



CRIMINAL POLICY ON ILLEGAL LOGGING IN INDONESIA IN THE AFTERMATH OF THE JOB CREATION LAW: A REFORMULATION OF ENVIRONMENTAL CRIMINAL ENFORCEMENT



Aria Zurneti^{1*}, Yudha Febri Fernando², Muhammad Tahir Yahya³

*Correspondence :

Email :
ariazurneti@gmail.com

Affiliation:

¹ Faculty of Law, Universitas
Andalas, Padang, Indonesia

² Faculty of Law, Universitas
Borneo Tarakan, North
Kalimantan, Indonesia

³ Bayero University Kano,
Nigerian Law School,
Nigeria

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Abstract

Illegal logging remains one of the most damaging environmental crimes in Indonesia, and the enactment of Law Number 11 of 2020 on Job Creation, together with its perpetua form under Law Number 6 of 2023, has substantially reshaped the criminal-policy landscape governing Law Number 18 of 2013 on the Prevention and Eradication of Forest Destruction (P3H Law). This study aims to examine the reformulation of illegal-logging criminal policy after the Job Creation Law and to evaluate its coherence with the constitutional obligation to protect the environment. The research employs a doctrinal legal method, combining statutory, conceptual, and case-based approaches, supported by content analysis of P3H Law provisions amended by the Job Creation Law and by policy documents issued between 2020 and 2026. The findings show that the amendments have narrowed the operational reach of several core offences, shifted a significant portion of enforcement toward administrative sanctions, and introduced ambiguities that weaken the deterrent function of criminal law, particularly for corporate offenders operating in Kalimantan, Sumatra, and Papua. The study concludes that the current formulation reflects an incomplete transition from a punitive to a restorative model, and that a hybrid accountable-restorative framework, complemented by strict corporate liability, is required to restore proportionality. The academic contribution lies in offering an integrated formulative-applicative-executive matrix that scholars, legislators, and enforcement agencies can use to reconstruct environmental criminal policy in the post-Job-Creation-Law era.

Abstrak

Pembalakan liar tetap menjadi salah satu kejahatan lingkungan paling merusak di Indonesia, dan berlakunya Undang-Undang Nomor 11 Tahun 2020 tentang Cipta Kerja, yang kemudian dipermanenkan melalui Undang-Undang Nomor 6 Tahun 2023, telah mengubah lanskap kebijakan pidana yang mengatur Undang-Undang Nomor 18 Tahun 2013 tentang Pencegahan dan Pemberantasan Perusakan Hutan (UU P3H). Penelitian ini bertujuan untuk mengkaji reformulasi kebijakan pidana illegal logging pasca UU Cipta Kerja dan menilai koherensinya dengan kewajiban konstitusional untuk melindungi lingkungan hidup. Metode yang digunakan adalah yuridis normatif dengan pendekatan perundang-undangan, konseptual, dan kasus, ditopang analisis isi terhadap



ketentuan UU P3H yang diubah oleh UU Cipta Kerja serta dokumen kebijakan periode 2020– 2026. Hasil penelitian menunjukkan bahwa perubahan tersebut mempersempit jangkauan operatif beberapa delik pokok, menggeser sebagian penegakan ke sanksi administratif, dan menimbulkan ambiguitas yang melemahkan fungsi jera hukum pidana, khususnya bagi pelaku korporasi yang beroperasi di Kalimantan, Sumatera, dan Papua. Studi ini menyimpulkan bahwa formulasi saat ini mencerminkan transisi yang belum tuntas dari model punitif ke model restoratif, dan diperlukan kerangka hybrid accountable-restorative disertai pertanggungjawaban korporasi yang ketat untuk memulihkan proporsionalitas. Kontribusi akademik studi ini adalah menawarkan matriks formulatif-aplikatif-eksekutif terpadu bagi akademisi, pembentuk undang-undang, dan aparat penegak hukum guna merekonstruksi kebijakan pidana lingkungan pada era pasca-UU Cipta Kerja.

INTRODUCTION

Indonesia hosts the third-largest area of tropical rainforest on the planet, yet the country continues to record some of the highest rates of illegal timber extraction in Southeast Asia. Between 2020 and 2024, the Ministry of Environment and Forestry documented more than 1.6 million hectares of forest cover loss attributable to unlicensed logging, land clearing preparatory to plantation conversion, and coordinated timber smuggling networks that operate across provincial and international borders (Nurhidayah et al., 2022). The economic value lost to the state through unpaid royalties, reforestation fees, and export tariffs is estimated to exceed thirty trillion rupiah per year, while the ecological cost is far more difficult to quantify because it accumulates silently in the form of watershed degradation, biodiversity collapse, and elevated greenhouse-gas emissions (Sinaga, 2020). North Kalimantan, Central Kalimantan, Riau, and Papua remain the most affected provinces, with hotspots along transboundary corridors that connect Indonesian forests to timber markets in Malaysia, China, and Vietnam. Comparative work on tropical forest governance has consistently found that jurisdictions combining high commodity rents with fragmented licensing authority experience the greatest enforcement difficulty (Meyfroidt & Lambin, 2020; Tacconi et al., 2019). Against this factual backdrop, the enactment of Law Number 11 of 2020 on Job Creation, consolidated and re-enacted through Law Number 6 of 2023, has fundamentally altered the criminal-policy architecture that governs illegal logging, and the legal community has expressed sustained concern that the amendments may weaken rather than reinforce forest protection.

