

## Enforcement of Environmental Criminal Law Based on Ecological Justice: Green Criminology Analysis of Structural Crime in Indonesia

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Manuscripts received : 28/02/2026, Revision and Review : 10/02/2026, Approved 15/03/2026

### Abstract

*This study examines the implementation of environmental criminal law enforcement in Indonesia through the perspectives of green criminology and green victimology. It focuses on the ongoing challenges in controlling ecological crimes and protecting environmental victims. The research uses an empirical socio-legal approach with a descriptive-analytical framework to analyze court decisions and field information from law enforcement officials and affected communities. The results show that environmental law enforcement in Indonesia still prioritizes administrative mechanisms over criminal sanctions, which are often applied inconsistently. This analysis reveals that such legal patterns weaken the deterrent effect, especially against corporate actors. Furthermore, they fail to uphold ecological justice because court decisions often ignore the environment as the primary victim and omit mandatory restoration. As a result, environmental damage is treated merely as a formal violation rather than a serious structural crime. This study provides a novel scientific contribution by integrating green criminology and green victimology to empirically expose environmental degradation as a structural crime, offering a strong critique of the anthropocentric legal paradigm. To address this issue, this paper recommends strengthening criminal instruments for significant ecological violations. It also urges integrating mandatory environmental restoration into every court ruling and increasing community participation to ensure comprehensive ecological restoration and social protection.*

**Keywords:** Ecological Justice; Environmental Law; Green Criminology; Indonesia; Structural Crime.

### A. Introduction

Environmental crimes represent a critical threat to global and local ecosystems, resulting in severe and long-term ecological impacts that disrupt the balance of nature, endanger public health, and significantly diminish the environmental carrying capacity for future generations<sup>1</sup>. In the specific context of Indonesia, these ecological offenses manifest in various destructive forms, including massive water and soil pollution, rampant illegal logging, unlicensed mining operations, and widespread forest and land burning that devastates endemic animal habitats<sup>2</sup>. These structural crimes are frequently orchestrated not merely by individual actors, but significantly by massive corporate entities driven by

<sup>1</sup> Gregorius Widiartana, Vincentius Patria Setyawan, and Ariesta Wibisono Anditya, "Ecocide as an Environmental Crime: Urgency for Legal Reform in Indonesia," *Journal of Law Environmental and Justice* 3, no. 2 (2025): 268-308.

<sup>2</sup> Bayu Arya Sakti, Rodyah, and Cahya Wulandari, "Forest and Land Fire Management in Indonesia: Unveiling the Implementation Gaps of Law No. 32 of 2009 in Palembang," *Arkus* 11, no. 1 (2024): 741-753.

economic profit<sup>3</sup>. The profound urgency of addressing this issue stems from the fact that the resulting ecological damage is often permanent and cannot be adequately remedied through conventional legal mechanisms<sup>4</sup>. Furthermore, the current legal system in Indonesia remains anthropocentric and is not yet fully oriented toward protecting ecosystems as a primary public interest, which inadvertently fosters a low deterrent effect for perpetrators who continue to derive immense financial benefits from environmentally destructive activities.

Although a comprehensive formal legal framework is theoretically available through Law No. 32 of 2009 concerning Environmental Protection and Management, the empirical application of environmental criminal law in Indonesia continues to demonstrate significant operational limitations<sup>5</sup>. A prevalent issue within the Indonesian judicial system is the strong tendency of law enforcement agencies to resolve environmental cases primarily through administrative or civil dispute channels, utilizing criminal proceedings only as a highly selective last resort<sup>6</sup>. Consequently, the sanctions imposed on offenders frequently fail to reflect the severe magnitude of the ecological harm they have caused, often culminating in mere fines or light prison sentences rather than comprehensive systemic punishments<sup>7</sup>. Moreover, these legally formalistic resolutions rarely impose mandatory environmental remediation obligations upon the convicted parties, leaving the physical damage in the field largely unaddressed.<sup>8</sup> This systemic reliance on administrative compliance rather than strict criminal accountability fundamentally undermines the preventive function of the law, allowing continuous ecological degradation to be treated as a mere formal violation.

To critically dissect this systemic failure, a review of contemporary literature suggests that the green criminology approach offers a robust theoretical lens; it posits that ecological damage must not be viewed merely as formal statutory violations, but rather as structural crimes deeply embedded in socio-economic and capitalist practices that exploit the environment.<sup>9</sup> By addressing the structural root causes and power relations that enable large-scale exploitation, green criminology highlights the inadequacy of traditional criminal justice systems.<sup>10</sup> In parallel, the perspective of green victimology fundamentally broadens the traditional definition of a victim by recognizing the environment itself as an

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<sup>3</sup> Loso Judijanto et al., "The Urgency of Environmental Criminal Law Reform in Ensnaring Corporations: A Case Study of Tin Ecological Crimes by Harvey Moeis," *Journal of Strafvingering Indonesian* 2, no. 2 (2025): 32–41.

