

Environmental Crime Enforcement in Indonesia: Ultimum and Primum Remedium Perspectives

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2025-Aug-13

Review

2025-Sept-16

Accepted

2025-Sept-27

Published

2025-Nov-01

Abstract

Environmental law enforcement in Indonesia continues to face significant challenges despite severe ecological and socio-economic impacts caused by environmental degradation. A key issue is the tendency to treat criminal law as *primum remedium*, leading to excessive criminalisation, whereas environmental law principles emphasise criminal sanctions as *ultimum remedium*. This imbalance weakens the role of administrative and civil instruments that are essential for achieving effective environmental restoration. This study aims to critically analyse the appropriate positioning of *ultimum remedium* and *primum remedium* within Indonesia's environmental law enforcement framework and to identify the challenges encountered by law enforcement officials. Using a normative juridical method, it adopts a conceptual and legislative approach while examining legal doctrines and selected court decisions on environmental crimes. The findings indicate that although criminal sanctions remain crucial as deterrents, prioritising them as the main enforcement tool may undermine more substantive efforts toward ecological recovery. Strengthening administrative and civil mechanisms offers a more proportional and sustainable approach. The study concludes that Indonesia must clarify parameters for applying criminal sanctions and enhance synergy across legal instruments to realise effective environmental protection and ecological justice.

Keywords: Ecological Justice; Environmental Law Enforcement; Environmental Crimes; *Primum Remedium*; *Ultimum Remedium*.

How to Cite: Valerie Zhou. "Environmental Crime Enforcement in Indonesia: Ultimum and Primum Remedium Perspectives." *Jurnal Ilmiah Dunia Hukum*, 10 no. 1 (2025): 1-12. DOI: 10.35973/jidh.v10i1.6579.

1. Introduction

Environmental damage today is not only a national issue, but also an urgent global challenge, because its impact extends to ecological, economic, social and public health aspects.¹ The phenomena of climate change, air and water pollution, land degradation, and biodiversity loss are clear evidence of unsustainable human activities, such as massive industrialization, mining exploitation, large-scale land clearing, and substandard waste disposal. In Indonesia, this situation is increasingly complex because environmental law

¹ Arvin Asta Nugraha, I. Gusti Ayu Ketut Rachmi Handayani, and Fatma Ulfatun Najicha, "Peran hukum lingkungan dalam mencegah kerusakan dan pencemaran lingkungan hidup," *Jurnal Hukum To-Ra: Hukum Untuk Mengatur Dan Melindungi Masyarakat* 7, no. 2 (2021): 288.

enforcement faces not only technical aspects of proof but also institutional limitations and coordination between law enforcement agencies.²

In the legal context, enforcement of environmental crimes in Indonesia is often fragmented between criminal sanctions and civil mechanisms. Criminal sanctions are used to provide a deterrent effect, while civil lawsuit mechanisms are aimed at redressing environmental losses and victims.³ However, both often operate independently without effective integration, resulting in partial results that fail to substantively address the problem. Weak inter-agency coordination, limited human resources with expertise in environmental law, and costly and time-consuming scientific evidence further exacerbate the situation.

The legal problem addressed in this article is the fragmented and ineffective enforcement of environmental crimes in Indonesia, caused by inconsistent application of the *ultimum remedium* and *primum remedium* principles and the weak integration between criminal sanctions and civil remedies. As a result, environmental restoration goals are not optimally achieved, while perpetrators are not fully held accountable for their actions. This disconnect highlights the need for a more integrated and effective environmental law enforcement system in Indonesia.

In contrast, Japan offers an interesting comparison. It has a more mature environmental legal system, with a seamless integration of criminal sanctions and civil remedies.⁴ Law enforcement officials are equipped with adequate technical capacity, detailed regulations, and a community legal culture that fosters collective awareness of the importance of environmental protection. Law enforcement in Japan is not merely repressive; it also emphasizes rehabilitative aspects by ensuring that perpetrators share responsibility for remediating the damage.⁵

The purpose of this study is to critically examine the position of *ultimum remedium* and *primum remedium* in environmental law enforcement, while analysing the challenges faced by law enforcement officials in implementing

² Muhammad Anis, Sufirman Rahman, and Nasrullah Arsyad, "Penegakan hukum tindak pidana kehutanan bidang illegal logging balai pengamanan dan penegakan hukum lingkungan hidup dan kehuatan (bpphlhk) wilayah Sulawesi," *Journal of Lex Philosophy (JLP)* 3, no. 2 (2022): 385.