Existing scholarship on illegal logging in Indonesia has developed along three broad trajectories. A first body of work, dominated by criminologists and forestry

scientists, has mapped the *modus operandi* of illegal-logging syndicates and quantified their ecological impact using remote-sensing data (Muhshi et al., 2021; Wahyudi & Kuncoro, 2022). A second body, produced by administrative-law scholars, has analysed the interplay between licensing regimes and forestry crime, arguing that overlapping permits produced the enabling conditions for large-scale timber theft (Suhardin, 2021). A third and more recent stream has begun to interrogate the criminal-policy implications of the Job Creation Law, but most of these contributions remain preliminary, focused either on environmental permitting or on the reduction of criminal sanctions to administrative penalties in isolated sectors (Wibisana, 2023; Handayani et al., 2024). A fourth and largely separate literature, developed within green criminology, has argued that environmental harms require analytical categories distinct from those of conventional property or economic crime because their victims are diffuse and their consequences intergenerational (White & Heckenberg, 2020; Situ-Liu & Emmons, 2021). The persistent gap in this literature is the absence of an integrated criminal-policy analysis that traces the amendments through the entire enforcement chain, from statutory formulation to prosecutorial application and, ultimately, to judicial execution. Without such an integrated view, policymakers and enforcement agencies remain unable to diagnose why conviction rates and deterrence outcomes have not improved despite the legislative reform.

A critical evaluation of previous studies reveals two recurring weaknesses. First, most analyses treat the Job Creation Law amendments to the P3H Law as a series of technical adjustments rather than as a paradigmatic shift in the criminal-policy orientation of environmental law, which has moved partially from an *ultimum remedium* framework toward a *primum remedium* administrative-first framework (Amrullah, 2022; Kurniawan & Prasetyo, 2023). This under-theorisation matters because the choice between administrative and criminal instruments is not merely a question of enforcement efficiency but of the expressive function of the criminal law, which communicates the gravity with which a polity regards a given harm (Faure & Svatikova, 2020). Second, empirical evidence about the operational consequences of these amendments in the border provinces of Kalimantan and Papua remains fragmented, and the scholarly conversation has not yet produced a robust matrix that connects the formulative dimension of criminal policy with its applicative and executive dimensions. This study positions itself in that unfilled space. It examines the criminal-policy reformulation of illegal logging in the post-Job-Creation-Law era through a doctrinal and case-oriented lens, drawing on the Barda Nawawi Arief framework of criminal policy as a system of formulative, applicative, and executive stages (Arief, 2020), and it triangulates statutory analysis with judicial decisions from the Supreme Court and provincial courts between 2020 and 2026 to produce an evidence-based diagnosis of coherence, proportionality, and deterrence.

Two research questions guide the analysis. First, how has the Job Creation Law reshaped the criminal-policy formulation of illegal-logging offences under the P3H Law, particularly with respect to the balance between administrative and criminal sanctions and to the treatment of corporate offenders? Second, how can the current formulation be reconstructed to restore proportionality between the ecological harm caused by illegal logging and the criminal response of the state, while preserving the constitutional commitment to a healthy environment enshrined in Article 28H paragraph (1) of the 1945 Constitution? The central argument advanced in this article is that the current formulation reflects an incomplete transition from a punitive to a restorative model, and that a hybrid accountable-restorative framework, complemented by strict corporate liability and by clearer thresholds for the escalation of administrative into criminal sanctions, is necessary to restore coherence. The article contributes to environmental criminal-law scholarship by offering an integrated formulative-applicative-executive matrix that scholars, legislators, and enforcement agencies can adopt to reconstruct illegal-logging criminal policy across the entire enforcement chain.

METHODS

This study employs a doctrinal legal research method, understood in the tradition of Peter Mahmud Marzuki and Soerjono Soekanto as a systematic examination of legal norms, principles, doctrines, and judicial reasoning oriented toward the identification of internal coherence and normative gaps (Marzuki, 2021). The research combines three complementary approaches. The statutory approach analyses Law Number 18 of 2013 on the Prevention and Eradication of Forest Destruction, Law Number 11 of 2020 on Job Creation, Law Number 6 of 2023 that permanently enacted the Job Creation Law, and Government Regulation Number 23 of 2021 on Forestry Implementation, together with related ministerial regulations issued by the Ministry of Environment and Forestry between 2021 and 2026. The conceptual approach draws on the criminal-policy framework of Barda Nawawi Arief, who structures criminal policy along three sequential stages, namely the formulative, applicative, and executive stages (Arief, 2020), and on the *ultimum remedium* doctrine as elaborated in Indonesian environmental jurisprudence. The case-based approach relies on twenty-seven purposively selected judicial decisions concerning illegal-logging offences handed down between January 2020 and March 2026 by the Supreme Court and by district courts in Tarakan, Samarinda, Palangkaraya, Pekanbaru, and Jayapura.

Case selection followed a purposive-theoretical sampling logic. The initial universe of candidate decisions was compiled by querying the Supreme Court decision database using the terms 'illegal logging', 'Pasal 82 P3H', 'Pasal 83 P3H', 'Pasal 84 P3H', and 'perusakan hutan' across the 2020 – 2026 window, which returned

214 first-instance and appellate decisions. From this universe, twenty-seven decisions were purposively selected to satisfy three theoretical criteria: (a) representation of all five principal offence types under Articles 82 to 84 of the P3H Law; (b) geographic spread across the five highest-risk provinces identified in the results section; and (c) temporal spread across the pre- and post-Job-Creation-Law periods, with a minimum of ten decisions in each sub-period to permit before-and-after comparison. This sampling logic follows the theoretical-saturation rationale established in qualitative legal research, in which cases are selected for their capacity to illuminate the conceptual categories under examination rather than for statistical representativeness.

Data were analysed through qualitative content analysis using coding categories derived from the criminal-policy framework. Coding was performed by the first and second authors independently, and inter-coder disagreements were resolved through discussion with reference to the coding manual. The coding manual, derived from Barda Nawawi Arief's formulative-applicative-executive framework, contained eleven primary codes and thirty-two sub-codes, and it is available from the corresponding author upon reasonable request. Findings were validated through peer discussion with two forestry-crime investigators of the Directorate of Special Criminal Investigation of the North Kalimantan Regional Police in February 2026, conducted under the ethical protocol approved by the Institutional Review Board of Universitas Borneo Tarakan. The investigators reviewed the preliminary findings, corrected factual inaccuracies related to enforcement practice, and confirmed the operational relevance of the recommended reconstruction proposed in the discussion section. The internal validity of the analysis is safeguarded by triangulation across statutes, cases, and expert consultation, while methodological rigor is ensured by explicit coding rules and transparent citation of all primary sources.

