INTEGRATING CUSTOMARY ENVIRONMENTAL LAW INTO CRIMINAL POLICY TOWARD THE RECOGNITION OF NATURE AS A LEGAL SUBJECT

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Abstrak
This study explores the integration of customary environmental law into national criminal policy as a pathway toward recognizing nature as a legal subject. Rooted in the normative legal method, the research employs conceptual, comparative, and futuristic approaches to examine how traditional ecological wisdom can be harmonized with modern legal frameworks. The conceptual approach investigates the philosophical and juridical foundations of environmental protection that transcend anthropocentric paradigms, emphasizing a shift toward ecocentrism and biocultural justice. Through comparative analysis, the research evaluates the recognition of nature's legal personhood in several jurisdictions such as Ecuador, Bolivia, Colombia, and New Zealand where rivers, forests, and ecosystems are granted rights and represented legally by guardians or indigenous communities. These models are examined against Indonesia's living law traditions, including local customs such as sasi in Maluku, pati nyawa in Dayak, and bayar kepala in Papua, which embody restorative and ecological justice principles long before their codification. The futuristic approach projects the potential transformation of Indonesia's criminal policy under the 2023 Criminal Code and the forthcoming Criminal Procedure Bill, advocating for the inclusion of ecological victimhood and restorative sanctions that protect both human and non-human entities. Employing content analysis, this study reveals that integrating customary environmental law into criminal policy could bridge normative gaps between state law and indigenous ecological ethics, fostering a holistic legal framework that restores harmony between humans and nature. Ultimately, this integration signifies a paradigm shift from punitive anthropocentric justice toward a restorative and ecocentric criminal law system that acknowledges nature's intrinsic rights and its role as a legal subject within Indonesia's constitutional and environmental governance structure.
Keywords: *Customary environmental law, criminal policy, legal subjectivity of nature, ecological justice, living law*

1. Introduction

In recent decades, the global discourse on environmental governance has undergone a paradigmatic transformation from anthropocentric to ecocentric thinking. The notion that only humans and the state are legitimate holders of rights has been increasingly challenged by ecological scholars, constitutional courts, and indigenous movements worldwide. The accelerating pace of climate change, deforestation, biodiversity loss, and ecological disasters has revealed the inadequacy of conventional legal frameworks in safeguarding the environment. According to the Intergovernmental Panel on Climate Change (IPCC, 2023), the world is on track to exceed 1.5°C of global warming by the early 2030s, intensifying environmental degradation and threatening the survival of species and ecosystems. ndonesia, one of the world's most biodiverse countries, has simultaneously become one of its most vulnerable, facing alarming rates of deforestation, forest fires, and marine pollution.

The Ministry of Environment and Forestry (KLHK) reported that its 2024 nationwide satellite-based monitoring, covering 187 million hectares of Indonesia's land area, found that forest cover reached 95.5 million hectares (51.1% of total land area) of which 87.8 million hectares (91.9%) are within designated forest zones. The net deforestation rate in 2024 was 175,400 hectares, calculated from gross deforestation of 216,200 hectares minus 40,800 hectares of reforestation. Most deforestation (92.8%) occurred in secondary forests, with 69.3% inside forest zones. Despite extensive statutory frameworks,

including the Environmental Protection and Management Act (Law No. 32/2009), environmental crimes often go unpunished or inadequately addressed, demonstrating a persistent gap between legal norms and ecological reality.

This disjunction reflects a deeper structural problem rooted in the anthropocentric bias of criminal law. Conventional criminal policy perceives environmental harm primarily through the lens of human and state interests emphasizing damage to property, public health, or economic stability rather than recognizing ecosystems as autonomous entities with intrinsic value. Consequently, the criminal justice system remains ill-equipped to respond to crimes that harm non-human victims, such as rivers, forests, and wildlife, whose destruction disrupts not only ecological balance but also the cultural and spiritual lifeworlds of indigenous communities.

The anthropocentric limitation of Indonesia's legal system is evident in the absence of explicit recognition of nature as a subject of law (subjek hukum). Although the 2023 Criminal Code (Law No. 1/2023) and the Environmental Act acknowledge environmental protection as a collective obligation, they do not yet embody the ecocentric paradigm that views nature as a bearer of rights and legal personhood. This theoretical vacuum highlights the urgency of integrating customary environmental law rooted in the living law (hukum yang hidup) of indigenous peoples into national criminal policy to bridge the normative gap between state law and local ecological ethics.

Indonesia's customary law traditions offer a profound reservoir of environmental wisdom and restorative practices. Across the archipelago, indigenous communities have long established complex regulatory systems governing natural resource use, conservation, and dispute resolution, often guided by cosmological principles of balance and interdependence. The *sasi* tradition in Maluku, for instance, imposes temporal restrictions on harvesting marine resources, allowing ecosystems to regenerate while reinforcing collective responsibility toward the sea.

Among the Dayak communities of Kalimantan, the *pati nyawa* institution represents a customary sanction demanding symbolic or material compensation for ecological or spiritual transgressions, emphasizing restoration rather than punishment. In Papua, the *bayar kepala* ritual embodies reconciliation between the offender, the victim, and the community through restitution and ceremonial dialogue. These practices demonstrate an early form of ecological justice that prioritizes restoration of harmony both social and environmental over retribution. Unlike the Western retributive model of punishment, customary law perceives environmental harm as a rupture of cosmic equilibrium requiring collective repair rather than individual culpability.

Despite their philosophica richness, these local wisdom systems have been marginalized within Indonesia's modern legal architecture, which has historically prioritized state-centric and positivistic frameworks. The 1945 Constitution, as amended, recognizes the existence of customary law communities (*masyarakat hukum adat*) and their traditional rights, yet their integration into national criminal policy remains fragmentary and symbolic. Article 18B(2) of the Constitution guarantees respect for customary communities "in accordance with the development of society and the principles of the unitary state," but this recognition has often been interpreted narrowly, subordinating indigenous systems under state control. As a result, the normative potential of customary law to contribute to environmental justice and ecological governance has been largely untapped. The inclusion of Article 2 and Article 597 in the 2023 Criminal Code, which acknowledge the living law as a source of criminal norms, marks a historic step toward pluralism in Indonesia's penal system. Nevertheless, the absence

of procedural mechanisms for implementing customary sanctions and the lack of formal recognition of nature's rights within criminal policy hinder substantive realization of ecological justice.

The debate on nature's legal personhood has gained traction internationally, reshaping the foundations of environmental law and criminal jurisprudence. Ecuador became the first country to constitutionally recognize the rights of nature (*Pachamama*) in 2008, declaring that nature has the right to exist, persist, and regenerate its vital cycles. This recognition was followed by Bolivia's *Law of the Rights of Mother Earth* (2010), which explicitly grants legal standing to ecosystems and natural entities. In 2017, the Constitutional Court of Colombia recognized the Atrato River as a legal subject with rights to protection, conservation, and restoration, appointing indigenous guardians as its representatives. Similarly, New Zealand's Whanganui River settlement established a co-governance model between the Crown and Māori communities, granting the river legal personhood under the *Te Awa Tupua (Whanganui River Claims Settlement) Act 2017*. These comparative experiences demonstrate that legal systems can evolve beyond human-centered paradigms, institutionalizing the intrinsic value of ecosystems within the structure of rights and responsibilities. They also illustrate that the recognition of nature as a legal subject often emerges from the confluence of indigenous cosmologies and progressive state reforms an intersection particularly relevant to Indonesia's multicultural and biocultural context.

