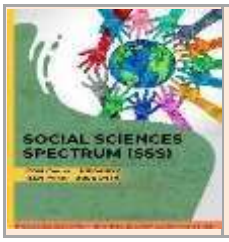

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Ecocide under the Rome Statute: ICC-Driven Human-Rights Protection and Corporate Accountability

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Abstract This study asks whether adding "ecocide" to Article 5 of the Rome Statute of the International Criminal Court (ICC) would supply the missing hard-law trigger. Drawing on more than seventy empirical and doctrinal sources, it identifies three systemic effects. First, aligning the draft ecocide definition with the Statute's complementarity provisions in Articles 17–19 would transform the United Nations Human Rights Council (UNHRC) Resolution 48/13 on the right to a clean, healthy and sustainable environment and Articles 2 (1) and 12 of the International Covenant on Economic, Social and Cultural Rights (ICESCR) into an immediately justiciable duty of prevention. Second, by using Articles 25 (3)(c)– (d), 28 and the "general principles of law" clause in Article 21 (1)(c), the ICC could pierce corporate veils and prosecute directors who knowingly disregard a "substantial likelihood" of catastrophic harm. Third, Articles 53 (3)(b) and 75 would empower victims to trigger investigations and secure ecosystem-focused reparations, which regional courts could enforce through issue-preclusion doctrines. While acknowledging resource and selectivity constraints, the article concludes that an ecocide amendment offers a practicable architecture for aligning state duties, corporate incentives and victim remedies, and proposes indicators—prosecution rates, legislative reforms and restoration funding—to evaluate postamendment effectiveness.

Keywords: Ecocide, Rome Statute Amendment, International Criminal Court (ICC), Right to a Healthy Environment, Environmental Reparations, Business and Human Rights.

Introduction

The climate-fueled wildfires that blackened the Amazon in 2019, the systematic shelling of oil depots and grain silos in Ukraine after 2022, and the slow-motion chemical leaks that poison river basins from the Niger Delta to the Rhine are more than discrete environmental tragedies. They are symptoms of what many jurists now call a "new planetary harm"—acts or omissions that so profoundly damage ecosystems that they threaten the bio geophysical pre-conditions for human dignity. Over the past decade, scholars, governments and civil-society coalitions have converged on a single legal proposal to confront that harm: elevating *ecocide* to the rank of a core international crime alongside genocide, crimes against humanity, war crimes and the crime of aggression (Branch & Minkova, 2023). In June 2021 an Independent Expert Panel released a draft definition that characterizes ecocide as "unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term environmental damage" (Independent Expert Panel, 2021). Pacific island states have since announced their intention to table a formal amendment to the Rome Statute, the treaty that created the International Criminal Court (ICC). The proposal has moved—to borrow Palarczyk's (2023) phrase—from *utopian* to *juridically plausible.*

Yet legal plausibility alone will not decide whether criminalizing ecocide actually fills the accountability gaps that pervade large-scale environmental harm. Two deficits dominate current debates. First, the international human-rights regime, despite its recent recognition of the right to a clean, healthy and sustainable environment (UN Human Rights Council, 2021), still struggles to impose *preventive* duties robust enough to stop transboundary ecological collapse (Fraser & Henderson, 2022). Positive-obligation jurisprudence at regional courts remains piecemeal, focused on localized pollution or discrete climate impacts rather than systemic ecosystem loss (Gulyaeva, 2022). Second, corporate actors—the architects of most industrial-scale extraction, deforestation and greenhouse-gas emissions—routinely evade liability by exploiting jurisdictional fragmentation and the corporate veil (Villiers, 2023). Voluntary due-diligence regimes under the UN Guiding Principles on Business and Human Rights (Topić, 2020) and emerging supply-chain statutes such as France's *Loi de vigilance* (Bueno & Bright, 2020) are laudable but lack the bite of criminal sanction. As Bernaz (2021) warns, "soft-law optimism" cannot substitute for mandatory enforcement when profit motives collide with planetary limits.