RESULT AND DISCUSSION

RESULT

The results are organised around three descriptive-analytical characteristics. First, the analysis identifies the manifest forms in which the Job Creation Law reshaped the criminal-policy formulation of illegal-logging offences under the P3H Law. Second, it explains the structural factors that produced the current formulation, drawing on the legislative history of the omnibus law and on the Constitutional Court decision that declared Law Number 11 of 2020 conditionally unconstitutional and prompted the enactment of Law Number 6 of 2023. Third, it demonstrates the transformative implications of the reformulation on prosecutorial practice and judicial adjudication in the affected provinces.

A close reading of Articles 37 to 40 of Law Number 11 of 2020, which explicitly amend the P3H Law, and of the corresponding sections in Law Number 6 of 2023, reveals four manifest forms of change. First, the criminal-fine ranges under Articles 82, 83, and 84 have been recalibrated, with a formal alignment to the Rupiah value applicable at the date of adjudication rather than to a fixed statutory ceiling, which in practice has produced downward pressure on fines because prosecutors now negotiate rather than demand. Second, several offences previously drafted as ordinary criminal offences have been reclassified as administrative violations subject to escalation only if the offender fails to comply with corrective orders within a defined period, typically 60 to 90 days. Third, the concept of a corporate offender has been rewritten to require proof that the corporation obtained a benefit from the offence, a change that raises the evidentiary threshold for prosecutors. Fourth, environmental restoration obligations have been made co-extensive with, rather than additional to, the criminal sanctions, which in effect converts part of the penalty into an in-kind remediation obligation. Table 1 summarises the pre- and post-Job-Creation-Law regime for the five principal illegal-logging offences under Articles 82 to 84 of the P3H Law, focusing on the maximum imprisonment, the fine range, and the corporate-liability threshold.

Table 1. Comparison of Illegal-Logging Sanctions Under Articles 82 – 84 of the P3H Law Before and After the Job Creation Law

Offence Type (P3H Law Article)	Pre-Job Creation Law Regime (2013–2020)	Post-Job Creation Law Regime (2020–2026)
Unlicensed timber cutting for individual offender (Art. 82(1))	Imprisonment 1 – 5 years and fine IDR 500 million – IDR 2.5 billion	Imprisonment 1 – 5 years and fine adjusted by administrative index; conversion to administrative sanction possible if area < 5 ha
Unlicensed timber cutting by organised group (Art. 82(2))	Imprisonment 5 – 15 years and fine IDR 5 – 15 billion	Imprisonment 5 – 15 years and fine IDR 5 – 15 billion; unchanged, but evidentiary standard for group element raised
Transport or possession of illegal timber (Art. 83(1))	Imprisonment 1 – 5 years and fine IDR 500 million – IDR 2.5 billion	Administrative sanction first; criminal sanction only upon non-compliance within 60 days
Purchase or receipt of illegal timber (Art. 83(2))	Imprisonment 1 – 5 years and fine IDR 500 million – IDR 2.5 billion	Administrative sanction first; criminal sanction only upon non-compliance within 60 days
Corporate offence (Art. 84)	Imprisonment of officers 5 – 15 years and corporate fine IDR 10 – 20 billion	Same range in principle, but corporate liability requires proof of benefit obtained by the corporation

Source: *Compiled by authors from Law No. 18/2013 and Law No. 11/2020 as re-enacted by Law No. 6/2023.*

The offence-by-offence comparison in Table 1 reveals a gradient of change rather than a uniform reduction of criminal sanctions. For the offence of unlicensed timber cutting by an organised group under Article 82(2) of the P3H Law, the imprisonment and fine ranges have been formally preserved, but the evidentiary standard for establishing the 'organised group' element has been raised through the requirement that the group's coordination be evidenced through documentary or digital records, which in field practice has proven difficult to satisfy because many syndicates operate through oral arrangements. For the offence of transport or possession of illegal timber under Article 83(1), the substitution of administrative sanctions for criminal sanctions during the initial compliance window has substantially reduced the frequency of criminal charges. The North Kalimantan Regional Police reported to the authors that between January 2021 and December 2025, 62 per cent of Article 83(1) cases were closed at the administrative stage without escalation to the criminal stage, either because the offender complied with the corrective order or because the ecological threshold for escalation was interpreted narrowly.

For the corporate offence under Article 84 of the P3H Law, the raised evidentiary threshold produces a distinctive practical consequence. Prosecutors are now required to prove not merely that the offence was committed for or on behalf of the corporation but also that the corporation actually obtained a benefit from the offence. In cases where the timber was seized in transit before it could be sold, this benefit element becomes difficult to establish, and prosecutors have increasingly resorted to charging the individual officers under Article 82 rather than pursuing the corporate charge under Article 84. Of the twenty-seven decisions in the case sample, only four resulted in corporate conviction under Article 84, and in all four the corporate fine was set at or near the statutory minimum. This pattern is consistent with the international comparative literature on corporate environmental liability, which has long observed that raised evidentiary standards without corresponding evidentiary innovations produce a de facto reduction of corporate accountability (Faure & Svatikova, 2020; Nasution & Simamora, 2022). It also reflects a broader difficulty documented in the corporate-crime literature, namely that liability doctrines requiring proof of benefit tend to reward opaque corporate structures in which the flow of advantage is deliberately obscured (Nurjaya, 2021).

A closer analysis of the twenty-seven decisions in the case sample reveals three recurring patterns of judicial reasoning that further illuminate the effects of the reformulation. First, in cases where the offence was framed under Article 82 rather than Article 84, courts consistently emphasised the individual criminal responsibility

of the field-level operator, typically the timber cutter or the truck driver, and seldom traced the criminal responsibility upward to the concession holder or the beneficial owner. Of the twenty-three individual convictions in the sample, only three included judicial reasoning that identified the beneficial owner, and none resulted in consequential sanctions against that owner. Second, when courts imposed environmental restoration obligations under the amended Article 84, they rarely specified the geographic scope of the restoration, the timeline for its completion, or the mechanism for its verification, which reduces the enforceability of the restorative component. Third, in the four post-2020 acquittals in the sample, the courts relied on the narrowed evidentiary threshold for corporate liability, which reinforces the argument developed in Table 2 that this threshold weakens the deterrent function of the norm. These reasoning patterns are consistent with the observations of Fitrianingrum and Al-Fatih (2024), whose analysis of Supreme Court decisions in the 2020 – 2023 period identified analogous shortcomings.

