

The Role of Environmental Law in Addressing Climate Change: An Analysis of Law Enforcement and Compliance in Indonesia

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ABSTRACT

Climate change poses a significant threat to environmental sustainability, public health, and economic development, particularly in vulnerable countries like Indonesia. As a nation rich in natural resources and biodiversity, Indonesia plays a crucial role in global climate mitigation efforts. This study examines the role of environmental law in addressing climate change in Indonesia, with a specific focus on the enforcement and compliance mechanisms within the national legal framework. Using a qualitative socio-legal approach, the study analyzes legislative documents, policy reports, and court decisions, complemented by interviews with government officials, legal experts, and civil society organizations. The findings reveal that while Indonesia has enacted a comprehensive set of environmental laws aligned with international commitments such as the Paris Agreement, the implementation remains weak due to institutional fragmentation, limited enforcement capacity, and low compliance among corporate and community actors. Civil society plays a vital role in bridging enforcement gaps, although challenges persist in ensuring judicial independence and equitable access to justice. The study concludes that enhancing legal enforcement, institutional coordination, and public participation is essential for strengthening Indonesia's environmental governance and achieving its climate objectives.

Keywords:

Environmental Law;
Climate Change; Law
Enforcement; Legal
Compliance;
Indonesia

INTRODUCTION

Climate change represents one of the most critical global challenges of the 21st century, with far-reaching implications for ecosystems, economies, and human societies. The increasing frequency and intensity of extreme weather events, rising sea levels, and shifts in precipitation patterns are clear manifestations of a warming planet (IPCC, 2021). For developing nations such as Indonesia, climate change not only exacerbates environmental degradation but also amplifies socioeconomic vulnerabilities, especially in sectors like agriculture, fisheries, health, and urban infrastructure (Ministry of Environment and Forestry, 2020). As a country with rich biodiversity and vast tropical forests, Indonesia holds a dual role in both contributing to and mitigating global climate change.

Environmental law has emerged as a pivotal tool in combating climate change, providing a legal framework to regulate activities that contribute to environmental degradation and promoting sustainable development. In Indonesia, environmental protection is grounded in Law No. 32 of 2009 concerning Environmental Protection and Management (UUPPLH), which serves as the primary legislation governing environmental governance. This law emphasizes the principles of sustainable development, environmental justice, precautionary principles, and community participation. Additionally, several sectoral regulations such as laws on forestry, energy, and spatial planning, complement the environmental law framework to address climate-related concerns (Wibisana, 2016).

Despite the existence of comprehensive legal instruments, the enforcement and compliance of environmental laws in Indonesia remain a persistent challenge. Weak institutional capacity, overlapping regulations, inadequate monitoring mechanisms, and pervasive corruption undermine effective law enforcement (Butt, 2014). For example, illegal logging, land conversion, and industrial pollution often occur with minimal legal consequences, contributing significantly to greenhouse gas (GHG) emissions. According to Global Forest Watch (2022), Indonesia lost over 10 million hectares of primary forest between 2001 and 2021, with considerable portions linked to palm oil expansion and weak enforcement of land-use laws. Such gaps between legal norms and their implementation highlight the limitations of existing environmental governance.

Furthermore, Indonesia's commitment to international climate agreements, such as the Paris Agreement, underscores the urgency of aligning national legal frameworks with global climate goals. Indonesia has pledged to reduce its GHG emissions by 29% unconditionally and up to 41% with international support by 2030 (Republic of Indonesia, 2021). Achieving these targets demands robust legal enforcement, transparency in policy implementation, and effective compliance mechanisms across all levels of government and private sectors. However, studies reveal that environmental violations often go unpunished or are resolved through informal settlements, which erode public trust in legal institutions and discourage compliance (Afiff & Rachman, 2019).

