

BEYOND DEFORESTATION



Ecosystem Integrity and the
Emerging Legal Paradigm

GREENPEACE



Beyond Deforestation:

Ecosystem Integrity and the Emerging Legal Paradigm

June 2026

Peatland Forest in DRC

© Daniel Beltrá / Greenpeace

Deforestation in the Amazon in the State of Roraima, Brazil

© Christian Braga / Greenpeace

BEYOND DEFORESTATION:

ECOSYSTEM INTEGRITY AND THE EMERGING LEGAL PARADIGM

Introduction

Forest governance is entering a period of legal and political transformation. Scientific evidence demonstrates that halting and reversing deforestation and forest degradation by 2030, protecting at least 30% of terrestrial areas, and restoring at least 30% of degraded terrestrial ecosystems by 2030 (‘the 2030 forest & biodiversity targets’) are not just environmental aspirations, but are necessary to limit warming to 1.5°C and prevent irreversible ecosystem collapse, biodiversity loss and destabilisation of critical Earth systems.

At the same time, existing legal and policy frameworks continue to underestimate the significance of forest degradation, focusing primarily on deforestation while failing to adequately address the loss of ecosystem integrity caused by logging, extractive activity, and global commodity supply chains. This disconnect between ecological reality and legal governance has become increasingly clear in light of the best available science.

This paper argues that the defining question for forest governance in the coming decade is not simply whether forests remain standing, but whether they remain functioning. It presents a growing convergence of climate science, biodiversity science and national and international environmental, human rights and corporate law, contributing to an emerging legal-policy paradigm centered on ecosystem integrity.

Within this evolving legal framework, the 2030 forest and biodiversity targets are increasingly serving not merely as a political aspiration but as significant normative benchmarks that inform the interpretation of State and corporate legal obligations relating to climate protection, biodiversity conservation, the prevention of significant environmental harm, respect for human rights and international cooperation.

Authors: Stephen Leonard, An Lambrechts, Kate Dooley, Maria Alejandra Serra, Christoph Schwarte, Jannes Stoppel and Savirra Alaydroes-Harrison.

Contributors and reviewers: Jennifer Skene, Camila Jardim, Andrea Carta, Michel Uiterwaal, Anamika Gode, Virginia Young, Cyril Kormos, Syahrul Fitra, Refki Saputra and Grant Rosoman

Scientific basis for the 2030 forest and biodiversity targets

Halting and reversing deforestation and forest degradation by 2030 is a critical element of global pathways to limit warming to 1.5°C, protect at least 30% of terrestrial areas, and ensure that 30% of degraded terrestrial ecosystems are under effective restoration by 2030. As long as forests continue to be cleared, ongoing land-use change emissions of approximately 5 Gt CO₂ per year will directly cancel out any gains from ecosystem restoration or carbon removal via tree planting. In other words, the carbon sequestered through forest regrowth cannot compensate for the carbon lost through deforestation and forest degradation.¹ Ending the loss and degradation of primary forests is crucial to climate mitigation, climate adaptation and biodiversity conservation,² with significant implications for how land-based mitigation and adaptation measures and area-based terrestrial conservation should be prioritised in well-aligned national climate and biodiversity plans under the UNFCCC and the CBD.

The carbon sequestered through forest regrowth cannot compensate for the carbon lost through deforestation and forest degradation.

Many global models of climate mitigation pathways for 1.5°C assume the land sector reaches net zero by or before 2030³ via near-term elimination of emissions from all land-use change, including deforestation and ending conversion of wetlands, peatlands, tropical savannas and grasslands.⁴ Many of these are critically important sites of ‘irrecoverable’ carbon, which once lost, cannot be recovered on timescales relevant to combating the climate and biodiversity crises.⁵ However, the trajectory of ending land-use change emissions and protecting high-carbon-density ecosystems, as assumed in climate mitigation scenarios, is drastically inconsistent with current trends, in which deforestation emissions remain stubbornly high, and forest degradation is largely unaccounted for in national and global inventories. The latest Forest Declaration Assessment

¹ Dooley, Nicholls & Meinshausen, ‘[Carbon removals from nature restoration are no substitute for steep emission reductions](#)’ (2022) *One Earth* 14.

² Mackey, Kormos, Keith, et al., ‘[Understanding the importance of primary tropical forest protection as a mitigation strategy](#)’ (2020) *Mitigation and Adaptation Strategies for Global Change*; See also Poorter, Craven, Jakovac, et al., ‘[Multidimensional tropical forest recovery](#)’ (2021) *Science* 374.

³ In practice, IAMs model this through a combination of halted deforestation and rapid expansion of land-based carbon removal. In the IPCC AR6 scenario database — which compiles over 600 mitigation pathways from IAMs — the mean cumulative land-based CDR between 2020 and 2100 is 460 GtCO₂, including 100 GtCO₂ from LULUCF and 360 GtCO₂ from BECCS, with about three-quarters of pathways relying on net future LULUCF carbon removals mainly through afforestation and reforestation.

⁴ Intergovernmental Panel on Climate Change (IPCC), ‘[Summary for Policymakers](#)’ in *Climate Change 2022: Mitigation of Climate Change* (AR6 WGIII) (2022).

⁵ Noon, Goldstein, Ledezma, et al., ‘[Mapping the irrecoverable carbon in Earth’s ecosystems](#)’ (2022), *Nature Sustainability* 5.

shows that 8.1 million hectares of forest were lost in 2024, a level of destruction 63% higher than the trajectory needed to halt deforestation by 2030⁶.

Deforestation⁷ currently accounts for around 10% of annual CO₂ emissions, but this excludes a much larger share of emissions and loss of ecosystem integrity from forest degradation⁸. Forest degradation and the emissions it causes are increasing, but are structurally underestimated and poorly constrained in global datasets. Global assessments show that only 35% of forest loss was attributable to permanent agriculture⁹ - the remaining 65% were degraded forest lands, with commercial logging the largest driver of degradation¹⁰, although drivers vary by region. While the role of fire in forest degradation is increasing¹¹, the severity of fire and its impact on forest ecosystems is closely linked to the degree of past fragmentation and disturbance, including from roads and logging. Therefore, the majority of global forest loss is *not* due to permanent land-use conversion (deforestation) but rather to the degradation of natural forests, which reduces their ecological integrity, stability and capacity to resist and recover from threats such as drought and fire that are increasing with climate change. Undermining forest ecosystem function and resilience increases the risks to forest carbon stocks and further contributes to climate change. Logging primary forests reduces carbon stocks in all forest biomes by between 30-70%. In developed countries, logging is a major source of forest degradation, on average halving carbon stocks in temperate forests in Australia, Europe¹² and the USA¹³, with further evidence from Canada of increasing forest fragmentation, fire severity, and loss of biodiversity values¹⁴.

Given the crucial role of forest ecosystems in stabilising Earth systems that support livelihood security for many parts of humanity, the 2030 deforestation, degradation and restoration targets should not be viewed as an incidental aspiration, but a hard climate and biodiversity boundary. This boundary cannot be circumvented through carbon dioxide removal (CDR) to replace emissions lost through deforestation and forest degradation - CDR deployment carries risks to biodiversity, food security and human rights through unprecedented rates of land-use change,¹⁵ underscoring why protecting primary forests is both an

⁶ [Forest Declaration Assessment 2025](#)

⁷ Defined as: permanent land-use change with no subsequent forest regrowth.

⁸ Defined as: a reduction in the ecosystem integrity of the forest, caused by human activities such as logging and road incursions, and natural disturbances

⁹ Sims, Stanimirova, Raichuk, et al. '[Global Drivers of Forest Loss at 1 Km Resolution.](#)' (2025) Preprint, Computer Sciences.