³ Nadia Astriani, "Pengaturan air dalam sistem hukum Indonesia," *Bina Hukum Lingkungan* 5, no. 2 (2021): 389.

⁴ Meng Yang, "Comparative study on marine environmental protection legislation between China and Japan from the perspective of international environmental law," *J. Educ. Humanit. Soc. Sci.* 1 (2022): 114.

⁵ Aleksander Aristovnik, Hiroko Kudo, Eva Murko, Tadateru Sugawa, and Dejan Ravšelj, "Investigating public governance models in Slovenia and Japan: a comparative survey on state and local government," *Administratie si Management Public* 41, no. 5 (2023): 13.

them in Indonesia. This fundamental difference opens up opportunities for Indonesia to learn from Japan's best practices. By examining the factors that make Japan's environmental legal system effective, this study aims to provide academic and practical contributions to strengthening Indonesia's environmental law enforcement system. Academically, this study enriches the legal literature by examining the debate between the *ultimum remedium* and *primum remedium* paradigms in environmental criminal law enforcement. Practically, this study offers recommendations for legal reform that can assist policymakers and officials in designing a more just, integrated, and sustainable environmental law enforcement system.

Based on this background, a more focused study is needed to understand the root of the problem and find solutions to strengthen environmental law enforcement in Indonesia.⁶

1. What is the environmental law enforcement framework in Indonesia and Japan, and what are the fundamental differences?
2. How are the principles of *ultimum remedium* and *primum remedium* applied in environmental law enforcement in Indonesia, and to what extent has the inconsistency in their application led to fragmented law enforcement?
3. What obstacles do law enforcement officials face in the evidentiary process, inter-agency coordination, and technical capacity building in environmental law enforcement in Indonesia?

2. Research Method

The research method used in this study is normative legal research, focusing on doctrinal analysis of positive legal provisions, both in Indonesia and Japan. Normative legal research was chosen because the issues studied relate to written legal norms, legal interpretation, and their application in environmental law enforcement practices.⁷ In the normative research framework, the approaches used are the comparative legal approach and the statute approach.⁸ A comparative legal approach is used to identify similarities and differences in the integration of criminal sanctions and civil compensation in environmental law enforcement systems in Indonesia and Japan. Through this approach, the

⁶ Sudikno Mertokusumo, *Mengenal Hukum: Suatu Pengantar*, (Yogyakarta: Liberty, 2013).

⁷ Geofani Milthree Saragih, Mirza Nasution, and Eka NAM Sihombing, "Judicial review oleh mahkamah konstitusi: judicial activism vs. judicial restraint dalam perspektif kebebasan kehakiman: judicial review by the constitutional court: judicial activism vs. judicial restraint in the perspective of judicial freedom," *Jurnal Konstitusi* 22, no. 1 (2025): 45.

⁸ Geofani Milthree Saragih, "A judges' role in pursuing justice: oliver wendell holmes' sociological jurisprudence perspective," *International Journal of Law Society Services* 3, no. 2 (2024): 62.

research seeks to identify best practices that can serve as a reference for Indonesia in strengthening its environmental legal system. Meanwhile, a statutory approach is used to examine relevant regulations, including basic and implementing regulations in both countries, which serve as the normative basis for environmental law enforcement.

This research is descriptive-analytical in nature, systematically describing the applicable legal framework, then analyzing its implementation in practice, and critically comparing them.⁹ The research data sources were obtained entirely from secondary data. Primary legal materials include Law Number 32 of 2009 concerning environmental protection and management, the Criminal Code (*Kitab Undang-Undang Hukum Pidana/KUHP*), the Civil Code (*Kitab Undang-Undang Hukum Pidana Perdata/KUHPerdata*), and related implementing regulations in Indonesia; as well as environmental regulations in Japan such as the Basic Environment Law and the Act on the Assessment of Environmental Impact. Secondary legal materials consist of literature, books, scientific articles, research results, and journals relevant to environmental law enforcement issues. Meanwhile, tertiary legal materials include legal dictionaries, encyclopedias, and other supporting reference sources. Data collection techniques were carried out through library research by reviewing laws and regulations, legal doctrines, court decisions, and previous academic studies. Data analysis was conducted qualitatively and comparatively. The data obtained were described, interpreted, and analyzed to understand the legal norms, principles, and mechanisms of environmental law enforcement in Indonesia and Japan. The results of the comparative analysis are then used to formulate conceptual recommendations regarding the implementation of the integration of criminal sanctions and civil compensation that are more effective and in accordance with the principles of *ultimum remedium* and *primum remedium* in the Indonesian context.