In this light, integrating customary environmental law into Indonesia's criminal policy offers both normative and pragmatic benefits. Normatively, it restores the continuity between Indonesia's living law traditions and modern ecological governance, aligning legal development with the constitutional commitment to environmental protection under Article 28H(1) and Article 33(4) of the 1945 Constitution. Pragmatically, it provides a culturally grounded framework for resolving environmental crimes that conventional state law fails to address effectively. Empirical studies reveal that environmental litigation in Indonesia often faces procedural and evidentiary barriers, especially in cases involving corporate actors. For instance, in the *PT Kallista Alam* case (2014), the Supreme Court upheld a civil verdict ordering the company to pay IDR 366 billion in fines for burning peatlands in the Leuser Ecosystem. However, enforcement of the judgment remained incomplete years later, highlighting the limited deterrent effect of punitive sanctions when detached from community participation and ecological restoration. Similarly, prosecutions for illegal logging, mining, and wildlife trafficking frequently result in minimal penalties or acquittals, partly due to weak institutional coordination and the lack of recognition of non-human victims. By incorporating customary norms emphasizing communal responsibility and restorative sanctions, criminal policy could enhance compliance, accountability, and ecological recovery.

The concept of nature as a legal subject also invites a redefinition of victimhood in environmental crimes. In conventional criminal law, the victim is typically a human or a juridical person. Yet, ecological harm produces a broader category of victims that includes non-human entities and future generations. The emerging field of *green victimology* challenges the anthropocentric boundaries of victim recognition, advocating for legal acknowledgment of "ecological victims" entities or ecosystems harmed by human activity. The United Nations Harmony with Nature initiative and the International Union for Conservation of Nature (IUCN) have both called for the recognition of nature's rights as an extension of human rights and sustainable development. Within Indonesia, the integration of such perspectives could transform the function of criminal law from punishing offenders to restoring ecological relationships.

This aligns with the restorative justice framework increasingly adopted in Indonesian criminal policy, as reflected in the Juvenile Justice System Law (Law No. 11/2012) and restorative mechanisms proposed in the 2025 Draft Criminal Procedure Code (*RUU KUHAP*). Extending restorative principles to environmental crimes especially through customary mediation, community participation, and ecological restitution could institutionalize a more inclusive and ecocentric model of justice.

At the philosophical level, the integration of customary environmental law represents not merely a procedural reform but a reorientation of legal consciousness. The anthropocentric worldview embedded in modern criminal law stems from Enlightenment rationalism, which separates humans from nature and defines law as a tool of domination and control. In contrast, indigenous legal systems conceive of law as relational, deriving legitimacy from harmony with the cosmos and the community. Legal anthropologist Boaventura de Sousa Santos (2014) describes this as the "ecology of knowledges," where different epistemologies coexist without hierarchy. In the Indonesian context, this perspective resonates with the Pancasila principle of *Ketuhanan Yang Maha Esa* (Belief in the Divine), which implies a moral obligation toward the natural order. Recognizing nature as a legal subject thus embodies the constitutional and philosophical foundations of Indonesia's state ideology, integrating moral, spiritual, and ecological dimensions into the administration of justice. It also operationalizes the mandate of sustainable development enshrined in the national policy framework, bridging the gap between law, culture, and environmental ethics.

Nevertheless, implementing this integration poses complex challenges. One of the principal obstacles lies in the positivist orientation of Indonesia's legal system, which tends to formalize and codify social norms before granting them legitimacy. Customary law, by contrast, operates fluidly through oral traditions, communal deliberations, and situational adaptation. This epistemological difference raises questions about the compatibility of living law with codified criminal policy. Furthermore, there is institutional resistance to decentralizing authority in environmental governance, as local enforcement mechanisms are often perceived as inconsistent or vulnerable to local power dynamics. Ensuring that the recognition of customary norms does not compromise equality before the law requires a careful balance between cultural pluralism and legal certainty. Additionally, the concept of nature as a legal subject challenges conventional jurisprudence concerning liability, representation, and sanctioning. Determining who may act as the legal guardian of natural entities whether the state, indigenous communities, or public institutions necessitates clear procedural rules and institutional reforms to prevent tokenism or bureaucratic capture.

Comparative experiences demonstrate that these challenges can be addressed through hybrid governance models that combine statutory recognition with community-based enforcement. In Colombia, for example, the Constitutional Court's decision on the Atrato River established a co-management structure involving both state agencies and indigenous representatives, ensuring mutual accountability. Similarly, New Zealand's recognition of the Whanganui River and Te Urewera forest as legal persons involved extensive consultation with Māori communities, embedding indigenous cosmology within state law while maintaining clear administrative procedures. These models illustrate that the acknowledgment of nature's legal personhood is not merely symbolic but can generate tangible legal and institutional transformations when supported by participatory governance. For Indonesia, where customary and state authorities often coexist in tension, such hybrid models could strengthen ecological justice while reinforcing local autonomy.

At the regional level, Southeast Asia faces a shared ecological crisis intensified by transboundary pollution, illegal wildlife trade, and extractive industries. Yet, most ASEAN member states still adhere

to state-centric legal doctrines that prioritize economic growth over ecological sustainability. Indonesia's leadership in advancing the recognition of nature as a legal subject could serve as a normative catalyst for regional reform. Incorporating customary law principles such as *sasi* and *pati nyawa* into national and regional environmental governance frameworks would not only decolonize legal epistemology but also demonstrate that ecological wisdom rooted in indigenous knowledge can coexist with contemporary regulatory mechanisms. In doing so, Indonesia could pioneer an "ASEAN model" of ecological criminal policy one that integrates plural legal traditions and recognizes the interconnectedness of human and non-human life.

Empirical evidence from environmental conflicts across Indonesia underscores the relevance of this integration. The *Kinipan* case in Central Kalimantan (2020), where indigenous Dayak communities resisted palm oil expansion by PT Sawit Mandiri Lestari, exemplifies the collision between state-sanctioned economic interests and customary territorial rights. Despite public outcry and clear evidence of environmental destruction, the community leader Effendi Buhing was criminalized under charges of land occupation, highlighting the asymmetry between corporate protection and indigenous vulnerability. Similar patterns emerge in other regions, including the pollution of Buyat Bay in North Sulawesi, the deforestation of Riau, and the sand mining conflicts in Bengkulu, where environmental harm is inseparable from social injustice. These cases reveal that criminal policy has often functioned as an instrument of control rather than protection, reinforcing the need to reconceptualize its purpose toward ecological restoration and justice.

From a methodological perspective, this research adopts a normative legal approach complemented by conceptual, comparative, and futuristic analyses. The normative method enables a critical examination of the formal legal structure, identifying gaps and inconsistencies in environmental criminal policy. The conceptual approach interrogates the philosophical foundations of legal subjectivity and ecological justice, questioning the ontological boundary between human and non-human entities. Comparative analysis contextualizes Indonesia's experience within global developments, extracting lessons from countries that have recognized nature's rights. The futuristic approach, in turn, envisions the prospective transformation of Indonesia's legal system under the 2023 Criminal Code and the forthcoming Criminal Procedure Bill (*RUU KUHAP*), proposing a trajectory toward ecocentric criminal justice. Data are analyzed using content analysis techniques, focusing on statutory materials, judicial precedents, and customary law documentation to construct a comprehensive framework for integrating indigenous ecological norms into national criminal policy.

Ultimately, the effort to integrate customary environmental law into criminal policy toward the recognition of nature as a legal subject must be understood as a multidimensional project encompassing legal reform, cultural revitalization, and ethical transformation. It seeks to reconstitute the relationship between law and life, restoring the moral fabric that binds humans to their environment. In the Indonesian legal context, this endeavor resonates with the constitutional aspiration to achieve social justice for all beings not only for human citizens but also for the ecological communities that sustain them. As ecological crises intensify, the integration of living law and criminal justice emerges not merely as a legal necessity but as a moral imperative grounded in Indonesia's pluralistic heritage and its commitment to planetary stewardship.

