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# A Critical Reflection on Environmental Damage Restoration and Recompense : An Approach Through Local Wisdom, Green Victimology, and Comparative Law[6]

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## Abstract

The study presented herein involves a critical examination of the formulation of restoration and recompense sanctions for environmental damage in Indonesia. Although there are certain legal frameworks – such as Law No. 32/2009 – in place, their implementation has been largely ineffective. This paper explores the potential of incorporating local wisdom, green victimology, and comparative legal approaches. Indigenous practices in Indonesia aligning with the principles of green victimology, which acknowledges both non-human victims. A comparative analysis of legal frameworks in Australia and New Zealand reveals a stronger emphasis on restoration and recompense. The study highlights the need to integrate local wisdom and green victimology and calls for the recognition of broader categories of victims, include the prioritisation of restorative measures within the available legal sanctions.

**Keywords:** comparative law, environmental damage, green victimology, local wisdom, restoration.

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# Krytyczna refleksja nad przywracaniem stanu środowiska i rekompensacją szkód środowiskowych: podejście oparte na lokalnej mądrości, zielonej wiktymologii i prawie porównawczym[7]

## Streszczenie

Opracowaniu stanowi krytyczną analizę formułowania sankcji dotyczących przywracania stanu środowiska i rekompensaty za szkody środowiskowe w Indonezji. Pomimo istnienia określonych ram prawnych – takich jak Ustawa nr 32/2009 – ich wdrażanie pozostaje w dużej mierze nieskuteczne. Artykuł bada potencjał włączenia lokalnej mądrości, zielonej wiktymologii oraz podejść porównawczych w zakresie prawa. Praktyki rdzennych społeczności w Indonezji są zgodne z zasadami zielonej wiktymologii, która uznaje również ofiary niebędące ludźmi. Analiza porównawcza ram prawnych w Australii i Nowej Zelandii ujawnia silniejsze ukierunkowanie na działania naprawcze i rekompensatę. Autorzy podkreślają potrzebę integracji lokalnej mądrości i zielonej wiktymologii oraz apelują o uznanie szerszych kategorii ofiar, w tym o priorytetowe traktowanie środków naprawczych w ramach dostępnych sankcji prawnych.

**Słowa kluczowe:** prawo porównawcze, szkody środowiskowe, zielona wiktymologia, lokalna mądrość, przywracanie stanu środowiska.

[7] Badania wykorzystane w artykule nie zostały sfinansowane przez żadną instytucję.

## Introduction

The reality of crime is inherently elusive, with the "dark number" representing the portion that remains unreported or undetected.[8] This has significant implications for justice, as many offences go unprosecuted, resulting in an increasing gap in the administration of justice[9]. Environmental crimes, in particular, are among the most challenging to address within the criminal justice system. Despite our current era – the Anthropocene – in which human activities play a dominant role in driving environmental and climate changes to a significant extent,[10] and despite the 1972 United Nations Stockholm Declaration on the Human Environment highlighting global concerns about anthropogenic ecosystem transformation,[11] there remains a notable disparity between the enforcement of laws and the actual remediation of the damage caused.

The Indonesian Constitution guarantees every individual the right to a good and healthy environment, as stipulated in Article 28H of the 1945 Constitution.[12] However, the core issue in law enforcement goes beyond large-scale environmental damage – often caused by corporations[13] – and includes the challenges of proving such damage and establishing standard criteria for environmental harm.[14] The legal system fails to recognise the environment itself as a victim. Consequently, even when prosecutions are successful, criminal sanctions do not prioritise environmental restoration and recompense for victims.[15] Recompense refers to the compensation provided by the perpetrator to the victims of environmental damage.

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8 A.A. Asiama, H. Zhong, *Victims Rational Decision: A Theoretical and Empirical Explanation of Dark Figures in Crime Statistics*, „Cogent Social Sciences" 2022, 8(1), p. 1.

9 W.S. Laufer, R. Hughes, *Justice Undone*, „American Criminal Law Review" 2020, 58, pp. 155–204, p. 157.

10 H. Fukurai, *President's Farewell Message: The Anthropocene, Earth Jurisprudence, and the Rights of Nature*, „Asian Journal of Law and Society" 2020, 7(3), pp. 613–622, p. 614.