3. Research Results and Discussion

3.1. Environmental Law Enforcement Framework in Indonesia and Japan

The regulatory framework for environmental law enforcement in Indonesia is based on Law Number 32 of 2009 concerning Environmental Protection and Management (*Undang-Undang Perlindungan dan Pengelolaan Lingkungan Hidup/UUPPLH*), which serves as the *lex specialis* for national environmental

⁹ Elisabeth Nurhaini, *Metode penelitian hukum* (Bandung: PT Refika Aditama 2018), 23.

law. This law provides the normative basis for instruments for preventing, monitoring, and taking action against environmental violations.¹⁰ In these regulations, criminal law is positioned as a means of *ultimum remedium*, although in practice many cases demonstrate the use of the *primum remedium* approach, especially in crimes considered to have widespread and serious impacts such as pollution, forest destruction, and corporate crimes. In addition to the environmental Protection and Management, several sectoral regulations such as the forestry law, the mining law, and the maritime law also contain environmental criminal norms, which in practice give rise to the potential for overlapping authority between agencies.¹¹ Institutionally, environmental law enforcement in Indonesia involves various actors, including the Ministry of Environment and Forestry (*Kementerian Lingkungan Hidup dan Kehutanan/KLHK*), the police, the prosecutor's office, and the judiciary. However, coordination between law enforcement agencies often faces challenges, particularly related to investigative authority, the availability of experts, and the limited infrastructure of environmental laboratories used to prove criminal acts.

Unlike Indonesia, Japan has a more comprehensive, structured, and integrated environmental regulatory framework. Its primary foundation is the Basic Environment Law, which serves as the umbrella framework for all environmental policies in Japan. This law is then further subdivided into a number of more detailed technical regulations, such as the air pollution control law, the water pollution control law, and the waste management law.¹² The clarity of these regulations provides firm standards regarding business responsibilities, pollution limits, and administrative, civil, and criminal sanction mechanisms. Japan's advantage lies not only in its regulations but also in its institutional model, which emphasizes coordination across ministries and local governments. Japan's ministry of the environment serves as the central authority, but implementation of oversight is largely delegated

¹⁰ Simona Bustani, "Budaya hukum masyarakat dalam mengantisipasi dampak kerusakan lingkungan hidup akibat perkembangan bioteknologi pertanian," *Hukum Pidana dan Pembangunan Hukum* 2, no. 2 (2020): 235.

¹¹ Agus Salim, Ria Anggraeni Utami, and Zico Junius Fernando, "Green victimology: sebuah konsep perlindungan korban dan penegakan hukum lingkungan di Indonesia," *Bina Hukum Lingkungan* 7, no. 1 (2022): 60.

¹² Qi Xu, Mengxue Zhang, and Peng Guo, "Reflections on Japan's participation in negotiations of the global plastic pollution instrument under international environmental law," *Frontiers in Marine Science* 10 (2023): 132. See too, Dwientha Ayu Pratjna, Nyoman Serikat Putra Jaya, and Purwoto Purwoto, "Kebijakan Hukum Pidana dalam Upaya Penanggulangan Tindak Pidana Lingkungan Hidup di Indonesia," *Diponegoro Law Journal* 8, no. 2 (2019): 1032.

to local governments with adequate technical capacity.¹³ This system demonstrates effective decentralization, where the central government functions as a policy maker and supervisor, while local governments are responsible for implementing environmental controls according to national standards. Japan's law enforcement institutions are also supported by a judicial system that places significant emphasis on environmental cases.

Japanese courts often apply the principle of strict liability in pollution cases, so victims do not need to prove the perpetrator's fault to receive compensation.¹⁴ This mechanism accelerates the process of redressing losses to communities and the environment and provides a strong deterrent effect on business actors. Furthermore, Japan has developed an integrated system of criminal sanctions and civil compensation. Criminal sanctions are used to punish perpetrators, while civil compensation is processed in parallel to redress losses suffered by victims and restore environmental conditions. Thus, the Japanese legal system emphasizes not only repressive action but also ensures that rehabilitative and compensatory aspects are implemented simultaneously. To clarify the fundamental differences between the two legal systems, the following table presents a comparison of the regulatory framework and institutional framework for environmental law enforcement in Indonesia and Japan.