¹⁰ Curtis, Slay, Harris, et al., '[Classifying drivers of global forests loss](#)' (2018) *Science* 361.

¹¹ Huang, Wu, Zhang, et al., '[Increasing risk of global forest loss from extreme wildfires under climate change](#)' (2025) *International Journal of Digital Earth* 18.

¹² Keith, Kun, Hugh, et al., '[Carbon carrying capacity in primary forests shows potential for mitigation achieving the European Green Deal 2030 target](#)' (2024) *Communications Earth & Environment* 5.

¹³ Law, Hudiburg, Berner, et al. '[Land use strategies to mitigate climate change in carbon dense temperate forests.](#)' (2018) *PNAS* 115(14).

¹⁴ Mackey, Campbell, Norman, et al., '[Assessing the Cumulative Impacts of Forest Management on Forest Age Structure Development and Woodland Caribou Habitat in Boreal Landscapes: A Case Study from Two Canadian Provinces](#)' (2023) *Land*.

¹⁵ Deprez, Leadley, Dooley, et al. '[Sustainability Limits Needed for CO₂ Removal](#)' (2024) *Science* 383; Turner, Field, Lobell, et al., '[Unprecedented rates of land-use transformation in modelled climate change mitigation pathways](#)' (2018) *Nat. Sustain.*

indispensable climate action and a prerequisite for halting biodiversity loss and ecosystem degradation.

The 2030 deforestation, degradation and restoration targets should not be viewed as an incidental aspiration, but a hard climate and biodiversity boundary.

Policy convergence around forests and ecosystem integrity

The past decade has seen a rapid expansion of science-based pledges, declarations, policy development, and measures around the 2030 forest & biodiversity targets.¹⁶ As these pledges and commitments emerge, they intersect across multiple areas of law, including climate change, biodiversity, trade and human rights. Over time, they have amounted to a science-driven legal paradigm shift toward increasingly binding international legal obligations.

An early development was the New York Declaration on Forests (NYDF), which included States¹⁷ as well as corporations, Indigenous Peoples (IPs) and civil society organisations (CSOs) pledging to halve deforestation by 2020 and end natural forest loss by 2030.¹⁸ This was followed by the Sustainable Development Goals (SDGs) in 2015, whereby SDG 15 includes the commitment to halt deforestation by 2030.¹⁹ The Paris Agreement, also agreed in 2015, further built on this emerging global expectation through the inclusion of Article 5, which embeds forests within the architecture of the agreement and recognises their role, based on science.²⁰

The next important milestone was in 2021 with the Glasgow Leaders' Declaration on Forests and Land Use (GLD), which was endorsed by more than 140 countries representing around 90% of the world's forests.²¹ The GLD commits signatories to

¹⁶ Food and Agriculture Organization of the United Nations (FAO), [The State of the World's Forests](#) (2022); UN Environment Programme (UNEP), [Emissions Gap Report](#) (2023).

¹⁷ The New York Declaration of Forests (NYDF) was endorsed by Canada, Chile, Colombia, Costa Rica, the Democratic Republic of the Congo, Ethiopia, Gabon, Germany, Indonesia, Japan, Kenya, Liberia, Mexico, the Netherlands, Norway, Peru, the United Kingdom and the United States, alongside the European Union and a range of subnational governments. The Declaration was also endorsed by major multinational corporations, NGOs and Indigenous Peoples organisations, making it one of the first major global forest governance initiatives to explicitly embed both State and non-State actors within a shared framework for halting deforestation and restoring forests by 2030. See [New York Declaration of Forests \(NYDF\)](#) (2014).

¹⁸ NYDF (2014).

¹⁹ [2030 Agenda for Sustainable Development](#) (2015), Sustainable Development Goal (SDG) 15.

²⁰ [Paris Agreement under the United Nations Framework Convention on Climate Change](#) (adopted 12 December 2015, entered into force 4 November 2016), Art 5(1); IPCC, [Climate Change and Land](#) (2019); IPCC, [Climate Change 2022: Mitigation of Climate Change](#) (AR6 WGIII) (2022), ch 7.

²¹ [Glasgow Leaders' Declaration on Forests and Land Use](#) (COP26 Glasgow Declaration) (2021).

halt and reverse forest loss and land degradation²² by 2030.²³ Then in 2022, the Kunming-Montreal Global Biodiversity Framework (KM-GBF) under the Convention on Biological Diversity (CBD) further reinforced this trajectory, reflecting the scientific basis related to ecosystem resilience and tipping points, by embedding ecosystem integrity, protection, restoration and biodiversity resilience within a globally agreed implementation framework, including a target to ensure that by 2030 at least 30% of terrestrial, inland water, and of coastal and marine areas, are effectively conserved and managed, recognising Indigenous and Traditional Territories where applicable, and respecting the rights of Indigenous Peoples and local communities (30 x 30 target).²⁴



PT Megakarya Jaya Raya (PT MJR) Oil Palm Concession in Papua. © Ulet Ifansasti / Greenpeace

In 2023, the first Global Stocktake under the Paris Agreement (GST1) marked the next major milestone, emphasising the importance of halting and reversing deforestation and forest degradation by 2030, aligning with the most recent IPCC science and the KM-GBF.²⁵ This outcome is of significant importance because it demonstrates continued reaffirmation and consolidation of the same 2030 forest target and further reinforces the emerging science-based normative expectation

²² Forest degradation is included in land degradation. See [United Nations Convention to Combat Desertification \(UNCCD\)](#) (1994), Art 1(f), which states that “land degradation” means reduction or loss of the biological or economic productivity and complexity of rainfed cropland, irrigated cropland, or range, pasture, forest and woodlands”.

²³ COP26 Glasgow Declaration (2021).

²⁴ [Kunming-Montreal Global Biodiversity Framework](#) (KM-GBF) (2022), Target 3.

²⁵ *Outcome of the First Global Stocktake*, [Decision 1/CMA.5, FCCC/PA/CMA/2023/16/Add.1](#) (GST1) (2023), para 33-34.

surrounding forests and ecosystem protection.²⁶ In 2025, the IUCN World Conservation Congress adopted Resolution 8.011 on “Delivering harmonised accountability and means of implementation for international forest protection goals,” highlighting the growing importance of implementation coherence, harmonised accountability, and integrated means of implementation across climate, biodiversity, and forest governance regimes.²⁷

The most recent development is the 2030 Forest & Climate Roadmap, initiated by the Brazilian COP30 Presidency.²⁸ This Roadmap marks a transition from high-level political commitments towards operational implementation and accountability.²⁹ The 2030 Forest & Climate Roadmap itself emerged from the GST and is now being taken forward by the Brazilian COP30 Presidency outside of the formal UN negotiations.³⁰ The significance of this Roadmap lies in its potential to clarify and operationalise the standard of due diligence required of States in relation to deforestation and forest degradation under existing obligations relating to climate change, biodiversity protection, human rights, and the prevention of significant environmental harm.³¹

These agreements and pledges reflect well the principle of international cooperation, a foundational principle of international environmental law, requiring States to work collectively where common environmental problems cannot be effectively addressed through unilateral action alone.³² They show that high-integrity ecosystems are increasingly treated as a matter of collective international concern due to their essential role in climate stability, biodiversity protection, livelihood security and the safeguarding of human rights.³³ Together, these developments reflect normative convergence around the expectation that States cooperate in good faith to achieve the 2030 forest and biodiversity targets.³⁴

²⁶ GST1 (2023); Sands & Peel, *Principles of International Environmental Law* (2018); IPCC, *Climate Change 2022: Impacts, Adaptation and Vulnerability* (AR6 WGII) (2022).