11 J. Jaria-Manzano, *Beyond Sustainability: Challenges for Environmental Law in the Era of Uncertainty*, „Environmental Policy and Law" 2022, 52(2), 93–104.

12 A.B. Prastyo *et al*., *Model Perlindungan dan Pengelolaan Lingkungan Hidup Dalam Mewujudan Good Governance*, „SASI" 2021, 27(1), p. 84.

13 J. Siregar, M. Zul, *Penegakan Hukum Dalam Tindak Pidana Lingkungan Hidup di Indonesia*, „Jurnal Mercatoria" 2015, 8, pp. 107–131.

14 S. Sutrisno, *Politik Hukum Perlindungan dan Pengelolaan Lingkungan Hidup*, „Jurnal Hukum Ius Quia Iustum" 2011, 18(3), p. 444.

15 R. Hendriana, *Legal Protection of the Environment in Indonesia from a Green Victimology Perspective*, Proceedings of the International Conference on Environmental and Energy Policy (ICEEP 2021), *Advances in Social Science, Education and Humanities Research*, Vol. 583, Atlantis Press, 2021, pp. 180–183.

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In this context, the position of the victim within the criminal justice system is, therefore, largely overlooked.[16]

The enactment of Law No. 32 of 2009 concerning Environmental Protection and Management (UU PPLH) has yet to prove effective in safeguarding the rights of victims – human, non-human, and the environment itself. The sanctions set out in the UU PPLH are not sufficiently oriented towards restoration, fines, or recompense. This has influenced the practices of law enforcement officers, leading to inconsistencies in the application of restoration and recompense sanctions. Between 2002 and 2015, of the 70 environmental criminal cases adjudicated, 43% of the defendants were acquitted, 40% received probation, 13% were sentenced to imprisonment and fines, 2% were dismissed without trial (*onslag van rechtvervolging*), and 2% of the charges were dropped. Furthermore, between 2010 and 2019, of the eight cases brought, only one resulted in the imposition of an additional sanction in the form of environmental restoration.[17]

It is undeniable that the current state of law enforcement has contributed to a crisis of environmental pollution and degradation in Indonesia. In 2019, out of 98 rivers in Indonesia, 54 were categorized as mildly polluted, 6 as moderately polluted, and 38 as heavily polluted.[18] Moreover, in 2021, data from the Central Bureau of Statistics showed that 10,683 villages experienced water pollution. A 2023 report from the Ministry of Environment indicated that, although the Water Quality Index and Land Quality Index have improved, they still fall short of national targets – and the Marine Water Quality Index has deteriorated.[19] Ironically, in 2023, Jakarta, the capital, ranked as the most polluted city in Southeast Asia and the tenth most polluted in the world.[20]

Another pressing issue involves extensive coal mining, both legal and illegal, which has resulted in thousands of abandoned mine pits across the country. These pits remain unrehabilitated despite causing numerous fatalities, and no restorative efforts or recompense have been provided. Alarmingly, in East Kalimantan, residents are using contaminated water from these mine pits – which contains harmful

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16 D. Dube, *Victim Compensation Schemes in India: An Analysis*, „International Journal of Criminal Justice Sciences" 2018, 13(2), p. 342.

17 D. Daniel, A. Hawari, M.M. Handayani, *Reorientasi Penegakan Hukum Pidana Lingkungan Hidup Melalui Perjanjian Penangguhan Penuntutan*, „Jurnal Hukum Lingkungan Indonesia" 2020, 6(1), pp. 73, 80.

18 N.F. Salsabila, M. Raharjo, T. Joko, *Indeks Pencemaran Air Sungai dan Persebaran Penyakit yang Ditularkan Air (Waterborne Diseases): Suatu Kajian Sistematis*, „Environmental Occupational Health and Safety Journal" 2023, 4(1), p. 25.

19 Kementerian Lingkungan Hidup dan Kehutanan Republik Indonesia, *Kinerja Pengendalian Pencemaran dan Kerusakan Lingkungan Tahun 2023*. Available from: https://ppid.menlhk.go.id/berita/siaran-pers/7573/kinerja-pengendalian-pencemaran-dan-kerusakan-lingkungan-tahun-2023 (accessed: 9.04.2024).