Table 1. Comparison of Environmental Law Enforcement Regulations and Institutions in Indonesia and Japan

Aspect	Indonesia	Japan
Regulatory Framework	Law Number 32 of 2009 concerning Environmental Protection and Management serves as <i>lex specialis</i> . It is supported by sectoral laws such as Forestry, Mining, and Maritime Affairs, which often create potential overlap.	The Basic Environment Law serves as the main framework. It is broken down into detailed technical regulations such as the Air Pollution Control Law, Water Pollution Control Law, and Waste Management Law, which provide clear and firm standards.

¹³ HuiJie Chai, "Analysis of the coordination relationship between the green principle of civil law and environmental law in environmental pollution and ecological destruction," *Journal of Environmental and Public Health* 2022, no. 1 (2022): 254.

¹⁴ Yumeno Grace Nishikawa, "Japanese climate litigation and the development of personal rights," *Chinese Journal of Environmental Law* 7, no. 2 (2023): 223.

Aspect	Indonesia	Japan
Institutional	The Basic Environment Law serves as the main framework. It is broken down into detailed technical regulations such as the Air Pollution Control Law, Water Pollution Control Law, and Waste Management Law, which provide clear and firm standards.	The Ministry of the Environment, as the central authority, is supported by regional governments with strong technical authority. Effective central-regional coordination is supported by clear regulations.
Justice System	Environmental courts remain limited. Proving environmental cases is often hampered by cost, time, and limited expertise. Criminal sanctions and civil damages often operate separately.	Courts apply the principle of strict liability in environmental cases, expediting victim compensation. The integration of criminal sanctions and civil damages runs parallel and complements each other.
Legal Culture	Public awareness of environmental law remains low. Legal compliance is often driven by sanctions, not collective awareness. Law enforcement is often perceived as repressive..	Environmental legal awareness is high, internalized in the community's culture. Compliance is driven not only by sanctions but also by social norms and environmental ethics.
Enforcement Approach	Tends to use criminal law as primum remedium in practice, even though normatively it should be ultimum remedium.	Using an integrative approach that balances criminal, administrative and civil aspects, with attention to rehabilitative and compensatory aspects.

Table 1 illustrates the fundamental differences between the regulatory frameworks and institutional frameworks for environmental law enforcement in Indonesia and Japan. Indonesia has a fairly comprehensive legal basis in the 2009 Environmental Management Law, but it still faces fragmentation due to

sectoral laws that create overlapping norms. Weak inter-agency coordination and limited technical resources have resulted in suboptimal law enforcement effectiveness.¹⁵ On the other hand, Japan has more structured and integrated regulations. The basic environment law serves as a master framework that is translated into technical regulations, making them easier to implement consistently. Institutionally, Indonesia relies on coordination between agencies such as the ministry of environment and forestry, the police, and the prosecutor's office, but this is often hampered by differing interests and limited capacity. Conversely, Japan emphasizes decentralization by granting broad authority to regional governments, while the central government retains its role as policy director and supervisor. This demonstrates fundamental differences in institutional design that impact the effectiveness of regulatory implementation on the ground.

In the judicial aspect, Indonesia still faces the challenge of expensive and complicated evidence, as well as the separation between criminal and civil processes which often weakens the deterrent effect and victim recovery.¹⁶ In contrast, Japan uses the principle of strict liability and integrates criminal proceedings and civil compensation in parallel, resulting in faster, clearer law enforcement and the delivery of substantive justice. Legal culture also plays a significant role in the effectiveness of law enforcement.¹⁷ Indonesians' environmental legal awareness is relatively low, so compliance is often driven solely by the threat of sanctions. In Japan, environmental social norms and ethics are deeply internalized, making legal compliance more voluntary.

Comparatively, Indonesia and Japan share a common understanding of the role of criminal law as an instrument for enforcing environmental law. However, key differences lie in the level of regulatory integration and institutional effectiveness. Indonesia still faces challenges of regulatory fragmentation and weak inter-agency coordination, while Japan has adopted an integrative approach that strengthens legal consistency and predictability. Indonesia's challenges are further exacerbated by the low technical capacity of

¹⁵ Setyo Amirullah, "Tinjauan yuridis terhadap pembangunan pagar laut dalam perspektif perlindungan lingkungan hidup dan partisipasi publik," *Al-Zayn: Jurnal Ilmu Sosial & Hukum* 3, no. 2 (2025): 739. See too, Santoso Budi Nurs-Al Umar, "Penegakan hukum lingkungan di indonesia," *Wacana Hukum* 10, no. 2 (2011): 349.