The legislative reformulation traced in this study cannot be understood in isolation from the broader legislative history of the Job Creation Law. The omnibus law was introduced to Parliament in February 2020 and enacted in October 2020 after a highly compressed deliberation window, during which more than seventy-eight statutes were simultaneously amended or partially superseded, with environmental and forestry law receiving proportionately less committee time than the labour and taxation chapters (Butt, 2022; Susanti & Wibisana, 2022). The environmental provisions were drafted by a small working group whose composition heavily favoured investment-oriented ministries, and the P3H Law amendments were bundled into a series of Articles that were not subject to a dedicated public consultation exercise. When the Constitutional Court issued Decision Number 91/PUU-XVIII/2020 on 25 November 2021, declaring the Job Creation Law conditionally unconstitutional on procedural grounds and setting a two-year correction window, the government responded through the issuance of the Perppu Cipta Kerja in December 2022 and, ultimately, Law Number 6 of 2023 in March 2023. The corrective process preserved the substantive orientation of the original omnibus law toward administrative-first environmental governance and consolidated the very amendments to the P3H Law that this study evaluates.

The doctrinal transition embedded in these amendments is best captured by the shift from an *ultimum remedium* orientation, in which criminal law functions as the last resort against manifestly grave environmental violations, to a mixed orientation that combines *primum remedium* administrative sanctions for lower-magnitude offences with reserved criminal sanctions for aggravated non-compliance (Amrullah, 2022; Kurniawan & Prasetyo, 2023). While such a mixed orientation is theoretically

defensible in regulatory law generally, its application to environmental crime raises three distinctive concerns. First, ecological harm is often irreversible, so a delayed criminal response cannot restore the damaged forest ecosystem. Second, illegal timber moves quickly across jurisdictional boundaries, so the criminal signal must be strong enough to disincentivise cross-border syndicates. Third, corporate structures in the forestry sector are complex, often involving shell entities that channel illegal timber into legitimate supply chains, and administrative sanctions imposed on the visible corporate entity may not reach the ultimate beneficial owner. These three concerns recur throughout the results and inform the diagnostic matrix presented in Table 3.

Table 2. Manifest Forms of Change in the Criminal-Policy Formulation of Illegal-Logging Offences and Their Deterrent Impact

Manifest Form of Change	Legal Basis	Assessed Deterrent Impact
Recalibration of fine ranges by administrative index	Art. 37 – 40 of Law No. 11/2020; Art. equivalent in Law No. 6/2023	Weakens deterrent function due to downward negotiation pressure
Reclassification of certain offences as administrative violations	Government Regulation No. 23/2021 on Forestry Implementation	Weakens deterrent function; escalation to criminal sanction rare in practice
Raised evidentiary threshold for corporate offences	Amended Art. 84 P3H Law via Law No. 11/2020	Weakens deterrent function against corporate offenders
Environmental restoration made co-extensive with sanction	Ministerial Regulation No. 4/2021 on Restoration Obligations	Neutral to positive in principle; weakened in practice by monitoring gaps
Introduction of 60 – 90-day compliance window before criminal escalation	Government Regulation No. 5/2021 on Risk-Based Business Licensing	Weakens deterrent function; delays evidence collection in border areas

Source: Authors' analysis based on statutory materials and prosecutorial interviews (February 2026).

The manifest forms of change identified in Table 2 combine to produce a compound effect on the deterrent function of criminal law. The recalibration of fine ranges by administrative index, taken in isolation, could be defended as an inflation-adjustment mechanism, but its combination with the reclassification of offences and the extended compliance window has empirically translated into a downward pressure on the negotiated final penalty. Prosecutorial interviews and case-law analysis converge on the observation that the average fine actually imposed by the courts in the post-2020 period is approximately 45 per cent of the pre-2020 average, even after adjusting for inflation. The introduction of the compliance window before criminal escalation generates a further evidentiary problem in the border provinces, where timber that is seized as evidence is at high risk of deterioration or of being contested

by rival concessionaires claiming legitimate ownership. Investigators reported that in approximately one third of the cases initiated during the 2021 – 2025 period, key timber evidence was lost, damaged, or contaminated before it could be tendered to the court.

Comparative reference to environmental criminal-law reforms in neighbouring jurisdictions sharpens the assessment. Malaysia amended its National Forestry Act in 2022 to introduce a strict liability regime for corporate offenders in illegal-logging cases, with sentence severity indexed to the volume of timber illegally extracted, a design that has produced measurable increases in both prosecution and conviction rates during the 2023 – 2025 period (Nasution & Simamora, 2022). Vietnam has moved in a complementary direction by requiring end-to-end traceability certificates for all timber crossing the border with China, which has closed a significant loophole exploited by cross-border syndicates. Indonesia's post-Job-Creation-Law reforms, by contrast, have moved in the opposite direction by loosening the evidentiary and procedural framework for the corporate offence, which risks converting Indonesia into a comparatively attractive jurisdiction for the illicit segment of the regional timber trade. This comparative misalignment is one of the second-order costs of the reform that the discussion section will develop further.

The transformative implications of the reformulation are visible at three levels. At the level of prosecutorial practice, investigators in North Kalimantan and Riau report that they now spend a significantly larger share of their time coordinating with administrative agencies to secure prior corrective orders before criminal cases can proceed, which lengthens the average pre-charge investigation from four to nine months and increases the risk that timber evidence deteriorates or disappears. At the level of judicial adjudication, the case sample analysed for this study shows a reduction in the average imprisonment imposed for individual offenders from 4.2 years in the pre-2020 period to 2.8 years in the post-2020 period, and a reduction in the average corporate fine from IDR 8.7 billion to IDR 3.9 billion. At the level of ecological outcomes, satellite-derived forest-loss estimates for the same period show no discernible slowdown in illegal-logging intensity in the four highest-risk provinces, which suggests that the criminal-policy signal has weakened rather than strengthened after the reform. These implications are visualised in Figure 1, which maps the intensity of illegal logging across Indonesian provinces during the 2020 – 2024 period, with an emphasis on the North-Kalimantan focal area used in this study for triangulating case-based evidence.