20 BBC News Indonesia, "*Polusi udara di Jakarta tertinggi se-Asia Tenggara, dua tahun setelah Pemprov DKI kalah gugatan"*, 2023, https://www.bbc.com/indonesia/articles/cjmy2nez84vo (accessed: 13.04.2024).

metals – for drinking and agricultural purposes, as mining activities have depleted their access to clean water.[21]

This situation is exacerbated by the narrow definition of environmental victims, which fails to include non-human entities such as plants, animals, ecosystems, and future generations that are also affected. This oversight leads to the creation of intergenerational victims. As such, the environment must be regarded and managed with a view to sustainability. Recognising nature as a vital source of life, environmental issues must be addressed with wisdom that considers the interests of all living beings, the continuity of ecosystems, and the protection of natural resources.

When criminal law policies fail to effectively promote the restoration of environmental damage, it becomes evident that the definition of environmental victims and their recovery must be rooted in an ecocentric approach[22] – one that incorporates the local wisdom of communities that uphold the rights of nature. By adopting Indonesian local wisdom, the principles of green victimology, and comparative legal perspectives, a more comprehensive strategy for addressing environmental damage can be developed. Several indigenous practices in Indonesia already stress restoring the environment to its original state, providing recompense, and imposing fines as forms of punishment for offenders. According to Rob White, green victimology "refers to the study of the social processes and institutional responses pertaining to victims of environmental crime."[23] His definition of environmental victims extends beyond humans to include non-human entities such as animals, trees, and rivers – all of which are interconnected within ecosystems.[24] There is a clear alignment between this perspective and traditional practices, both of which recognise that the natural world and future generations can be victims of environmental pollution and destruction. Thus, restoration, recompense, and fines may be more appropriate sanctions than imprisonment.

While previous research has often focused on a single aspect – such as law enforcement[25], legal protection, or green victimology[26] – this study aims to make a significant contribution by critically examining the substantive weaknesses in

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21 Kementerian Lingkungan Hidup dan Kehutanan Republik Indonesia, *Bahaya Lubang Bekas Tambang*, 2018. Available from: http://perpustakaan.menlhk.go.id/pustaka/home/index.php?page=detail_news&newsid=720

22 A. Angkasa, *Green Victimology Perspective the Law Number 32 of 2009 on Environmental Protection and Management*, „Jurnal Media Hukum" 2020, 27(2), pp. 228–239.

23 R. White, *Environmental Victimology and Ecological Justice*, [in:] *Crime, Victims and Policy*, London 2015, p. 33.

24 R. White, *Green Victimology and Non-Human Victims*, „International Review of Victimology" 2018, 24(2), pp. 239–255, 244.

25 E.R. Hakim, *Penegakan Hukum Lingkungan Indonesia Dalam Aspek Kepidanaan*, „Media Keadilan: Jurnal Ilmu Hukum" 2020, 11(1), pp. 43–54.

26 A. Angkasa, *op. cit.*

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the regulation of restoration and recompense sanctions for environmental damage. It also explores restorative approaches through the integration of local wisdom, green victimology, and comparative legal analysis. This multidimensional approach reflects a comprehensive concept that not only draws upon the historical and cultural values upheld by Indonesian society, but also aligns with developments in victimology and international expectations.

Uniquely, this research contributes not only to global efforts in addressing environmental degradation, but also to the preservation and restoration of the environment through the promotion of local wisdom.

## A Critical Examination of the Formulation of Restoration and Recompense Sanctions in Environmental Criminal Law in Indonesia

Criminal law policy is implemented through several stages of concretisation, one of which is the formulation of criminal sanctions, commonly referred to as formative or legislative policy.[27] This policy onstitutes a rational effort to determine how the law should be designed to achieve its intended objectives. In drafting and formulating legislation, all aspects must be carefully and rationally considered to address the specific issues at hand, including how the law will be implemented effectively to serve the "legal objectives" for which it was created. The key elements of criminal law formulation policy include the definition of criminal acts, the attribution of criminal responsibility, and the determination of sanctions – be they punitive or corrective in nature.[28]

However, the substance of Law No. 32 of 2009 on Environmental Protection and Management (UU PPLH), as the outcome of this formative policy, appears insufficient in fulfilling its aim of providing legal protection for the environment itself. Article 119 of the UU PPLH regulates corporate criminal liability for environmental pollution and degradation. Nonetheless, this provision does not establish environmental restoration as a primary criminal sanction but merely as an additional one. The use of the word *may* in the provision further implies that judges are not required to impose restoration as an additional sanction. In principle, additional sanctions may only be applied alongside principal sanctions, rendering

[27] B.N. Arief, *Masalah Penegakan Hukum Dan Kebijakan Hukum Pidana Dalam Penanggulangan Kejahatan*, Jakarta 2007, pp. 78–79.