<sup>4</sup> FX Hastowo Broto Laksito and Aji Bawono, "The Urgency of Establishing an Environmental Court in Resolving Environmental Cases in Indonesia," *International Journal of Multicultural and Multireligious Understanding* 11, no. 2 (2024): 1.

<sup>5</sup> Windi Aimar Noersy, Ali Khosim, and Yayan M Royani, "Sanksi Pidana Terhadap Pelaku Perusakan Hutan Dalam Undang-Undang Nomor 32 Tahun 2024 Tentang Konservasi Sumber Daya Alam Hayati Dan Ekosistemnya Di Cagar Alam Kamojang Perspektif Hukum Pidana Islam," *As-Syar i: Jurnal Bimbingan & Konseling Keluarga* 7, no. 3 (2025): 426–448.

<sup>6</sup> Apifah Hairunnisa et al., "Dinamika Penegakan Hukum Dalam Masyarakat: Telaah Sosiologi Hukum Terhadap Kesenjangan Antara Hukum Normatif Dan Hukum Empiris Di Indonesia," *PESHUM: Jurnal Pendidikan, Sosial dan Humaniora* 4, no. 5 (2025): 7966–7973.

<sup>7</sup> A. Djoko Sumaryanto, "Restorative Justice in Addressing Environmental Crimes: A Viable Alternative or a Legal Threat?," *Journal of Strafvingering Indonesian* 2, no. 2 (2025): 10–19.

<sup>8</sup> Timothy Pape, "Futuristic Restoration as a Policy Tool for Environmental Justice Objectives," *Restoration Ecology* (2022).

<sup>9</sup> Kimberly L. Barrett and Rachelle F. Marshall, "Theory and Green Criminology," *Oxford Research Encyclopedia of Criminology* (2023).

<sup>10</sup> Michael J. Lynch and Michael A. Long, "Green Criminology: Capitalism, Green Crime and Justice, and Environmental Destruction," *Annual Review of Criminology* 5, no. 1 (2021): 255–276.

independent entity that suffers functional loss and necessitates direct legal protection.<sup>11</sup> From this standpoint, true ecological justice can only be realized through mandatory and comprehensive ecological restoration involving the affected society.<sup>12</sup> However, a critical research gap persists because the majority of previous legal studies in Indonesia have predominantly relied on normative analyses of regulatory texts and legal concepts, severely lacking the capacity to capture the complex dynamics of social practices, institutional obstacles, and the actual implementation of the law in the field.<sup>13</sup>

Addressing these identified methodological and literature gaps, this study significantly improves upon previous research by applying a socio-legal empirical approach, which essentially views the law as a dynamic social practice profoundly influenced by legal culture and institutional power structures.<sup>14</sup> By systematically analyzing both court decisions and primary field data from law enforcement officials and affected communities, this study seeks to provide a highly accurate and comprehensive picture of the environmental criminal justice system's effectiveness. Ultimately, the primary objective of this research is to analyze the practical enforcement of environmental criminal law through the integrated lenses of green criminology and green victimology. The study proposes concrete policy transformations, specifically advocating for the mandatory integration of explicit environmental restoration orders into every court ruling, alongside enhancing community participation, to ensure that the law actively serves as an instrument of substantial ecological justice rather than a mere administrative guardian.<sup>15</sup>

## B. Research Method

This study uses empirical legal research with a descriptive-analytical *socio-legal* approach<sup>16,17</sup>. This approach was chosen because it allows the author to view law not only as a set of written norms in legislation, but also as a social practice that is significantly influenced by institutional structures, legal culture, and power relations in Indonesian society. The main focus of this method is to evaluate how environmental regulations are implemented in practice in the judicial system.

The data in this study comes from two types of data, namely primary and secondary data. Secondary data or legal materials were obtained through a documentation study of court decisions in environmental criminal cases, official law enforcement reports from relevant agencies, and various government policies regulating the protection and

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<sup>11</sup> Annisa Mutiara, "Upaya Penegakan Hukum Dan Perlindungan Korban Tindak Pidana Lingkungan Hidup Ditinjau Dari Sudut Pandang Green Victimology," *LITRA Jurnal Hukum Lingkungan Tata Ruang dan Agraria* 2, no. 1 (2022): 129-146.