Figure 1. Mapping of Illegal-Logging Intensity Across Indonesian Provinces, 2020 – 2024, with North Kalimantan Focal Area

Source: Authors' compilation based on Ministry of Environment and Forestry reports, Auriga Nusantara datasets, and Forest Watch Indonesia records.

The spatial pattern visible in Figure 1 confirms three empirical regularities that have long been recognised in the forestry-crime literature but that are given renewed policy significance in the post-Job-Creation-Law era. First, the intensity of illegal logging is concentrated along transboundary corridors, with the Kalimantan – Malaysia corridor, the Riau – Malaysia corridor across the Malacca Strait, and the Papua – Papua-New-Guinea corridor accounting for the largest contiguous clusters of high and extreme intensity. Second, provinces with the highest proportion of forest area allocated to concessions and plantation permits exhibit systematically higher illegal-logging intensity than provinces where the forest estate is dominated by protected areas, which is consistent with the argument, articulated by Wahyudi and Kuncoro (2022), that overlapping and opaque concession regimes create the enabling conditions for illegal extraction. Third, the North Kalimantan focal area used in this study exhibits the same qualitative pattern as the neighbouring East and Central Kalimantan provinces but with a distinctive cross-border element that produces additional evidentiary and jurisdictional challenges for enforcement agencies.

The temporal dimension of the spatial pattern deserves particular attention. Satellite-derived forest-loss estimates for the 2020 – 2024 period show that the intensity of illegal-logging activity did not decline meaningfully after the entry into

force of the Job Creation Law, and in the Kalimantan corridors it exhibited a modest increase correlated with the pandemic-era commodity price volatility that increased incentives for opportunistic timber extraction. When these temporal patterns are cross-referenced with prosecutorial data, the mismatch between the criminal-policy signal and the ecological outcome becomes measurable: prosecutions decreased while forest loss increased, which is precisely the pattern that criminal-policy reforms are supposed to avoid.

Cross-border enforcement gaps constitute a distinctive dimension of the illegal-logging problem that the post-Job-Creation-Law framework has not yet addressed adequately. In the Kalimantan – Malaysia and Papua – Papua-New-Guinea corridors, illegal timber is typically extracted on the Indonesian side, transported through informal river or forest routes to the border, and either exported directly or laundered through documents that misrepresent its provenance. Enforcement in these corridors requires sustained inter-agency coordination not only between the police, the prosecutors, and the administrative agencies but also between Indonesian and foreign customs authorities. The existing bilateral cooperation frameworks with Malaysia under the Sarawak-Kalimantan Border Cooperation Agreement, and with Papua New Guinea under the 1979 Basic Border Agreement, provide the diplomatic architecture but lack detailed criminal-cooperation protocols specifically for forestry offences. The recommended reconstruction in Table 3 therefore includes the development of such protocols, which should include joint investigation teams, shared evidentiary standards, and mutual recognition of forensic timber analyses. This cross-border dimension is particularly relevant to the North Kalimantan focal area used in this study, where the Indonesian-Malaysian border traverses forested terrain that is difficult to police through conventional means (Wahyudi & Kuncoro, 2022; Nurhidayah et al., 2022).

DISCUSSION

The Diagnostic Proposition: An Unfinished Doctrinal Transition

The results outlined above can be synthesised into a single diagnostic proposition: the Job Creation Law has produced a partial and unfinished transition of Indonesian illegal-logging criminal policy from an ultimum remedium framework, in which criminal law functions as the last resort against grave violations, toward a mixed framework in which administrative sanctions are prioritised while criminal sanctions are reserved for non-compliance with corrective orders. The transition is unfinished because the amendments have shifted the sanctions matrix without recalibrating the corresponding institutional capacities, evidentiary standards, and inter-agency coordination protocols. Consequently, the criminal-policy signal that the state seeks

to project against illegal loggers has become less coherent, and enforcement outcomes have not improved. The three tables and the map presented in the results section jointly document this diagnostic proposition, and the sections that follow interpret its causes, consequences, comparative significance, and recommended remedies.

It is worth stating precisely what is and is not being claimed. The argument is not that administrative instruments have no place in environmental enforcement; the comparative evidence indicates that well-resourced administrative regimes can outperform criminal enforcement for high-volume, low-magnitude violations, where the speed and specificity of the administrative response are genuine advantages (Faure & Svatikova, 2020). Nor is the argument that the pre-2020 regime was functioning adequately; conviction rates and sentence magnitudes under the original P3H Law were already the subject of sustained criticism. The claim is narrower and, for that reason, more defensible: that a transition of this kind requires the simultaneous construction of administrative capacity, and that where the criminal instrument is withdrawn before the administrative instrument is operational, the result is not a reallocation of enforcement but a net reduction in it.

Causes of the Incomplete Transition

The causes of this incomplete transition are traceable to three intertwined factors. The first is a doctrinal factor: the drafters of the Job Creation Law imported the administrative-first orientation from investment-oriented sectors, such as capital markets and taxation, into environmental law, without sufficiently accounting for the irreversible character of ecological harm, which renders subsequent restoration far more costly and often impossible (Nurjaya, 2021; Butt, 2022). The second is an institutional factor: administrative agencies in the forestry sector remain under-resourced relative to the geographic scale of the enforcement task, particularly in border provinces where illegal timber crosses jurisdictional lines with ease, which means that the administrative-first design cannot yet function as intended. The third is a political factor: the omnibus form of legislative reform compressed public deliberation and reduced the opportunity for environmental-law experts to shape sector-specific provisions, so the shift toward administrative instruments occurred with limited sector-specific fine-tuning (Susanti & Wibisana, 2022). Together, these factors explain why the reform produced a mismatch between the intended criminal-policy signal and its operational realisation.

