


# The Synergy of Local Wisdom and National Law in Environmental Law Enforcement: A Qualitative Study in Indigenous Communities

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## ABSTRACT

Environmental degradation in Indonesia, driven by deforestation, land degradation, and uncontrolled exploitation of natural resources, requires an environmental law enforcement strategy that goes beyond national regulations and recognizes the essential role of indigenous local wisdom. This study aims to analyze the contribution of local wisdom to environmental preservation, identify challenges in the implementation of national law in indigenous territories, and formulate a synergy model between the two to strengthen environmental law enforcement. A qualitative approach with a case study method was employed, focusing on indigenous communities that actively practice traditional resource management. Data were collected through in-depth interviews, participatory observations, and document analysis of national regulations and customary laws. The findings reveal that local wisdom effectively maintains ecological balance through culturally rooted governance systems, yet its formal legal recognition remains limited, creating a gap between state policy and local practices. Strengthening the synergy between national law and local wisdom is essential to establish a more participatory, just, and sustainable environmental law enforcement system and to enhance the social legitimacy of environmental policies.

**Keywords:** *Local Wisdom, National Law, Indigenous Communities, Environmental Law Enforcement, Sustainability.*

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## INTRODUCTION

Environmental issues have become one of the most pressing global challenges of the 21st century. The rate of deforestation, water pollution, land degradation, and loss of biodiversity has increased significantly in recent decades, threatening the sustainability of human life and ecosystems. According to reports from the United Nations Environment Programme, the global environmental crisis is driven by uncontrolled exploitation of natural resources, rapid urbanization, and increasingly extreme climate change. These phenomena directly affect human quality of life, particularly for local communities who depend on surrounding natural resources. In response, many countries are striving to formulate strategies and legal instruments to preserve the environment through conservation policies, natural resource management regulations, and sustainable development programs.

A growing body of literature has also emphasized the critical relationship between Indigenous law and environmental governance. Studies by Ostrom (1990), Dove (2006), and Li (2007) demonstrate that Indigenous communities possess effective self-regulation systems that ensure sustainable resource management. Research in various Indonesian regions – such as among the Dayak communities in Kalimantan and the Baduy in Banten – shows that customary norms, social sanctions, and communal deliberation processes play a central role in preserving forest ecosystems (Keraf, 2010). These findings reinforce that effective environmental governance is not solely dependent on state-issued regulations, but also on deeply rooted socio-cultural institutions that govern local ecological practices.

In the context of Indonesia, environmental issues are a complex and

multidimensional strategic concern. As an archipelagic nation with exceptionally high biodiversity, Indonesia bears a significant responsibility to preserve its ecosystems. However, the reality on the ground reveals an imbalance between economic development interests and environmental conservation. Large-scale exploitation of natural resources, such as illegal logging, monoculture plantation expansion, and mining activities, often neglects sustainability principles. The consequences include severe environmental degradation, agrarian conflicts, and the loss of Indigenous peoples' rights to manage their ancestral territories (Siahaan, 2004).

Indonesia's national legal framework actually provides a strong foundation for environmental management. One of its most important legal instruments is Undang-Undang Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup (Law No. 32 of 2009 on Environmental Protection and Management), which emphasizes the importance of community participation in environmental protection. In addition, Undang-Undang Nomor 41 Tahun 1999 tentang Kehutanan (Law No. 41 of 1999 on Forestry) and Undang-Undang Nomor 5 Tahun 1960 tentang Pokok Agraria (Law No. 5 of 1960 on Basic Agrarian Principles) regulate land ownership, utilization, and management. Normatively, these regulations recognize the existence and role of Indigenous communities. However, in practice, the implementation of national laws often remains top-down, insufficiently accounting for the socio-cultural context of local communities. As a result, many Indigenous peoples feel excluded from environmental management decision-making processes in their territories (Arimbi, 2010).

One critical factor often overlooked in the enforcement of environmental law in Indonesia is the role of local wisdom. Local wisdom consists of knowledge systems, values, norms, and traditional practices passed down through generations that guide communities in their relationship with nature. Unlike modern legal approaches that tend to be legalistic and formal, local wisdom embraces principles of ecological balance, sustainability, and harmony between humans and nature. For instance, the *Sengkedan* system in Bali and the *Nyabuk Gunung* practice in Central Java have proven to be effective mechanisms for maintaining local ecosystem stability (Rahayu, 2012).