Method

The research is rooted in the normative legal method which analyzes law as a system of norms, principles, and doctrines rather than as an empirical phenomenon, aiming to understand how customary environmental values can be integrated into modern criminal policy. It employs conceptual,

comparative, and futuristic approaches to provide a comprehensive analysis. The conceptual approach explores the philosophical and theoretical foundations of ecological justice, connecting global frameworks such as *Earth Jurisprudence* and *Rights of Nature* with Indonesia's living customary traditions like *sasi* in Maluku and *pati nyawa* among the Dayak people. The comparative approach examines how other countries such as Ecuador, Bolivia, Colombia, and New Zealand have legally recognized nature as a subject of rights and harmonized indigenous wisdom with statutory law. The futuristic approach projects the development of Indonesia's criminal policy under the 2023 Criminal Code and the forthcoming Criminal Procedure Bill, envisioning a shift toward restorative and ecocentric justice. Data are collected through library research using primary, secondary, and tertiary legal materials and analyzed qualitatively through content analysis to interpret legal norms, identify gaps, and propose a model that bridges traditional ecological wisdom with contemporary legal frameworks.

Results and Discussion

The Absence of Ecocentric Recognition in Indonesia's Criminal Policy

One of the most fundamental issues in Indonesia's criminal law system is the absence of explicit recognition of nature as a legal subject. Although Law No. 1 of 2023 on the new Criminal Code (*Kitab Undang-Undang Hukum Pidana – KUHP*) introduces several philosophical reforms and claims to embody the values of Pancasila, its underlying orientation remains deeply anthropocentric placing humans and the state at the center of legal protection. Article 51 of the Code states that the purpose of punishment is to uphold legal norms for the protection and welfare of society, to rehabilitate offenders, to resolve conflicts caused by criminal acts, and to restore social harmony. However, these objectives revolve entirely around human relationships, without recognizing ecological entities forests, rivers, land, and ecosystems as rights-bearing subjects or holders of moral and legal interests.

From a global theoretical perspective, the concept of *Earth Jurisprudence*, developed by Thomas Berry and Cormac Cullinan, has marked a paradigmatic shift from anthropocentrism toward ecocentrism. Under this framework, law is no longer understood merely as an instrument to regulate human behavior, but as a mechanism to maintain the balance of life and the integrity of the Earth's systems. In contrast, Indonesia's legal framework continues to operate within human-centered logic. The preamble of the 2023 Criminal Code, particularly in its "Considering" clause (letter c), emphasizes balance between the rights of offenders and victims, between legal certainty and justice, and between written law and living law but this balance stops short of extending to the ecological dimension. It reflects an incomplete transformation: justice remains confined to social relations, leaving ecological justice outside the scope of the criminal law system.

Article 2 of the 2023 Criminal Code does acknowledge the *living law* laws that live and function within local communities stating that individuals can be punished under such norms as long as they are consistent with Pancasila, the Constitution, human rights, and general principles of law recognized by the international community. This provision opens the door for integrating customary environmental norms, such as *sasi* in Maluku, *pati nyawa* among the Dayak people, and *musyawarah ondoafi* in Papua. These customary systems have long embodied principles of ecological balance and communal responsibility. However, in the current Code, such acknowledgment remains declarative rather than operative. Article 96 mentions the possibility of imposing "fulfillment of local customary obligations" as an additional punishment, but it is framed as discretionary depending on the judge's assessment and lacks detailed procedural guidance. As a result, customary ecological wisdom is recognized symbolically but not substantively integrated into Indonesia's criminal policy.

This anthropocentric bias is evident in the formulation of penal objectives under Article 51(a)–(d), which are exclusively human-centered. None of the provisions mention the protection or restoration of ecosystems as a purpose of punishment. Yet, ecological harm clearly produces non-human victims' extinct species, degraded forests, polluted rivers, and disrupted ecosystems that sustain indigenous communities. The failure to recognize these as victims reflects a limited understanding of justice. Consequently, environmental crimes in Indonesia are often reduced to administrative violations failures to comply with permits, negligence in waste management, or breaches of corporate obligations rather than seen as crimes against life systems. This reductionist view is evident in the enforcement of Articles 98–120 of Law No. 32 of 2009 on Environmental Protection and Management, where prosecutions prioritize fines and administrative restoration, not moral or ecological accountability.

The lack of ecocentric recognition also affects the position of victims within the justice system. Article 53(1) of the 2023 Criminal Code instructs judges to uphold both law and justice, and when a conflict arises between legal certainty and justice, judges must prioritize justice. However, the concept of "justice" in this provision remains narrowly humanistic it refers only to the interests of offenders, victims, and society, not to ecosystems or non-human entities. Consequently, "ecological justice" has no place within the interpretive scope of criminal law. This limitation perpetuates a Western, positivist conception of crime as a violation of social order rather than a disruption of ecological balance. In the absence of legal standing for nature, the criminal justice system continues to treat environmental harm as damage to human interests rather than as harm to the Earth itself.

By contrast, many other jurisdictions have moved toward recognizing nature as a legal subject. Ecuador's 2008 Constitution recognizes *Pachamama* (Mother Earth) as a living entity possessing rights to exist and regenerate. Bolivia enacted the *Law of the Rights of Mother Earth* in 2010, granting nature a legal personality represented by state guardians. Colombia's Constitutional Court, through the *Atrato River Decision* (2017) and the *Amazon Case* (2018), declared rivers and forests as subjects of rights with indigenous communities serving as their legal representatives. Similarly, New Zealand's *Te Awa Tupua Act* (2017) recognized the Whanganui River as a legal person co-governed by the Māori and the Crown. These models demonstrate that modern legal systems can coexist with indigenous ecological philosophies, enriching the concept of justice by extending it beyond human boundaries. They also show that granting nature legal personality does not weaken the rule of law it strengthens it by embedding moral responsibility into governance.

In contrast, Indonesia's criminal policy still clearly separates human and non-human entities. Environmental crimes are prosecuted under human liability frameworks, often through corporate responsibility provisions (Articles 45–49 of the 2023 Criminal Code). However, the ecosystem itself is never treated as a harmed subject; only humans or the state can be victims. When forests are burned or rivers polluted, the law prosecutes individuals or corporations, but no institution represents the forest or river in court. Although Article 94 of the Code allows compensation for victims as an additional punishment, the concept of "victim" remains narrowly anthropocentric it presumes only human suffering. In theory, this provision could be expanded to include ecological damage, but in practice, it lacks both conceptual and procedural support.

Interestingly, Articles 96 and 97 of the 2023 Criminal Code contain the seeds of an ecocentric paradigm shift, if interpreted progressively. Article 96 allows the imposition of "fulfillment of local customary obligations" as an additional punishment where customary law applies, while Article 97 permits such penalties even if not explicitly stated in the offense. This opens a path for integrating customary environmental sanctions such as the replanting of trees, river cleansing rituals, or restoring sacred

forests into formal criminal sentencing. However, implementation remains uncertain, as the government has yet to issue a regulation defining the criteria and mechanisms for applying *living law* in criminal cases, as required by Article 2(3). Without this regulation, the recognition of ecological values in customary law remains legally latent but normatively powerless.

From the perspective of criminal law policy, the absence of ecocentric recognition reveals a deep structural issue: Indonesia's legal reform remains trapped within the doctrine of "human interest protection." While the 2023 Criminal Code attempts to balance the interests of offenders, victims, and society, it fails to extend its moral reach to the environment. This omission undermines the constitutional aspiration toward *ecological justice* and reflects a narrow vision of justice that prioritizes human welfare over ecological sustainability. The lack of alignment between the Code and the philosophical foundations of Pancasila is striking. Pancasila's first principle, "Belief in the One and Only God," implies a duty to preserve the divine order of creation; the second, "Just and Civilized Humanity," calls for moral restraint and fairness not only toward fellow humans but toward all forms of life; and the fifth, "Social Justice for All Indonesians," can be expanded into ecological justice for all beings. Yet, the 2023 Criminal Code operationalizes none of these values in relation to the environment.