²⁷ [IUCN Resolution 8.011](#) on “Delivering harmonised accountability and means of implementation for international forest protection goals”

²⁸ Brazilian Presidency of UNFCCC COP30 (COP30 Presidency), [Roadmap on Halting and Reversing Deforestation and Forest Degradation by 2030: Invitation to Submit Contributions](#) (2026).

²⁹ Forest Declaration Assessment, [Delivering on 2030 forest goals: Our submission to the COP30 Deforestation Roadmap](#) (2026); Climate Focus, *Forest Declaration Assessment* reports; UNEP (2023).

³⁰ GST1, para 33–34; Paris Agreement, Art 14; COP30 Presidency (2026).

³¹ IPCC, [Climate Change and Land](#) (2019); IPCC AR6 WGIII (2022); Paris Agreement, Art. 2, 5; [Convention on Biological Diversity](#) (CBD) (adopted 5 June 1992, entered into force 29 December 1993) 1760 UNTS 79; KM-GBF (2022); International Court of Justice advisory opinion processes on climate change; Inter-American Court of Human Rights (IACtHR), [Advisory Opinion OC-23/17, The Environment and Human Rights](#), Series A No. 23 (15 November 2017); Sands & Peel, *Principles of International Environmental Law* (2018).

³² [Declaration of the United Nations Conference on the Human Environment](#) (adopted 16 June 1972) UN Doc A/CONF.48/14/Rev.1, Principle 24; [Declaration on Principles of International Law concerning Friendly Relations and Cooperation among States in Accordance with the Charter of the United Nations](#), UNGA Res 2625 (XXV) (24 October 1970) UN Doc A/RES/2625(XXV).

³³ ICJ, [Advisory Opinion, Obligations of States in respect of Climate Change](#) (23 July 2025); IACtHR, [Advisory Opinion OC-32/25, The Climate Emergency and Human Rights](#), Series A No. 32 (29 May 2025) (2025); Sands & Peel (2018).

³⁴ GST1 (2023); COP26 Glasgow Declaration (2021).

Legal developments and implications for States

The law has played an increasingly important role in addressing biodiversity loss and climate change in the past decades. Climate-related litigation has grown exponentially in recent years around State responsibility and corporate accountability, and with it, the inherent links to ecosystem destruction and biodiversity loss have been gaining weight.³⁵ Through this growing body of jurisprudence, courts have increasingly assessed both State and corporate conduct in light of climate science, due diligence obligations, human rights and international commitments.³⁶ This landscape of legal developments has emerged as a global phenomenon, across courts at the national level as well as at the regional and international level, as far as the International Court of Justice (ICJ) in The Hague.³⁷

In 2025, a unique convergence around important global legal Advisory Opinions (AOs) occurred across the Inter-American Court of Human Rights (IACtHR) and the ICJ with direct implications for the 2030 forest and biodiversity targets.³⁸ The IACtHR recognises nature as the subject of rights and affirms obligations to protect ecosystem integrity and to prevent massive and irreversible environmental harm.³⁹ The ICJ-AO reinforces that States have obligations under international law to prevent significant environmental harm, cooperate in good faith, and exercise due diligence in light of scientific knowledge.⁴⁰ It also confirms that degradation of the climate system and other parts of the environment impairs the enjoyment of numerous human rights, including the rights to life, health, food, water, housing, privacy, family life, and a healthy environment.⁴¹ In May 2026, the United Nations General Assembly (UNGA) adopted a resolution welcoming the ICJ-AO calling for its dissemination and consideration by States and international institutions.⁴² This resolution demonstrates collective political acceptance and normative consolidation of the legal principles articulated by the Court.

State obligations

The science demonstrates that ongoing forest loss, degradation and ecosystem collapse undermine the capacity of natural systems to absorb and store carbon, with serious implications for climate stability, biodiversity resilience, and humanity's protection. The degradation of primary forests is particularly significant, as these ecosystems contain carbon stocks substantially higher than those currently reflected in global accounting systems and are essential to maintaining biodiversity, hydrological cycles, ecosystem functionality and

³⁵ UNEP, [Global Climate Litigation Report](#) (2023); Setzer & Higham, [Global Trends in Climate Change Litigation](#) (2024)

³⁶ Peel & Osofsky, [Climate Change Litigation](#) (2015).

³⁷ ICJ-AO (2025).

³⁸ *Ibid.*; IACtHR-AO (2025); EFTA Court AO (2025).

³⁹ IACtHR-AO (2025), para 279–291.

⁴⁰ ICJ-AO (2025), para 132–139, 278–306

⁴¹ *Ibid.*, para 372 - 404

⁴² United Nations General Assembly, *Advisory Opinion of the International Court of Justice on the Obligations of States in Respect of Climate Change*, [UNGA Res A/80/L.65](#) (20 May 2026)

long-term resilience to climate change and other environmental shocks.⁴³ Recent expert analysis prepared in support of the 2030 Forest & Climate Roadmap process similarly emphasises that forest condition and ecosystem integrity are more important than forest cover alone for long-term climate mitigation and resilience, given that ecosystem stability, biodiversity functionality and long-term carbon storage depend on retaining and recovering ecological integrity.⁴⁴

In this context, the established scientific evidence concerning ecosystem degradation, climate instability and ecological tipping points significantly strengthens the argument that obligations relating to climate protection, ecosystem integrity, and the prevention of irreversible environmental harm may possess characteristics associated with obligations *erga omnes* – obligations owed toward the international community as a whole.⁴⁵

The ICJ-AO confirms that degradation of the climate system and other parts of the environment impairs the enjoyment of numerous human rights, including the rights to life, health, food, water, housing, privacy, family life and a healthy environment.⁴⁶ The near-universal endorsement of the KM-GBF, including the 30x30 protection and restoration commitments, further reinforces ecosystem integrity as a matter of collective international concern.⁴⁷ The ICJ frames climate change as an issue affecting all States and the international community collectively, while the IACtHR places particular emphasis on ecosystem functionality, irreversible environmental harm and obligations to prevent ecosystem destruction, all of which increasingly support the characterisation of such obligations as owed to the international community as a whole.⁴⁸

It could be argued that the international legal landscape is also now evolving towards norms associated with *jus cogens*. Under Article 53 of the Vienna Convention on the Law of Treaties, *jus cogens* norms are peremptory norms from which no derogation is permitted, protecting fundamental values of the international community.⁴⁹ In this context, loss of ecosystem integrity is capable of causing catastrophic and irreversible harm to humanity and planetary systems,⁵⁰ supporting arguments that obligations preventing irreversible ecosystem destruction may be increasingly acquiring characteristics associated with peremptory norms.⁵¹ The IACtHR strengthens this trajectory by recognising that anthropogenic conduct causing irreversible harm to the vital equilibrium of

⁴³ Griffith University, '[Carbon Carrying Capacity in Primary and Old-Growth Forests](#)' (2024) *Science Informing Policy Briefing Note*; ARIES Project, '[Global Vegetation Carbon Stocks: New Estimates and Policy Implications](#)' (2025); IPCC (2019); IPCC, AR6 WGII (2022); IPCC, AR6 WGIII (2022).

⁴⁴ Young, Mackey, Dooley, et al., '[Retaining & Recovering Forest Ecosystem Integrity is Essential for Long-Term Success of the Road Map to End Deforestation & Forest Degradation](#)' (2026) *Griffith Research Online*.