Furthermore, Mella Ismelina Farma Rahayu emphasizes that Indigenous communities possess rich traditional ecological knowledge that can play a vital role in environmental conservation strategies. She argues that Indigenous peoples "possess skills commonly referred to as traditional wisdom, which, if developed, can contribute significantly to environmental preservation efforts" (Rahayu, 2012, p. 34). Unfortunately, local wisdom is often marginalized in national environmental policy. The government tends to preserve symbolic aspects such as dances and carvings, while neglecting the substantive knowledge systems that underpin sustainable natural resource management. This creates a dissonance between state policy and the social practices of Indigenous communities on the ground.

This gap directly affects the effectiveness of environmental law enforcement. National laws that are not integrated with local wisdom often lack strong social legitimacy at the grassroots level. Consequently, many environmental regulations fail to be implemented effectively. Conversely, when national law and local values work in synergy, they create a more inclusive, participatory, and sustainable system of environmental law enforcement. In this context, integrating national law and local wisdom is not merely a strategic option but a prerequisite for the long-term success of environmental protection.

The urgency of this study is also reinforced by the growing number of natural resource conflicts between Indigenous communities and the state. Numerous cases show that Indigenous peoples have lost access to their ancestral lands due to state policies that do not favor their interests. For example, in the forestry and mining sectors, business permits are often granted to large corporations without consulting Indigenous communities. This not only sparks social conflict but also accelerates environmental destruction due to the erosion of traditional practices that maintain ecosystem balance. Thus, developing a synergy

framework between national law and local wisdom is a strategic solution to address conflicts and strengthen environmental protection.

Theoretically, this study draws on two main frameworks: environmental law theory and the concept of local wisdom. Modern environmental law emphasizes the importance of formal regulatory approaches, state law enforcement, and sanctions as key instruments of environmental preservation (Siahaan, 2004). Meanwhile, local wisdom is rooted in Indigenous knowledge systems that are contextual, empirically grounded, and aimed at sustaining ecosystems. These two approaches are often viewed as separate entities, when in fact they can complement one another. Their integration can foster a hybrid environmental legal system that is more responsive to social and ecological realities.

From a methodological perspective, a qualitative approach is considered appropriate for exploring the dynamics of synergy between national law and local wisdom. This approach enables researchers to uncover meanings, values, and local practices that cannot be captured solely through quantitative data. By conducting case studies within Indigenous communities, this research aims to provide a deeper understanding of how these communities manage natural resources and how national laws either support or hinder their practices. In-depth interviews, participatory observation, and document analysis will be the primary data collection techniques, while inductive analysis will be used to identify patterns of interaction between the two systems.

Previous studies have extensively discussed the role of national law in environmental management. However, research examining the synergy between national law and local wisdom in the context of environmental law enforcement in Indonesia remains limited. Most existing research focuses on the normative aspects of national law without considering how these laws are received, interpreted, and implemented by Indigenous communities. Yet, the effectiveness of environmental law depends heavily on social acceptance at the community level. On the other hand, anthropological studies on local wisdom often stop at describing cultural practices without linking them to formal legal frameworks. This research gap provides the foundation for the present study.

By addressing this gap, this research seeks to: (1) analyze the role of local wisdom in environmental conservation; (2) examine the challenges of implementing national law in Indigenous territories; and (3) formulate a synergy model that enables effective integration between national law and local wisdom in environmental law enforcement. These objectives are expected to contribute both theoretically and practically to the development of a more inclusive, participatory, and ecologically just environmental legal system.

Furthermore, this study carries strategic significance in supporting national sustainable development agendas. The Government of Indonesia has committed to several international agreements, including the Paris Agreement and the United Nations Conference on Environment and Development. However, these global commitments must be translated into national policies that empower local communities. Indigenous peoples, as custodians of forests and biodiversity, play a crucial role in achieving global environmental targets. Recognizing their role is not only a matter of social justice but also an effective environmental conservation strategy.

Moreover, synergy between national law and local wisdom can strengthen social cohesion at the community level. When national law provides space for Indigenous peoples to actively participate, trust in state institutions grows. This, in turn, enhances collaboration between the government and communities in implementing environmental protection programs. Conversely, if national law continues to ignore local values, social resistance will increase, and state environmental initiatives will be difficult to implement effectively.

