



A CALL FOR A MORATORIUM ON INDUSTRIAL ACTIVITY IN PRIMARY FORESTS UNTIL 2050

Introduction

Primary forests¹ protect by far the most terrestrial species, as well as the largest terrestrial carbon stocks, and are critical to resolving many of our most pressing social and environmental crises, including accelerating climate change and species extinctions, freshwater shortages and pandemics. Primary forests are also very often the homelands of Indigenous Peoples and vital to support Indigenous cultures, rights and traditional livelihoods. They are truly irreplaceable ecosystems – irrecoverable by 2050 and essential to maintaining a habitable planet – and central to the success of the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change, and many other multilateral environmental agreements.

As recognized in the Glasgow Leaders' Declaration on Forests and Land Use (goal 6), protecting primary forests will require deep changes in national and international forest policies, and in the way funding for forest stewardship is mobilized and allocated. In particular, far more resources must be allocated to Indigenous Peoples, local communities, and protected areas, as these are the only forest management approaches with proven capacity to protect primary forests and their many essential ecosystem services.

Currently, well under 3% of climate finance is directed to forests of any condition, let alone primary forest protections², even though ecosystems could provide thirty percent or more of the mitigation needed to avoid catastrophic warming. On the other hand, we spend hundreds of billions of dollars annually subsidizing extractive industries and industrial agriculture, with devastating impacts on forests and their biodiversity – and then trillions more attempting to mitigate climate change, pandemics and other crises resulting from environmental destruction. The economic wisdom of subsidizing logging of primary forests in particular is further undermined when one considers that the entire formal forest sector only generates about USD 660b – 1.5t annually³, or about 1-2% of global Gross Domestic Product, and that the substantial costs of aggravated climate change resulting from the failure to protect primary forests therefore falls on the remaining 98% of the economy – as the business sector, media and the voting public are increasingly aware.

¹ See Section I of the Appendix for a definition of primary forest.

² Climate Policy Initiative 2021, Preview Global Landscape of Climate Finance 2021, www.climatepolicyinitiative.org

³ FAO: The State of the World's Forests 2022. Forest pathways for green recovery and building inclusive, resilient and sustainable economies. <https://doi.org/10.4060/cb9360en><https://www.fao.org/3/cb9360en/cb9360en.pdf>

Protecting the planet's remaining primary forests while investing in sustainable alternative economies, encouraging a just transition for local communities who rely on commercial logging for revenue, and also undertaking substantial ecological restoration of forests, is entirely possible if we redirect extractive industry subsidies and climate funding.

Existing global commitments, including the Convention on Biological Diversity and the United Nations Framework Convention on Climate Change, have fallen far short of their climate and biodiversity ambition, to a significant degree due to their failure to stem the loss of primary forests. Targets in the CBD, UNFCCC and other multilateral environmental agreements now require strong, firm commitments around the protection of primary forests globally across tropical, temperate, and boreal forests, as well as protection of other primary ecosystems (peatlands, wetlands, grasslands etc.) to ensure any chance of success.⁴ Given rapidly accelerating climate and biodiversity crises, protecting the planet's remaining primary forests is now an urgent necessity – and eminently feasible, financially and economically.

We therefore propose the following moratorium on industrial activity in primary forests until 2050:

Preamble

Whereas primary forests are unique and irreplaceable and provide vitally important benefits, and:

- The full diversity of life on Earth is intrinsically important and has the right to exist and persist in healthy, thriving ecosystems.
- The vast scale of the degradation and destruction of ecosystems globally amounts to an accelerating ecocide, threatening the habitability of our planet;
- Primary forests are essential to the rights, cultures and livelihoods of Indigenous Peoples and Afro-descendant and local communities⁵;
- We have an obligation to deliver an ecologically healthy, safe, harmonious and bio-culturally diverse planet to the world's youth, and to future generations;
- Primary forests (and other primary ecosystems including grasslands, peatlands and wetlands) are essential to resolving the biodiversity crisis because they hold the large majority of Earth's terrestrial species, many of which do not survive outside of primary forests;

⁴ In regions where primary forests have mostly been destroyed, protections should extend to forests that are maturing to allow for recovery of primary forest features over time (i.e., mature forests becoming old growth).