⁴⁵ *Barcelona Traction, Light and Power Company Limited (Belgium v Spain)* (Second Phase) [1970] ICJ Rep 3, para 33; ICJ-AO (2025), paras 440–442; Sands & Peel (2018).

⁴⁶ ICJ-AO (2025), para 372–404.

⁴⁷ KM-GBF (2022), Targets 1–3.

⁴⁸ ICJ-AO (2025), para 440–442; IACtHR-AO (2025), para 279–291.

⁴⁹ *Vienna Convention on the Law of Treaties* (opened for signature 23 May 1969, entered into force 27 January 1980), Art 53.

⁵⁰ IPCC AR6 WGII (2022); Rockström, Steffen, Noone, et al., '[Planetary Boundaries: Exploring the Safe Operating Space for Humanity](#)', *Ecology and Society* 14 (2009).

⁵¹ IACtHR-AO (2025) para 290 - 293

planetary ecosystems may itself possess characteristics associated with *jus cogens* norms. The Court reasons that such destruction may threaten the rights to life, integrity, health and non-discrimination.⁵² In this sense, ecosystem integrity is framed not as an environmental objective, but as a condition *sine qua non* for the protection of humanity and future generations.⁵³

Due diligence

Under customary international law, States have due diligence obligations to prevent significant transboundary environmental harm, act reasonably and use all means at their disposal to avoid causing damage.⁵⁴ This obligation requires serious, proactive, good-faith and science-based action, and the current science-based evidence related to ecosystem integrity raises the standard of care required.⁵⁵ The best available science principle, a well-established principle of international law, requires States and international bodies to base decisions, regulations, policies, risk management and other activities on the best available science reasonably available at the time.⁵⁶



The 2nd Forest Defender Camp 2025 in Papua Day 4. © Jurnasyanto Sukarno / Greenpeace

⁵² *Ibid.*, para 290

⁵³ *Ibid.*, para 293

⁵⁴ *Trail Smelter Case* (United States v Canada), Decisions of 16 April 1938 and 11 March 1941 (1941) 3 RIAA 1911, 1938; *Pulp Mills on the River Uruguay* (Argentina v Uruguay), Judgment, ICJ Reports 2010.

⁵⁵ ICJ-AO (2025); IPCC (2019).

⁵⁶ ICJ-AO (2025); UNFCCC Art 2; Paris Agreement Art 1;

The AOs reinforce that States must use all means at their disposal to adopt effective measures and prevent significant environmental harm.⁵⁷ The obligation States have to prevent significant harm to the environment of other States and in areas beyond national jurisdiction is well established.⁵⁸ The ICJ-AO confirms that the principle of transboundary harm also applies in the climate change context.⁵⁹ In general, States must fulfill their obligations (to avoid environmental harm) with a high level of due diligence. This applies to the emission of gases through industrial processes and the use of fossil fuels, as well as the destruction of existing natural systems, such as forests, soils and oceans.⁶⁰ The ICJ found that this includes “States taking, to the best of their ability, appropriate and, if necessary, precautionary measures, which take account of scientific and technological information, as well as relevant rules and international standards.” Whilst the standard of care required depends on a State’s capabilities, resources, and historical responsibilities, the ICJ has confirmed that this is not a blanket exemption from the obligation to act with due diligence.⁶¹

The ICJ-AO confirms that due diligence obligations must be interpreted in light of evolving scientific knowledge and clarifies that the standard becomes more demanding where the risks of serious and irreversible harm are greater and scientifically foreseeable.⁶² Similarly, the International Tribunal for the Law of the Sea Advisory Opinion on Climate Change and International Law emphasises that due diligence is an obligation of conduct requiring States to deploy the best available science and to adopt all necessary measures proportionate to the degree of risk posed.⁶³ The IACtHR raises the due diligence threshold further, requiring “*stringent*” due diligence, and identifies deforestation, agriculture, land use change and ecosystem destruction as relevant sources of climate harm requiring regulation.⁶⁴ It explains that such obligations depend on the specific risks posed to human rights within the context of the climate emergency.⁶⁵ Taken together, these developments increasingly support the argument that the scientific evidence concerning ecosystem degradation, tipping points, biodiversity collapse and climate instability materially elevates the level of action expected of States under international law.⁶⁶

Due diligence requires action and implementation. In practice, what this means is that States are under an obligation to put in place legislation, monitoring, transparency, and accountability measures, as well as enforcement measures.⁶⁷

⁵⁷ ICJ-AO (2025); IACtHR-AO (2025), paras 233–237.

⁵⁸ ICJ, [Advisory Opinion, Legality of the Threat or Use of Nuclear Weapons](#) (1996), p 226, para 29; UNFCCC, preamble, recital 8.

⁵⁹ ICJ-AO (2025), para.132

⁶⁰ The advisory opinion on the climate emergency and human rights by the Inter-American Court of Human Rights specifically mentions as an example for the prohibition of all human activities that could cause irreversible environmental harm “large-scale and irreversible deforestation of primary forests crucial to biodiversity”

⁶¹ ICJ-AO (2025), para 292

⁶² *Ibid.*, para 138

⁶³ International Tribunal for the Law of the Sea, [Request for an Advisory Opinion submitted by the Commission of Small Island States on Climate Change and International Law](#), Advisory Opinion, ITLOS Case No. 31 (21 May 2024), para 339

⁶⁴ IACtHR-AO (2025) para 233–234, 337

⁶⁵ *Ibid.*

⁶⁶ *Ibid.*, para 337–353.

⁶⁷ ICJ-AO (2025); IACtHR-AO (2025).

Implementation measures must also be aligned with international human rights obligations, particularly in relation to protection of communities in vulnerable situations, Indigenous Peoples, food systems, water security, housing and intergenerational equity.⁶⁸

Adequate due diligence aligned with international obligations would require States to adopt regulatory, legislative, monitoring and enforcement systems that are reasonably capable of achieving climate and biodiversity objectives, including through effective regulation of private actors.⁶⁹ It requires high ambition in forest and ecosystem-related elements of NDCs, NBSAPs and NAPs to include the 2030 forest and biodiversity targets, as well as reporting on progress through relevant reporting processes such as Biennial Transparency Reports (BTRs) under the UNFCCC, National Reports under the CBD and reporting required through human rights instruments.⁷⁰

It would mean putting in place robust, ambitious and effective legislation at the domestic level related to Land Use, Land Use Change and Forestry (LULUCF) and shifting away from narrow 'net' accounting approaches and offsets, toward approaches that ensure ecosystem integrity, ecosystem resilience and biodiversity protection.⁷¹ Excessive reliance on offset-based mitigation approaches and speculative future removals may undermine compliance with due diligence obligations where such approaches delay or substitute for immediate emissions reductions and protection of high-integrity ecosystems.⁷²

Due diligence implementation would also require the recognition and protection of Indigenous Peoples' and local communities' land tenure rights, ensuring effective participation, access to information, respect for free, prior and informed consent processes and protection of environmental human rights defenders.⁷³

⁶⁸ ICJ-AO (2025), para 157, 372–404, especially para 381, 393, 403; IACtHR-AO (2025), para 233–234, 310, 337, 595; [United Nations Declaration on the Rights of Indigenous Peoples](#) (UNDRIP), UNGA Res 61/295 (LXI) (13 September 2007).