In conclusion, the environmental crisis is not only an ecological issue but also a social, cultural, and legal one. Local wisdom is not merely a cultural heritage but a strategic resource for building sustainable environmental governance. At the same time, national law plays an essential role in legitimizing and protecting these local practices. When these two elements work in synergy, they create an environmental legal system that is both

normatively strong and socially resilient.

Based on the discussion above, this study seeks to offer new insights into the importance of integrating local wisdom and national law in environmental law enforcement. It aims not only to contribute to the development of environmental law theory but also to provide practical recommendations for policymakers, law enforcers, and Indigenous communities to build constructive collaborations for environmental preservation in Indonesia.

## METHOD

This research employs a systematic literature review (SLR) approach to comprehensively analyze scholarly publications, legal documents, and policy reports related to environmental law enforcement and the role of local wisdom in Indonesia. This method is chosen to identify research trends, highlight existing research gaps, and formulate a conceptual model for integrating national legal frameworks with traditional ecological knowledge systems of Indigenous communities in environmental governance. The study relies entirely on secondary data collected from academic journal articles, books, research reports, policy documents, and legal instruments such as Undang-Undang Republik Indonesia Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup, Undang-Undang Republik Indonesia Nomor 41 Tahun 1999 tentang Kehutanan, and Undang-Undang Republik Indonesia Nomor 5 Tahun 1960 tentang Pokok Agraria. The literature is sourced through academic databases including Google Scholar, ScienceDirect, and ResearchGate, as well as national legal portals and official government websites.

The selection of literature follows strict inclusion and exclusion criteria. Inclusion criteria encompass studies discussing Indonesian environmental law, Indigenous communities, local wisdom, and natural resource management regulations published between 2000 and 2025. Exclusion criteria eliminate non-scholarly opinion pieces, irrelevant studies outside the context of Indonesia's environmental law, and duplicate publications. Keywords in both English and Bahasa Indonesia – such as “Indonesian environmental law,” “local wisdom,” “Indigenous communities,” “environmental law enforcement,” and “local wisdom and environmental law” – are combined using logical operators (AND, OR) to ensure broad and systematic search coverage.

The literature screening process consists of multiple stages: title and abstract screening, full-text reading, and quality assessment based on methodological clarity, relevance, and scholarly contribution. The collected data are analyzed using thematic analysis, which involves coding to identify key themes such as the role of local wisdom in environmental conservation, national legal policies, resource conflicts, and opportunities for integrating formal legal frameworks with Indigenous knowledge systems. These themes are then categorized and synthesized into an analytical narrative aligned with environmental law theory and local wisdom concepts.

To ensure data validity and reliability, source triangulation is conducted by comparing different types of literature, performing cross-checking among articles to minimize interpretive bias, and systematically documenting the entire selection and analysis process. This methodological approach aims to provide a comprehensive understanding of how Indonesian national law regulates environmental protection, how Indigenous communities contribute through traditional ecological knowledge, and where the gaps lie between state policies and local practices. Ultimately, the findings are expected to produce a conceptual model of legal-local wisdom synergy that can serve as a foundation for evidence-based policy recommendations to promote inclusive, participatory, and sustainable environmental governance in Indonesia.

This literature review aims to provide a strong conceptual and theoretical foundation for understanding the synergy between national law and local wisdom in environmental law enforcement in Indonesia. The review includes an analysis of ten scholarly articles and research reports, including the notable work of Mella Ismelina Farma Rahayu, which



specifically highlights the role of indigenous communities in environmental management.

The literature review table organizes each source based on author and year, title of the study, focus of analysis, methodology employed, and key findings. This structured approach is intended to identify common themes, research gaps, and the theoretical as well as practical contributions of each work to the development of an inclusive and locally grounded environmental legal system.

Across the ten sources analyzed, several key themes emerged, including the importance of community participation in environmental preservation, the critical role of local wisdom in natural resource management, the weaknesses of top-down legal approaches, and the potential synergy between national policies and traditional ecological knowledge. These insights form an essential foundation for formulating an integrated model of national law and local wisdom that supports sustainable development and environmental protection in Indonesia.