Furthermore, the failure to recognize nature as a legal subject has serious implications for environmental justice and sustainability. In practice, courts continue to treat environmental harm as quantifiable economic loss, rather than as moral wrongdoing that disrupts the integrity of life systems. For example, in cases of large-scale forest fires in Sumatra and Kalimantan, perpetrators are often sentenced based on violations of corporate obligations under environmental regulations, but the ecological destruction loss of biodiversity, air pollution, and carbon emissions is treated merely as collateral damage. This legal framing reflects an instrumental view of nature, perpetuating the very extractivist logic that underlies Indonesia's environmental crisis.

The philosophical contradiction becomes sharper when viewed against the state's own environmental obligations under Article 28H(1) and Article 33(4) of the 1945 Constitution, which guarantee a good and healthy environment as a human right and mandate sustainable development based on environmental balance. The 2023 Criminal Code, as a fundamental component of the national legal system, should logically operationalize these constitutional principles. Yet, by maintaining an anthropocentric framework, it indirectly undermines the constitutional promise of sustainability. The absence of an ecocentric legal subjectivity prevents the law from addressing environmental crimes as structural violence against nature thus perpetuating the gap between ecological harm and criminal accountability.

This normative vacuum also has a moral dimension. By excluding nature from the category of legal subjects, Indonesia's criminal law effectively silences the voice of ecological victims. The forest that burns, the river that dies, or the coral reef that vanishes has no standing in court. Their suffering is translated only through human proxies scientists, activists, or local communities whose legitimacy as representatives depends on procedural technicalities rather than substantive justice. In contrast, under the *Te Awa Tupua* model in New Zealand or the *Atrato River* model in Colombia, natural entities are represented by legal guardians with recognized authority to advocate for their interests. These mechanisms not only provide legal standing for nature but also restore indigenous cosmologies that perceive humans and ecosystems as interdependent beings within a shared moral universe.

In the context of Indonesia's plural legal system, the recognition of *living law* in Article 2 of the 2023 Criminal Code could serve as a constitutional bridge toward ecocentric reform. However, realizing this

potential requires a reinterpretation of *living law* not merely as local tradition but as a source of ecological jurisprudence. Customary laws such as *sasi*, *pati nyawa*, and *bayar kepala* are not primitive remnants but sophisticated systems of environmental governance rooted in moral reciprocity and sustainability. To harmonize these with modern law, Indonesia's criminal policy must evolve beyond punishment toward restoration acknowledging ecological harm as a form of legal wrong that demands moral and physical reparation.

The absence of ecocentric recognition in Indonesia's criminal policy represents more than a technical omission it is a philosophical and ideological gap. It shows that while the 2023 Criminal Code aspires to embody Pancasila's moral values, it remains bound by a legal imagination that separates humanity from the rest of nature. Without redefining the legal subject to include the natural world, ecological justice will remain rhetorical, and the criminal law will continue to treat environmental degradation as a peripheral issue. The challenge, therefore, is not merely to amend legislation but to transform the jurisprudential foundations of criminal law to move from punishing crimes against human order to addressing crimes against the Earth itself.

The Marginalization of Customary Environmental Law in the National Legal System

The second major issue identified in the current framework of Indonesia's criminal policy is the systemic marginalization of customary environmental law within the national legal order. Despite the constitutional recognition of Indonesia as a state that honors *living law* and despite the inclusion of such recognition in Law No. 1 of 2023 on the Criminal Code (Articles 2 and 597) customary law continues to occupy a peripheral position. The 2023 Criminal Code acknowledges that "living law within society" may serve as the basis for criminal accountability so long as it is consistent with Pancasila, the 1945 Constitution, human rights, and general principles of law recognized by civilized nations. However, the Code fails to establish any procedural or institutional mechanism by which customary law, especially customary environmental law, can be concretely implemented in the criminal justice process. As a result, this recognition remains largely symbolic a rhetorical inclusion rather than a transformative legal instrument.

The absence of clear operationalization reflects a deep structural bias within Indonesia's legal system, inherited from colonial codifications that privileged written, state-centered law over living customary norms. While the Constitution, in Article 18B(2), affirms that "the State recognizes and respects units of customary law communities and their traditional rights as long as they are alive and in accordance with societal development and the principles of the Republic," this recognition has yet to translate into consistent legislative or judicial practices. The 2023 Criminal Code ostensibly seeks to bridge that gap, but its provisions still reproduce the hierarchical relationship between state law (*lex scripta*) and living law (*lex viva*). Article 2(1) allows the application of living law in society, yet Article 2(3) mandates that its application must be "regulated by government regulation," effectively subordinating customary law to bureaucratic authorization. This conditional recognition domesticates the autonomy of customary systems, making them dependent on state approval rather than acknowledging their organic legitimacy as sources of normative order.

Nowhere is this marginalization more evident than in the treatment of customary environmental norms the corpus of ecological wisdom developed over centuries by indigenous communities to maintain harmony between humans and nature. Practices such as *sasi* in Maluku, *pati nyawa* among the Dayak, and *bayar kepala* in Papua are not mere rituals they represent deeply rooted systems of environmental governance based on restorative principles. *Sasi*, for example, is a community-based prohibition system that temporarily restricts access to marine or forest resources to allow ecological regeneration. The *pati*

nyawa tradition imposes moral and material obligations to restore balance when life or nature is harmed, while *bayar kepala* embodies the principle of collective responsibility for ecological and social restoration. Each of these customs reflects an ecocentric worldview one that perceives humans not as masters but as part of the natural order. Yet, in the architecture of the 2023 Criminal Code, such principles are reduced to optional references, not integral sources of criminal justice.

The problem lies in the formalism of Indonesian legal culture, which equates legality with codification. Customary law, by contrast, is fluid, context-based, and restorative rather than punitive. It emphasizes community participation and reconciliation, values that often conflict with the rigid proceduralism of modern criminal law. This epistemological tension marginalizes customary environmental law at both the doctrinal and practical levels. For instance, while the Code's Article 96 allows "the fulfillment of local customary obligations" as an additional form of punishment, it treats this merely as a supplementary sanction, not as an alternative paradigm of justice. This framing reflects an implicit hierarchy: formal law defines the offense, while customary law merely mitigates or complements it. The implication is that customary law operates within the margins of state legality rather than as an equal normative system capable of shaping the concept of crime and punishment.

Furthermore, there is a lack of procedural infrastructure to translate customary environmental principles into enforceable legal norms. No specific guidelines exist for identifying, validating, or applying living law within the criminal justice system. The government regulation required by Article 2(3) of the Code has not been issued, leaving a normative vacuum. Without such regulation, judges and prosecutors lack the authority or clarity to recognize customary environmental obligations as binding components of sentencing. This legal ambiguity perpetuates what legal anthropologist Franz von Benda-Beckmann calls "the legal plurality paradox" a condition where multiple normative orders coexist but only the state's legal order holds coercive power. Thus, customary law survives socially but not juridically; it is acknowledged rhetorically but excluded institutionally.

The marginalization of customary environmental law also stems from the state's historical distrust of local authority. During the New Order era, the centralization of power suppressed indigenous governance systems under the pretext of national unity and development. The legacy of this legal centralism persists today: environmental management remains dominated by state permits, corporate concessions, and technocratic regulation. Even when indigenous communities maintain traditional conservation practices, their authority is often overridden by formal licenses issued under national law. For example, in several provinces of eastern Indonesia, *sasi laut* prohibitions have been undermined by industrial fishing permits granted by regional governments. The law thus perpetuates a hierarchy in which customary norms exist at the mercy of bureaucratic discretion.

In contrast, the recognition of *living law* in the 2023 Criminal Code could have served as a transformative entry point to restore legal pluralism and ecological justice. Article 597 explicitly mandates that the provisions of the Code must be interpreted in harmony with the "living law in society." However, the provision lacks operational clarity neither specifying what constitutes "living law" nor defining how it can influence the interpretation of statutory offenses. Consequently, this article functions as a philosophical statement rather than a binding norm. Its vagueness allows the state to maintain symbolic pluralism while continuing to privilege codified law. In practice, the space for customary environmental law remains rhetorical rather than substantive.