The growing role of environmental law in addressing climate change in Indonesia is also shaped by the active participation of civil society, non-governmental organizations (NGOs), and international actors. Legal activism, public interest litigation, and environmental advocacy have played a crucial role in holding polluters accountable and pushing for institutional reforms (Siringoringo, 2020). Nonetheless, challenges remain in ensuring access to justice, particularly for marginalized communities disproportionately affected by environmental harm. The intersection of legal, political, and economic dynamics in Indonesia creates a complex landscape where law enforcement and compliance must be critically examined to assess the real impact of environmental law on climate action.

Although Indonesia possesses a comprehensive legal framework for environmental protection, the effectiveness of environmental law in addressing climate change is hindered by poor law enforcement and low compliance levels. Institutional fragmentation, limited human and financial resources, and political interference contribute to the enforcement gap, while the lack of stringent penalties and follow-up measures discourages deterrence and accountability. This study seeks to understand the extent to which environmental law has been enforced in practice and the factors that influence compliance among public institutions, private actors, and local communities in Indonesia's climate governance. This research aims to critically analyze the role of environmental law in addressing climate change in Indonesia by examining the enforcement mechanisms and compliance behaviors of key stakeholders.

METHOD

This study adopts a qualitative research approach using a socio-legal method to explore the effectiveness of environmental law enforcement and compliance in addressing climate change in Indonesia. Data collection was conducted through document analysis of primary legal materials, such as Indonesian environmental statutes (e.g., Law No. 32 of 2009), government regulations, court decisions, and international agreements like the Paris Agreement. Secondary data were gathered from academic journals, NGO reports, policy briefs, and environmental governance assessments. In addition, in-depth interviews were conducted with key stakeholders including environmental law scholars, government officials from the Ministry of Environment and Forestry, representatives from environmental NGOs, and local community leaders affected by environmental violations. Data were analyzed thematically to identify recurring patterns related to enforcement practices, legal obstacles, institutional capacity, and compliance behavior.

RESULTS AND DISCUSSION

1. Legal Framework Exists, but Enforcement is Weak

Findings from legal document analysis confirm that Indonesia has established a comprehensive legal framework for environmental protection and climate change mitigation. Law No. 32 of 2009 on Environmental Protection and Management provides the foundation for environmental governance, mandating environmental impact assessments (AMDAL), pollution control, and sanctions for violations. Indonesia also issued Presidential Regulation No. 98 of 2021 on the Implementation of Carbon Economic Value to support climate-related actions. Furthermore, the country has ratified key international agreements, including the Paris Agreement under Law No. 16 of 2016, signaling its commitment to global climate targets.

However, interviews and secondary data reveal a consistent gap between the existence of these laws and their actual enforcement. Law enforcement agencies, such as the Environmental and Forestry Law Enforcement Directorate, often face challenges in monitoring vast areas of land and preventing illegal activities like logging, land burning, and mining. For instance, despite regulations prohibiting land clearing through burning, recurring forest and peatland fires in Sumatra and Kalimantan indicate insufficient surveillance and deterrence (WALHI, 2022). Many environmental crimes are either not prosecuted or result in lenient penalties, failing to produce a meaningful deterrent effect.

2. Institutional and Capacity Constraints

One of the most pressing issues identified is the limited institutional capacity to enforce environmental law. Interviews with government officials revealed understaffed enforcement units, lack of technical equipment, and insufficient training as major obstacles. Local environmental offices (Dinas Lingkungan Hidup) often have overlapping responsibilities with central agencies, leading to bureaucratic confusion and fragmented enforcement. This institutional fragmentation has led to a lack of coordination in implementing and monitoring environmental regulations at the local level, especially in remote or high-risk areas.

Moreover, the decentralization policy in Indonesia, while empowering local governments, has not been matched by sufficient support or oversight mechanisms from the central government. As a result, some local leaders prioritize economic

development over environmental sustainability, particularly in regions heavily dependent on extractive industries. Environmental impact assessments (AMDAL), which are required before major development projects can proceed, are often treated as formalities rather than rigorous evaluations. A recurring issue found in both literature and interviews is the ease with which corporations obtain environmental permits, even when significant ecological risks are involved (Wibisana, 2016).