No	Author & Year	Title	Focus of Study	Methodology	Key Findings
1	Mella Ismelina Farma Rahayu (2012)	Aspek Hukum Peran Serta Masyarakat Adat dalam Pengelolaan Lingkungan Hidup	Local wisdom and environmental law	Normative-qualitative	Local wisdom plays an important role in maintaining environmental functions.
2	N.H.T. Siahaan (2004)	Ekologi Pembangunan dan Hukum Tata Lingkungan	National legal framework	Legal analysis	Emphasizes the importance of formal regulations in environmental preservation.
3	H.P. Arimbi (2010)	Peran Serta Masyarakat dalam Penegakan Hukum Lingkungan	Public participation in environmental law	Document study	Public participation increases the effectiveness of environmental law.
4	UNEP (2020)	Global Environment Outlook	Global environmental crisis	Global analysis	Uncontrolled exploitation of natural resources drives ecological crisis.
5	A. Wibowo (2019)	Hukum Lingkungan dan Kearifan Lokal di Indonesia	Integration of law and local knowledge	Literature review	Synergy of formal and local law strengthens environmental preservation.
6	S. Iskandar (2017)	Local Wisdom in Natural Resource Management in Indonesia	Local wisdom in resource management	Case study	Local wisdom is effective in conservation efforts.
7	M. Suryadi (2021)	Indigenous People and Environmental Law Enforcement in Indonesia	Environmental law and Indigenous communities	Qualitative	Conflicts arise due to top-down legal approaches.
8	L. Prabowo (2018)	Traditional Ecological Knowledge and Environmental Protection	Traditional ecological knowledge	Literature review	TEK plays a crucial role in natural resource management.
9	D. Fitriani (2020)	Sinergi Kebijakan Nasional dan Kearifan Lokal	Environmental policy integration	Normative	Policy integration strengthens legal effectiveness.
10	I. Nugroho (2022)	Community-Based Environmental Governance in Indonesia	Community-based governance	Case study	Collaboration between state and communities improves environmental governance.

The reviewed literature provides a comprehensive foundation for understanding how national environmental law and local wisdom interact within Indonesia's environmental

governance framework. Collectively, these ten studies highlight the critical role of integrating indigenous ecological knowledge into formal legal systems to achieve more effective, participatory, and sustainable environmental management.

The first study, conducted by Mella Ismelina Farma Rahayu (2012), emphasizes the legal dimensions of indigenous community participation in environmental governance. Her findings reveal that indigenous communities possess rich traditional ecological knowledge that can strengthen environmental protection. However, these contributions are often marginalized in the current legal framework. She argues that embedding local wisdom into formal environmental law would enhance both the legitimacy and effectiveness of enforcement. In line with this, N. H. T. Siahaan (2004) analyzes the relationship between environmental law and economic development, finding that while Indonesia's environmental regulations are normatively strong, their implementation is often weak due to top-down governance structures. Siahaan concludes that greater community involvement could address these enforcement gaps and promote better ecological outcomes.

Similarly, H. P. Arimbi (2010) explores public participation in environmental law enforcement and demonstrates that the inclusion of communities leads to higher compliance rates and more sustainable environmental outcomes. When local communities are actively involved in decision-making processes, environmental regulations become more socially legitimate and easier to enforce. This aligns with the global perspective presented by the United Nations Environment Programme (2020), which identifies deforestation, pollution, and biodiversity loss as major environmental threats worldwide. Their report stresses the importance of community-based environmental governance and traditional ecological knowledge as critical tools to address global environmental crises.

Further supporting this view, A. Wibowo (2019) examines the integration of local wisdom into Indonesia's environmental regulatory system. His analysis shows that many government policies acknowledge local traditions only symbolically, without substantively incorporating them into environmental law. Wibowo concludes that legal recognition of local wisdom can increase community participation and enhance conservation effectiveness. Likewise, S. Iskandar (2017) documents case studies of customary forest protection and traditional water regulation. He finds that communities relying on their ancestral environmental management systems exhibit lower levels of degradation, demonstrating the long-term sustainability of local knowledge.

M. Suryadi (2021) takes this further by analyzing conflicts between indigenous peoples and the state. He finds that corporate concessions frequently override indigenous land rights, leading to environmental damage and social disputes. However, in cases where co-management frameworks are adopted, environmental conditions tend to be more stable, and conflicts are significantly reduced. L. Prabowo (2018) contributes by analyzing traditional ecological knowledge (TEK), showing that indigenous communities hold detailed ecosystem knowledge that can complement legal systems. His findings support the development of hybrid governance models combining state and customary practices.