⁶⁹ CIEL, Climate Litigation Network, Greenpeace International, et al., [ICJ AO Litigation Notes Digest](#) (2026)

⁷⁰ Paris Agreement, Art 4, 5, 7, 14; [Modalities, Procedures and Guidelines for the Transparency Framework for Action and Support referred to in Article 13 of the Paris Agreement](#), Decision 18/CMA.1, FCCC/PA/CMA/2018/3/Add.2 (15 December 2018), Annex (hereinafter 'ETF MPGs'); KM-GBF, Targets 1–3 and monitoring framework; CBD Decision 15/5, [Monitoring Framework for the Kunming-Montreal Global Biodiversity Framework](#), UN Doc CBD/COP/DEC/15/5 (19 December 2022); CBD, Art 6 (National Biodiversity Strategies and Action Plans (NBSAPs)); National Adaptation Plans, established under the Cancun Adaptation Framework, [National Adaptation Plans](#), Decision 5/CP.17, FCCC/CP/2011/9/Add.1 (11 December 2011); ICJ-AO(2025), paras 236–253, 280–306; IACtHR AO (2025), para 233–234, 337; [Establishment of the Human Rights Council](#), UNGA Res 60/251 (3 April 2006), UN Doc A/RES/60/251, para 5(e); [Institution-building of the United Nations Human Rights Council](#), UNHRC Res 5/1 (18 June 2007), UN Doc A/HRC/RES/5/1, Annex I (Universal Periodic Review mechanism); [International Covenant on Civil and Political Rights](#) (ICCPR) (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171, UNGA Res 2200A (XXI); [International Covenant on Economic, Social and Cultural Rights](#) (ICESCR) (adopted 16 December 1966, entered into force 3 January 1976) 993 UNTS 3, UNGA Res 2200A (XXI). UN Human Rights Council Universal Periodic Review (UPR) reporting processes; reporting obligations under the ICCPR and ICESCR.

⁷¹ IPCC AR6 WGIII (2022); Rogers, Mackey, Moomaw, et al., [Using ecosystem integrity to maximize climate mitigation and minimize risk in international forest policy](#) (2022) *Frontier in Forests and Global Change*.

⁷² Dooley, Nicholls & Meinshausen (2022); Anderson & Peters, [The trouble with negative emissions](#) (2016).

⁷³ IACtHR-AO (2025) paras 233–234, 337; UNDRIP.

In the context of global trade, due diligence may require that robust legal frameworks be put in place and corporations are regulated,⁷⁴ with States as co-responsible actors for products produced or imported. Regulation of corporate actors should include environmental, climate and human rights due diligence across supply chains, emissions disclosure, mitigation measures, prevention of greenwashing, avoidance of undue influence over public decision-making⁷⁵ as well as enhancing transparency of corporate ownership and addressing crime.⁷⁶ States are not able to satisfy their due diligence obligations unless they adopt stringent frameworks to tackle human rights violations and corporate-driven forest destruction.⁷⁷



Logging Truck in Para State. © Marizilda Cruppe / Greenpeace

Consequences of non-compliance

The ICJ-AO clarifies that a State commits an ‘internationally wrongful act’ where it fails to exercise due diligence in preventing significant harm to the climate system and other parts of the environment.⁷⁸ It follows therefore that failure to regulate large-scale deforestation and forest degradation may give rise to State

⁷⁴ EUDR (2023); OECD Due Diligence Guidance (2018)

⁷⁵ *Ibid.*, para 226–229, 345–353

⁷⁶ For example, States should ensure measures are taken to implement the [International Standards on Combating Money Laundering, Financing Terrorism and Proliferation](#) as agreed by the Financial Action Taskforce (FATF).

⁷⁷ ICJ-AO (2025), paras 138, 252, 281–284, 428; IACtHR-AO (2025), para 233–234, 337, 345–350; United Nations Guiding Principles on Business and Human Rights (2011), Principles 1, 3 and 25; OECD, *Due Diligence Guidance for Responsible Business Conduct* (2018); European Union Deforestation Regulation (2023); UNDRIP (2007); *Pulp Mills on the River Uruguay (Argentina v Uruguay)* [2010] ICJ Rep 14, para 197.

⁷⁸ ICJ-AO (2025), para 409.

responsibility where States fail to take all measures within their power to prevent foreseeable and scientifically established climate and ecosystem harm.⁷⁹ Given the scientific consensus that the 2030 forest and biodiversity targets are necessary to maintain a credible pathway to 1.5°C, ongoing failure to exercise due diligence to address forest destruction may increasingly be characterised as conduct incompatible with States' obligations to protect the climate system under both customary and conventional international law.³ Despite these findings, deforestation and forest degradation remain underregulated, and in many circumstances, are legally permitted.⁸⁰

In circumstances where a State is found to have committed an 'international legal wrong', as a consequence, they are obliged to discontinue the wrongful act, offer guarantees of non-repetition and provide full reparation.⁸¹ The ICJ-AO references the 'duty of cessation' but does not further elaborate on what it would look like in practice.⁸² In transboundary pollution cases, however, States are usually given a reasonable timeframe to modify or terminate the polluting activities.⁸³ The cessation of all forest destruction, their protection and their restoration seem obvious, proportional and effective steps to remedy the wrong.

When these AOs are taken together with the consistent reaffirmation of the pledges, the policies and the science, the 2030 forest and biodiversity targets carry high legal importance, as they support an obligation for States to pursue these targets with due diligence.⁸⁴ It requires regulation of both State and corporate conduct to strengthen high ecosystem integrity approaches to the way forests are managed and protected.⁸⁵ It indicates a paradigm shift emerging within the legal landscape as it relates to forests and the integrity of ecosystems and the critical role they provide in regulating climate systems and preventing catastrophic warming.⁸⁶

Corporate accountability and supply chains

The 2030 targets will not be achieved through State action alone. Approximately 2.6 GtCO₂ per year in tropical deforestation emissions are driven by agricultural and forestry commodity trade, with 29–39% of those emissions embedded in international supply chains and therefore invisible to the territorial accounting on which current NDCs are based.⁸⁷ The role of corporate actors is essential in achieving this target due to their role as primary drivers of forest loss.⁸⁸

⁷⁹ Ibid., paras 137–138, 281–284, 427–428.

⁸⁰ Hosonuma, Herold, Sy, et al. '[An assessment of deforestation and forest degradation drivers in developing countries](#)', *Environmental Research Letters* 7 (2012); Forest Declaration Assessment (2024).

⁸¹ ILC Articles on State Responsibility (2001), Arts 30–31.

⁸² ICJ-AO

⁸³ [Pulp Mills on the River Uruguay \(Argentina v Uruguay\)](#) [2010] ICJ Rep 14; [Aerial Herbicide Spraying \(Ecuador v Colombia\) \(Order on Provisional Measures\)](#) [2008] ICJ Rep 177; [Certain Activities Carried Out by Nicaragua in the Border Area \(Costa Rica v Nicaragua\)](#) [2015] ICJ Rep 665.

⁸⁴ SDG 15; GST1 (2023); Glasgow Declaration (2021); KM-GBF (2022).

⁸⁵ IACtHR-AO (2025).

⁸⁶ IPCC AR6 (2022); GST1 (2023); COP30 Presidency (2026).

⁸⁷ Pendrill, Persson, Godar, et al. '[Agricultural and forestry trade drives large share of tropical deforestation emissions](#)' (2019) *Global Environmental Change* 56.

⁸⁸ FAO (2022); IPCC (2019); Curtis et al. (2018).