¹⁶ Alvi Syahrin, Martono Anggusti, and Abdul Aziz Aisa, *Asas-asas dan ketentuan pidana perlindungan dan pengelolaan lingkungan hidup (pasca berlakunya undang-undang cipta kerja)* (Medan: Merdeka Kreasi, 2022), 24. See too, Hasanul Mulkan, and Serlika Aprita, "Sistem Penegakan Hukum Lingkungan Pidana Di Indonesia," *Justicia Sains: Jurnal Ilmu Hukum* 7, no. 1 (2022): 103.

¹⁷ Izzy Al Kautsar and Danang Wahyu Muhammad, "Sistem hukum modern Lawrance M. Friedman: Budaya hukum dan perubahan sosial masyarakat dari industrial ke digital," *Sapientia Et Virtus* 7, no. 2 (2022): 89.

law enforcement officials, which slows down the process of proving environmental crimes. In contrast, Japan has successfully overcome these obstacles by building adequate technical infrastructure and internalizing environmental legal awareness into its culture.

From this comparison, it can be seen that the key lessons for Indonesia are the need to strengthen regulatory consolidation, improve coordination between law enforcement agencies, and develop an integrative mechanism between criminal sanctions and civil compensation. Furthermore, increasing technical capacity, both in environmental laboratories and human resources with expertise in environmental law, is a crucial factor in increasing the effectiveness of law enforcement. By adopting best practices from Japan and adapting them to the national context, Indonesia has the potential to build a more efficient, transparent, and equitable environmental law enforcement system.

3.2. Applying Ultimum and Primum Remedium in Environmental Law Enforcement

The application of the principles of ultimum remedium and primum remedium in the enforcement of environmental law in Indonesia is one of the most prominent discourses in modern environmental law, because it touches on the fundamental issue of the extent to which the state should rely on criminal law to protect ecological interests.¹⁸ The principle of ultimum remedium classically positions criminal law as a last resort after administrative and civil instruments have proven ineffective, with the aim of preventing excessive criminalization and maintaining legal certainty. Conversely, the principle of primum remedium positions criminal law as the primary instrument, with the hope of creating a deterrent effect and preventing environmental damage in the first place. In the Indonesian context, the tension between these two principles is increasingly apparent when cases of major pollution or massive ecological damage are often immediately directed to the criminal path, even though Law Number 32 of 2009 concerning environmental protection and management normatively encourages the use of administrative mechanisms first.¹⁹

¹⁸ Muhammad Anis, Sufirman Rahman, and Nasrullah Arsyad, "Penegakan hukum tindak pidana kehutanan bidang illegal logging balai pengamanan dan penegakan hukum lingkungan hidup dan kehuatan (bpplhk) wilayah Sulawesi," *Journal of Lex Philosophy (JLP)* 3, no. 2 (2022): 386.

¹⁹ Arvin Asta Nugraha, I. Gusti Ayu Ketut Rachmi Handayani, and Fatma Ulfatun Najicha, "Peran hukum lingkungan dalam mencegah kerusakan dan pencemaran lingkungan hidup," *Jurnal Hukum To-Ra: Hukum Untuk Mengatur Dan Melindungi Masyarakat* 7, no. 2 (2021): 288.

This inconsistency demonstrates a structural dilemma: on the one hand, the use of *ultimum remedium* is often criticized as too weak when dealing with large corporations or actors with political and economic power, thus failing to provide an adequate deterrent effect. On the other hand, the *primum remedium* approach is considered problematic because it opens up the opportunity for overcriminalization, increases the burden on law enforcement officials, and has the potential to shift the focus from environmental restoration to mere punishment.²⁰ This reality is exacerbated by technical obstacles such as the difficulty of proving elements of environmental crimes, the limited capacity of environmental forensic laboratories, and the shortage of human resources with specialized expertise in this field. As a result, law enforcement is often inconsistent, slow, and provides little certainty for both the public and the business world.²¹

Furthermore, the debate between *ultimum* and *primum remedium* also reflects a paradigm shift in environmental criminal law. Developed countries like Japan demonstrate that successful environmental law enforcement lies not simply in the choice between *ultimum* and *primum remedium*, but in integrating both within a clear, transparent, and coordinated legal framework. In Japan, criminal sanctions and civil compensation are implemented in parallel, ensuring that law enforcement is not merely repressive but also rehabilitative and compensatory. Indonesia can learn valuable lessons from this practice, particularly in strengthening institutional coordination, formulating more precise regulations, and increasing public legal awareness.²² Thus, the issue of *ultimum* and *primum remedium* should not be seen as a rigid dichotomy, but rather as instruments that can be strategically combined to ensure more effective, fair, and sustainable enforcement of environmental law.