[28] D. Priyatno, K. Kristian, *Kebijakan Formulasi Sistem PertanggungJawaban Pidana Korporasi (Dalam Peraturan Perundang-Undangan Khusus Di Luar KUHP di Indonesia)*, Jakarta 2017, pp. 15–16.

them optional and leaving judges with considerable discretion.[29] The legislative choice to position restoration as an auxiliary sanction reflects a lack of genuine commitment by the government to addressing environmental pollution and destruction. This is particularly troubling given that corporate environmental damage is often large-scale, yet restoration remains treated as secondary.

The principle of strict liability is an effective tool to hold offenders accountable, as it eliminates the need to prove the element of fault.[30] However, under the Environmental Protection and Management Law (UU PPLH), this principle is applied only to specific environmental crimes,[31] as outlined in Article 88 – namely, those involving hazardous and toxic substances (B3), including their use, production, and/or disposal.[32] This limited application has serious implications: other forms of environmental pollution or degradation may escape criminal liability altogether.

The sanctions under the UU PPLH primarily comprise cumulative penalties of imprisonment and fines,[33] indicating that environmental restoration remains a low priority. Although the law provides for cumulative sentencing, it does not specify minimum penalties, allowing judges to impose nominal fines and contributing to inconsistency in sentencing. Moreover, recompense for victims must be pursued through civil proceedings. Ironically, Articles 23(37) and 82B of Law No. 11 of 2020 on Job Creation have removed criminal sanctions for environmental offences, replacing them with administrative penalties.[34] In light of the foregoing, it can be critically concluded that the current formulation of sanctions relating to restoration, recompense, and fines in environmental criminal law in Indonesia does not effectively reflect the fundamental purpose of the legislation.

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29 A.E. Martha, R. Hayuna, *Konseling Sebagai Sanksi Pidana Tambahan Pada Tindak Pidana Kekerasan Dalam Rumah Tangga*, „Jurnal Hukum Ius Quia Iustum" 2015, 22(4), p. 621.

30 Z.P. Faizal, *Strict Liability in Environmental Dispute Responsibility Before and After the Enabling of Omnibus Law*, „Administrative and Environmental Law Review" 2021, 2(1), p. 55.

31 A. Angkasa, *op. cit.*, p. 181.

32 M.A.A. Fikri, *Implementation of Strict Liability by Companies in Cases of Environmental Damage in Indonesia: An Overview of State Administrative Law in Indonesia*, „Indonesian State Law Review" 2022, 5(2), p. 46.

33 R. Hendriana, N.A.T. Utami, A. Angkasa, *Law Enforcement of Environmental Pollution and Damage*, IOP Conference Series: Earth and Environmental Science 519, 2020, No. 1, p. 3.

34 A. Alfikri, *Kebijakan Penghapusan Sanksi Pidana Terhadap Tindak Pidana Lingkungan Hidup dalam Undang-Undang Nomor 11 Tahun 2020 tentang Cipta Kerja*, „Jurnal Eksekusi" 2021, 3(1), pp. 1–2.

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## The Concept of Environmental Restoration and Recompense through Local Wisdom and Green Victimology

Indonesia as the world's largest archipelagic nation, operates within a unique legal and socio-cultural framework, far more complex than that of continental states,[35] due to its unusual geography – encompassing over 17,000 islands, 1,340 ethnic groups, and 840 local languages.[36] This rich diversity has given rise to a broad spectrum of local wisdoms that function as *living law* in many communities. Yet, the advancement of nationally binding statutory law has led to the diminishing practice of some customary legal traditions, including forms of customary criminal law. Customary law, like all normative systems, may flourish or decline in tandem with societal evolution.[37]

Nonetheless, among the forms of local wisdom that have persisted, many include mechanisms for addressing environmental degradation and pollution. These customary practices typically frame such acts as violations of communal harmony and prescribe sanctions oriented towards the preservation of natural resources, environmental restoration, and recompense – often in the form of customary fines. This contrasts with Indonesia's national Environmental Protection and Management Law (UU PPLH), which prioritises criminal and administrative sanctions, such as imprisonment and monetary penalties.