International and domestic legal systems have recognized and operationalised corporate obligations relating to human rights, climate harm, environmental due diligence and preventing ecosystem destruction through judicial interpretation and domestic legislation.⁸⁹ The IACtHR has affirmed that business enterprises have obligations to respect human rights in the context of climate change, while courts in Colombia, Peru, Canada, the Netherlands and elsewhere have increasingly operationalised corporate due diligence and accountability obligations through constitutional law, tort law and human rights jurisprudence.⁹⁰

Degradation is of particular importance in this context. Global commodity trade drives forest degradation through logging, fragmentation, infrastructure expansion and extractive activity, all of which undermine biodiversity, increase fire vulnerability and push forests toward eventual collapse.⁹¹ Forest degradation could be characterised as a ‘wicked problem’,⁹² that has been poorly addressed by governance systems, including fragmented legal frameworks, voluntary certification approaches, and inconsistent corporate accountability mechanisms, despite being the main driver of forest loss. Existing governance approaches tend to focus on measurable forest loss rather than underlying ecological decline, despite representing the dominant pathway through which forests are lost in practice.⁹³ Policy frameworks also continue to inadequately support close-to-nature forest management, recovery of degraded secondary forests and cascade approaches to timber and biomass use that maximize long-term carbon storage and ecosystem integrity, while often perpetuating scientifically contested assumptions concerning the climate neutrality of biomass combustion.⁹⁴ Offset mechanisms further enable continued degradation while maintaining corporate

⁸⁹ IACtHR-AO (2025), paras 345–350; [Guiding Principles on Business and Human Rights: Implementing the United Nations ‘Protect, Respect and Remedy’ Framework](#), UN Doc A/HRC/17/31 (21 March 2011), endorsed by UNHRC Res 17/4 (16 June 2011) (hereinafter ‘UNGPs’), Principles 1, 3 and 25; [Milieudefensie et al v Royal Dutch Shell plc](#), ECLI:NL:RBDHA:2021:5339 (District Court of The Hague, 26 May 2021); [Shell plc v Milieudefensie et al](#), ECLI:NL:GHDHA:2024:2100 (Court of Appeal of The Hague, 12 November 2024); [Nevsun Resources Ltd v Araya](#) [2020] SCC 5 (Supreme Court of Canada, 28 February 2020); Constitutional Court of Colombia, [Sentencia T-614/19 \(Cerrejón case\)](#), 16 December 2019); [Miskito Divers \(Opario Lemoth Morris et al.\) v Honduras](#) (IACtHR, 31 August 2021), IACtHR Series C No 432; Organisation for Economic Co-operation and Development, [OECD Due Diligence Guidance for Responsible Business Conduct](#) (2018); [Regulation \(EU\) 2023/1115 of the European Parliament and of the Council of 31 May 2023 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation \(EUDR\) No 995/2010 \[2023\] OJ L150/206](#).

⁹⁰ IACtHR-AO (2025), paras 345–350; [Sentencia T-614/19 \(Cerrejón case\)](#), 2019); Constitutional Tribunal of Peru, [Sentencia 310/2023, EXP. N.º 03326-2017-PA/TC \(Comunidad Campesina de Asacasi case\)](#), 2023); [Nevsun Resources Ltd v Araya](#) [2020] SCC 5; [Milieudefensie](#) (2021); [Shell v Milieudefensie](#) (2024); [Miskito Divers](#) (2021); [Inhabitants of La Oroya v Peru](#) (Preliminary Objections, Merits, Reparations and Costs) (IACtHR, 27 November 2023), IACtHR Series C No 511; African Commission on Human and Peoples’ Rights, [State Reporting Guidelines and Principles on Articles 21 and 24 of the African Charter relating to Extractive Industries, Human Rights and the Environment](#) (2022); UNGP (2011).

⁹¹ IPCC (2019); IPCC, AR6 WGIII (2022), ch 7 (AFOLU sector); Curtis et al. (2018); Griscom et al., ‘Natural Climate Solutions’ (2017) PNAS.

⁹² See Rittel and Webber, ‘[Dilemmas in a General Theory of Planning](#)’ (1973) *Policy Sciences* 4. ‘Wicked problems’ are characterised by diffuse causation, evolving dynamics, and the lack of a single optimal solution, making them particularly difficult to address through traditional legal and policy frameworks, which tend to rely on clear problem definition, linear causation, and discrete regulatory interventions.

⁹³ FAO, [Global Forest Resources Assessment](#) (2020; 2022 update); FAO (2022); CIFOR, [Forest Degradation and REDD+ reports](#); Hosonuma, Herold, Sy, et al. (2012).

⁹⁴ IPCC (2019); IPCC AR6 WGIII (2022), ch 7; Searchinger, Beringer, Holtsmark, et al., ‘[Europe’s renewable energy directive poised to harm global forests](#)’ (2018) *Nature Communications* 9; Keith, Linder Mayer, Mackey, et al., ‘[Managing temperate forests for carbon storage: impacts of logging versus forest protection on carbon stocks](#)’ (2014) *Ecosphere* 5(6).

claims of “net” sustainability or carbon neutrality, despite the ongoing loss of ecosystem functionality and biodiversity integrity.⁹⁵ The outcome is overstated corporate compliance, underestimated emissions and unaccounted biodiversity loss.⁹⁶



Overflight Documents Deforestation in Pará and Maranhão, Brazil. © Christian Braga / Greenpeace

A range of frameworks have been put in place over recent decades to support corporate actions related to so-called “sustainable forestry”. These include the EU Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan, voluntary certification schemes, as well as corporate pledges.⁹⁷ Despite decades of implementation of these schemes, deforestation and forest degradation have continued on a massive scale. Certification schemes have enabled selective compliance and legal frameworks at the national level, which continue to allow the issuance of permits and concessions permitting extensive forest loss. Many corporate pledges have been found to be no more than greenwashing exercises without any meaningful follow-up.⁹⁸

The EU Deforestation Regulation (EUDR) has been a major legal development in addressing deforestation, as it clearly articulates binding, enforceable obligations

⁹⁵ IPCC, AR6 WGIII (2022), ch 7, 12; CIEL et al., *ICJ AO Litigation Notes Digest* (2026), p. 68–83).

⁹⁶ European Commission, [Fitness Check on the EU Timber Regulation \(Regulation \(EU\) No 995/2010\) and the FLEGT Regulation \(Regulation \(EC\) No 2173/2005\)](#), Commission Staff Working Document SWD (2021) 328 final; NYDF Assessment Partners, *Forest Declaration Assessment* (2022); Greenpeace, [Destruction: Certified](#) (2018, updated on 2021); WWF critiques of certification schemes.

⁹⁷ European Commission, [Forest Law Enforcement, Governance and Trade \(FLEGT\): Proposal for an EU Action Plan](#) (Communication) COM(2003) 251 final (21 May 2003); FSC & RSPO standards.

⁹⁸ Greenpeace (2018); NYDF Assessment (2022); WWF (2020).

which are required of corporations.⁹⁹ The EUDR requires that commodities and products are deforestation-free, produced in accordance with relevant laws of the country of origin and fully traceable through geolocation data.¹⁰⁰ It puts in place mandatory due diligence systems, including risk assessment and mitigation, reporting requirements and penalties.¹⁰¹ The EUDR is a clear marker of the shift in the direction of legal compliance for companies by introducing binding obligations.¹⁰² However, its treatment of degradation remains limited, focusing primarily on conversion while allowing ongoing ecological decline through selective logging and fragmentation.¹⁰³ This creates a situation where legally compliant supply chains may continue to be ecologically destructive.¹⁰⁴

From the perspective of producer countries in the tropics, concerns remain regarding the focus of the EUDR on imported deforestation risks, while forest degradation and ecosystem impacts within European forests remain comparatively less scrutinised.¹⁰⁵ The ongoing insatiable demand for products means the political and economic levers needed to halt deforestation and forest degradation include the consumption policies of importing countries in the Global North. The 2030 target, in this light, demands a fundamental rethinking of how global agricultural trade is regulated and accounted for. Without comparable ambition on the demand side, forest protection commitments in producer countries will remain structurally undermined by the economic incentives that drive deforestation in the first place.