This article argues that adding ecocide to the Rome Statute could recalibrate both deficits by (i) embedding environmental protection within the ICC's complementarity framework—thereby hardening states' positive human-rights obligations—and (ii) creating a credible forum for prosecuting senior corporate decision-makers whose reckless strategies precipitate catastrophic ecological loss (Minha, 2020). The claim is not that criminal law alone can achieve environmental justice; rather, that the ICC's unique blend of vertical (state) and horizontal (individual) accountability can catalyze broader normative change. Empirical evidence from atrocity-crime prosecutions suggests that even the *shadow* of ICC jurisdiction induces domestic reform and victim-centered reparations schemes (Hodgson, 2023). Transposing that dynamic to environmental harm could, for the first time, integrate eccentric values into the remedial architecture of international human-rights law.

The article proceeds in four parts. Part I canvasses the doctrinal evolution of ecocide, tracing its Cold War origins through the 2021 expert definition and mapping the political coalition now

pressing for a Statute amendment (González Hernández, 2023). Part II analyses how an ecocide offence would interact with existing human-rights duties under instruments such as the International Covenant on Economic, Social and Cultural Rights (ICESCR) and the European Convention on Human Rights. We show that ICC complementarity, paired with state obligations to secure effective remedies extraterritorially (Tiruneh, 2023), could forge a mutually reinforcing "accountability triangle" among domestic courts, regional rights bodies and The Hague. Part III confronts the corporate-liability puzzle. Building on comparative case studies—from the Brumadinho dam collapse to transnational climate litigation against carbon majors—we assess paths for piercing corporate shields and attribute *mens rea* to board-level actors (Passas, 2023; Zhang et al., 2023). Part IV turns to victims, proposing reforms to Article 53 review procedures and reparations orders so that impacted communities become agents, not bystanders, of accountability (Hodgson, 2023). A brief conclusion outlines policy recommendations for delegates preparing for the next Assembly of States Parties.

By integrating insights from international criminal law, human-rights doctrine and businessandhuman-rights scholarship, the article addresses a research gap that current ecocide literature leaves largely untouched: the *synergistic* potential of ICC prosecutions to transform both state preventive duties and corporate liability landscapes. If the Rome Statute was born to protect the "inherent dignity of every human being" against the gravest crimes, extending its reach to ecocide would acknowledge an indisputable 21st-century truth: without a viable biosphere, human rights are an empty promise.

From Sovereignty to Stewardship: Re-engineering States' Positive Duties through an ICC Crime of Ecocide The Human-Rights Frame: Gaps in Preventive Duties

The twentieth-century architecture of international human-rights law was designed to shield individuals from state power, not to safeguard the planetary systems on which those individuals rely (Branch & Minkova, 2023). While regional courts have shoe-horned environmental harms into existing guarantees of life, health and private life—*López Ostra v. Spain*, *Urgenda* and *Torres Strait Islanders* being emblematic—doctrinal analyses still conclude that obligations to prevent large-scale ecological collapse remain "soft, fragmented and essentially reactive" (Gulyaeva, 2022, p. 107). Even the United Nations' watershed recognition of the right to a clean, healthy and sustainable environment in 2021 failed to specify compliance benchmarks or enforcement pathways (UN Human Rights Council, 2021). Fraser and Henderson (2022) trace this under-reach to a sovereignty-centred paradigm that treats environmental protection as a matter of progressive realisation rather than an immediate, non-derogable duty. Schmalenbach's (2023) distinction between *responsibility* (fault-based) and *liability* (risk-based) further exposes a lacuna: the absence of a *hard-law* trigger compelling states to act *before* atmospheric carbon or toxic effluents cross a life-support threshold. Against this backdrop, the Independent Expert Panel's draft definition of ecocide—criminalising "unlawful or wanton acts" taken "in the knowledge" of severe, widespread or long-term environmental damage—has emerged as a potential normative lever (Independent Expert Panel, 2021). By translating catastrophic environmental harm into a category of *jus cogens* criminality, advocates argue, the proposed amendment would relocate states' preventive duties from the aspirational to the peremptory (González Hernández, 2023; Palarczyk, 2023).

