Eco-Justice Perspective and Human Rights-Based Approach to Responsible Business in the Indonesian Mining Industry', in *Handbook of Business Legitimacy* (Cham: Springer International Publishing, 2020), pp. 1309–23 https://doi.org/10.1007/978-3-030-14622-1_111
- Niu, Mengqi, and Yukun Wang, 'Greening the Economy: How Territorial Spatial Planning Policy Promotes Ecological and Economic Integration', *Environmental Impact Assessment Review*, 112 (2025), 107844 <https://doi.org/10.1016/j.eiar.2025.107844>
- Nur, Fitri, Aini Prasetyo, and Abdul Kadir Jaelani, 'The Changing of Environmental Approval Administrative Law Perspective', *Journal of Human Rights, Culture and Legal System*, 2.3 (2022), 191–208 <https://doi.org/https://doi.org/10.53955/jhcls.v2i3.55>
- Nurhuda, Ikhsan, and Muhammad Iqbal Baiquni, 'Ecological Justice in the Framework of Pancasila: Problems and Challenges', *Indonesian Journal of Pancasila and Global Constitutionalism*, 3.1 (2024) <https://doi.org/10.15294/ijpgc.v3i1.78909>
- Nuryanto, Ahmad Dwi, Reza Octavia Kusumaningtyas, and Bukhadyrov Habibullo, 'The Imperative of Social Justice on the Insolvency and Workers ' Wage', *Journal of Sustainable Development and Regulatory Issues*, 2.3 (2024), 209–32 <https://doi.org/10.53955/jsderi.v2i3.50>
- Purwendah, Elly Kristiani, Agoes Djatmiko, Eti Mul Erowati, Ikama Dewi Setia Triana, and Elisabeth Pudyastiwi, 'Ecological and Social Justice as Basis on Marine Environment Protection and Preservation in The System of Indonesian Law', *Jurnal Ilmiah Pendidikan Pancasila Dan Kewarganegaraan*, 7.2 (2022), 413 <https://doi.org/10.17977/um019v7i2p413-428>
- Raihan, Asif, Dewan Ahmed Muhtasim, Sadia Farhana, Md Ahsan Ul Hasan, Monirul Islam Pavel, Omar Faruk, and others, 'Nexus between Economic Growth, Energy Use, Urbanization, Agricultural Productivity, and Carbon Dioxide Emissions: New Insights from Bangladesh', *Energy Nexus*, 8 (2022), 100144 <https://doi.org/10.1016/j.nexus.2022.100144>
- Rasmussen, Jennifer B., 'Advancing Environmental Justice through the Integration of Traditional Ecological Knowledge into Environmental Policy', *Challenges*, 14.1 (2023), 6 <https://doi.org/10.3390/challe14010006>
- Robbani, Anila, Raffy Arnanda Faturrohman, and Ahmad Hananul Amin, 'Dialectical Optimization of Income Tax Revenue in Land and Building Rights Transfer Transactions Dialectical', *Jurnal Justice Dialectical*, 2.1 (2024), 28–42 <https://doi.org/https://doi.org/10.70720/jjd.v2i2.38>
- Roesjdiansyah, Muhammad Yofian, Raka Widya Nugraha, and Yolva Febreight Arthania, 'Dialectical Policy of Taxation of Premium Value Addition Tax (Ppnbm) on Motorwages for the Purpose of Tax Collection in Indonesia Dialectical', *Jurnal Justice Dialectical*, 2.1 (2024), 56–69 <https://doi.org/https://doi.org/10.70720/jjd.v2i2.45>
- Rohman, Arif, Hartiwingsih, and Muhammad Rustamaji, 'Illegal Mining in Indonesia: Need for Robust Legislation and Enforcement', *Cogent Social Sciences*, 10.1 (2024) <https://doi.org/10.1080/23311886.2024.2358158>
- Rosidah, Zaidah Nur, Lego Karjoko, and Mohd Rizal Palil, 'The Government ' s Role in Interfaith Marriage Rights Protection : A Case Study of Adjustment and Social Integration', *Journal of*

- Human Rights, Culture and Legal System*, 3.2 (2023), 265–87
<https://doi.org/https://doi.org/10.53955/jhcls.v3i2.105>