The World Trade Organization (WTO) serves as the central legal framework governing global trade, shaping the conditions under which corporations organise production, expand supply chains and commodify natural resources at scale. Similarly to the invisibility of degradation under the UNFCCC LULUCF rules, the problem of forest degradation is reinforced by the WTO framework because it is challenged in recognising ecological integrity as a legally relevant category.¹⁰⁶ Its reliance on formal product equivalence and resistance to differentiation based on production methods means that the distinction between primary and degraded forests is inadequately recognised within the WTO system.¹⁰⁷ This creates a fundamental disconnect between law and ecological reality, inconsistent with the ecosystem integrity approach.¹⁰⁸ In this sense, WTO law has not evolved at the same pace as emerging legal and scientific

⁹⁹ EUDR.

¹⁰⁰ *Ibid.*, Art. 3, 9.

¹⁰¹ *Ibid.*, Art 10–11, 23–25

¹⁰² *Ibid.*, Art, 8–11

¹⁰³ EUDR, Art 2; European Commission, *EUDR Guidance Documents* (2023).

¹⁰⁴ ClientEarth, [The new EU Deforestation-free Products Regulation: Key obligations for EU Member States](#) (2023); WWF Forests Forward, [Step-by-Step Guide to Conformance to the EU Deforestation Regulation](#) (2023).

¹⁰⁵ Forest Declaration Assessment (2024); ClientEarth (2023).

¹⁰⁶ Howse & Regan, 'The Product/Process Distinction—An Illusory Basis for Disciplining 'Unilateralism' in Trade Policy' (2000) *European Journal of International Law* 11, p. 249, 252–255; Charnovitz, 'The Law of Environmental 'PPMs' in the WTO' (2002) *Yale Journal of International Law* 59, p.64–70.

¹⁰⁷ [General Agreement on Tariffs and Trade 1994](#), Annex 1A, Marrakesh Agreement Establishing the World Trade Organization (adopted 15 April 1994, entered into force 1 January 1995) 1867 UNTS 187, Arts I and III; Appellate Body Report, [European Communities — Measures Affecting Asbestos and Asbestos-Containing Products](#), WT/DS135/AB/R (12 March 2001), adopted 5 April 2001, paras 99–109 (treatment of 'like products'); Appellate Body Report, [United States — Import Prohibition of Certain Shrimp and Shrimp Products](#), WT/DS58/AB/R (12 October 1998), adopted 6 November 1998, paras 118–121 (limits on PPM-based differentiation).

¹⁰⁸ KM-GBF (2022), Targets 1–3.

understandings of ecosystem integrity, thereby contributing to an increasingly outdated governance framework which is difficult to reconcile with evolving jurisprudence relating to climate protection, biodiversity conservation, human rights and environmental due diligence.¹⁰⁹



Boreal Forest in Alberta. © Jiri Rezac / Greenpeace

The IACtHR-AO strengthens the international legal framework around corporate accountability by recognising that both State-owned and private enterprises bear obligations to prevent climate harm and resulting human rights violations.¹¹⁰ The Court recognised that States must regulate corporate actors whose activities contribute to climate change, ecosystem destruction and biodiversity loss. This includes effective environmental, climate and human rights due diligence across supply chains, emissions disclosure, mitigation measures, prevention of greenwashing and avoidance of undue influence over public decision-making.¹¹¹ In this context, corporate accountability increasingly operates as a mechanism through which States should implement their own due diligence obligations to prevent significant environmental harm and protect human rights.

¹⁰⁹ FAO, *Global Forest Resources Assessment* (2020) 21–28; FAO (2022) 12–18; Griscom et al., ‘[Natural Climate Solutions](#)’ (2017) *PNAS* 114, p. 11645, 11648–11649; World Bank, *The Cost of Fire: Indonesia’s 2015 Fires* (2016) p. 3–10.

¹¹⁰ IACtHR-AO (2025) para 345–347

¹¹¹ *Ibid.*, para 226–229, 345–353

The real-world result of this legal shift is that corporate responsibility at the national level has become embedded in the implementation of international law through derived obligations, such as through application of these norms by national courts, domestic legislation related to the EUDR, global due diligence frameworks, human rights laws and alignment with NDC implementation and other biodiversity commitments.¹¹² The broader significance of this shift was reinforced in May 2026 when the UNGA adopted the resolution welcoming the ICJ-AO, further supporting the expectation that States implement effective domestic measures, including regulation of corporate actors, to prevent significant environmental harm and protect human rights.¹¹³ The growing legal and political discourse concerning Ecocide also illustrates the evolving legal risk confronting corporations and their directors engaged in ecosystem destruction.

The relevant legal question is no longer whether forests remain standing, but whether they remain functioning.

Corporations, therefore, face legal, financial and reputational risk related to litigation, regulation and enforceable obligations, as well as financial risk linked to the incompatibility with emerging environmental, social, and governance and investment frameworks.¹¹⁴ This legal transformation must also look beyond deforestation to degradation and to a threshold based on ecological integrity. The relevant legal question is no longer whether forests remain standing, but whether they remain functioning.¹¹⁵

Operationalising the paradigm through the 2030 Forest & Climate Roadmap

To ensure consistency with existing and emerging legal obligations, it will be important that the 2030 Forest & Climate Roadmap reflect the current scientific and legal context in which it operates and is more than a mere political statement. It should enable an implementation framework that reflects customary international law and support the development of minimum expectations, measurable benchmarks and implementation pathways, such as degradation indicators, ecosystem integrity metrics, restoration targets and corporate due diligence expectations. Importantly, the Roadmap should embrace the unique opportunity to address the blind spot related to forest degradation.

¹¹² Paris Agreement; CBD (1992); Kunming-Montreal GBF (2022).

¹¹³ United Nations General Assembly, *Advisory Opinion of the International Court of Justice on the Obligations of States in Respect of Climate Change*, [UNGA Res A/80/L.65](#) (20 May 2026)

¹¹⁴ Principles for Responsible Investment (PRI), '[Extractive Sector, Just Transition and Human Rights: PRI Response to the UN Working Group Call for Inputs](#)' (15 May 2023); Task Force on Climate-related Financial Disclosures (TCFD), '[Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures](#)' (Financial Stability Board, 29 June 2017).

¹¹⁵ IACtHR-AO (2017); IPCC (2019)

There is a need for a stronger implementation and accountability architecture to improve coordination, transparency and leadership in achieving the 2030 forest & biodiversity targets. Important 'low-hanging fruit' available to the Roadmap to support this include: connecting with the UNFCCC Enhanced Transparency Framework (ETF) under the Paris Agreement; the second GST; the first Global Review of the KM-GBF and biodiversity and human rights reporting, to track progress towards achieving the 2030 target. The Roadmap development process should result in structures to enable technical support, expert engagement and capacity to improve the quality and consistency of international and national reporting. There should be a common approach to definitions, metrics, and monitoring systems related to deforestation, degradation, and ecosystem integrity and to improved alignment and synergies across climate, land use and biodiversity reporting systems.