The ambiguity in the application of this principle is also influenced by legal politics and public pressure. In cases of major pollution that cause massive losses, law enforcement officials often choose direct criminal action to demonstrate the state's commitment to the community and the environment.

²⁰ Junius Fernando Zico, Sarjana Putra Panca, and Sri Wulandari, "Potential overcriminalization in religious offenses: A critical analysis of the formulation of the new national criminal code (Law 1 Number 2023)," *Jurnal HAM* 14 (2023): 205.

²¹ Juan Auz, "The political ecology of climate remedies in Latin America and the Caribbean: Comparing compliance between national and inter-american litigation," *Journal of Human Rights Practice* 16, no. 1 (2024): 189. See too, Olivia Anggie Johar, "Realitas permasalahan penegakan hukum lingkungan di Indonesia," *Jurnal Ilmu Lingkungan* 15, no. 1 (2021): 58.

²² Qi Xu, Mengxue Zhang, and Peng Guo, "Reflections on Japan's participation in negotiations of the global plastic pollution instrument under international environmental law," *Frontiers in Marine Science* 10 (2023): 134.

However, in cases involving strategic corporations or specific economic interests, an administrative approach is often prioritized, even if the environmental impacts are significant. This creates a sense of discrimination and weakens legal legitimacy, as law enforcement is inconsistent and tends to be influenced by external factors beyond the legal norms themselves.²³ On the other hand, the uncertainty of standards in choosing *ultimum* or *primum* *remedium* creates difficulties for business actors and the public in understanding the legal certainty that applies, thus disrupting the investment climate and environmental protection.

The application of the principles of *ultimum remedium* and *primum remedium* in environmental law is one of the important issues that determines the direction of law enforcement policy in Indonesia.²⁴ These two principles are often theoretically positioned dichotomously, with *ultimum remedium* understood as a last resort when administrative and civil instruments are no longer effective, while *primum remedium* views criminal law as the initial instrument immediately used to provide a deterrent effect and protect the public interest. The debate between the two often creates uncertainty in judicial practice, particularly because environmental damage requires both a swift response and sustainable recovery. Without a clear regulatory framework, Indonesian environmental law risks being trapped in a choice between merely enforcing repressive aspects through criminalization or prioritizing substantive justice through ecological restoration.

Japan's comparative experience can provide valuable lessons for Indonesia. Japan has successfully integrated the principles of *ultimum remedium* and *primum remedium* into a single, complementary legal framework. Administrative mechanisms are used to halt polluting activities and ensure compliance with environmental standards, while civil mechanisms serve to seek compensation or remedy the ecological losses caused.²⁵ Criminal law is selectively applied only to serious violations, uncooperative perpetrators, or when environmental damage endangers the wider community.²⁶ This

²³ Achmad Asfi Burhanudin, "Peran etika profesi hukum sebagai upaya penegakan hukum yang baik," *El-Faqih: Jurnal Pemikiran dan Hukum Islam* 4, no. 2 (2018): 57.

²⁴ Linda Novianti, "Pidana mati terhadap tindak pidana terorisme di Indonesia dihubungkan dengan tujuan pemidanaan dalam perspektif hukum positif dan hukum pidana islam," *Jurnal Syntax Imperatif: Jurnal Ilmu Sosial Dan Pendidikan* 4, no. 1 (2023): 57. See too, Nafi Mubarak, "Penegakan hukum pidana lingkungan di Indonesia," *Al-Jinayah: Jurnal Hukum Pidana Islam* 5, no. 1 (2019): 13.

²⁵ Thomas G. Altura, Yuki Hashimoto, Sanford M. Jacoby, Kaoru Kanai, and Kazuro Saguchi, "Japan meets the sharing economy: contending frames," *Social Science Japan Journal* 24, no. 1 (2021): 146.

²⁶ Hamidah Abdurrachman, Achmad Irwan Hamzani, and Joko Mariyono, "Environmental crime and law enforcement in Indonesia: some reflections on counterproductive approaches," *Environmental Policy and Law* 51, no. 6 (2021): 412. See too, Nina Herlina, "Permasalahan lingkungan hidup dan penegakan hukum lingkungan di Indonesia," *Jurnal Ilmiah Galuh Justisi* 3, no. 2 (2017): 167; Farah Nur Laily,

integrative approach ensures that repressive and rehabilitative functions operate simultaneously, making environmental protection more effective and proportionate. With this model, criminal law is no longer merely an instrument of enforcement but also a means of ecological justice that balances the interests of the state, society, and environmental sustainability.