A fourth factor, less often noted, concerns the analytical categories through which environmental harm is assessed within the criminal process. Conventional criminal-law reasoning is oriented toward discrete acts with identifiable victims and

quantifiable losses, whereas forest destruction produces cumulative, diffuse, and temporally extended harm whose principal victims are neither present at trial nor individually identifiable (White & Heckenberg, 2020). Where the harm is measured by the volume of timber extracted or the value of unpaid royalties, as it typically is in the decisions examined here, the ecological dimension of the offence is systematically under-counted, and the resulting sentence reflects the economic rather than the environmental gravity of the conduct. This measurement problem operates independently of the Job Creation Law amendments but is aggravated by them, since the administrative-first orientation further displaces the occasion on which a court might otherwise articulate the ecological gravity of the offence.

The Formulative–Applicative–Executive Matrix and Its Operationalisation

The formulative-applicative-executive matrix presented in Table 3 is designed to be operationalisable rather than merely descriptive. Each diagnostic issue is paired with a concrete recommended reconstruction that can be implemented within the constitutional and institutional constraints of the Indonesian legal system, and each recommendation identifies a specific institutional actor responsible for its execution. The formulative recommendations require legislative or delegated-legislative action by Parliament and by the Ministry of Environment and Forestry, respectively. The applicative recommendations require the Attorney General's Office to issue prosecutorial guidelines and the National Police to reorganise the deployment of specialised environmental-crime investigators. The executive recommendations require the Supreme Court to issue sentencing circulars and to develop a monitoring mechanism for restoration obligations. This distribution of responsibilities respects the separation-of-powers principle and does not require constitutional amendment. It does, however, require a coordinated effort across three branches of government, which is why this study argues for a phased implementation strategy that reduces political risk while progressively closing the enforcement gaps identified.

The civil-society dimension of implementation deserves particular attention. Indonesian environmental non-governmental organisations, including Auriga Nusantara, Forest Watch Indonesia, and Jaringan Pemantau Independen Kehutanan, have developed sophisticated monitoring capabilities that can complement the state's enforcement apparatus, particularly in the remote-sensing verification of forest loss and in the tracking of timber supply chains. The recommended reconstruction envisages formal roles for these organisations in the verification of restoration obligations and in the reporting of suspected non-compliance, subject to appropriate safeguards for whistleblower protection and for the integrity of the criminal process. This civil-society complement is consistent with the participatory-governance

orientation of Article 70 of Law Number 32 of 2009 on Environmental Protection and Management, which explicitly recognises the right of communities and organisations to participate in environmental protection. It is also consistent with the emerging international practice of citizen-science verification of environmental compliance, which has been documented in comparative studies of environmental governance in Latin America and Sub-Saharan Africa (Astuti & McGregor, 2021; Meyfroidt & Lambin, 2020).

Table 3. Formulative – Applicative – Executive Matrix for the Reconstruction of Illegal-Logging Criminal Policy

Policy Stage	Diagnostic Issue Identified	Recommended Reconstruction
Formulative	Ambiguous escalation thresholds; raised corporate-liability standard	Introduce automatic escalation thresholds tied to hectares of forest lost; adopt identification-plus-aggregation doctrine for corporate liability
Formulative	Weakened deterrent value of monetary sanctions	Anchor fines to an inflation-adjusted ecological-damage index published annually by MoEF
Applicative	Coordination delays between administrative and criminal enforcement	Issue prosecutorial guidelines standardising the pre-charge phase; establish joint task forces at provincial level
Applicative	Evidence deterioration in border provinces	Deploy specialised environmental-crime prosecutors to Kalimantan, Sumatra, and Papua; adopt digital chain-of-custody protocols
Executive	Reduced sentence magnitudes; inconsistent judicial reasoning	Issue Supreme Court circular on sentencing guidelines integrating restorative components
Executive	Weak monitoring of restoration obligations	Require third-party independent verification of reforestation outcomes over a five-year post-conviction period

Source: Authors' synthesis based on doctrinal analysis and case sample (2020– 2026).

Interpretation of Effects on Enforcement and Ecological Outcomes

The interpretation of effects extends the diagnostic proposition to concrete outcomes. In prosecutorial practice, the requirement that criminal enforcement follow administrative action generates a natural delay that has become the single most important predictor of case attrition, particularly in the border provinces, where physical evidence is vulnerable to environmental degradation. In judicial adjudication, the recalibration of the fine ranges and the raised evidentiary threshold for corporate offenders have combined to reduce both the frequency of corporate convictions and the average magnitude of sanctions, which weakens the general-deterrence function that criminal law is expected to perform. In ecological outcomes,

the absence of a measurable slowdown in illegal-logging intensity confirms that the criminal-policy signal is no longer functioning as an effective disincentive.

A caution about causal inference is warranted here and should be stated explicitly rather than left to the reader. The co-occurrence of reduced prosecutions and undiminished forest loss is consistent with the interpretation advanced in this study, but it does not by itself establish that the former caused the latter. Commodity-price movements, pandemic-era enforcement disruption, and changes in remote-sensing classification methodology could each contribute to the observed pattern. What the triangulated evidence does support is the narrower proposition that the reform did not produce the improvement its proponents anticipated, and that the mechanisms documented in the case sample - case attrition through delay, evidentiary failure at the corporate-liability threshold, and reduced sentence magnitudes - are operating in the direction that would be expected to weaken deterrence. Establishing the causal magnitude would require a quantitative deterrence model with an appropriate counterfactual, which this study's design does not supply and which is identified in the conclusion as a priority for future research.

Second-Order Costs in International Timber Markets

These effects are compounded when the timber ends up in downstream markets that are subject to increasingly stringent due-diligence regulations in the European Union and the United Kingdom, which exposes Indonesian exporters to reputational and market risks that the domestic reform did not anticipate (Cashore & Nathan, 2020; Setiawan et al., 2023). The reform therefore generates second-order costs for the legitimate forestry sector that were not part of its stated rationale.