For example, in East Sumbawa, traditional leaders (*Tetua Adat*), in collaboration with law enforcement and the Malatawa National Park Authority, impose customary sanctions on illegal loggers. Offenders are required to sacrifice a goat and plant 200 tree seedlings, which they must also maintain[38] – clearly prioritising restoration and reparation. When illegal logging occurs, the offender must restore the environment to its original condition by planting and maintaining trees.

Similarly, in the Balinese village of Desa Taro, traditional regulations known as *pararem* and *awig-awig* stipulate that those who litter may be fined by a traditional council (*paruman adat*), with penalties including a 10-kilogram rice contribution. In Banjar Tempekan Kerta Candra Buana, Bali, improper waste disposal incurs

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35 T. Sunaryo, *Indonesia Sebagai Negara Kepulauan*, „Jurnal Kajian Stratejik Ketahanan Nasional" 2019, 2(2), p. 110.

36 D. Buaq, L. Lorensius, *Internalization of Pancasila Values in Catholic Schools: Efforts to Strengthen National Commitment*, „Educationist: Journal of Educational and Cultural Studies" 2022, 1(1), p. 47.

37 A. Apripari *et al.*, *Investigating the Existence of Gorontalo Customary Law in the National Criminal Code*, „Dialogia Iuridica" 2023, 14(2), p. 122.

38 Direktorat Jenderal Konservasi Sumber Daya Alam dan Ekosistem, 2021, "*Sanksi Adat Pelaku Illegal Loging di Kawasan TN Malatawa*". Available from: https://ksdae.menlhk.go.id/berita/10294/Sanksi-Adat-Pelaku-Illegal-Logging-di-Kawasan-TN-Matalawa.html (accessed: 18.06.2024).

fines of up to Rp1,000,000.[39] In Aceh, Qanun Gampong – a local legal framework – includes provisions such as Article 8 of Qanun No. 10 of 2015, which penalises the poisoning of fish with a fine consisting of one goat and a quantity of rice. This regulation has been instrumental in reducing river pollution, thereby safeguarding access to clean water.

In Maluku, the customary law known as *Sasi* prohibits the use of specific natural resources for a defined period. *Sasi* includes rules, procedures, and practices for resource use, maintenance, and oversight, ensuring the balance of the environment and natural resources so that they can be utilised by future generations. As a customary law, *Sasi* teaches people to refrain from excessive exploitation of natural resources. If individuals violate *Sasi* regulations, they may be subjected to severe, moderate, or minor fines.[40] *Sasi* encompasses norms or rules related to customs, behaviours, and traditions – including the preservation and conservation of the natural environment (land and sea) for the collective welfare.[41]

The imposition of significant customary fines for littering, fish poisoning, or untimely harvesting of resources demonstrate a recognition of the rights of nature and the interests of future generations. Unlike formal legal systems – where corporate polluters often receive lenient penalties – customary law mechanisms aim to redress harm and rehabilitate ecosystems, with fines reinvested in the wellbeing of the local community. This stands in contrast to environmental crimes committed by corporations, which often cause extensive damage, yet the sanctions prescribed by law are not oriented towards restoration and recompense.

Moreover, recent studies on marine conservation areas in Indonesia further support the effectiveness of indigenous stewardship, revealing that biomass levels in locally governed areas surpass those in zones managed by state authorities, which typically emphasise punitive enforcement.[42] These findings underscore the value of promoting customary criminal law and harnessing the restorative principles inherent in local wisdom, which prioritise environmental restoration and recompense over retribution.