- Safitri, Myrna A., and Achmad Jaka Santos Adiwijaya, 'Realizing Ecological Justice in Urban Development Laws: Indonesian Experiences and Challenges to Protect Biodiversity in Its New Capital City', *IOP Conference Series: Earth and Environmental Science*, 1447.1 (2025), 012021
<https://doi.org/10.1088/1755-1315/1447/1/012021>
- Sapriani, Sapriani, Reza Octavia Kusumaningtyas, and Khalid Eltayeb Elfaki, 'Strengthening Blue Economy Policy to Achieve Sustainable Fisheries', *Journal of Sustainable Development and Regulatory Issues (JSDERI)*, 2.1 (2024), 1–19 <https://doi.org/10.53955/jsderi.v2i1.23>
- Satrovic, Elma, Muhammad Wasif Zafar, and Phassawan Suntraruk, 'Achieving Ecological Sustainability in European Union: The Role of Fiscal Decentralization and Green Innovation', *Journal of Cleaner Production*, 445 (2024), 141316 <https://doi.org/10.1016/j.jclepro.2024.141316>
- Sayan, Ramazan Caner, 'Exploring Place-Based Approaches and Energy Justice: Ecology, Social Movements, and Hydropower in Turkey', *Energy Research & Social Science*, 57 (2019), 101234
<https://doi.org/10.1016/j.erss.2019.101234>
- Selomitha, Lucky Putri, Lego Karjoko, and Abdul Kadir Jaelani, 'Fair Legal Protection for Actual Land Owners Against Land Grabbing Disputes', in *Proceedings of the International Conference on Cultural Policy and Sustainable Development (ICPSD 2024)*, 2024, pp. 713–19
https://doi.org/10.2991/978-2-38476-315-3_98
- Sikkema, Richard, Svetlana Proskurina, Manjola Banja, and Esa Vakkilainen, 'How Can Solid Biomass Contribute to the EU's Renewable Energy Targets in 2020, 2030 and What Are the GHG Drivers and Safeguards in Energy- and Forestry Sectors?', *Renewable Energy*, 165 (2021), 758–72 <https://doi.org/10.1016/j.renene.2020.11.047>
- Šimunović, Nenad, Franziska Hesser, and Tobias Stern, 'Frame Analysis of ENGO Conceptualization of Sustainable Forest Management: Environmental Justice and Neoliberalism at the Core of Sustainability', *Sustainability*, 10.9 (2018), 3165 <https://doi.org/10.3390/su10093165>
- Subekti, Nanang, I. Gusti Ketut Ayu Rachmi Handayani, and Arief Hidayat, 'Convergence of Green and Sustainable Principles from the Perspective of Economic Democracy in Indonesia', *International Journal of ADVANCED AND APPLIED SCIENCES*, 11.5 (2024), 36–43
<https://doi.org/10.21833/ijaas.2024.05.004>
- Subekti, Rahayu, Adi Sulistiyono, I Gusti Ayu, and Ketut Rachmi, 'Solidifying the Just Law Protection for Farmland to Anticipate Land Conversion', *International Journal of Economic Research*, 14.13 (2017), 69–79 https://doi.org/https://serialsjournals.com/abstract/38652_6.pdf
- Sudarmo, Sudarmo, Yenny Febrianty, Viorizza Suciani Putri, Mohamad Hidayat Muhtar, and Salahuddin Salahuddin, 'Critical Study of the Implementation of the Right of Self-Determination in Protecting Indonesia's Environmental and Economic Sovereignty', ed. by S. Ta Wee, A. Sanders, N. Long, K.L.G. Chan, A. Gani, T.P. Yazid, and others, *E3S Web of Conferences*, 611 (2025), 05002 <https://doi.org/10.1051/e3sconf/202561105002>
- Sun, Yunpeng, Weimin Guan, Asif Razzaq, Mohsin Shahzad, and Nguyen Binh An, 'Transition towards Ecological Sustainability through Fiscal Decentralization, Renewable Energy and Green Investment in OECD Countries', *Renewable Energy*, 190 (2022), 385–95
