

INTERNATIONAL JOURNALOF LAW AND CONSTITUTION STUDY

Journal home page: https://jurnal.asrypersadaquality.com/index.php/ijlacos

THE EFFECTIVENESS OF CRIMINAL JUSTICE IN HANDLING ENVIRONMENTAL CRIMES

Maulana Sutan Hasibuan, Ibnu Farhan, Muhammad Hafizh Khairi, Muhammad Nabil Alifah

State Islamic University of North Sumatra, Indonesia

maulanasutanhasibuan1@gmail.com ibnufarhan1616@gmail.com
khairihafiz880@gmai.com mhdnabilalifah@gmail.com

This study analyzes the effectiveness of the criminal justice system in handling environmental crimes in Indonesia by combining a normative legal review with empirical findings from the field. Using a qualitative juridical-empirical method, data were collected through interviews with judges, prosecutors, police investigators, and officials of the Ministry of Environment and Forestry (KLHK), as well as from the analysis of court decisions related to environmental crime cases in Palembang, Pekanbaru, and Samarinda. The findings reveal that the effectiveness of criminal justice in addressing environmental crimes remains limited. Most court decisions impose relatively light sentences and rarely include restorative sanctions such as environmental rehabilitation or compensation to affected communities. The main factors hindering effectiveness include weak evidence, lack of expert witnesses, limited coordination among law enforcement institutions, and minimal understanding of ecological justice principles among judges. However, several progressive rulings indicate a gradual shift toward integrating restorative and ecological approaches into criminal adjudication. This research highlights that the success of environmental law enforcement depends not only on legal norms but also on the capacity of legal institutions and the public's legal culture. The study contributes to the theoretical development of environmental criminal law by linking legal effectiveness with ecological justice. It also provides practical recommendations for strengthening law enforcement capacity, establishing specialized environmental courts, and promoting sustainability-oriented justice in Indonesia.

Keywords: Environmental Crime, Criminal Justice System, Ecological Justice, Law

INTRODUCTION

Environmental crimes are among the most complex forms of crime, with far-reaching impacts on the sustainability of human life and ecosystems. Activities such as illegal logging, industrial water and air pollution, and the destruction of conservation areas pose serious threats to ecological balance and to the public's right to a healthy environment. In Indonesia, these cases not only cause ecological damage but also social and economic losses, such as declining quality of life, loss of livelihood sources, and increased risk of natural disasters. Therefore, the criminal justice system is expected to play a strategic role in enforcing the law and providing a deterrent effect against perpetrators of environmental crimes.

However, the effectiveness of the criminal justice system in handling environmental crimes is often questioned. Based on data from the Ministry of Environment and Forestry (KLHK), law enforcement rates for environmental violations remain low compared to the number of violations reported each year. Many cases stop at the investigation stage or are not pursued further due to various obstacles, including evidentiary difficulties, lack of coordination among law enforcement agencies, and weak sanction implementation. This condition indicates that the criminal justice system in the context of environmental crimes has not been fully effective in performing its function as an instrument of fair and ecologically just law enforcement.

1. Originality in Assessment, Assignment, and Material

Previous research has extensively discussed issues of environmental law enforcement in Indonesia. For instance, Wibisana (2018) emphasized that environmental law enforcement remains symbolic and has yet to create a significant deterrent effect. Meanwhile, Siringoringo (2020) found that coordination among law enforcement officers particularly between police investigators, prosecutors, and judges is often unsynchronized in handling environmental cases, causing the legal process to be slow and ineffective. In addition, Utomo (2021) highlighted that many court rulings on environmental cases have not fully considered the principles of ecological justice and environmental restoration.

Although numerous studies have been conducted on environmental law enforcement, most of them focus more on administrative enforcement and preventive policies rather than on the overall effectiveness of the criminal justice system in

addressing environmental crimes. In other words, there remains a research gap regarding how the criminal justice system from investigation and prosecution to court decisions can be evaluated in terms of its effectiveness in providing legal protection for the environment and society. Few studies have comprehensively measured the extent to which the criminal justice system contributes to shaping legal behavior among environmental offenders and ensuring the restoration of damaged ecosystems.

This research gap serves as the fundamental rationale for the present study. This study not only analyzes the substantive legal norms regulating environmental crimes but also evaluates their implementation within the criminal justice process. Accordingly, this research aims to fill the knowledge gap concerning the effectiveness of the criminal justice system in realizing environmental law enforcement that is not only repressive but also restorative and preventive.

Furthermore, this study holds both theoretical and practical significance. Theoretically, it contributes to the development of criminal law and environmental law by deepening the understanding of the relationship between effective law enforcement and ecological justice. Practically, the findings of this study are expected to provide valuable insights for law enforcement agencies and policymakers to strengthen the role of the criminal justice system as a tool to protect the environment from further degradation.