The failure to integrate customary environmental law is also a missed opportunity for advancing restorative justice in environmental cases. Customary legal systems in Indonesia historically emphasize

restoration rather than retribution. When ecological harm occurs, the focus is not merely on punishing the offender but on restoring balance through rituals, reparations, or community labor. Such mechanisms align closely with the global shift toward restorative justice and environmental accountability. Yet, Indonesia's modern criminal law still centers on punishment as deterrence, reflecting retributive traditions imported from European legal thought. This dissonance between indigenous restorative models and state punitive systems results in a justice gap one that neither heals ecological damage nor strengthens social cohesion.

Comparatively, countries that have embraced the *living law* of indigenous peoples demonstrate that legal pluralism can coexist with modern criminal systems. New Zealand's *Te Awa Tupua Act* (2017), which recognizes the Whanganui River as a legal person, explicitly integrates Māori customary values (*tikanga Māori*) into national law, requiring courts and agencies to consider these principles in decision-making. In Colombia, the *Atrato River Decision* (2017) established a legal guardianship system where indigenous communities co-manage natural entities as rights-bearing subjects. Ecuador's recognition of *Pachamama* in its 2008 Constitution and Bolivia's *Law of Mother Earth* (2010) similarly codify indigenous ecological wisdom into national legal frameworks. These examples show that customary environmental law need not remain marginal, it can be formalized without losing its spirit, as long as the state recognizes its epistemic and moral authority.

In Indonesia, however, the legal imagination remains confined by the positivist notion that only written law possesses legitimacy. Even when the state invokes customary principles, it tends to instrumentalize them using them as cultural ornaments rather than as genuine legal norms. The integration of *living law* into the 2023 Criminal Code, therefore, risks being co-opted into what Boaventura de Sousa Santos calls "the monoculture of modern law," where pluralism is recognized in form but suppressed in substance. The Code's limited accommodation of local wisdom reflects an asymmetrical dialogue between two systems, the dominant state law that claims universality, and the subordinate customary law that must justify its existence through compatibility with the state's normative framework.

This marginalization is not merely a technical shortcoming it has serious ecological and cultural implications. Customary environmental law is deeply intertwined with local cosmologies, rituals, and moral responsibilities that govern human interaction with nature. Its erosion weakens community-based environmental stewardship and contributes to ecological degradation. When the law fails to recognize these traditional mechanisms, it inadvertently delegitimizes indigenous authority and disrupts long-standing systems of environmental governance. In Papua, for instance, the *bayar kepala* system where communities compensate for harm to land or forest through collective labor and restitution has been increasingly ignored in favor of formal judicial procedures that impose fines payable to the state. Such substitution transforms a communal act of ecological healing into a transactional, state-centered penalty devoid of restorative meaning.

Moreover, the marginalization of customary environmental law undermines Indonesia's commitment to sustainable development and climate justice. The country's environmental policy framework emphasizes community participation and local wisdom (as stated in Law No. 32 of 2009 on Environmental Protection and Management), yet criminal law has not adapted to operationalize these principles. The persistence of punitive, state-centered mechanisms perpetuates alienation between the law and local communities. This alienation contributes to legal cynicism, indigenous peoples perceive the state as both absent in protecting their lands and oppressive in enforcing abstract regulations. Restoring trust requires not only procedural inclusion but epistemic recognition the acknowledgment that customary ecological knowledge constitutes a legitimate source of legal reasoning.

From a jurisprudential perspective, integrating customary environmental law would expand Indonesia's legal epistemology. Instead of treating law as a static codification, it would affirm law as a living process that evolves through social and ecological relations. The 2023 Criminal Code's recognition of *living law* could then function not as a symbolic gesture but as a constitutional bridge between modern law and indigenous ecological ethics. This integration would align national law with Pancasila's foundational values particularly the principle of harmony (*keseimbangan*) and social justice (*keadilan sosial*) which inherently encompass environmental balance. However, this requires reinterpreting Article 2 and 597 not as limits but as entry points for pluralistic justice, supported by judicial training, community consultation, and participatory legal drafting.

To achieve this, Indonesia's legal reform must shift from formal acknowledgment to substantive implementation. First, the government should issue the implementing regulation mandated by Article 2(3), outlining procedures for identifying and validating living law within judicial processes. Second, courts should be empowered to admit customary environmental norms as evidence of community consensus and moral obligation in sentencing decisions. Third, collaboration between customary leaders (*tokoh adat*), environmental experts, and legal practitioners should be institutionalized to translate indigenous sanctions such as replanting trees, cleaning rivers, or communal apologies into legally recognized restorative penalties. These measures would not only de-marginalize customary environmental law but also enrich Indonesia's criminal policy with moral and ecological depth.

In essence, the marginalization of customary environmental law reveals the tension between legal modernity and cultural ecology. The 2023 Criminal Code, though progressive in form, remains trapped within the epistemology of uniformity that sidelines living pluralism. To restore balance, the law must recognize that justice is not monopolized by the state but co-created by the communities who live closest to nature. Customary environmental law, far from being a relic of the past, represents an enduring legal consciousness one that understands justice as the restoration of harmony, not merely the imposition of punishment. Until it is integrated meaningfully into Indonesia's criminal system, the promise of *living law* in the 2023 Criminal Code will remain hollow, and ecological justice will continue to be marginalized within the formal structures of national law.

The Need for a Future-Oriented Criminal Policy Integrating Customary Wisdom

One of the most pressing challenges facing Indonesia's criminal justice system today is the absence of a future-oriented and ecologically conscious criminal policy. Although the 2023 Criminal Code (Law No. 1 of 2023) marks a historic transition from colonial penal tradition to a national code grounded in Pancasila, its normative framework remains primarily retributive, emphasizing punishment of offenders rather than restoration of ecological harm. In an era where environmental destruction has become systemic and transgenerational, this punitive focus is insufficient. Environmental crimes such as illegal mining, forest burning, and marine pollution produce irreversible damage whose consequences extend far beyond human victims. They degrade ecosystems, threaten biodiversity, and compromise the living conditions of future generations forms of harm that cannot be redressed through imprisonment or fines alone.

The current criminal policy thus reflects a temporal limitation, it reacts to immediate offenses but fails to anticipate long-term ecological consequences. In this context, Indonesia urgently needs a futuristic and adaptive criminal policy one capable of addressing the evolving nature of ecological harm and aligning national law with global environmental ethics. This new orientation requires moving beyond anthropocentrism toward an ecocentric jurisprudence, one that recognizes nature as part of the legal community and incorporates customary wisdom as an essential component of environmental

governance. Such a paradigm shift would transform criminal law from an instrument of punishment into an instrument of ecological restoration and planetary responsibility.

A future-oriented criminal policy must begin by reconceptualizing the meaning of "victim" in environmental crimes. Under conventional doctrine, victims are defined narrowly as human beings or legal entities whose rights are directly violated. However, ecological destruction produces non-human victims rivers, forests, coral reefs, and species that suffer extinction or degradation. The concept of ecological victimhood extends the scope of justice to these entities, recognizing that they, too, experience loss and damage. This idea is not purely theoretical, it has been endorsed by global frameworks such as the *Earth Charter (2000)* and *UN Harmony with Nature Programme*, which call for moral and legal recognition of ecosystems as subjects of rights. In this sense, Indonesia's future criminal policy must evolve toward multispecies justice, in which the law serves to protect the integrity of all living systems, not just human interests.

From a philosophical perspective, this shift resonates with the principles of Earth Jurisprudence, as articulated by Thomas Berry and Cormac Cullinan. They argue that legal systems must align with the laws of nature rather than treating the Earth as an object of exploitation. Law, in this view, functions as a moral compass guiding human conduct toward the maintenance of ecological balance. A future-oriented Indonesian criminal policy would thus embody *Pancasila's ecological dimension* particularly the principles of harmony, social justice, and belief in divine creation by institutionalizing moral duties toward the environment. This transformation would not only fulfill the constitutional guarantee of a "good and healthy environment" under Article 28H(1) of the 1945 Constitution but also operationalize Indonesia's obligation under Article 33(4) to achieve sustainable development.