<https://doi.org/10.1016/j.renene.2022.03.099>
- Syapriillah, Aditia, and Fuad Shehab Shyyab, 'Legislative Framework for Decentralized Administration in Addressing River Pollution', *Journal of Sustainable Development and Regulatory*

- Issues (JSDERI)*, 3.1 (2025), 55–77 <https://doi.org/10.53955/jsderi.v3i1.39>
- Teng, Jian-Zhou, Muhammad Kamran Khan, Muhammad Imran Khan, Muhammad Zubair Chishti, and Muhammad Owais Khan, 'Effect of Foreign Direct Investment on CO2 Emission with the Role of Globalization, Institutional Quality with Pooled Mean Group Panel ARDL', *Environmental Science and Pollution Research*, 28.5 (2021), 5271–82 <https://doi.org/10.1007/s11356-020-10823-y>
- Ulibarri, Nicola, Omar Pérez Figueroa, and Anastasia Grant, 'Barriers and Opportunities to Incorporating Environmental Justice in the National Environmental Policy Act', *Environmental Impact Assessment Review*, 97 (2022), 106880 <https://doi.org/10.1016/j.eiar.2022.106880>
- Utama, Kartika Widya, Retno Saraswati, Aju Putri janti, and Yudhitiya Dyah Sukmadewi, 'Environmental Protection Barriers in Indonesia in the Form of Administrative Effort', *IOP Conference Series: Earth and Environmental Science*, 1270.1 (2023), 012019 <https://doi.org/10.1088/1755-1315/1270/1/012019>
- Wang, Qiang, Arshad Ali, Yuanchun Chen, and Xuerong Xu, 'An Empirical Analysis of the Impact of Renewable and Non-Renewable Energy Consumption on Economic Growth and Carbon Dioxide Emissions: Evidence from Seven Northeast Asian Countries', *Environmental Science and Pollution Research*, 30.30 (2023), 75041–57 <https://doi.org/10.1007/s11356-023-27583-0>
- Washington, Haydn, John J. Piccolo, Helen Kopnina, and Fergus O'Leary Simpson, 'Ecological and Social Justice Should Proceed Hand-in-Hand in Conservation', *Biological Conservation*, 290 (2024), 110456 <https://doi.org/10.1016/j.biocon.2024.110456>
- Wicaksono, Muhammad Bagus Adi, and Wiwit Rahmawati, 'Ecological Justice-Based Reclamation and Post-Mining Regulations in Indonesia: Legal Uncertainty and Solutions', *Journal of Law, Environmental and Justice*, 2.2 (2024), 109–36 <https://doi.org/10.62264/jlej.v2i2.103>
- Widyastuti, Tiyas Vika, 'The Model Of Environmental Regulation Based On An Ecological Justice', *Jurnal Pembaharuan Hukum*, 10.1 (2023), 180 <https://doi.org/10.26532/jph.v10i1.30543>
- Williams, Jo, 'Circular Cities: Planning for Circular Development in European Cities', *European Planning Studies*, 31.1 (2023), 14–35 <https://doi.org/10.1080/09654313.2022.2060707>
- Xuan, Vu Ngoc, 'Determinants of Environmental Pollution: Evidence from Indonesia', *Journal of Open Innovation: Technology, Market, and Complexity*, 10.4 (2024), 100386 <https://doi.org/10.1016/j.joitmc.2024.100386>
- Zhang, Hong-Zhen, Ling-Yun He, and ZhongXiang Zhang, 'Can Policy Achieve Environmental Fairness and Environmental Improvement? Evidence from the Xin'an River Project in China', *Journal of Policy Modeling*, 46.1 (2024), 212–34 <https://doi.org/10.1016/j.jpolmod.2023.11.008>
- Zou, Chengzhang, Weizhen Gao, and Fengyi Ai, 'Strategic Mineral Policies for Indonesia: Enhancing Global Competitiveness, Economic Growth, and Environmental Sustainability through Innovation and Renewable Energy', *Renewable Energy*, 244 (2025), 122593 <https://doi.org/10.1016/j.renene.2025.122593>