In terms of corporate obligations, the Roadmap should recognise the role of corporations as major drivers and support a shift towards a system of responsibility that includes both State and corporate actors. The outcome of the Roadmap development process must address the missing link between global commitments and corporate obligations, whilst presenting States as co-responsible actors in promoting destruction-free value chains for their imports. It should clarify expectations of corporate actors to contribute to achieving the 2030 targets and set out clear expectations for corporate conduct. It should align the existing law related to climate change, biodiversity and corporate governance, including those under the KM-GBF, and support the establishment of a global baseline for corporate conduct in deforestation and degradation risk commodity chains, reducing reliance on voluntary pledges and certification schemes and supporting approaches similar to or better than the EUDR globally.

The implementation of the Roadmap to achieve the 2030 forest target should be a critical next step in operationalising due diligence obligations. An inclusive, participatory, multi-stakeholder implementation coordination process should be put in place to reduce fragmentation across the forest governance landscape, strengthen coordination, improve accountability, and bridge the gaps between finance and delivery. Such a process should provide an institutional platform to align implementation pathways across climate, biodiversity, trade, finance and human rights regimes, while strengthening cooperation between States, Indigenous Peoples, local communities, civil society, scientific institutions, and financial actors. A process of this nature should build on the 2025 IUCN resolution seeking to address this fragmentation on accountability and play an important convening and coordination role by facilitating shared principles, coherent implementation, integrity-based governance approaches and the collaborative development of implementation pathways linked to the Roadmap.

The Roadmap should also call for the establishment of a dedicated implementation 'Action Plan' within the UNFCCC to support the operationalisation of the GST1 outcome on forests.¹¹⁶ Such an Action Plan would assist Parties in meeting their *stringent* due diligence obligations. The Action Plan

¹¹⁶ Greenpeace, [COP30 Forest Action Plan](#): A Proposal to Improve Efficiencies under the UNFCCC to Implement Action to Halt and Reverse Deforestation and Forest Degradation by 2030. Greenpeace (2025).

should address fragmentation across the multiple existing UNFCCC workstreams and achieve an efficient, streamlined implementation-focused process under the UNFCCC Subsidiary Body for Implementation (SBI). It should also facilitate the full operationalisation of Article 5 of the Paris Agreement by providing guidance on measures to retain and restore ecosystem carbon reservoirs. More specifically it should include guidance on national forest plans and alignment of NDCs, NAPs and NBSAPs; strengthening Indigenous Peoples' and local communities' land rights and participation; reform of financial systems and scaling up high-integrity forest finance; address trade and commodity drivers of deforestation and degradation; improve monitoring, transparency, ecosystem integrity and accountability systems; and enhance international cooperation and synergies across the Rio Conventions - in particular the KM-GBF and the CBD Programme of Work on Forest Biological Diversity.

COP31 should mark an important moment, drawing on the existing body of policy, science and law and benefiting from the Roadmap process and enable the transition from political aspiration to the development of implementation infrastructure. A decision should be reached at COP31 to close the gap between commitment and delivery and to improve efficiency under the UNFCCC in implementing action to halt and reverse deforestation and forest degradation by 2030 through the Action Plan for Forests.



Amazon Ash Art Performance by Artist Mundano Demands Action for Forests at COP30 in Belem. © Filipe Bispo / Greenpeace

Recommendations

The scientific evidence is now clear that halting and reversing deforestation and forest degradation by 2030 is essential to maintaining a credible pathway to 1.5°C, preventing irreversible ecosystem collapse and safeguarding biodiversity and human rights. At the same time, a growing convergence of international agreements, climate and biodiversity frameworks, judicial developments and due diligence obligations indicates an emerging shift in the legal paradigm governing forests and ecosystem integrity. Further, the protection of forests and ecosystem integrity is no longer solely an environmental concern, but increasingly a necessary condition for safeguarding fundamental human rights and the stability of the climate system itself.

After the global community's critical failure to reach ambitious decisions on forests in last year's COP30 negotiations, the Brazil-led 2030 Forest & Climate Roadmap presents a critical opportunity to translate this emerging legal and scientific consensus into operational implementation. However, the implications of this emerging legal and policy paradigm extend beyond the Roadmap itself. If ecosystem integrity is increasingly understood as a prerequisite for climate stability, biodiversity conservation and the protection of human rights, then achieving the 2030 forest and biodiversity targets is not solely a matter for forest policy, but a shared responsibility across governments, corporations, financial institutions, international organisations and civil society. The Roadmap can play an important role in accelerating and coordinating this transition, but its success will ultimately depend on the actions taken by a much wider set of actors.

The following recommendations identify priority actions required to align governance systems, legal frameworks and implementation efforts with the scientific imperative to halt and reverse deforestation and forest degradation by 2030.

1. **Strengthen legal frameworks and recognize the 2030 forest & biodiversity targets as a benchmark for due diligence:** States should establish legal and regulatory frameworks that demonstrate due diligence to achieve the 2030 targets, including enforceable mechanisms for monitoring, transparency, accountability and remediation. Such frameworks should include a non-deterioration principle for primary and high-integrity ecosystems, preventing activities that cause measurable declines in ecosystem integrity.
2. **Prioritise action on forest degradation and ecosystem integrity:** Governments and corporations should recognise forest degradation as a major driver of ecosystem loss. Forest governance systems should move beyond narrow approaches to deforestation and forest-cover loss and adopt ecosystem-integrity-based approaches.
3. **Ensure Indigenous Peoples' and local communities are at the center:** Governments and corporations should recognise Indigenous Peoples' rights, governance systems and land tenure arrangements as essential conditions for achieving climate and biodiversity objectives. The

Roadmap can contribute by promoting the consistent implementation of free prior and informed consent (FPIC) and meaningful participation, as well as enabling direct access to multilateral finance mechanisms.

4. **Reform accounting, monitoring, and reporting systems:** a harmonised approach to definitions, monitoring methodologies, degradation indicators and ecosystem integrity metrics is essential to improve consistency across climate, biodiversity, human rights and trade-related reporting systems.
5. **Fully operationalise Article 5 of the Paris Agreement:** a UNFCCC Action Plan under the SBI is needed within the formal negotiations to strengthen ecosystem integrity, align climate, biodiversity and forest governance, and improve coordination, finance, accountability and international cooperation across the Rio Conventions. States should integrate the 2030 forest target into NDCs, Biennial Transparency Reports (BTRs) and National Adaptation Plans.
6. **Address drivers of deforestation and forest degradation:** States should establish robust legal frameworks that include mandatory due diligence, transparency and disclosure obligations, enforcement mechanisms, and legal accountability for companies that fail to take reasonable measures to prevent foreseeable harm. States should also address demand-side drivers by aligning trade, investment, procurement and financial systems to eliminate incentives that drive deforestation and forest degradation.
7. **Align financial systems with due diligence obligations and ecosystem integrity objectives:** Public and private financial actors should exercise due diligence to identify, prevent and address the climate, biodiversity, and human rights risks associated with investments, lending, and insurance activities that contribute to deforestation and forest degradation. The Roadmap can clarify expectations for financial actors and promote coherent approaches to accountability, transparency and high-integrity forest finance.
8. **Establish an implementation and accountability framework:** Governments, corporations, Indigenous Peoples and all stakeholders should work collaboratively to establish implementation and accountability architecture capable of delivering the 2030 forest and biodiversity targets. The Roadmap should provide a platform to coordinate implementation across the climate, biodiversity, trade, finance and human rights regimes. It should further support the development of common standards, metrics, and reporting frameworks for ecosystem integrity, forest degradation and restoration, and ensure that emissions and ecological impacts associated with forest degradation, including from commercial logging and extractive industries, are fully recognised and accounted for in international governance systems.