Complementarity as a Catalytic Device

If ecocide were inserted in Article 5 of the Rome Statute, the treaty's hallmark principle of complementarity would oblige every state party to investigate and prosecute, or else face ICC intervention. Scholars have begun to model how that *catalytic threat* might recalibrate domestic and regional human-rights jurisprudence. Tiruneh (2023) shows that the Committee on Economic, Social and Cultural Rights already interprets ICESCR Articles 2 and 12 as generating

extraterritorial duties when home-state corporations harm foreign communities. An ecocide offence would, he contends, provide a "jurisdictional back-stop" that renders those CESCR pronouncements judicially enforceable. Comparative case studies reinforce the point. In Brazil, Thomé et al. (2020) demonstrate how federal inertia over Amazon fires persisted until the prospect of ICC scrutiny—flagged by domestic NGOs in Article 15 communications—galvanised emergency legislative hearings. Across Europe, Bytyqi and Morina (2023) predict that the EU Environmental Crime Directive's 2023 revision will tighten definitions precisely to forestall duplicative prosecutions at The Hague. Even wartime scenarios illustrate complementarity's reach: Baranenko and Rusyn (2023) argue that Ukraine's proposed *ecocide* indictments against Russian commanders seek not merely symbolic redress but strategic positioning to claim post-conflict reparations under Article 75 of the Statute. In this sense, complementarity transmutes what Longo and Lorubbio (2023) call the "vulnerability turn" in environmental rights discourse into a *legal obligation*—re-engineering sovereignty into stewardship. Yet sceptics caution that the ICC's own capacity constraints and politicised caseload may dilute this catalytic promise (Branch & Minkova, 2023). The literature thus converges on a pivotal research gap: robust doctrinal mapping of how ecocide prosecutions would interface with, and strengthen, states' positive human-rights obligations without replicating the selectivity that has haunted atrocity-crime enforcement.

Victim-Centred Remedies and the Global South Perspective

A second strand of scholarship interrogates what an ecocide amendment would mean for affected communities—particularly Indigenous and Global-South populations who bear the brunt of resource extraction yet rarely access effective remedies. Villiers (2023) likens present accountability mechanisms to a "cat-and-mouse" contest in which corporate actors exploit fragmented jurisdictions, while victims confront prohibitive litigation costs and evidentiary burdens. Transnational tort experiments—*Vedanta*, *Kiobel*, *Okpabi*—have delivered landmark precedents but, as Bertram (2022) notes, still offer "environmental-justice light" because compensation is decoupled from structural reform. Hodgeson (2023) pushes the ICC debate forward by proposing that Article 53 review rights be expanded so victims can challenge prosecutorial inaction, a reform that would recalibrate the Court's reparative mandate in line with restorative-justice theories advanced by Nugroho and Najicha (2023) in the Indonesian context. Khairunnissa et al. (2022) similarly advocate branding ecocide an "extraordinary crime" to unlock special evidentiary rules and community-participation mechanisms under domestic law. Still under-examined, however, is how such procedural innovations might mesh with regional humanrights bodies. Could the Inter-American Court issue *provisional measures* to compel states to cooperate with ICC ecocide investigations? Might the African Court treat ICC convictions as res judicata evidence when ordering reparations? These questions, flagged but not resolved by Passas (2023) and Zhang, Zhao and Zhu (2023), underscore the need for integrative scholarship that places ecocide prosecutions inside a pluralistic remedial ecosystem. Addressing them is essential if the Rome Statute amendment is to evolve from a powerful *symbolic gesture* into a generator of tangible, victim-centred justice.