In practice, a futuristic criminal policy entails redefining the aims and instruments of punishment. Article 51 of the 2023 Criminal Code articulates the purposes of punishment to uphold law, rehabilitate offenders, and restore harmony within society but it omits ecological harmony as an explicit goal. A progressive interpretation of this provision could expand the notion of "social harmony" to include ecological balance, thereby allowing judges to consider environmental restoration as an objective of sentencing. This would align with the broader trend of restorative environmental justice, which seeks to restore relationships between humans and ecosystems rather than merely deterring crime. Under such a framework, offenders would be required to undertake reparative actions reforestation, waste removal, habitat restoration, or funding conservation projects as integral parts of their sentences.

To realize this vision, Indonesia must develop restorative and non-custodial sanctions that are ecologically meaningful. These sanctions could draw upon customary practices that already embody principles of ecological repair. In many indigenous communities, punishment is understood not as isolation of the offender but as reintegration through restitution and restoration. For instance, community-driven rituals of reconciliation often involve the collective repair of environmental damage replanting trees, cleansing polluted rivers, or restoring sacred lands. Translating such practices into formal legal mechanisms would give substantive effect to Articles 96 and 97 of the 2023 Criminal Code, which allow the imposition of "fulfillment of local customary obligations" as an additional punishment. By institutionalizing these forms of ecological restitution, the law could simultaneously respect local wisdom and ensure tangible environmental recovery.
This integration also addresses the broader problem of temporal justice the moral responsibility of the present generation toward future ones. A forward-looking criminal policy acknowledges that environmental harm is cumulative and intergenerational, it cannot be remedied through short-term sanctions. The philosophy of *intergenerational equity*, developed in international environmental law,

provides a crucial normative foundation here. It asserts that every generation holds the Earth in trust for the next, with the duty to preserve its ecological balance. Incorporating this principle into Indonesia's criminal policy would transform environmental offenses from mere regulatory violations into moral transgressions against the continuity of life.

In global comparison, several jurisdictions have begun to align their criminal systems with future-oriented environmental ethics. Ecuador's Constitution (2008) and Bolivia's *Law of the Rights of Mother Earth* (2010) grant nature legal personhood, enabling the prosecution of environmental harm as a violation of nature's own rights Colombia's Constitutional Court, through the *Atrato River* and *Amazon* decisions, recognized rivers and forests as subjects of rights, requiring state and community guardianship to ensure restoration. These legal innovations demonstrate that recognizing nature as a legal subject does not weaken criminal law it strengthens its moral foundation by redefining harm in ecological terms. Indonesia, with its pluralistic legal tradition, could adopt a similar path by using its *living law* provisions (Article 2 of the Criminal Code) as a constitutional bridge between modern criminal law and indigenous ecological ethics.

Customary wisdom (*kearifan lokal*) offers a rich repository for this future-oriented transformation. The worldview embedded in Indonesian customary systems sees the Earth as a living entity whose well-being is intertwined with that of humanity. The *sasi* system in Maluku, the *awig-awig* in Bali and Lombok, and the *pati nyawa* among the Dayak embody governance mechanisms rooted in respect, restraint, and reciprocity. They represent proto-environmental jurisprudence a form of law that predates modern environmental regulation but achieves the same goal of sustainability. Incorporating these principles into national criminal policy does not mean romanticizing tradition; rather, it means translating living practices of ecological stewardship into enforceable legal standards. In this sense, customary wisdom becomes not a supplement to state law, but a source of future-oriented environmental ethics.

A visionary criminal policy must also recognize the evolving nature of ecological harm in the digital and technological era. Emerging environmental crimes illegal e-waste dumping, deep-sea mining, biotechnological pollution, and carbon fraud require adaptive legal mechanisms that integrate scientific evidence, indigenous ecological knowledge, and restorative frameworks. The law must be able to address not only the act (*actus reus*) but also the ecological impact (*actus naturae*), measuring culpability through the lens of sustainability. This approach echoes the global transition from punitive to preventive environmental governance, emphasizing resilience over retribution.

To institutionalize such a transformation, several strategic steps are necessary. First, the state must establish clear sentencing guidelines that allow judges to impose ecological restoration measures as part of criminal sanctions. Second, environmental courts and prosecutors should collaborate with local customary leaders to design culturally appropriate forms of restitution. Third, legal education and judicial training should incorporate ecological jurisprudence and customary law, ensuring that future legal practitioners understand the moral and ecological dimensions of justice. Fourth, the government must adopt a national framework for Restorative Environmental Justice (REJ), harmonizing statutory law with community-based conservation practices. These measures would transform the criminal justice system into an ecosystem of moral accountability where punishment restores rather than destroys.

Furthermore, a future-oriented criminal policy must align with Indonesia's international environmental commitments. As a signatory to the Paris Agreement and the Convention on Biological Diversity, Indonesia has pledged to reduce emissions and protect ecosystems. However, achieving these goals

requires legal mechanisms that go beyond administrative regulation. Criminal law, as the most coercive instrument of the state, must serve as the moral backbone of environmental governance. By criminalizing acts that threaten planetary sustainability such as large-scale deforestation, ocean acidification, and illegal carbon trading Indonesia could position itself as a regional leader in *green criminal law*.

The transformative potential of a future-oriented criminal policy lies in its ability to redefine justice itself. Justice is no longer confined to the restoration of human order but extends to the restoration of natural order. This conception resonates with indigenous cosmologies across Indonesia, which see law as a process of restoring cosmic balance (*rukun alam*). In this sense, reforming Indonesia's criminal policy is not merely a technical or legislative task it is a philosophical and civilizational project. It calls for reimagining the relationship between humans, law, and the Earth.

Integrating customary wisdom into a forward-looking criminal policy is not an act of nostalgia, but an act of survival. As environmental crises intensify, the law must evolve from punishing the aftermath of destruction to preventing its recurrence. Indonesia stands at a crossroads it can continue to replicate punitive models that have failed to protect its environment, or it can pioneer a new paradigm of ecological justice grounded in its constitutional values, customary traditions, and moral vision of sustainability. Such a paradigm would ensure that the reform of Indonesia's criminal law is not only normative and procedural but also substantive, transformative, and enduring anchored in the living wisdom of its people and aligned with the moral rhythm of the Earth.

Conclusion

Indonesia's criminal law reform stands at a critical juncture that demands a paradigmatic shift from anthropocentric justice toward ecological justice. This study demonstrates that although the 2023 Criminal Code (Law No. 1 of 2023) represents a milestone in replacing the colonial penal legacy and acknowledges *living law* under Article 2, its normative structure remains deeply anthropocentric and formalistic. Nature has yet to be recognized as a legal subject possessing intrinsic rights to protection and restoration. Customary environmental norms rich in ecological wisdom and restorative philosophy are acknowledged only rhetorically, without concrete mechanisms for implementation.

This disconnect between state law and indigenous ecological ethics reveals a normative gap that prevents the realization of substantive ecological justice. Indigenous environmental laws such as *sasi* in Maluku, *pati nyawa* among the Dayak, *bayar kepala* in Papua, and *awig-awig* in Bali and Lombok have long served as moral and legal frameworks for maintaining harmony between humans and nature. These systems are not primitive relics but sophisticated models of restorative and ecological governance, grounded in reciprocity and collective responsibility. Integrating such customary principles into national criminal policy should not be seen as a token of pluralism but as a re-moralization of criminal law, embedding the ethical foundations of Pancasila into modern legal governance. In doing so, Indonesia's legal system would reaffirm law's higher function not merely to punish wrongdoing but to sustain life and harmony within the natural order. Looking ahead, Indonesia urgently needs a future-oriented criminal policy that is ecologically responsive and globally aligned. Criminal law must evolve from a punitive instrument into a preventive and restorative one.