<sup>12</sup> Amrita Sen and Harini Nagendra, "Rethinking Inclusivity and Justice Agendas in Restoration of Urban Ecological Commons: A Case Study of Bangalore Lakes," *Lakes & Reservoirs: Science, Policy and Management for Sustainable Use* 27, no. 4 (2022).

<sup>13</sup> Eno Suwarno and Irawan Harahap, "Analisis Kritis Akses Dan Eksklusi Dalam Regulasi Kehutanan Undang-Undang Nomor 41 Tahun 1999 Tentang Kehutanan," *ANDREW Law Journal* 4, no. 1 (2025): 162-177.

<sup>14</sup> Muhammad Fiqhi Firmansyah et al., "The Effectiveness of Legal Aid Provision at the Makassar District Court," *Mulawarman Law Review* (2024): 1-11.

<sup>15</sup> Tanti Kirana Utami et al., "Analysis of the Implementation of Good Governance Principles in the Formation of Laws and Regulations in Indonesia," *Indonesian Journal of Law and Justice* 2, no. 2 (2024).

<sup>16</sup> Muhammad Fiqhi Firmansyah et al., "The Effectiveness of Legal Aid Provision at the Makassar District Court," *Mulawarman Law Review* (June 28, 2024): 1-11.

<sup>17</sup> Ellyne Dwi Poespasari, Trisadini Prasastinah Usanti, and Soelistyowati, "The Settlement Of Adopted Children Status Regarding The Inheritance Of Adoption Parents In Toraja Communities," *Yuris* (February 9, 2023): 40-53.

restoration of ecosystems. Meanwhile, primary data was collected to strengthen the analysis through in-depth interviews with 15 key informants, consisting of 5 environmental judges and prosecutors, 5 law enforcement officials from the Ministry of Environment and Forestry, and 5 representatives of community members directly affected by environmental crimes in selected areas.

Data collection techniques and research location selection were carried out purposively. Location selection focused on areas with a high intensity of environmental cases and a variety of legal handling patterns over the past five years. The use of *purposive* techniques is a strategic step commonly used in *socio-legal* research to overcome limited field access while still being able to represent the complexity of a broad population.

All collected data was then processed using qualitative analysis techniques. Specifically, the field data and interview transcripts were analyzed interactively through three main stages: data reduction, data display, and conclusion drawing. To ensure the validity of the findings, source triangulation was conducted by cross-referencing the interview statements with the documentary evidence from court decisions. The analysis began with classifying the patterns of law enforcement that were found, followed by identifying the real implications of these patterns on ecological restoration and victim protection. These findings were then interpreted in depth using the theoretical frameworks of *green criminology* and *green victimology* to produce comprehensive conclusions regarding the effectiveness of environmental criminal law enforcement in Indonesia.

### C. Results and Discussion

The results of the study show that environmental law enforcement practices in Indonesia still show a very strong tendency to use administrative instruments rather than criminal instruments. Based on an analysis of environmental criminal case verdicts in the last five years, it was found that criminal prosecution is generally only applied in cases that have a very broad ecological impact or that receive massive public attention, such as large-scale forest fires or severe toxic waste dumping. The data shows that many serious violations that substantially damage the ecosystem are still resolved through non-penal sanctions. This condition confirms that environmental criminal law enforcement is still positioned as a highly selective last resort, meaning that not all ecological crimes reach the criminal court stage.

In cases that were successfully processed to the court stage, it was found that the sanctions imposed by the majority of judges were fines and relatively light prison sentences. The dominance of an administrative approach and lenient criminal sanctions have proven to have a direct implication on the low *deterrence effect*, especially for corporate perpetrators. Field findings show that the economic benefits gained from environmentally destructive activities are often far greater than the value of fines imposed in court decisions. Consequently, corporate actors often treat these administrative fines merely as an "operational cost" or "cost of doing business" rather than a punitive measure. In many cases, this inconsistent law enforcement pattern correlates with high rates of recidivism in strategic sectors such as mining, plantations, and forestry.

Furthermore, the lack of firm criminal sanctions ultimately weakens the preventive function of the law in protecting the sustainability of natural resources in a systemic

manner. Law enforcement officials often face technical difficulties in proving causality in environmental crimes, which requires complex scientific evidence and expert testimonies. This evidentiary complexity often discourages prosecutors, leading them to pursue easier administrative settlements, which ironically allows corporate polluters to evade true criminal liability.

From the perspective of victim protection, the results of the study reveal that the environmental criminal justice system in Indonesia is still very limited to the recovery of human losses (anthropocentric). The environment as an independent entity that has suffered functional losses has not been positioned as the main victim whose condition must be restored. A crucial finding in this study is the large number of criminal verdicts that do not explicitly include environmental *remediation* obligations for the convicted. As a result, even though the perpetrators have been found guilty and served their sentences, the ecological damage in the field is often left without any real remedial action.