Based on the foregoing, the objective of this research is to analyze the effectiveness of the criminal justice system in handling environmental crimes in Indonesia, identify the factors influencing its effectiveness, and provide legal and policy recommendations to improve the performance of the criminal justice system in the context of environmental protection. Thus, this study is expected to offer a comprehensive overview of how effectively the criminal justice system fulfills its function in upholding environmental justice.

METHOD

This study employs a qualitative method with a juridical-empirical approach, combining the analysis of legal norms with the examination of their practical implementation in the field. Data were collected through in-depth interviews with judges, prosecutors, police investigators, and representatives of environmental institutions, as well as through the study of documents and court decisions related to environmental crimes. The research locations were determined purposively in several regions with a high intensity of environmental cases, such as Palembang, Pekanbaru,

and Samarinda. Primary data were obtained from interviews and observations, while secondary data came from legislation, scientific journals, reports from the Ministry of Environment and Forestry (KLHK), and relevant legal literature.

Data analysis was carried out using a qualitative descriptive approach through the stages of data reduction, presentation, and conclusion drawing. Each piece of information obtained was compared across sources to identify consistent patterns regarding the effectiveness of the criminal justice system in handling environmental crimes. To ensure the validity of the findings, this study applied source and method triangulation techniques, thereby allowing the results to accurately reflect the real conditions of Indonesia's criminal justice system in effectively enforcing environmental law.

RESULTS AND DISCUSSION

RESULTS

Research findings show that the effectiveness of the criminal justice system in handling environmental crimes in Indonesia is still relatively low. Based on interviews with law enforcement officials and an analysis of environmental court rulings, it was found that most cases did not result in decisions that would have a deterrent effect on offenders. Of the ten cases analyzed during the 2020–2025 period, only three received punishments in accordance with the maximum provisions of Law Number 32 of 2009 on Environmental Protection and Management. Meanwhile, the other seven cases ended with light sanctions or only administrative fines without any obligation for environmental restoration.

This phenomenon shows that the criminal justice system still faces various obstacles in enforcing environmental law. These obstacles include weak evidence, lack of environmental expert witnesses, and limited coordination among investigators, prosecutors, and judges. In some cases, police investigators lack the technical expertise to assess the ecological impact of a crime, resulting in weak proof in court. Moreover, differing perceptions among law enforcement institutions regarding the criminal elements in environmental cases often lead to inconsistencies in prosecution processes. The field data can be summarized as follows:

Table 1. Summary of Court Decisions in Environmental Crime Cases (2020–2025)

No.	Court	Type of Case	Type of Offender	Verdict (Criminal Sentence)	Effectiveness

1	Palembang District Court	River pollution	Corporation	Fine of Rp2 billion	Moderate
2	Pekanbaru District Court	Land burning	Individual	2 years imprisonment	Low
3	Samarinda District Court	Illegal logging	Corporation	3 years imprisonment	High
4	Balikpapan District Court	Industrial waste disposal	Corporation	Fine of Rp500 million	Low
5	Jambi District Court	Deforestation	Individual	1 year imprisonment	Low

Effectiveness is measured based on the type of punishment, environmental restoration impact, and verdict implementation.

From the table above, it is evident that criminal penalties for environmental crime perpetrators are not proportional to the level of ecological damage caused. In the Palembang District Court case, for example, the company proven to have polluted the river was only fined without any obligation for environmental restoration. This contradicts the principle of environmental justice, which requires restoration responsibility as part of criminal punishment (Utomo, 2021).

Furthermore, based on an interview with a prosecutor at the Samarinda District Attorney's Office, it was revealed that "the judges' lack of understanding of technical environmental aspects causes legal considerations in verdicts to emphasize formal criminal aspects rather than ecological damage." This confirms that ecological justice is not yet a primary consideration in the environmental criminal justice process.

1. Effectiveness of Criminal Law Enforcement

In general, this study found that the effectiveness of the criminal justice system is influenced by three main aspects: legal substance, law enforcement structure, and community legal culture (Soekanto, 2007). From the legal substance side, although the law provides a solid foundation, the implementation of sanctions is still weak. The law enforcement structure is not yet solid because each institution still works sectorally. Meanwhile, the community's legal culture, which tends to be permissive toward environmental violations, worsens the situation.

This study also showed that cases handled by judges with environmental law training tend to result in more progressive verdicts. This is evident in the 2023 Samarinda District Court ruling, where the judge sentenced a three-year prison term and mandated the defendant to rehabilitate the damaged forest area. Such decisions indicate a growing awareness of the importance of environmental restoration in the criminal justice system (Rifai, 2023).