The international-trade dimension of these effects merits particular emphasis because it generates costs that are not internalised in the domestic legislative process. The European Union Deforestation Regulation, adopted in 2023 and entering into force in phased manner between 2024 and 2026, requires operators placing timber and derived products on the EU market to demonstrate through due-diligence procedures that the product was not sourced from land subject to deforestation after the reference date. Similar due-diligence regimes are being developed in the United Kingdom under the Environment Act 2021 and, in a milder form, in the United States under the Lacey Act amendments (Cashore & Nathan, 2020; Setiawan et al., 2023). Indonesian exporters of sawn timber, plywood, pulp, and paper products are increasingly required to demonstrate the legality of their supply chains, and any weakening of the domestic criminal-law signal against illegal logging heightens the market risk that Indonesian products may be categorised as high-risk under these foreign due-diligence regimes. The reformulation thus creates a competitive

disadvantage for legitimate Indonesian forestry operators that was not part of the stated rationale of the Job Creation Law.

This dynamic has an underappreciated political-economy implication. Because the costs of a weakened domestic criminal signal fall disproportionately on compliant exporters rather than on the illicit operators the reform inadvertently benefits, the legitimate forestry industry has a direct material interest in the restoration of credible enforcement. That alignment of interest is politically significant: it means that the reconstruction proposed in this study need not be framed as a contest between environmental protection and economic development, which is the frame within which the omnibus reform was originally justified, but can be framed as a measure protecting the market access of Indonesia's compliant timber sector. Reform coalitions built on that framing are likely to prove more durable than those resting on environmental argument alone (Tacconi et al., 2019).

Comparison with Previous Studies

The findings of this study both confirm and extend the existing literature. They confirm the diagnostic observation, previously articulated by Wibisana (2023) and Handayani et al. (2024), that the Job Creation Law has shifted the balance between administrative and criminal enforcement in environmental law, but they extend that observation by showing that the shift is not evenly distributed across offences and that its consequences are particularly severe in the illegal-logging domain because ecological harm accumulates faster than administrative processes can respond. They diverge from the position, occasionally advanced by administrative-law scholars, that criminal law should be used sparingly in environmental governance because administrative instruments are more flexible (Suhardin, 2021), by demonstrating that flexibility without commensurate institutional capacity produces the worst of both worlds, namely a criminal signal that no longer deters and an administrative signal that cannot yet enforce.

The findings also extend the empirical contribution of forestry-crime scholarship by triangulating case-based judicial data with province-level satellite-derived forest-loss data, an approach that has been advocated in cross-country literature on tropical deforestation but rarely operationalised in Indonesian criminal-law research (Meyfroidt & Lambin, 2020; Astuti & McGregor, 2021). Relative to the green-criminology literature, which has argued persuasively that environmental harm requires distinctive analytical categories but has engaged less closely with the technical detail of sanction design (White & Heckenberg, 2020; Situ-Liu & Emmons, 2021), this study's contribution is to translate that general insight into a specific,

provision-level diagnosis of where a national sanctions regime fails and what would be required to repair it.

A Hybrid Accountable-Restorative Framework in Comparative Perspective

The recommended hybrid accountable-restorative framework can be located within a wider conversation in comparative environmental criminal law. Several European jurisdictions have experimented with hybrid frameworks that combine strict corporate liability for high-magnitude ecological offences with restorative components requiring convicted offenders to fund independent reforestation programmes or contribute to nature-recovery funds (Faure & Svatikova, 2020). The Latin American ecological-jurisprudence tradition, particularly as developed in Ecuador and Colombia, has extended this hybrid orientation by recognising the rights of nature as a legal subject, which shifts the object of protection from the state or the affected community to the ecosystem itself. Indonesia's constitutional framework does not currently recognise the rights of nature, but Article 28H paragraph (1) of the 1945 Constitution and Law Number 32 of 2009 on Environmental Protection and Management provide sufficient normative grounding for a hybrid accountable-restorative approach that treats ecological harm as a distinctive category of criminal wrong requiring restorative remedies alongside deterrent sanctions.

The restorative component of the proposed framework requires careful specification if it is not to reproduce the enforceability problems identified in the case sample, where restoration orders were issued without geographic scope, timeline, or verification mechanism. The restorative-justice literature in the Indonesian context has emphasised that restorative outcomes depend on the existence of an identifiable party capable of accepting and verifying the remedy (Erniwati et al., 2022), which in environmental cases is precisely what is missing when the injured party is an ecosystem rather than a person. The framework proposed here addresses that gap by assigning the verification function to independent third parties operating under a defined protocol, rather than leaving it to the convicted offender's self-report or to an administrative agency already stretched by its primary enforcement duties. Without that institutional specification, a restorative component risks functioning as a mitigation of sentence rather than as an addition to it.

Recommended Reconstruction and Implementation Feasibility

The recommended reconstruction proceeds along three tracks. First, at the formulative level, the P3H Law should be re-amended to introduce clear escalation thresholds that trigger the automatic conversion of an administrative sanction into a criminal sanction when the ecological harm exceeds a defined magnitude or when

the offender is a recidivist, together with a specific corporate-liability provision that draws on the identification and aggregation doctrines developed in comparative environmental criminal law (Faure & Svatikova, 2020; Nurjaya, 2021). Second, at the applicative level, prosecutorial guidelines should be issued to standardise the coordination between administrative agencies and the police in the pre-charge investigation phase, and specialised environmental-crime prosecutors should be posted to the four highest-risk provinces. Third, at the executive level, sentencing guidelines should incorporate a restorative component that requires convicted offenders to fund verified reforestation programmes proportionate to the harm caused, thereby aligning the sanction with the constitutional duty to preserve the environment. The hybrid accountable-restorative framework proposed in this study offers a conceptual foundation for these three tracks and is compatible with the *ultimum remedium* doctrine because it reserves the fullest criminal response for cases where administrative and restorative options have demonstrably failed.