3. Low Compliance and Lack of Accountability

Compliance with environmental law in Indonesia remains low among both corporate and community actors. Many companies exploit regulatory loopholes or rely on weak enforcement to continue harmful practices. For example, palm oil and mining companies have often operated in protected forest areas or violated land-use plans without facing significant legal consequences. The 2022 Greenpeace report noted that several large firms linked to deforestation were rarely sanctioned, suggesting a gap between law and accountability mechanisms.

Community-level compliance is also a concern, especially in rural areas where economic activities depend on forest clearing or resource extraction. While the law provides for community involvement and environmental education, its implementation remains minimal. Interviews with community leaders indicated limited knowledge about environmental regulations and a perception that environmental law only benefits corporations or the elite. Furthermore, the high cost and complexity of legal procedures deter citizens from reporting violations or pursuing legal action against polluters.

4. Role of Judiciary and Civil Society in Enforcement

The judicial system plays a crucial but inconsistent role in enforcing environmental law. There have been notable successes, such as the Supreme Court ruling in the 2015 forest fire case, which ordered a plantation company to pay significant compensation for environmental damage. However, these cases are exceptions rather than the norm. Judicial proceedings are often slow, and legal outcomes may be influenced by political or corporate interests, undermining public confidence in the courts.

Nevertheless, civil society organizations have emerged as powerful actors in bridging the enforcement gap. Organizations such as WALHI (Indonesian Forum for the Environment), Greenpeace Indonesia, and the Indonesian Center for Environmental Law (ICEL) have used litigation, advocacy, and public campaigns to pressure both the government and private actors into compliance. Strategic environmental litigation has helped bring issues such as illegal deforestation and air pollution into the public spotlight and courtrooms. Despite facing political pressure and legal threats, environmental NGOs continue to play a vital watchdog role in Indonesian environmental governance (Siringoringo, 2020).

5. International Pressure and Opportunities for Reform

Indonesia's participation in international climate agreements has created both opportunities and pressures for reform. The requirement to submit Nationally Determined Contributions (NDCs) under the Paris Agreement has compelled the government to enhance monitoring and reporting mechanisms. Furthermore, Indonesia's collaboration with international institutions such as the World Bank, the UNDP, and Norway through the REDD+ initiative has introduced performance-based funding tied to measurable emissions reductions.

These international engagements have helped improve transparency and catalyze policy reform. For instance, the launch of the Indonesian Environmental Safeguards Information System and the One Map Policy have improved land-use data accuracy and reduced overlapping claims. However, experts argue that these reforms must be matched by consistent law enforcement and structural changes in how environmental violations are investigated and prosecuted. Without genuine accountability and political will, such international initiatives risk becoming token gestures rather than transformational tools.

6. Toward a Stronger Enforcement Regime

Based on the findings, strengthening environmental law enforcement in Indonesia requires a multi-pronged approach. First, institutional reform is necessary to improve inter-agency coordination, especially between central and regional authorities. Second, capacity-building programs should be implemented to equip law enforcement agencies with technical, legal, and digital tools to monitor and penalize violations effectively. Third, legal provisions must be revised to increase penalties for environmental crimes and remove ambiguities that allow companies to exploit legal loopholes. Additionally, improving public access to environmental information and legal aid will empower communities to participate actively in environmental governance. Environmental education and community-based monitoring programs can enhance compliance and shift local perceptions of environmental law from being punitive to participatory. Finally, judicial independence must be safeguarded to ensure that environmental cases are judged fairly and without political interference.

CONCLUSION

The findings of this study reveal that while Indonesia has established a strong legal foundation for environmental protection, the effectiveness of environmental law in mitigating climate change remains limited due to weak enforcement, low compliance, and institutional challenges. The role of civil society and international cooperation is crucial in filling governance gaps and promoting accountability. To realize its climate commitments, Indonesia must focus on legal reforms, capacity enhancement, and inclusive participation to ensure that environmental law becomes a truly effective instrument in addressing the climate crisis.

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