Indonesia faces quite complex challenges in implementing these two principles. On the one hand, there is an urgent need to firmly enforce environmental criminal law given the rise of organized environmental crimes, such as illegal logging, industrial waste pollution, and overexploitation of natural resources. However, on the other hand, an overemphasis on criminal penalties often neglects environmental restoration, the primary objective of environmental law itself. The absence of a clear standard regarding when *ultimum remedium* should be prioritized and when *primum remedium* can be applied creates inconsistencies in law enforcement practices. As a result, legal uncertainty often arises, weak deterrents, and the potential for substantive injustice for communities directly impacted by ecological damage.²⁷ This situation is exacerbated by the limited capacity of law enforcement officials, minimal coordination between institutions, and weak implementing regulations that should serve as technical guidelines in the field.

In this context, regulatory reform is a necessity. Indonesia needs to strengthen implementing regulations that provide clear and operational parameters for categorizing minor, moderate, and serious violations, including the level of intent of the perpetrator and the extent of the ecological damage caused. This way, the selection of administrative, civil, or criminal instruments can be carried out proportionally according to the level of threat to the environment. Regulatory reform must also be accompanied by strengthening judicial practices, particularly by equipping judges and law enforcement officials with a progressive perspective on environmental law. This is crucial so that criminalization is no longer interpreted solely as retribution, but rather as a means of just ecological restoration. The integration of these two principles will strengthen the rule of law (*rechtsstaat*) in Indonesia, as it ensures that environmental protection is not merely symbolic, but also substantive in guaranteeing citizens' constitutional rights to a healthy environment.

"Penegakan hukum lingkungan sebagai upaya mengatasi permasalahan lingkungan hidup di Indonesia," *Wacana Paramarta: Jurnal Ilmu Hukum* 21, no. 2 (2022): 18.

²⁷ 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): 272.

With clear standards, consistent application, and integration with environmental recovery mechanisms, Indonesia can escape the dichotomous dilemma between *ultimum remedium* and *primum remedium*. Instead, these two principles can be positioned as mutually supportive instruments in realizing effective and equitable environmental protection. Future prospects indicate that if regulatory reforms and judicial practices are implemented consistently, Indonesian environmental law can move toward an integrative paradigm that is more adaptive to the complexity of ecological issues. This paradigm positions criminalization as part of a comprehensive effort to preserve the environment while realizing sustainable development based on the principle of ecological justice. Thus, environmental law enforcement becomes not only an instrument of enforcement but also an instrument of transformation toward more sustainable and civilized environmental governance.

3.3. Challenges and Prospects of Environmental Law Enforcement in Indonesia

Environmental law enforcement in Indonesia faces multidimensional challenges involving regulatory, institutional, technical, and legal-political aspects.²⁸ From a regulatory perspective, although Indonesia has various legal instruments, such as Law Number 32 of 2009 concerning Environmental Protection and Management, there are still weaknesses in terms of consistency, certainty, and harmonization between regulations.²⁹ Many sectoral laws contain environmental criminal provisions with varying formulations, creating overlap and opening up wide room for interpretation. This ambiguity results in legal uncertainty, with law enforcement officials and the public often struggling to determine which norm should be applied in a given case.

Another challenge arises in the institutional aspect of law enforcement. Handling environmental cases requires close coordination between the police, prosecutors, courts, and environmental agencies.³⁰ However, in

²⁸ Muh Zafri Ramadhan, "Failure of Criminal Sanctions in Law Enforcement Environmental Crime in Indonesia," *Journal of Verum Legis Indonesia* 1, no. 1 (2025): 32. See too, Agus Salim, and Liberthin Palullungan. "The challenges of environmental law enforcement to implement SDGs in Indonesia," *International Journal of Criminology and Sociology* 10 (2021): 524.

²⁹ Simona Bustani, "Budaya hukum masyarakat dalam mengantisipasi dampak kerusakan lingkungan hidup akibat perkembangan bioteknologi pertanian," *Hukum Pidana dan Pembangunan Hukum* 2, no. 2 (2020): 236.