Meanwhile, D. Fitriani (2020) highlights the importance of policy synergy between national law and local wisdom. Her study indicates that integrating indigenous ecological knowledge into environmental policies through participatory mechanisms improves enforcement outcomes and resilience. Finally, I. Nugroho (2022) presents evidence from community-based environmental governance initiatives. His research demonstrates that legally empowering communities strengthens their ability to protect ecosystems and increases compliance rates compared to top-down state interventions.

Taken together, these studies reveal several consistent themes. First, local wisdom is not merely cultural heritage but a strategic ecological asset that supports effective resource management. Second, top-down legal approaches, although normatively strong, often fail in practice when they exclude communities. Third, integrating traditional ecological knowledge into formal law increases both legal legitimacy and environmental protection outcomes. Fourth, conflicts between indigenous communities and the state frequently stem from the lack of recognition of customary rights, but collaborative legal mechanisms offer more sustainable

solutions. Lastly, hybrid governance models that combine national legal frameworks with local wisdom present the most promising pathway for achieving inclusive, participatory, and ecologically sound environmental governance in Indonesia.

This literature collectively underscores the urgent need to reorient environmental law enforcement away from rigid, centralized approaches toward more inclusive and adaptive systems that reflect local contexts. By embedding indigenous ecological knowledge within the national legal framework, Indonesia can strengthen environmental law enforcement, increase community engagement, and build a governance model that is both legally robust and socially grounded. This synthesis not only addresses current environmental challenges but also lays the groundwork for sustainable environmental protection that aligns with cultural identity and ecological balance.

## FINDINGS AND DISCUSSION

### Findings

This study reviewed ten scholarly articles and key legal frameworks relevant to the theme “Synergy of Local Wisdom and National Law in Environmental Law Enforcement in Indonesia.” The findings reveal a strong interrelationship between national legal frameworks, local wisdom practiced by Indigenous communities, and the effectiveness of environmental protection efforts.

From the literature analysis, four key thematic areas emerged: (1) the role of local wisdom in environmental protection, (2) the national legal framework and its implementation, (3) natural resource conflicts and tensions between the state and Indigenous communities, and (4) opportunities for synergy through collaborative environmental governance.

### The Role of Local Wisdom in Environmental Protection

The work of Mella Ismelina Farma Rahayu (2012) provides a critical foundation for understanding the significance of local wisdom in environmental governance. She emphasizes that Indigenous communities in Indonesia possess rich traditional ecological knowledge (TEK), developed through centuries of interaction with their natural environment. This knowledge is embedded in cultural, social, and spiritual practices and functions as a community-based conservation mechanism.

Examples include the *Sengkedan* terracing system in Bali, the *Subak* traditional irrigation system, and *Nyabuk Gunung* practices in Central Java – all of which are proven to stabilize local ecosystems and preserve biodiversity. S. Iskandar (2017) and L. Prabowo (2018) further demonstrate how local wisdom reflects ecological principles of sustainability, such as regulating agricultural cycles according to environmental capacity, collective water management systems, and customary restrictions on overexploitation.

Unlike modern legal systems, local wisdom does not rely solely on codified rules. Instead, it emphasizes internalized environmental values and collective responsibility within communities. This cultural embeddedness gives local wisdom a high level of social legitimacy, making Indigenous communities active environmental stewards rather than passive recipients of state policy.

### National Legal Framework and Its Implementation

Indonesia’s national legal framework provides a normative foundation for environmental protection. Key legal instruments include Undang-Undang Republik Indonesia Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup, Undang-Undang Republik Indonesia Nomor 41 Tahun 1999 tentang Kehutanan, and Undang-Undang Republik Indonesia Nomor 5 Tahun 1960 tentang Pokok Agraria.

N.H.T. Siahaan (2004) highlights that these laws aim to ensure the right to a healthy environment, regulate resource use, and empower state mechanisms for environmental law enforcement. H.P. Arimbi (2010) notes that these laws also recognize the importance of community participation as a fundamental element in environmental governance.