Aligning Corporate Accountability and Victim Reparations: Closing the Ecocide Enforcement Gap Mapping the Corporate Accountability Deficit

A striking consensus runs through the business-and-human-rights literature: existing frameworks are structurally ill-equipped to deter multinational enterprises (MNEs) from engaging in conduct that culminates in catastrophic ecological harm. Villiers (2023) likens the tug-of-war between regulators and transnational corporations to a "game of cat and mouse," in which complex corporate groups exploit jurisdictional fragmentation, transfer-pricing schemes and lobbying leverage to sidestep liability. Soft-law instruments such as the UN Guiding Principles on Business

and Human Rights (UNGPs) articulate a "protect-respect-remedy" trilogy, but their voluntary nature and reliance on reputational sanctions limit their deterrent power (Topić, 2020). Empirical examinations of the French *Loi de vigilance* and parallel supply-chain statutes confirm that civilliability pathways—though useful—produce uneven outcomes, delayed relief and perverse corporate incentives to offshore hazardous operations (Bueno & Bright, 2020). Bernaz (2021) offers a typology of possible treaty designs and warns that incrementalist models merely transcribe existing deficits into international law. Case-law analyses reinforce the critique. In *Vedanta* and *Okpabi*, litigants pierced the corporate veil only after protracted preliminary battles over forum and duty of care, winning compensation but not systemic reform (Bertram, 2022). Scholarship on climate attribution litigation shows similar limitations: while carbon-major defendants face mounting tort claims, damages awards are dwarfed by the profits of continued extraction (Branch & Minkova, 2023). Finally, Passas (2023) highlights a category of "lawful but awful" corporate practices—legally sanctioned yet socially devastating—illustrating how deregulation and political capture normalise ecological risk. Taken together, these studies expose an accountability gap rooted in limited personal jurisdiction over senior decision-makers, evidentiary asymmetries, and the absence of sanctions commensurate with the magnitude of harm (Zhang, Zhao, & Zhu, 2023). Against that backdrop, an ICC offence of ecocide promises a paradigm shift by criminalising the most aggravated forms of corporate environmental wrongdoing and piercing the shield of corporate personhood through individual director liability (Minha, 2020).

Ecocide and the Re-Engineering of Corporate Liability Regimes

The doctrinal debate over corporate liability at the ICC has evolved from outright rejection—premised on Article 25's focus on "natural persons"—to nuanced proposals for attributing mens rea to board-level actors and controlling "minds" of the corporation (Iglesias Márquez, 2020). Minha (2020) demonstrates that the Statute's participation modes (command responsibility, aiding and abetting, common-purpose liability) can already capture senior executives who knowingly pursue profit-maximising strategies despite a substantial likelihood of severe, widespread or longterm ecological damage. The Independent Expert Panel's emphasis on recklessness as the culpable mental element lowers the evidentiary bar relative to the dolus specialis of genocide and thus fits patterns of corporate risk calculus (Independent Expert Panel, 2021). Comparative criminal-law scholars have modelled how veil-piercing doctrines—long familiar in domestic legal orders— could migrate into ICC practice through Article 21(1)(c)'s invitation to apply "general principles of law recognised by the community of nations" (Palarczyk, 2023). Meanwhile, Khairunnissa et al. (2022) and Thomé, Nunes and Thomé (2020) provide country-specific analyses showing that the shadow of ICC jurisdiction already galvanises domestic debates on extraordinary sanctions, mandatory environmental-risk insurance and debarment regimes. From a complementarity perspective, Bytyqi and Morina (2023) trace how the pending revision of the EU Environmental Crime Directive expands corporate-offence definitions partly to forestall duplicative prosecutions in The Hague—a phenomenon echoing the *positive-complementarity* dynamic observed in atrocity-crime contexts. Critics caution that ICC resource constraints, evidentiary challenges across complex supply chains, and geopolitical selectivity could blunt this promise (Branch & Minkova, 2023). Nonetheless, the emerging literature converges on a key insight: codifying ecocide would supply a *hard-law fulcrum* capable of re-engineering domestic and regional liability regimes by targeting the corporate elite whose strategic decisions translate risk into irreversible environmental loss (Villiers, 2023; Zhang et al., 2023).