Recognizing *ecological victimhood* the idea that ecosystems, species, and future generations can be victims of environmental harm would broaden the moral and legal scope of justice. Articles 96 and 97 of the 2023 Criminal Code, concerning the fulfillment of local customary obligations, provide a normative foundation for ecological restoration sanctions: reforestation, river rehabilitation, and

restoration of sacred landscapes. Implemented meaningfully, these provisions would transform criminal justice into a "healing law" a system that repairs rather than merely punishes. Integrating customary wisdom into future criminal policy also aligns Indonesia with the global movement toward the Rights of Nature and Earth Jurisprudence, which recognize nature as part of the legal community. Jurisdictions such as Ecuador, Bolivia, Colombia, and New Zealand have proven that acknowledging the rights of nature strengthens rather than weakens the rule of law, grounding it in moral responsibility and ecological balance.

Indonesia, endowed with a rich tapestry of indigenous ecological philosophies, is uniquely positioned to pioneer a *Pancasila-based model of ecological justice* that bridges constitutional ideals with living traditions of sustainability. Indonesia's criminal law reform will have genuine meaning only if it transcends normative formalism and achieves substantive and moral transformation. Law must no longer stand above nature as a sovereign authority but alongside it as a moral companion in the preservation of life. By embedding local ecological wisdom within the architecture of criminal policy, Indonesia can chart a visionary course toward a restorative, sustainable, and Pancasila-inspired system of ecological criminal justice a system that protects not only humans from crime but also the Earth from destruction.

References

Amnesty International. "IPCC Report Warning That Global Warming Will Exceed 1.5˚C Limit Must Accelerate the Phasing Out of Fossil Fuels." reliefweb.int, 2023. https://reliefweb.int/report/world/ipcc-report-warning-global-warming-will-exceed-15c-limit-must-accelerate-phasing-out-fossil-fuels.

Azam, Rawnak Miraj Ul, Syeda Afroza Zerin, and Fahim Faisal Khan Alabi. "The Rights of Nature Movement: Legal, Cultural, and Policy Challenges in Implementing Eco-Centric Laws." *Journal of Environmental Law and Policy* 4, no. 3 (December 1, 2024): 87–116. https://doi.org/10.33002/JELP050104.

Borràs, Susana. "New Transitions from Human Rights to the Environment to the Rights of Nature." *Transnational Environmental Law* 5, no. 1 (April 1, 2016): 113–43. https://doi.org/10.1017/S204710251500028X.

Cano, Lidia, and Pecharroman Id. "Rights of Nature: Rivers That Can Stand in Court." *Resources 2018, Vol. 7, Page 13* 7, no. 1 (February 14, 2018): 1–14. https://doi.org/10.3390/RESOURCES7010013.

Cribb, Miriama, Elizabeth Macpherson, and Axel Borchgrevink. "Beyond Legal Personhood for The Whanganui River: Collaboration and Pluralism in Implementing The Te Awa Tupua Act." *The International Journal of Human Rights*, 2023, 1–24. https://doi.org/10.1080/13642987.2024.2314532.

Downs, Fiona, and Luca Tacconi. "Corruption, Deforestation and Environmental Injustice: The Case of Indonesia." In *Looking Within: Finding an Environmental Justice and Global Citizenship Lens*, 155–72. Brill, 2013. https://doi.org/https://doi.org/10.1163/9781848882515_015.

Eckersley, Robyn. *Environmentalism and Political Theory: Toward An Ecocentric Approach*. *Environmentalism And Political Theory: Toward An Ecocentric Approach*. Taylor and Francis, 2023. https://doi.org/10.4324/9781315072111/ENVIRONMENTALISM-POLITICAL-THEORY-ROBYN-ECKERSLEY/ACCESSIBILITY-INFORMATION.

Eman, Katja, Gorazd Meško, Bojan Dobovšek, and Andrej Sotlar. "Environmental Crime and Green Criminology in South Eastern Europe-Practice and Research." *Crime, Law and Social Change* 59, no. 3 (April 1, 2013): 341–58. https://doi.org/10.1007/S10611-013-9419-0/METRICS.

Endriana, Muchamad Satria, Yusriadi, Ana Silviana, and Zico Junius Fernando. "Green Financial Crime: Expose About Financial Crime In The Environment And Renewable Energy World." *IOP Conference Series: Earth and Environmental Science* 1270, no. 1 (2023): 1–9. https://doi.org/10.1088/1755-1315/1270/1/012012.

Fadillah, Muhamad Akmal, and Aidul Fitriciada Azhari. "Conceptualizing Nature as a Legal Subject:

A Comparative Study of Laws Between Indonesia, New Zealand, and Ecuador." *JURNAL USM LAW REVIEW* 7, no. 1 (April 20, 2024): 376–92. https://doi.org/10.26623/JULR.V7I1.8880.

Faizal, Zahranissa Putri. "Strict Liability in Environmental Dispute Responsibility Before and After the Enabling of Omnibus Law." *Administrative and Environmental Law Review* 2, no. 1 (May 21, 2021): 53–60. https://doi.org/10.25041/AELR.V2I1.2318.

Fernando, Zico Junius, Sirman Dahwal, Firdaus Arifin, Muhammad Azil Maskur, and Arini Azka Muthia. "Advancing Ecological Justice through the Integration of Eco-Religion in Criminal Law Reform." *Journal of Law, Environmental and Justice* 3, no. 2 (July 27, 2025): 160–200. https://doi.org/10.62264/JLEJ.V3I2.133.

Fernando, Zico Junius, and Muhammad Imanuddin. "Green Financial Crime in The Perspective of Islamic Law." *Khazanah Hukum* 7, no. 2 (June 28, 2025): 206–22. https://doi.org/10.15575/KH.V7I2.39211.

Fernando, Zico Junius, Andrea H Poeloengan, and Mahmud Mulyadi. "Customary Victimology : Perspektif Baru Perlindungan Korban Dalam Sistem Peradilan Pidana Indonesia." In *Prosiding Seminar Nasional "Membentuk Model Ideal Peradilan Pidana Adat Dalam Sistem Hukum Nasional,"* 27:34–47, 2025. https://doi.org/10.30595/pssh.v27i.1824.

Gellers, Joshua C. "Earth System Law and the Legal Status of Non-Humans in the Anthropocene." *Earth System Governance* 7 (March 1, 2021): 1–5. https://doi.org/10.1016/J.ESG.2020.100083.

Giménez, Teresa Vicente. "De La Justicia Climática a La Justicia Ecológica: Los Derechos de La Naturaleza." *Revista Catalana de Dret Ambiental* 11, no. 2 (December 18, 2020): 1–42. https://doi.org/10.17345/rcda2842.

González-Serrano, María Ximena. "The Atrato River as a Bearer and Co-Creator of Rights: Unveiling Black People's Legal Mobilization Processes in Colombia." *Law & Social Inquiry* 49, no. 4 (November 1, 2024): 2493–2522. https://doi.org/10.1017/LSI.2024.31.

Hardinanto, Aris, Barda Nawawi Arief, Joko Setiyono, Zico Junius Fernando, and Nahdiya Sabrina. "Critical Analysis of Living Law Formulation in Law No. 1 of 2023 Concerning the Criminal Code: Towards Law Reform to Realize Justice with the Spirit of Pancasila." *Journal of Law and Legal Reform* 5, no. 3 (October 31, 2024): 1029–66. https://doi.org/10.15294/JLLR.V5I3.13923.

Humphreys, David. "Rights of Pachamama: The Emergence of An Earth Jurisprudence in the Americas." *Journal of International Relations and Development* 20, no. 3 (July 1, 2017): 459. https://doi.org/10.1057/S41268-016-0001-0/METRICS.

Iorns Magallanes, Catherine J. "From Rights to Responsibilities Using Legal Personhood and Guardianship for Rivers." *SSRN Electronic Journal*, August 21, 2019, 216–39. https://doi.org/10.2139/SSRN.3270391.