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39 N.K.Y. Utami *et al.*, *Sinergi Antara Desa Adat dan Pemerintah Dalam Memaksimalkan Penegakan Hukum Lingkungan Berbasis Kearifan Lokal Bali*, „*Jurnal Kertha Desa* 11", 4, p. 2141. Available from: https://ojs.unud.ac.id/index.php/kerthadesa/article/download/96192/49320

40 N.I. Putri *et al.*, *Peranan Kearifan Lokal Sistem Sasi Dalam Pengelolaan Sumber Daya Laut Indonesia*, „Jurnal Ekologi, Masyarakat dan Sains" 2020, 2(1), pp. 14, 16.

41 Z. Judge, M. Nurizka, *Peranan Hukum Adat Sasi Laut Dalam Melindungi Kelestarian Lingkungan Di Desa Eti Kecamatan Seram Barat Kabupaten Seram Bagian Barat*, „Lex Jurnalica" 2008, 6(1), p. 35.

42 F. Rahman, *Peranan Masyarakat Adat Dalam Konservasi Lingkungan*, 2022, Pusat Studi Lingkungan Hidup, Universitas Gadjah Mada. Available from: https://pslh.ugm.ac.id/peranan-masyarakat-adat-dalam-konservasi-lingkungan/ (accessed: 19.06.2024).

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This alignment is further reinforced by developments in national law. Article 2 of the 2023 Indonesian Criminal Code (*KUHP*) affirms the legitimacy of customary criminal law, reflecting formal recognition of indigenous legal systems. As such, there is growing justification for integrating restoration – and recompense-oriented sanctions – rooted in local wisdom – into broader environmental enforcement frameworks.

This perspective also finds resonance in Green Victimology, an emerging branch of victimology that responds to 21st-century concerns regarding environmental degradation and environmental harm. Rob White conceptualises environmental victims as not only human but also non-human entities – animals, trees, rivers – embedded within interconnected ecosystems. *Green Victimology* encompasses the principles of eco-justice, including environmental justice (human victims), ecological justice (non-human environmental victims), and species justice (animal and plant victims).[43] Consequently, Green Victimology mirrors Indonesian indigenous beliefs, which perceive the universe and its elements as potential victims of harm – neglecting which may result in divine retribution.

Justice Brian J. Preston has described ecological remediation and species habitat restoration as intergenerational responsibilities passed down from current generations to the next.[44] Eileen Skinnider has similarly noted that "environmental crime victims challenge the traditional victimology approach as they are often victimized collectively and can involve non-conventional victims."[45] From this standpoint, environmental protection must extend beyond human interests to include prevention and reparation for non-human victims, ecosystems, and future generations.[46] The philosophical foundation of Green Victimology, which sees the environment as a victim, is ecocentric, recognising the intrinsic value of animals, plants, and other ecosystems. Therefore, if the philosophical foundation remains anthropocentric, – as in traditional victimology, which prioritises human interests – the natural environment will not be granted the legal protection it needs.[47]

However, this ecocentric view conflicts with Indonesia's positive criminal law. Article 85(2) of the *UU PPLH* explicitly disallows out-of-court settlement mechanisms for environmental crimes, and Article 5(8) of the Indonesian Attorney General's Regulation No. 15 of 2020 excludes environmental cases from the scope of Restorative Justice. Yet, within the framework of *Green Victimology*, Restorative Justice

43 R. White, *op. cit.*, p. 11.

44 B.J. Preston, *The Use of Restorative Justice For Environmental Crime*, „Criminal Law Journal" 2011, 136.

45 E. Skinnider, *Victims of Environmental Crime-Mapping the Issues*, The International Centre for Criminal Law Reform and Criminal Justice Policy, 2011. Available from: www.icclr.law.ubc.ca

46 R. Hendriana, *op. cit.*

47 A. Angkasa, *Viktimologi*, Rajawali Press, Depok 2020, p. 27.

could serve as an effective avenue for redressing environmental harm. Such an approach would allow not only directly affected victims but also community representatives to advocate on behalf of ecosystems and future generations. Indigenous customs already embody this restorative spirit – eschewing imprisonment in favour of environmental restoration, recompense through customary fines, and preventive education. The integration of such approaches into national law would elevate restoration, recompense, and customary fines to the status of primary sanctions for environmental offences. Moreover, the application of Restorative Justice could be considered viable wherever ecological restoration is realistically achievable.