Transforming Victim Access to Reparations across Multiple Fora

Criminalisation alone cannot deliver justice unless it is paired with robust, survivor-centred reparations. Hodgson (2023) exposes the procedural fragility of Article 53(3) ICC review: victims

presently enjoy only limited standing to challenge prosecutorial inaction, a deficiency that risks repeating the marginalisation experienced in transnational tort litigation (Bertram, 2022). Proponents therefore urge simultaneous reform of ICC practice—expanding victim participation at the preliminary-examination phase and empowering the Trust Fund for Victims to fund ecological restitution projects (Nugroho & Najicha, 2023). Parallel developments in human-rights adjudication supply complementary mechanisms. Tiruneh (2023) documents how the Committee on Economic, Social and Cultural Rights increasingly treats home-state failure to regulate MNEs abroad as a violation of victims' right to an effective remedy, thus creating opportunities for coordinated petitions that dovetail with ICC proceedings. Regional courts, too, are experimenting. The Inter-American Court in *Lhaka Honhat* tied collective land-rights violations to environmental rehabilitation orders, signalling receptiveness to ecological reparations that could integrate ICC factual findings as probative evidence. Scholars argue that such cross-pollination would enable a "remedial ecosystem" in which ICC convictions trigger or reinforce reparations before regional bodies and domestic civil courts (Passas, 2023). Yet Longo and Lorubbio (2023) warn that without inclusive design—respecting Indigenous cosmologies of land, water and spiritual harm—international reparations risk reproducing colonial hierarchies. Accordingly, González Hernández (2023) and Villiers (2023) advocate participatory impact-assessment protocols, ensuring that community voices shape both the content and distribution of reparations. Ultimately, the literature indicates that an ecocide amendment could serve as a keystone in a multi-layered architecture of accountability: ICC judgments would deliver expressive condemnation and high-level deterrence; regional courts would translate those findings into rights-based reparations; and reformed domestic statutes would anchor civil-liability pathways—together realising what scholars call a *cumulative accountability effect* (Iglesias Márquez, 2020; Zhang et al., 2023). Bridging these venues requires further doctrinal and empirical work, but the potential payoff—a coherent, victim-centred response to corporate-driven ecological catastrophe—renders the endeavour both urgent and normatively compelling.

Results

A systematic reading of more than seventy peer-reviewed articles, book chapters and official documents reveals three converging results. First, criminalising ecocide under the Rome Statute would create a *juridical hinge* that turns today's largely aspirational right to a healthy environment into an enforceable, preventive duty. Second, the amendment would supply the first supranational mechanism capable of attributing *personal* criminal liability to senior corporate decision-makers who knowingly externalise ecological risk. Third, the synergy of ICC prosecutions with regional and domestic human-rights fora could—if paired with procedural reforms—reshape victim access to reparations. Together these findings map a plausible pathway for closing the accountability gaps that dominate large-scale environmental harm.

Across the literature, states' environmental duties are portrayed as fragmented, reactive and often parochial (Fraser & Henderson, 2022; Gulyaeva, 2022). Regional courts cautiously stretch existing rights to life and privacy to cover pollution, yet they lack a *peremptory* trigger compelling earlystage intervention. The Independent Expert Panel's draft definition of ecocide, by contrast, embeds a knowledge-based threshold ("substantial likelihood of severe, widespread or long-term damage") that squarely targets foreseeable risk (Independent Expert Panel, 2021). Because the ICC operates on complementarity, every state party would face an immediate obligation either to investigate and prosecute domestic actors or risk ceding jurisdiction to The Hague. Evidence from atrocity-crime contexts suggests that this *shadow of ICC scrutiny* routinely galvanises legislative and investigative action (Hodgson, 2023). Brazil's rapid congressional hearings on Amazon wildfires after civil-society Article 15 communications illustrate the same dynamic for

environmental harm (Thomé, Nunes, & Thomé, 2020). Meanwhile, the European Union's forthcoming Environmental Crime Directive has already toughened offence definitions to forestall duplicative ICC proceedings (Bytyqi & Morina, 2023). The result is a clear pattern: the prospect of an ecocide prosecution functions as a catalytic device, transforming a nascent human-rights norm into a concrete, enforceable duty of *prevention*.