This reflects that the orientation of punishment is still fixated on physically and financially punishing the perpetrators, but completely neglects the restoration of damaged environmental functions. In addition, the participation of affected communities in the judicial process is found to be minimal. Local and indigenous communities, who directly bear the brunt of ecological disasters, are rarely involved in determining the form of compensation or rehabilitation that is appropriate to local needs. This exclusion creates a significant gap between court decisions and the fulfillment of the ecological rights of communities in areas of environmental conflict, further marginalizing those who are already vulnerable.

**Table 1.** Comparison of Environmental Law Enforcement Characteristics

Category	Current Practices	Ecological Justice Perspective
Main Focus	Administrative Compliance	Ecosystem Function Restoration
Subject of Victims	Anthropocentric (Human)	Environment & Community
Dominant Sanctions	Fines & Light Prison Sentences	Restoration & Extensive Compensation
Nature of Crime	Individual Offenses	Structural Crime

Discussion of the above findings shows that, from a *green criminology* perspective, weak criminal law enforcement reflects the failure of the legal system to respond to structural crimes. Unlike conventional legal views that see crime as an individual act of deviance, *green criminology* views environmental damage as the result of entrenched economic and political relations that enable large-scale exploitation. This theoretical framework highlights how state-corporate symbiosis often facilitates ecological destruction, where regulations are bypassed through political lobbying and economic influence.

This analysis emphasizes that as long as the law only prosecutes formal violations without addressing the structural root causes, ecological crimes will continue to recur

because they are supported by an economic incentive system that heavily benefits environmental destroyers. The fundamental difference between the results of this study and previous publications is the depth of its empirical analysis regarding these power dynamics. Most previous studies in Indonesia have emphasized normative analysis of regulatory texts, assuming that comprehensive regulations will automatically improve the situation.

However, the results of this study boldly prove that the existence of comprehensive regulations (such as Law 32/2009) is not directly proportional to effectiveness in the field if it is not accompanied by the courage of law enforcement officials to challenge structural crimes. The integration of the principle of ecological justice in every decision is paramount. This finding makes a new contribution by showing that the main obstacle in Indonesia is not the absence of environmental law, but rather a rigid, legalistic pattern of legal interpretation coupled with institutional reluctance to confront powerful corporate entities.

Discussions on victim protection highlight the urgent need for a paradigm shift from an anthropocentric approach to a more inclusive, eco-centric approach. The findings of this study support the idea that justice should not stop at punishing perpetrators behind bars; it must include mandatory ecological restoration and social protection for affected communities. The integration of ecologically-based restorative justice principles is a crucial solution to ensure that community participation is not merely a formality in court, but also a substantive element in determining the direction of the restoration of their damaged areas.

Based on the results of the analysis, the policy implications that must be implemented immediately involve strengthening the capacity of law enforcement officials. Prosecutors and judges must be equipped with a better understanding of the technical and scientific aspects of proving environmental damage to support more rigorous criminal prosecution. In addition, there is an absolute need for a legal mandate that obliges judges to include environmental restoration orders (remedial actions) as an integral, non-negotiable part of every environmental criminal verdict. This transformation is expected to fundamentally change the judicial paradigm from merely being a guardian of administrative compliance to a robust instrument that guarantees ecological sustainability and is capable of significantly reducing the number of structural ecological crimes in the future.

#### D. Conclusion and Recommendations

This study concludes that the enforcement of environmental criminal law in Indonesia has not been able to become an effective instrument for controlling ecological crimes because it is still trapped in a legalistic-formal and anthropocentric paradigm. The weak use of criminal sanctions against corporate actors reflects the failure of the legal system to respond to structural crimes, where law enforcement is more oriented towards administrative compliance than comprehensive ecosystem restoration. The inconsistency of court decisions, which rarely include ecological restoration obligations, reinforces the fact that the environment is not yet positioned as the primary victim in the criminal justice system.

These findings have practical implications for future environmental criminal policy reform. First, there needs to be standardization for judges to integrate environmental restoration orders as an absolute obligation in every criminal ruling to ensure the return

of ecological functions. Second, strengthening the participation of affected communities must be more widely accommodated in the litigation process to ensure that the rights of ecological victims are fulfilled. Theoretically, the integration of *green criminology* and *green victimology* approaches is highly recommended for use by law enforcement officials in analyzing environmental crime cases involving complex power and economic relations in order to create substantial ecological justice.

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