The implementation feasibility of the recommended reconstruction deserves candid assessment. Legislative amendment of the P3H Law would require political consensus that the current parliamentary configuration may not produce in the short term, but a phased approach is feasible. In the immediate term, prosecutorial guidelines and Supreme Court circulars can standardise the coordination between administrative and criminal enforcement and can incorporate restorative components into sentencing without legislative amendment. In the medium term, the P3H Law amendments should be revisited through a targeted revision that introduces the escalation thresholds and the corporate-liability doctrine advocated in this study. In the long term, a dedicated environmental criminal-law framework, potentially in the form of a *Wet Milieucriminaliteit*-style sectoral code, could integrate illegal logging with related environmental offences such as illegal mining, illegal fishing, and environmental pollution, producing a coherent criminal-policy signal across the environmental domain. The phased approach reduces political risk while progressively closing the enforcement gaps identified in this study (Wibisana, 2023; Ridwan & Zulhasari, 2023).

Institutional-capacity considerations occupy a central place in the recommended reconstruction because the criminal-policy signal projected by any legislative reform depends critically on the capacity of enforcement agencies to translate the signal into operational practice. Three capacity gaps require targeted investment. First, the number of specialised environmental-crime investigators posted to the highest-risk provinces must be increased, and their training must be updated to include remote-sensing interpretation, digital chain-of-custody protocols, and corporate-forensic accounting. Second, the technical capacity of the courts to adjudicate complex

environmental cases must be strengthened through specialised judicial training, following the model of the environmental-judiciary certification programme piloted by the Supreme Court between 2018 and 2022. Third, the administrative agencies responsible for the pre-charge phase must be adequately resourced, and their coordination protocols with the police and the prosecutors must be codified through binding inter-agency memoranda. Investment in these three capacity dimensions is a necessary complement to the legislative recommendations advanced in this study, and its absence would undermine even the most carefully drafted statutory reform (Wiratraman, 2021; Erniwati et al., 2022).

CONCLUSION

The study set out to examine the reformulation of illegal-logging criminal policy under the P3H Law after the enactment of the Job Creation Law and to evaluate its coherence with the constitutional obligation to protect the environment. The findings show, first, that the amendments have narrowed the operational reach of the principal offences, shifted a significant portion of enforcement toward administrative sanctions, raised the evidentiary threshold for corporate liability, and produced a measurable reduction in the magnitude of sanctions imposed by the courts; second, that these formulative changes, combined with limited institutional capacity, have produced an incomplete transition from a punitive to a restorative model in which the criminal-policy signal is no longer sufficient to deter illegal-logging syndicates operating in the border provinces of Kalimantan, Sumatra, and Papua; and third, that the reformulation has generated second-order costs for the legitimate forestry sector, which is increasingly exposed to reputational and market risks in export markets that apply stringent due-diligence rules. The three tables and the mapping figure jointly document these findings and translate them into a matrix that is directly usable by policymakers, prosecutors, and courts.

The academic contribution of the study is threefold. Conceptually, it advances the Barda Nawawi Arief criminal-policy framework by demonstrating how the formulative, applicative, and executive stages interact in an environmental-crime setting and how a hybrid accountable-restorative model can integrate these stages coherently. Methodologically, it operationalises a triangulation strategy that combines statutory analysis, purposive case-law sampling, and expert-informed content analysis, which can be adapted for future studies on other environmental crimes such as illegal mining and illegal fishing. Policy-wise, it offers a formulative-applicative-executive matrix that can guide the re-amendment of the P3H Law, the issuance of prosecutorial guidelines by the Attorney General's Office, and the drafting of sentencing guidelines by the Supreme Court.

Four limitations of this study should be acknowledged as directions for future research. First, the case sample of twenty-seven decisions, although purposively constructed to satisfy the theoretical criteria specified in the methodology, cannot fully represent the diversity of judicial reasoning across all thirty-eight provinces of Indonesia, and future research should extend the sample particularly to Sulawesi and to the eastern archipelagic provinces where illegal-logging pressure is emerging but under-studied. Second, the province-level satellite-derived forest-loss estimates are subject to the general uncertainties associated with remote-sensing data, including cloud cover, canopy density variation, and classification error, and future research should complement remote-sensing data with ground-based verification. Third, as noted in the discussion, the design establishes association rather than causal magnitude between the reform and the observed enforcement and ecological outcomes; a quantitative deterrence model with an explicit counterfactual would be required to close that gap. Fourth, the hybrid accountable-restorative framework proposed in this study is a conceptual reconstruction that has not been tested through pilot implementation, and future research should evaluate its operational feasibility through action-research partnerships with enforcement agencies in the highest-risk provinces. Notwithstanding these limitations, the study contributes an integrated criminal-policy diagnosis that was previously unavailable in the Indonesian environmental-law literature and offers a concrete matrix for the reconstruction of illegal-logging criminal policy in the post-Job-Creation-Law era.

DECLARATIONS

AUTHOR CONTRIBUTION STATEMENT

Aria Zurneti conceptualised the study, designed the doctrinal and statutory analysis framework, conducted the purposive sampling and content analysis of the twenty-seven judicial decisions, and drafted the original manuscript. Yudha Febri Fernando developed the criminal-policy theoretical framework, carried out the comparative legal analysis and the expert-informed triangulation, and contributed to the interpretation of the enforcement and forest-loss data. Both authors jointly formulated the hybrid accountable-restorative framework and the formulative – applicative – executive matrix, critically revised the manuscript for substantive and methodological accuracy, and read and approved the final version submitted for publication. Both authors accept responsibility for the integrity of the work as a whole.

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DATA AVAILABILITY STATEMENT

The statutory materials analysed in this study are publicly available through the official portal of the Ministry of Law and Human Rights of the Republic of Indonesia (peraturan.go.id). The judicial decisions cited are publicly accessible through the Supreme Court decision database (putusan3.mahkamahagung.go.id). Anonymised interview notes with the North Kalimantan investigators are available from the corresponding author upon reasonable request and subject to institutional ethics approval.

DECLARATION OF INTERESTS STATEMENT

The authors declare that they have no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

ADDITIONAL INFORMATION

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ORCID

Aria Zurneti <https://orcid.org/0000-0002-9149-8611> 

Yudha Febri Fernando <https://orcid.org/0000-0002-6735-8635> 

Muhammad Tahir Yahya <https://orcid.org/0009-0005-1528-3511> 

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