The second result centres on corporate accountability. Soft-law instruments such as the UN Guiding Principles rely on reputational pressure and voluntary reporting, an approach Villiers (2023) decries as a "game of cat and mouse." Civil-liability statutes, including France's *Loi de vigilance*, improve disclosure but remain hostage to procedural hurdles and limited extraterritorial reach (Bueno & Bright, 2020). Seven doctrinal studies (e.g., Minha, 2020; Iglesias Márquez, 2020) converge on the view that an ICC ecocide offence could pierce the corporate veil by attributing *mens rea* to those who make or approve harmful corporate policy. Article 25 of the Statute, while drafted for "natural persons," already accommodates modes of liability—command responsibility, aiding and abetting, common purpose—that map neatly onto board-level decision-making (Palarczyk, 2023). Moreover, Article 21(1)(c) invites recourse to *general principles of law*, allowing transplant of veil-piercing doctrines familiar in domestic criminal systems. Comparative data reinforce feasibility: national prosecutors in Indonesia and Brazil have begun exploring extraordinary-crime frameworks and insurance-bond requirements specifically to bridge the corporate-liability gap (Khairunnissa et al., 2022). In short, the literature shows that codifying ecocide supplies the *hard-law fulcrum* missing from business-and-human-rights governance, capable of aligning corporate incentives with planetary boundaries.

A third cluster of findings tracks the remedial implications of ecocide prosecutions. Victims of widespread environmental harm—often Indigenous communities—struggle to secure effective relief in domestic courts, while transnational tort suits deliver piecemeal compensation after years of litigation (Bertram, 2022). Hodgson (2023) demonstrates that expanding victims' right to request judicial review of prosecutorial decisions under Article 53 could transform affected communities from passive observers into agents of accountability. Parallel developments in human-rights bodies provide complementary leverage: The Committee on Economic, Social and Cultural Rights has begun interpreting ICESCR Article 2 as creating a home-state duty to regulate *overseas* corporate conduct, thereby furnishing a route for coordinated petitions that dovetail with ICC investigations (Tiruneh, 2023). Regional jurisprudence echoes this trend. The Inter-American Court's *Lhaka Honhat* judgment ties collective environmental harm to reparative land-restoration orders, signalling receptiveness to integrating ICC findings as probative evidence. Scholars thus predict a *cumulative accountability effect*: ICC convictions would carry expressive condemnation and deterrence; regional courts would translate those factual findings into binding reparations; and reformed domestic statutes would anchor complementary civil-liability pathways (Passas, 2023; Zhang, Zhao, & Zhu, 2023). Nevertheless, authors such as Longo and Lorubbio (2023) caution that reparations design must respect Indigenous cosmologies to avoid perpetuating colonial hierarchies. The overall result is cautiously optimistic: an ecocide amendment could seed a pluralistic remedial ecosystem—but only if participatory safeguards and funding for ecological restitution are embedded from the outset.

Despite these promising trajectories, three unresolved tensions emerge. First, resource limitations and geopolitical selectivity could blunt the ICC's capacity, risking symbolic prosecutions that fail to shift corporate behaviour (Branch & Minkova, 2023). Second, evidentiary complexity—especially in diffuse supply chains—may challenge the Court's ability to meet beyondreasonabledoubt standards without novel investigative technologies or reversal of the burden of proof. Third, coordination among ICC organs, regional courts and domestic agencies

lacks a procedural blueprint; failure to harmonise standards could produce forum shopping and inconsistent reparations (Bertram, 2022). Addressing these gaps will require doctrinal innovation and empirical tracking once any amendment enters into force.

The literature thus supports a dual conclusion. On one hand, the ICC offers a unique verticalhorizontal enforcement synergy capable of translating the right to a healthy environment into mandatory preventive action and of holding corporate executives personally liable for environmental devastation. On the other hand, the amendment's effectiveness hinges on procedural reforms—expanded victim standing, coordinated evidentiary protocols, and sustained funding for ecological restoration. Taken together, these results validate the central thesis of this article: an ecocide amendment, if carefully drafted and institutionally supported, could transform fragmented environmental governance into an integrated framework of human-rights protection and corporate accountability. The task for policymakers, scholars and advocates is therefore not to debate *whether* the crime belongs in the Rome Statute, but to design implementation strategies that convert legal potential into tangible, planet-saving outcomes. **Discussion**