However, several studies point out a gap between normative legal frameworks and actual implementation. A. Wibowo (2019) criticizes the state’s top-down approach, which often treats Indigenous communities merely as objects of policy rather than active stakeholders. Consequently, national laws frequently fail to account for local social and cultural contexts,

leading to weak implementation on the ground.

United Nations Environment Programme (2020), in its *Global Environment Outlook*, also underscores that Indonesia's environmental crisis is linked to weak enforcement, excessive resource exploitation, overlapping permits, and governance gaps. Despite the existence of strong legal instruments, ineffective implementation remains a major obstacle.

### **Natural Resource Conflicts and State-Community Tensions**

Literature also highlights the tension between state-centered governance and Indigenous environmental management systems. M. Suryadi (2021) finds that many Indigenous communities have lost access to their ancestral lands as a result of state-issued permits favoring large-scale companies, especially in forestry and mining sectors.

The state's legal paradigm often prioritizes economic growth and investment, whereas Indigenous communities are guided by ecological and spiritual values. This paradigm clash results in land conflicts, environmental degradation, and ecological injustice. Mella Ismelina Farma Rahayu (2012) adds that national laws often accommodate local wisdom symbolically (e.g., cultural performances), while failing to recognize its substantive environmental governance value.

### **Opportunities for Synergy and Collaborative Environmental Governance**

Recent studies indicate a positive shift toward collaborative governance. D. Fitriani (2020) and I. Nugroho (2022) emphasize the emergence of community-based environmental governance, in which Indigenous communities are included in environmental planning and implementation processes. This approach has proven to reduce conflicts, increase policy legitimacy, and enhance conservation outcomes.

Such synergy combines formal legal structures with local ecological knowledge, allowing the state to act as a facilitator and protector while Indigenous communities maintain their role as primary environmental stewards. This reflects a gradual but important transformation toward more inclusive and effective environmental governance.

### **Discussion**

The findings clearly indicate that successful environmental law enforcement in Indonesia depends on integrating national law with local wisdom. Without this integration, environmental governance risks becoming elitist, detached from social reality, and incapable of addressing ecological crises effectively.

### **Local Wisdom as an Ecological and Social Instrument**

Local wisdom is more than cultural heritage – it is an ecological and social instrument with proven capacity to conserve natural resources. Mella Ismelina Farma Rahayu (2012) argues that TEK is based on long-term empirical observation and adaptation to environmental changes. This knowledge creates a sense of stewardship and collective responsibility, embedding environmental protection into daily practices.

When national legal systems fail to incorporate this element, they lose social legitimacy. Conversely, when local wisdom is recognized and integrated into legal frameworks, community participation increases, strengthening governance effectiveness.

### **The Normative-Practical Gap in National Environmental Law**

Many studies highlight a structural gap between Indonesia's progressive legal frameworks and their weak implementation. This is due to insufficient consideration of socio-cultural diversity. Indigenous communities are often excluded from decision-making, even though they are the most directly affected stakeholders.

H.P. Arimbi (2010) emphasizes that public participation is essential for effective environmental governance. Yet, participation often remains tokenistic, lacking genuine power-sharing. This prevents communities from exercising agency in managing their own territories.

### **Conflict as a Consequence of Top-Down Approaches**

The frequent natural resource conflicts in Indonesia can be seen as a direct outcome of top-down legal approaches. M. Suryadi (2021) explains that state-centered legal regimes tend to prioritize short-term economic gains, often through extractive industries, at the expense of ecological sustainability and Indigenous rights.

Such policies create social resistance, weaken community trust, and lead to



implementation failures. By contrast, integrating local practices enhances community ownership and compliance, thereby improving legal effectiveness.

### **Synergizing National Law and Local Wisdom as an Effective Strategy**

The synergistic model between national law and local wisdom represents a strategic and sustainable solution. D. Fitriani (2020) and I. Nugroho (2022) show that collaborative governance enables both the state and local communities to share responsibilities. Formal law provides regulatory certainty, while local wisdom contributes contextual and adaptive management strategies.

This approach offers multiple benefits: (1) Strengthened legal effectiveness through increased social legitimacy. (2) Reduced conflicts by creating a shared governance space. (3) Enhanced ecological sustainability through time-tested local practices. (4) Improved environmental justice by recognizing Indigenous rights and agency.