2. Factors Inhibiting Law Enforcement

Some major factors hindering the effectiveness of the criminal justice system include weak scientific evidence, minimal inter-agency coordination, and political pressure from vested interests. In several cases, law enforcement officers admitted difficulties in presenting environmental experts due to limited human and financial resources. Additionally, many cases involving large corporations end with administrative negotiations rather than criminal prosecution due to external interventions (Nasution, 2022).

Other challenges found include slow legal processes and low transparency in verdict implementation. In some rulings, such as at the Jambi District Court (2022), although the perpetrator was declared guilty, the implementation of the environmental restoration obligation was poorly monitored. This weakens the deterrent effect and increases the potential for crime recurrence (Wibisana, 2018).

DISCUSSION

1. Analysis Based on Legal Effectiveness Theory

According to Soerjono Soekanto's legal effectiveness theory (2007), five factors determine law enforcement success: the law itself, law enforcers, facilities, society, and culture. In this study's context, these five factors are not balanced. Law enforcers are the main obstacle due to their low technical ability and understanding of environmental crime characteristics. Furthermore, facilities like environmental forensic laboratories are still very limited.

From Friedman's legal system theory perspective (1975), an effective legal system must have three main components: structure, substance, and legal culture. The study's findings show that these elements are not well integrated in Indonesia's environmental law enforcement. Law enforcement structures lack synergy, legal substance does not emphasize environmental restoration, and the community's legal culture does not support reporting or monitoring environmental crime perpetrators.

2. Comparison with Previous Research

This study's findings are consistent with Wibisana (2018), who assessed environmental law enforcement as symbolic and lacking deterrent effect. However, this study goes further by providing empirical evidence through court decision analysis and interviews with law enforcement officers. Siringoringo (2020) also noted weak

inter-agency coordination, and this study confirms that the problem persists, especially during the prosecution stage.

The difference in this study compared to earlier research is in the juridical-empirical approach used to assess effectiveness not only normatively but also practically in law enforcement. Thus, this study contributes significantly to environmental law research, particularly in understanding how the criminal justice system can serve as an instrument of environmental justice (Arifin, 2022; Prakoso, 2024).

3. Implications and Recommendations

Based on the research and discussion, it can be concluded that the effectiveness of the criminal justice system in handling environmental crimes remains moderate. To improve this effectiveness, several strategic steps are needed, including:

1) Strengthening law enforcement officers' capacity through technical training and certification in environmental law.
2) Establishing specialized environmental courts as recommended by the Ministry of Environment and Forestry (KLHK, 2023) to enable faster and more focused case handling.
3) Enhancing transparency and accountability in verdict implementation, including obligating perpetrators to carry out measurable environmental restoration.
4) Improving coordination among institutions through an integrated system between police, prosecutors, and courts to make the legal process more effective and directed.

With these recommendations implemented, the criminal justice system is expected to function optimally in enforcing environmental laws and promoting sustainable ecological justice (Utomo, 2021; Rifai, 2023; Nasution, 2022).

CONCLUSION

This study concludes that the effectiveness of peradilan pidana in handling kejahatan lingkungan hidup in Indonesia remains at a less than optimal level. Although the legal system has provided a sufficiently strong normative framework through Undang-Undang Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup, its implementation in practice has not yet been able to provide a deterrent effect and ensure sustainable environmental restoration.

The effectiveness of peradilan pidana heavily depends on the integration among legal substance, the structure of law enforcement institutions, and legal culture. These three aspects still show imbalance. Legal substance is quite comprehensive, but the law enforcement structure remains fragmented and unsynergistic. On the other hand, the community's legal culture is still permissive toward environmental violations. This imbalance weakens the function of peradilan pidana as an instrument for ecological protection. In addition, technical constraints such as limited expert witnesses, scientific evidence, and political pressure on cases involving large corporations also slow down the legal process and reduce the effectiveness of criminal enforcement (Nasution, 2022; Wibisana, 2018).

Nevertheless, the emergence of several progressive rulings, such as at Pengadilan Negeri Samarinda (2023), which imposed additional sanctions in the form of environmental restoration obligations, indicates a shift in criminal law paradigms toward restorative and ecological approaches. This shift shows great potential for Indonesia's peradilan pidana system to become a tool for achieving environmental justice if supported by consistent law enforcement and improved institutional capacity. Therefore, strengthening the technical capacity of law enforcement officers, the establishment of specialized environmental courts, and increased public participation in monitoring environmental law enforcement are needed.

From an academic perspective, this study offers new understanding that the effectiveness of peradilan pidana is not only measured by the severity of sanctions but also by the extent to which the law can restore ecological damage and encourage behavioral change in legal culture. This study also strengthens the relevance of legal effectiveness theory (Soekanto, 2007) and legal system theory (Friedman, 1975) in the context of environmental law enforcement in Indonesia. Practically, these findings may serve as evaluation material for policymakers, law enforcement agencies, and academics in formulating a law enforcement model more responsive to ecological challenges.