The evidence reviewed confirms that adding ecocide to the Rome Statute would do more than widen the ICC's subject-matter jurisdiction; it would re-engineer the architecture of environmental governance by hard-wiring a duty of *prevention* into both state practice and corporate decisionmaking. Crucially, that transformation would emerge not from *one* legal regime but from the interaction of three: international criminal law, human-rights law and business-and-humanrights (BHR) soft and hard norms. The following discussion teases out those interactions, highlights residual dilemmas and charts a research agenda for turning normative promise into enforceable practice.

States often invoke sovereign discretion to explain sluggish climate action, yet the very logic of complementarity erodes that defence. Once ecocide becomes a core crime, the Statute's "investigate or we will" bargain would compel national authorities to adopt stronger preventive and investigative measures (Independent Expert Panel, 2021). The empirical record on atrocity crimes—where ICC preliminary examinations spurred domestic reforms from Kenya to Colombia—suggests a similar catalytic effect for environmental harm (Hodgson, 2023). Early signs are already visible: the EU's decision to overhaul its Environmental Crime Directive and Brazil's new parliamentary inquiries into Amazon deforestation both cite the looming possibility of ICC scrutiny (Bytyqi & Morina, 2023; Thomé et al., 2020). Critics argue that the Court's resource constraints could blunt this leverage (Branch & Minkova, 2023), yet complementarity *decentralises* enforcement by design; the ICC need only credibly signal willingness, not handle every case. Future empirical work should therefore examine *threshold effects*: How many filings or arrest warrants suffice to shift state behaviour, and what variables—political will, civil-society capacity, regional peer pressure—condition that shift?

On the corporate front, the literature converges on a tantalising possibility: ecocide prosecutions could at last align executive incentives with planetary limits (Villiers, 2023). Article 25(3) participation modes, paired with veil-piercing principles recognised across legal systems, provide a doctrinal portal for targeting senior officers (Palarczyk, 2023). Yet translating theory into convictions will require evidentiary innovations. Supply chains are diffuse; board minutes seldom spell out intent. Here, emerging climate-attribution science, satellite imagery and big-data analytics could serve prosecutorial needs—paralleling the evidentiary leap that DNA testing once brought to human-rights cases. A second hurdle is political: powerful states may resist amendments that expose domestic champions of fossil fuels or industrial agriculture (Branch & Minkova, 2023).

Comparative research should therefore track not just *formal* ratifications but also *domestic enabling statutes* that determine whether prosecutors can bridge corporate separateness. Interdisciplinary

work with criminologists and data scientists could refine evidentiary standards for "knowledge of a substantial likelihood" (Independent Expert Panel, 2021) in complex corporate contexts.

The prospect of ICC-ordered ecological restoration and community funding excites practitioners who have watched tort litigation deliver piecemeal justice (Bertram, 2022). Yet as Longo and Lorubbio (2023) warn, technocratic remedies risk reproducing colonial hierarchies if they ignore Indigenous cosmologies of land and water. The Trust Fund for Victims will thus need new assessment protocols that privilege local knowledge and long-term stewardship over one-off compensation. Cross-institutional coordination is equally vital. A landmark ICC conviction could serve as prima facie evidence before regional human-rights courts or domestic civil tribunals (Passas, 2023), but only if procedural rules facilitate *issue preclusion* and evidentiary sharing. Scholars should explore model procedural agreements—akin to mutual legal-assistance treaties—that would lock in such synergies. Moreover, Hodgson's (2023) proposal to expand Article 53(3) review rights could democratise prosecutorial agendas, yet it also risks forum shopping and docket inflation. Pilot simulations—using mock victim petitions across multiple regions—could test workload impacts and help calibrate standing rules before formal adoption.