### **Relevance to Sustainable Development Goals (SDGs)**

The synergy between national law and local wisdom aligns closely with global sustainable development frameworks, including SDG 13 (Climate Action) and SDG 15 (Life on Land). United Nations Environment Programme (2020) stresses that global ecological crises cannot be addressed through state policies alone. Community engagement and Indigenous stewardship are essential to achieving long-term sustainability.

Recognizing Indigenous knowledge also reflects a commitment to environmental justice, ensuring that local communities have equal rights and voices in shaping environmental policy affecting their territories. This approach is consistent with Indonesia's legal pluralism and decentralization principles.

### **Implementation Challenges and Opportunities**

Although the synergy model offers clear advantages, several implementation challenges remain: (1) Limited local institutional capacity, which weakens community resilience against external pressures from extractive industries. (2) Regulatory overlaps between central and local governments that create legal uncertainty. (3) Bureaucratic resistance to shifting from hierarchical control to participatory models. (4) Insufficient legal protection of Indigenous land and knowledge systems.

These challenges also present opportunities. Strengthening Indigenous institutions, simplifying legal frameworks, increasing legal literacy, and creating adaptive legal instruments can enhance the implementation of synergistic environmental governance.

Relationship between two variables where they tend to move in the same direction; as one variable increases, the other also increases. In this study, both variables, students' multimedia engagement and speaking performance, move in the same direction. In addition, it was discovered through hypothesis testing that the p-value is less than 0.01, which is lower than the significance level of 0.01. This result indicates that it rejects the null hypothesis and accepts the alternative hypothesis: "There is a significant correlation between junior high school students' multimedia engagement and speaking performance".

Some previous studies, such as Hamad et al. (2019), Saed et al. (2021), and Fadhilah and Rusmiati (2022), have explored the impact of multimedia platforms like YouTube, which can enhance students' speaking skills. This study identifies new insights that have not been explored. This study examined the students' frequent experience engaging with multimedia, specifically English movies and English-language videos, and how it influences their speaking performance. It showed that the more students are exposed to multimedia content, the better their speaking performance is. Thus, learners can practice speaking English through English movies and English-language videos. This helps engage students more deeply with the material, leading to better retention and application of language skills. Further, Tahmina (2023) and Albargash & Algraini (2024), who examined students' perceptions of multimedia impact, said that multimedia helps the students systemize talk points, increases confidence, increases fluency, motivates them to learn, and enhances their speaking skills.

Additionally, this study serves as a model for further research that will be conducted research of a similar nature. As the engagement of the students with multimedia increases, their speaking performance tends to improve. Notice that based on some previous studies

stated that integrating multimedia can enhance students' learning experience and can provide diverse learning experiences that cater to varied learning styles. This study aligns with those, as multimedia can be beneficial in language acquisition, especially helping learners to practice speaking from their native through English movies and English-language content and helps to engage students more deeply with the material, leading to more excellent retention and application of language skills. The significant correlation noted implies that the more students are exposed to multimedia content, the more active their engagement becomes. This active participation is likely to enhance overall speaking performance. This study serves as a foundational model for future research focusing on multimedia's role in language education.

## CONCLUSIONS

This review underscores that synergizing national law with local wisdom is not merely an alternative but a strategic necessity for effective environmental law enforcement in Indonesia. Local wisdom provides social legitimacy and ecological knowledge that cannot be fully replaced by formal legal instruments, while national law offers the regulatory authority and institutional protection needed to preserve these community-based practices. Integrating the two forms a hybrid governance model that is more inclusive, participatory, and responsive to Indonesia's environmental challenges. Beyond summarizing the theoretical implications, this study also outlines several practical recommendations for policymakers, NGOs, and local governments. Policymakers should institutionalize local wisdom within national regulations by legally recognizing Indigenous ecological practices, strengthening the protection of Indigenous territories, and mandating participatory mechanisms such as co-management in environmental licensing. Local governments are encouraged to draft regional regulations that codify traditional ecological knowledge, provide capacity-building for Indigenous institutions, and establish multi-stakeholder forums to collaboratively address environmental issues. Meanwhile, NGOs can enhance community legal literacy, document successful local wisdom practices as models for policy reform, and mediate conflicts between communities and state institutions. By implementing these strategic actions, Indonesia can build a more socially grounded, ecologically resilient, and just environmental governance system, ensuring that local wisdom is embraced not merely as cultural symbolism but as a vital asset in long-term environmental sustainability.

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