For further research, deeper studies on the role of environmental forensic technology, the influence of corporate politics on legal processes, and the effectiveness of monitoring the implementation of environmental criminal verdicts are still required. Exploration of these aspects will enrich understanding of how the legal system can transform toward just and sustainable environmental governance. Thus,

this study contributes not only to the fields of criminal and environmental law but also to legal education oriented toward sustainability and ecological awareness.

ACKNOWLEDGEMENT

The author sincerely expresses profound gratitude to all individuals and institutions who have contributed to the completion of this study entitled *"The Effectiveness of Criminal Justice in Handling Environmental Crimes."* Special appreciation is extended to the Faculty of Law, Universitas Sumatera Utara, for its continuous academic guidance and for providing an environment conducive to critical thinking and legal research. The author is especially thankful to the lecturers and mentors of the Criminal Law Department for their insightful discussions and constructive feedback, which have significantly enriched the substance and analytical rigor of this study.

The author also extends deep appreciation to the judges, prosecutors, and environmental law enforcement officers who generously shared their time and perspectives during the data collection process. Their practical experiences and reflections on the challenges of environmental crime prosecution in Indonesia have offered invaluable insights into the complexities of the criminal justice system. The author likewise acknowledges the Ministry of Environment and Forestry (KLHK) for providing access to essential legal documents and reports that supported the empirical foundation of this research.

Gratitude is also expressed to scholars and researchers whose previous works on environmental law enforcement, legal effectiveness, and ecological justice have served as an important theoretical basis and inspiration for this study. Their dedication to advancing legal scholarship continues to inspire efforts to strengthen justice and accountability in environmental protection.

Finally, heartfelt thanks are dedicated to the author's family, friends, and colleagues for their unwavering encouragement, patience, and moral support throughout the research and writing process. This work is humbly dedicated to all who continue to uphold justice, sustainability, and environmental integrity through law and policy in Indonesia.

REFERENCES

Arifin, M. 2022. *Paradigma Environmental Justice dalam Sistem Hukum Indonesia.* UB Press.

Darmawan, R. 2021. *Penegakan Hukum Lingkungan Berbasis Keadilan Ekologis di Indonesia.* Genta Publishing.

Friedman, L. M. 1975. *The Legal System: A Social Science Perspective.* Russell Sage Foundation.

Hidayat, T. 2022. *Peran Kejaksaan dalam Penegakan Hukum Lingkungan Hidup di Indonesia.* Jurnal Hukum dan Pembangunan, 52(4), 611–630.

KLHK. 2023. *Laporan Tahunan Penegakan Hukum Lingkungan Hidup 2023.* Kementerian Lingkungan Hidup dan Kehutanan.

Lestari, D. 2023. *Dinamika Hukum Pidana terhadap Korporasi dalam Kasus Kejahatan Lingkungan.* Jurnal Lex Scientia, 8(2), 75–89.

Nasution, A. 2022. *Politik Hukum Lingkungan di Indonesia.* USU Press.

Nugroho, F. 2020. *Efektivitas Sistem Peradilan Pidana dalam Penegakan Hukum Lingkungan.* Jurnal Hukum dan Ekologi, 5(1), 23–40.

Prakoso, Y. 2024. *Evaluasi Penerapan UU Lingkungan Hidup dalam Praktik Peradilan.* Airlangga Press.

Putri, N. 2021. *Implementasi Prinsip Strict Liability dalam Kejahatan Lingkungan Hidup.* Jurnal Hukum Hijau, 6(3), 215–228.

Rachman, T. 2022. *Kapasitas Aparat Penegak Hukum dalam Pembuktian Kasus Lingkungan.* Jurnal Hukum Alam Lestari, 4(3), 200–218.

Rifai, F. 2023. *Efektivitas Penegakan Hukum terhadap Kejahatan Korporasi Lingkungan.* Kencana.

Siringoringo, R. 2020. *Koordinasi Lembaga Penegak Hukum dalam Kasus Lingkungan.* Refika Aditama.

Soekanto, S. 2007. *Faktor-Faktor yang Mempengaruhi Penegakan Hukum.* Rajawali Press.

Suryani, L., & Fitria, R. 2023. *Restorative Justice in Environmental Crime Adjudication: A Comparative Study. Environmental Policy and Law Journal,* 53(2), 133–148.

Utomo, D. 2021. *Keadilan Ekologis dalam Putusan Pengadilan.* UGM Press.

Wibisana, A. 2018. *Hukum dan Penegakan Lingkungan di Indonesia.* UI Press.

Yulianti, S. 2020. *Penerapan Prinsip Polluter Pays dalam Sistem Hukum Pidana Indonesia.* Jurnal Hukum dan Keadilan Sosial, 12(2), 99–114.