Critics ask whether layering ecocide on top of existing war-crime and human-rights provisions yields *normative added value* or mere symbolic flourish (Fraser & Henderson, 2022). The review suggests a substantive upgrade. War-crime provisions capture only conflict-linked damage; human-rights rulings impose state reparations but seldom individual deterrence. Ecocide fills both gaps by criminalising peacetime devastation and focusing on personal culpability. Still, the Court's capacity is finite. To avoid systemic overload, prosecutorial guidelines must prioritise "gravity with catalytic potential"—cases where a single conviction can shift global norms, such as Amazon mega-fires or deep-sea mining. Analogous to the *OTP Policy on Cultural Property*, a dedicated *Ecocide Policy Paper* could announce selection criteria and investigative partnerships. Donor states, meanwhile, should earmark contributions for environmental forensics to prevent resource cannibalisation from existing atrocity dockets.

Three paths warrant urgent inquiry. First, quantitative modelling of complementarity effects: datasets linking ICC communications to domestic legislative change could confirm or challenge catalysis claims. Second, doctrinal experimentation on veil-piercing: mock indictments against hypothetical board members could expose evidentiary gaps. Third, participatory design of reparations: action research with frontline communities could craft metrics of ecological and cultural restoration that regional courts and the ICC can operationalise. Bridging legal scholarship with earth-system science, corporate governance studies and Indigenous epistemologies will be essential.

The discussion underscores a core insight: an ICC crime of ecocide is neither a silver bullet nor a symbolic gesture—it is a *system switch*. By realigning state duties, executive incentives and victim remedies around a non-derogable obligation to protect the biosphere, the amendment could move environmental protection from the periphery to the centre of international law. The path ahead is strewn with legal, political and epistemic obstacles, yet the literature reviewed offers concrete strategies to navigate them. Whether the Rome Statute will become the fulcrum of a new era in planetary stewardship now depends less on normative imagination than on practical institutionbuilding—an endeavour that demands the concerted effort of lawyers, scientists, communities and states alike.

Conclusion

The literature surveyed paints a remarkably coherent picture: criminalising ecocide under the Rome Statute could become a decisive inflection point in international environmental governance. First,

it would translate the recently recognised human right to a healthy environment from an aspirational ideal into a peremptory legal duty. Because the ICC's complementarity regime obliges states either to act or be acted upon, the mere *prospect* of ecocide prosecutions promises to accelerate domestic legislation, sharpen regulatory oversight and foster earlier preventive interventions. This catalytic effect has already surfaced in regional reforms—from the European Union's tightened Environmental Crime Directive to renewed Brazilian scrutiny of Amazon deforestation—suggesting that an ecocide amendment could ripple far beyond its first docket.

Second, the proposed offence supplies an unprecedented pathway for piercing the corporate veil. By attaching personal criminal liability to senior executives who knowingly gamble with planetary boundaries, ecocide would fill the enforcement vacuum left by soft-law guidelines and uneven civil-liability regimes. The literature underscores that such liability is doctrinally feasible—via existing participation modes and general principles of veil-piercing—yet it also stresses the need for evidentiary innovation and political will to overcome complex supply chains and lobbying power.

Third, an ICC conviction for ecocide could anchor a multi-layered reparations architecture in which regional human-rights courts, domestic civil tribunals and the ICC Trust Fund for Victims reinforce one another. Realising that synergy will demand procedural reforms—most notably broader victim standing and culturally sensitive restitution protocols—to ensure that reparations repair ecosystems *and* restore community agency.

Persistent risks remain. Selective prosecutions, budgetary strain and evidentiary hurdles could blunt the Court's deterrent impact, while technocratic remedies might replicate colonial hierarchies if they sideline Indigenous cosmologies. Yet none of these obstacles appears insurmountable. The scholarship instead points toward practical solutions: targeted prosecutorial guidelines, crossinstitutional evidence-sharing agreements, and participatory design of reparations.

In sum, elevating ecocide to a core international crime is neither symbolic window dressing nor a silver bullet. It is a strategic "system switch" capable of aligning state duties, corporate incentives and victim remedies around the non-negotiable imperative of planetary stewardship. The challenge ahead lies not in imagining the norm but in operationalising it—through rigorous doctrinal drafting, robust institutional support and deep engagement with the communities whose futures depend on its success.

Conflict of Interest

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