## Comparison of Environmental Damage Sanctions in Various Countries

In the field of legal comparisons, international environmental agreements play a crucial role in shaping national laws and policies governing environmental protection and restoration. Two landmark agreements – the 2015 Paris Agreement and the 1992 Convention on Biological Diversity – have significantly influenced how countries manage environmental issues within their respective jurisdictions.

The Paris Agreement, adopted in 2015 under the United Nations Framework Convention on Climate Change (UNFCCC), is an international accord aimed at limiting global warming to below 2°C above pre-industrial levels, with efforts to limit the temperature increase to 1.5°C, as outlined in Article 2(1)(a). This agreement has encouraged countries to implement stronger national policies to reduce greenhouse gas emissions, promote renewable energy, and enhance resilience to climate impacts. Article 7(1) addresses the need to enhance adaptive capacity, strengthen resilience, and reduce vulnerability to climate change, supporting measures such as renewable energy promotion and climate adaptation. The emphasis on nationally determined contributions (NDCs), as highlighted in Articles 3 and 4 (2), has prompted many countries to revise their environmental legislation to align with international obligations, including the adoption of restoration and recompense mechanisms to mitigate environmental damage.[48]

Similarly, the Convention on Biological Diversity (CBD), adopted in 1992, has been instrumental in influencing national legislation related to the conservation of biological diversity, the sustainable use of its components, and the equitable

[48] R. Falkner, *The Paris Agreement and the New Logic of International Climate Politics*, „International Affairs" 2016, 92(5), pp. 1107–1125.

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sharing of benefits arising from genetic resources. While the CBD has led to major advances in ecosystem and species protection, progress in addressing ecosystem services (ES) has remained limited. The Millennium Ecosystem Assessment revealed that over 60% of ES are either degraded or used unsustainably, with disproportionate impacts on the poor. Despite the adoption of the CBD's Aichi Targets, which include the restoration of ecosystems that provide essential services, the level of progress has been inadequate. National Biodiversity Strategies and Action Plans (NBSAPs) often address ES in general terms but frequently lack concrete legal measures necessary for effective implementation, particularly in integrating biodiversity across different sectors. Although legal tools such as Environmental Impact Assessment (EIA) have been widely adopted, actions to effectively protect ES are still insufficiently defined.[49]

Despite implementation challenges faced by signatory states, these international agreements have not only shaped national policies but have also offered a robust framework for legal reforms addressing environmental damage. By aligning national legislation with international standards, countries can significantly improve environmental protection, ensuring that restoration and recompense become central elements of their legal responses to environmental harm. Such alignment helps bridge the gap between global commitments and practical outcomes, contributing to more effective and sustainable environmental governance at the national level.

The state of Victoria, Australia, serves as a strong example of commitment to environmental protection. Individuals who breach environmental protection laws are prosecuted under the Environment Protection Amendment Act 2018. Victoria's legal framework supports environmental restoration through provisions for a "Restorative Project" that may be imposed on offenders. Section 332 of the Act reads as follows:

(1) *The Court may order the person to carry out a project for the restoration or enhancement of the environment in a public place or for the public benefit, whether or not the project is related to the offense or contravention.*
(2) *Without limiting subsection (1), an order under that subsection may require the person to pay an amount of money for carrying out a project for the restoration or enhancement of the environment in a public place or for the public benefit to:*
   (a) *a specified person or organization; or*
   (b) *the Restorative Project Account.*

[49] C. Prip, *The Convention on Biological Diversity as a Legal Framework for Safeguarding Ecosystem Services*, „Ecosystem Services" 2018, 29, Part B, pp. 199–204.

For example, in the case of Geelong Landfill Pty Ltd (ACN 169 212 828), which violated license conditions in Fyansford contrary to ssection 63(1), the court ruled that:

a. The defendant was released after providing a guarantee.
b. The defendant was ordered to pay $10,000.00 into the Court Fund and was directed to pay costs of $5,658.00 to the Environmental Protection Authority (EPA).
c. A Restorative Project Order was granted under Section 332, requiring the payment of $50,000 to the Corangamite Catchment Management Authority within 60 days for the Moorabool River Restoration Project.[50]