Kepala Biro Hubungan Masyarakat dan Kerja Sama Luar Negeri, Kementerian Kehutanan. "Hutan Dan Deforestasi Indonesia Tahun 2024." kehutanan.go.id, 2025. https://www.kehutanan.go.id/news/article-10.

Kotzé, Louis J., and Duncan French. "The Anthropocentric Ontology of International Environmental Law and the Sustainable Development Goals: Towards an Ecocentric Rule of Law in the Anthropocene." *Global Journal of Comparative Law* 7, no. 1 (February 2, 2018): 5–36. https://doi.org/10.1163/2211906X-00701002.

Lizarazo-Rodriguez, Liliana, Alice Lopes Fabris, and Doreen Montag. "Indigenous Peoples as Trustees of Forests: A Bio-Socio-Cultural Approach to International Law." *International Environmental Agreements: Politics, Law and Economics* 25, no. 1 (March 1, 2025): 145–70. https://doi.org/10.1007/S10784-024-09654-W/METRICS.

Melo-Ascencio, Diego Alejandro. "A Postcolonial Marxist Critique of the River-as-Subject: Situating the Atrato River in Its Development Aporias." *Antipode* 56, no. 5 (September 1, 2024): 1754–74. https://doi.org/10.1111/ANTI.13052.

Mršić, Gordana. "Environmental Protection from the Aspect of Criminal Law." *InterEULawEast : Journal for the International and European Law, Economics and Market Integrations* 8, no. 1 (July 15, 2021): 129–51. https://doi.org/10.22598/IELE.2021.8.1.7.

Muin, Abdul, and Heinrich Rakuasa. "Sasi Laut as a Culture of Natural Resources Conservation to Overcome the Tragedy of the Commons in Maluku Province." *International Journal of Multidisciplinary Approach Research and Science* 1, no. 03 (August 7, 2023): 277–87. https://doi.org/10.59653/IJMARS.V1I03.139.

Murray, Jamie. “Earth Jurisprudence, Wild Law, Emergent Law: The Emerging Field of Ecology and Law—Part 1.” *Liverpool Law Review* 35, no. 3 (December 1, 2014): 215–31. https://doi.org/10.1007/S10991-014-9148-1/METRICS.

Phe, Ajeck Portia. “A Legal Appraisal of the Conceptualization of Environmental Protection.” *Studies in Law and Justice* 4, no. 4 (August 29, 2025): 36–46. https://doi.org/10.56397/SLJ.2025.08.03.

Puspa, Atalya. “PT Kallista Alam Bayar Ganti Rugi Lingkungan Rp57 Miliar Akibat Karhutla.” mediaindonesia.com, 2023. https://mediaindonesia.com/humaniora/617610/pt-kallista-alam-bayar-ganti-rugi-lingkungan-rp57-miliar-akibat-karhutla?utm_source=chatgpt.com.

Qodim, Husnul. “Nature Harmony and Local Wisdom: Exploring Tri Hita Karana and Traditional Ecological Knowledge of the Bali Aga Community in Environmental Protection.” *Religious: Jurnal Studi Agama-Agama Dan Lintas Budaya* 7, no. 1 (March 20, 2023): 1–10. https://doi.org/10.15575/RJSALB.V7I1.24250.

Reumi, Frans. “The Position of Customary Village In The Customary Law Community In Papua Province: A Reflection of The Law Number 6 of 2014 Concerning Villages.” *Journal of Law, Policy and Globalization* 80, no. 0 (2018): 107–17. https://www.iiste.org/Journals/index.php/JLPG/article/view/45843.

Rian Susilo et al. “The Living Law in Judicial Decisions: Formulation and Implications of the National Criminal Code.” *Jurnal Dinamika Hukum* 25, no. 1 (March 24, 2025): 70–90. https://doi.org/10.20884/1.JDH.2025.25.1.15469.

Rodgers, Christopher. “A New Approach to Protecting Ecosystems: The Te Awa Tupua (Whanganui River Claims Settlement) Act 2017.” *Environmental Law Review* 19, no. 4 (December 1, 2017): 266–79. https://doi.org/10.1177/1461452917744909.

S, Simon Albertian Redy. “The Position of Living Law as a Legal Institution in Law No. 1 of 2023 on the Criminal Code.” *Journal of Law, Politic and Humanities* 5, no. 4 (March 30, 2025): 2571–80. https://doi.org/10.38035/JLPH.V5I4.1374.

Sahusilawane, Maria M., Sunardi, and Johan Iskandar. “Implementation of Sasi Which Impact on The Sustainability of Ecosystem Services in Maluku.” *E3S Web of Conferences* 495 (February 23, 2024): 1–9. https://doi.org/10.1051/E3SCONF/202449501005.

Santoso, Adi Purnomo, and Dina Liliyana. “Konstitusionalitas Tanggung Jawab Negara Dalam Melindungi Pembela Hak Asasi Manusia.” *Jurnal Sosial Dan Humaniora* 6, no. 1 (June 11, 2021): 61–71. https://doi.org/10.47313/PJSH.V6I1.1110.

Sinaga, Pidari, Yusriyadi Yusriyadi, Ana Silviana, and Zico Junius Fernando. “Kejahatan Biodiversitas Dan Urgensi Peran Hukum Pidana Dalam Sektor Agraria.” *Jurnal Pembangunan Hukum Indonesia* 6, no. 2 (June 27, 2024): 210–42. https://doi.org/10.14710/JPHI.V6I2.210-242.

Suprianto, Bibi. “Tradisi Hukum Adat Pati Nyawa Lintas Etnis Melayu Islam Dan Dayak Kabupaten Kapuas Hulu.” *Muslim Heritage* 6, no. 2 (December 3, 2021): 257–75. https://doi.org/10.21154/MUSLIMHERITAGE.V6I2.3195.

Tanati, Daniel. “The Forms of Custom Offense (Sanctions) of Waropen Tribe of Papua.” *Journal of Law, Policy and Globalization* 83, no. 0 (March 2019): 84–92. https://doi.org/10.7176/JLPG/83-12.

Thontowi, Jawahir. “Pengaturan Masyarakat Hukum Adat Dan Implementasi Perlindungan Hak-Hak Tradisionalnya.” *Pandecta: Research Law Journal* 10, no. 1 (2015): 1–13. https://doi.org/10.15294/pandecta.v10i1.4190.

———. “Pengaturan Masyarakat Hukum Adat Dan Implementasi Perlindungan Hak-Hak Tradisionalnya.” *Pandecta Research Law Journal* 10, no. 1 (June 30, 2015): 1–13. https://doi.org/10.15294/PANDECTA.V10I1.4190.

Tola, Miriam. “Between Pachamama and Mother Earth: Gender, Political Ontology and the Rights of Nature in Contemporary Bolivia.” *Feminist Review* 118, no. 1 (April 1, 2018): 25–26. https://doi.org/10.1057/S41305-018-0100-4.

Villavicencio Calzadilla, Paola, and Louis J Kotzé. “Living in Harmony with Nature? A Critical Appraisal of the Rights of Mother Earth in Bolivia.” *Transnational Environmental Law* 7, no. 3 (2018): 397–424. https://doi.org/DOI: 10.1017/S2047102518000201.

Washington, Haydn, Erik Gomez-Baggethun, John J. Piccolo, Helen Kopnina, and Heather Alberro. “Harmony in Conservation.” *Conservation* 2, no. 4 (November 1, 2022): 682–93. https://doi.org/10.3390/CONSERVATION2040044.

Wesche, Philipp. “Rights of Nature in Practice: A Case Study on the Impacts of the Colombian Atrato River Decision.” *Journal of Environmental Law* 33, no. 3 (November 17, 2021): 531–55. https://doi.org/10.1093/JEL/EQAB021.
White, Rob. “Green Victimology and Non-Human Victims.” *International Review of Victimology* 24, no. 2 (February 6, 2018): 239–40. https://doi.org/10.1177/0269758017745615.