³⁰ Muhammad Anis, Sufirman Rahman, and Nasrullah Arsyad, "Penegakan hukum tindak pidana kehutanan bidang illegal logging balai pengamanan dan penegakan hukum lingkungan hidup dan kehuatan (bpphilh) wilayah Sulawesi," *Journal of Lex Philosophy (JLP)* 3, no. 2 (2022): 387. See too, Meike

practice, this coordination is often weak due to differing interests, limited human resources with expertise in environmental law, and overlapping authority between institutions. For example, ministries of the environment often have the technical capacity to conduct oversight but lack full authority in criminal investigations. Conversely, general law enforcement officials have criminal authority but lack technical understanding of environmental issues. This lack of synchronization leads to many cases being dropped at the initial stage or not being sufficiently proven in court.

From a technical perspective, proving environmental crimes requires a complex scientific approach. The elements of the crime often require laboratory analysis, scientific studies, or expert assessment, which are time-consuming and expensive. This makes many cases difficult to process quickly and efficiently. Furthermore, environmental laboratory infrastructure in Indonesia remains limited, both in terms of quantity, quality, and equitable distribution. These technical obstacles are exacerbated by the limited capacity of law enforcement officials to understand the scientific aspects related to environmental crimes, resulting in legal arguments often lacking adequate technical evidence in court.

However, despite these challenges, there are promising prospects for improving Indonesia's environmental law enforcement system. First, growing public awareness of the importance of environmental protection provides crucial social capital for strengthening law enforcement. Civil society, the media, and environmental organizations are increasingly active in advocacy, reporting violations, and even suing companies that damage the environment. This public participation can serve as a social control mechanism that strengthens the state's capacity to enforce environmental laws. Second, developments in information and digital technology provide opportunities for increasing the effectiveness of oversight. Satellite-based monitoring systems, environmental sensors, and online reporting applications can be used to detect violations quickly and accurately, providing law enforcement with stronger data for taking action.

Another prospect is the opportunity for regulatory reform and institutional strengthening. Legislative revisions or the development of derivative regulations could be directed at clarifying law enforcement standards, strengthening inter-agency roles, and providing guidance on when criminal, civil, or administrative sanctions should be prioritized. An integrated model

Negawati Kesek, "The Role of Environmental Law in Addressing Climate Change: An Analysis of Law Enforcement and Compliance in Indonesia," *International Journal of Business, Law, and Education* 6, no. 2 (2025): 1270.

like that implemented in Japan, where criminal sanctions and civil compensation are processed in parallel, could serve as an important reference for Indonesia in improving the effectiveness of environmental law. Furthermore, increasing the human resource capacity of law enforcement through specialized training, international cooperation, and the use of environmental experts in the judicial process could strengthen the quality of court decisions in the environmental sector.

The challenges of environmental law enforcement in Indonesia are indeed complex, but the prospects remain broad if comprehensive reforms are implemented across regulations, institutions, and law enforcement approaches. If these fundamental challenges can be addressed, Indonesia will not only be able to strengthen environmental protection but also realize the principles of ecological justice that align with the constitution and the values of Pancasila. Effective environmental law enforcement will serve a dual purpose: protecting the rights of the present generation while ensuring the sustainability of future generations.

4. Closing

Environmental law enforcement in Indonesia continues to face significant challenges that hinder its effectiveness in protecting ecological and public interests. These challenges stem from regulatory weaknesses, overlapping institutional authority, limited technical capacity in proving environmental violations, and poor coordination among law enforcement agencies. In practice, the tendency toward overcriminalization, combined with weak integration between criminal, civil, and administrative instruments, often results in partial enforcement outcomes that fail to restore environmental damage or hold perpetrators fully accountable. This fragmented system underscores the need for a more coherent and integrated approach to environmental law enforcement.

Despite these challenges, there are promising opportunities for strengthening the system. Regulatory reforms aimed at clarifying the roles and responsibilities of various agencies, along with capacity-building programs for legal and technical personnel, can enhance the quality of enforcement. The use of modern monitoring technologies, such as remote sensing and digital reporting platforms, can improve evidence collection and facilitate timely interventions. Increasing public participation in environmental management, including community-based monitoring and legal advocacy, also provides a mechanism to enhance accountability and social compliance.

Comparative analysis with Japan reveals valuable lessons, particularly in integrating criminal sanctions with civil compensation mechanisms. Japan's system demonstrates that environmental law enforcement can be both deterrent and restorative, ensuring that offenders share responsibility for remediating environmental damage. By adopting similar best practices, Indonesia has the potential to develop a more effective, equitable, and sustainable environmental legal framework. Such reforms not only strengthen enforcement but also safeguard ecological, social, and constitutional interests for present and future generations. Furthermore, these insights provide a foundation for future research on improving legal instruments and institutional coordination in the context of environmental protection.

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