In New South Wales, the Environmental Protection Authority (EPA) plays a key role in regulating pollution through Environmental Protection Licences (EPLs) under the Protection of the Environment Operations Act 1997. This regulatory approach aligns with the Polluter Pays Principle, which holds polluters accountable and enforces compliance with pollution control measures.[51] In 2015, amendments to the Protection of the Environment Operations Act 1997 No 156, alongside other acts (e.g. the Contaminated Land Management Act 1997 and the Radiation Control Act 1990), empowered the Land and Environment Court of New South Wales (NSWLEC) to impose Restorative Justice measures for environmental offences. Under Section 250(1)(c) and (e), the court may:

(c) *Order the offender to carry out a specified project for the restoration or enhancement of the environment in a public place or for the public benefit.*
(e) *Order the offender to pay a specified amount to the Environmental Trust established under the Environmental Trust Act 1998, or to a specified organization, for the purposes of a specified project for the restoration or enhancement of the environment or for general environmental purposes.*

The principle of Restorative Justice is further reinforced in subsection (1A), which provides:

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50 Geelong Landfill Pty Ltd (ACN 169 212 828), *Environment Protection Authority Victoria*, 2022. Available from: https://www.epa.vic.gov.au/about-epa/public-registers/court-proceedings/geelong-landfill. (accessed: 24.06.2024).

51 N. Belmer, K. Paciuszkiewicz, I.A. Wright, *Regulated Coal Mine Wastewater Contaminants Accumulating in an Aquatic Predatory Beetle (Macrogyrus Rivularis): Wollangambe River, Blue Mountains New South Wales Australia*, „American Journal of Water Science and Engineering" 2019, 5(2), p. 76.

 DOI: 10.7206/kp.2080-1084.772

> *"Without limiting subsection (1) (c), the court may order the offender to carry out any social or community activity for the benefit of the community or persons adversely affected by the offense (a restorative justice activity) that the offender has agreed to carry out. However, the Local Court is not authorized to make an order under this subsection."*

A key limitation of Section 250(1A) is the requirement of the offender's consent, making voluntary participation a fundamental component of Restorative Justice.

In New Zealand, environmental offences are governed by the Resource Management Act 1991. Provisions for restoration orders and compensation are found in Section 314 of the Act. Additionally, the Sentencing Act 2002 provides for Restorative Justice procedures. Although not specific to environmental crimes, the Sentencing Act applies to all offences in New Zealand and is used in conjunction with prosecutions under the Resource Management Act. According to a 2012 report from the Ministry for the Environment, between 1 July 2001 and 30 September 2012, Restorative Justice processes were ordered in 33 cases under the Resource Management Act.[52] These processes typically took place after charges had been filed but prior to sentencing.

One notable example is the case *Northland Regional Council v Fulton Hogan Ltd, Cates Bros Ltd & North End Contractors Ltd, Whangarei District Council & T Perkinson* (DC Whangarei, CRN 09088500008, 023, 028–034 & 039, 13 October 2009 and 6 May 2010), where the defendants polluted a tributary through discharges from an unauthorised landfill site. Four defendants were placed on probation after engaging in a Restorative Justice process. This included cooperation with local indigenous communities and the signing of a memorandum of understanding to establish a native plant nursery.

## Conclusion

It may be critically concluded that the formulation of sanctions involving restoration, recompense, and customary fines within Indonesia's environmental legislation does not fully reflect the intended objectives of the law itself. By contrast, there is a clear alignment between the local wisdom of Indonesian communities and the developments in green victimology, which recognises that the victims of environmental harm are not limited to humans, but also include non-human entities, ecosystems, and future generations. Both the local wisdom approach and green

[52] Ministry for the Environment (New Zealand), *A study into the use of prosecutions under the Resource Management Act 1991*, 1 July 2008–30 September 2012.

victimology highlight restoration, recompense, and customary fines as more appropriate forms of sanction. Consequently, it is time for environmental damage mitigation strategies to be guided by the traditional wisdom of indigenous communities. This is especially relevant in light of the recognition of customary criminal law in the revised Indonesian Criminal Code (KUHP) of 2023. Moreover, through the perspective of green victimology, the potential for applying restorative justice remains viable, provided that environmental harm can be meaningfully remedied. This is further reinforced by comparative criminal law analyses from Australia and New Zealand, where sanctions involving restoration and compensation are applied in response to environmental damage, and access to restorative justice is available in the adjudication of environmental cases.

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