⁵ We use the terminological approach adopted by the International Biodiversity and Ecosystem Services i.e., that "Indigenous peoples and local communities (IPLCs) are, typically, ethnic groups who are descended from and identify with the original inhabitants of a given region, in contrast to groups that have settled, occupied or colonized the area more recently. IPBES does not intend to create or develop new definitions of what constitutes "indigenous peoples and local communities". <https://ipbes.net/glossary/indigenous-peoples-local-communities>

- Primary forests are essential for resolving the climate crisis because they protect vast carbon stocks which if released would cause catastrophic climate change, regardless of fossil fuel emissions.
- Primary forests store more carbon than degraded forests, and store carbon more securely than degraded forests as they are more resistant and resilient to change. They also remove globally significant amounts of carbon dioxide out of the atmosphere every year;
- The most effective, immediate ways to remove atmospheric carbon dioxide over the critical next few decades are to protect primary forests and allow degraded natural forests to mature (“proforestation”⁶). Attempting to replant forests is much less effective and reliable, providing far fewer short-term benefits.
- Primary forests are also important as natural quarantine areas, reducing the risk of zoonotic pathogen spill over to humans and livestock, thereby helping prevent disease transmission and pandemics such as the current COVID19;
- Primary forests play a critical role in regulating freshwater supplies, preventing flooding and providing the highest-quality freshwater;
- The ecosystem integrity of primary forest is crucial because this is what enables primary forests to maximize forest ecosystem services;
- Millions of hectares of primary forests are converted, degraded and fragmented every year and primary forests continue to be under severe threat from industrial agriculture and extractive industries (including logging, oil and gas and mining).
- Each year, hundreds of people, many of whom are Indigenous or from local communities, are killed, and many more are attacked and criminalized, in defense of primary forests.
- Decades-long efforts to make industrial activity sustainable in primary forests have failed: industrial activity, including commercial logging with so called “reduced impact logging” or “sustainable forest management” techniques, destroys their primary forest values.
- Many of the greatest threats to the integrity of primary forests – including logging, industrial agriculture, commercial logging, oil and gas extraction, roads and mining – are heavily government-subsidized (totaling in the hundreds of billions of dollars annually) in amounts that dwarf spending on conservation and on supporting Indigenous and forest communities. This problem has been highlighted extensively, including in *The Economics of*

⁶ Moomaw, W.R., Masino, S.A. and Faison, E.K. (2019). Intact Forests in the United States: Proforestation Mitigates Climate Change and Serves the Greatest Good. *Front. For. Glob. Change* 2:27. doi: 10.3389/ffgc.2019.00027.

Biodiversity: The Dasgupta Review and in the draft text of the post-2020 Global Biodiversity Framework.

- Policy action to advance the protection of primary forests is accelerating. Indonesia has had a permanent ban on logging or clearing primary forest since 2011, and there have been many other major policy developments in recent years as detailed in the appendix.

Therefore:

1. We, the undersigned, call for an immediate moratorium on industrial activity in all primary forests (tropical, temperate and boreal) until 2050, in line with global biodiversity and climate change objectives.⁷
2. We also call for rapid and scaled-up support for Indigenous Peoples and Afro-descendant and local communities, who are very often the owners of these lands, both in terms of recognizing their territorial and access rights and in terms of financial support.
3. We note that supporting Indigenous, Afro-descendant and local communities and primary forest protected areas can be achieved by redirecting some of the hundreds of billions of dollars awarded annually in subsidies to extractive industries and industrial agriculture. We note that doing so will help avoid vast, current and future costs (in the trillions of dollars) of climate change, biodiversity loss, zoonotic pathogen spillover and other environmental crises, while also providing opportunities for the development and growth of sustainable alternative economies. Significant additional financing can also be generated by increasing the amount of climate finance directed to primary forest protection and ecological restoration. Currently, well under 3% of climate finance is directed to forests of any condition, let alone primary forests.
4. We note that this moratorium call does not suggest or imply restrictions on any community territorial or access rights anywhere and that we fully uphold and respect rights-based approaches, the principle of Free, Prior and Informed Consent and the UN Declaration on the Rights of Indigenous Peoples. We must recognize and extend rights while providing far greater financial support for primary forest protection.

⁷ We recognize that the European context requires a moratorium to involve complete non-intervention in old growth/primary forests, with zero extraction, commercial or otherwise, and only leave-no-trace activities. Furthermore, this should also apply to areas immediately adjacent to these forests, enabling consolidation, buffering and connectivity. However, we acknowledge and respect the traditional uses of the forest by the Indigenous Sámi, and forest-dwelling Komi, Nenets, Karelian and Veps communities who are dependent on these uses.

5. We call for this moratorium to be extended in the event that biodiversity or climate targets are not achieved by 2050.
6. In addition to protecting primary forests, we note that resolving climate change and biodiversity loss requires large-scale ecological restoration of degraded natural forests in the form of “proforestation.” including in particular those that are reaching maturation. We therefore call on world governments to take bold and substantive steps to protect natural forests that have been degraded, including by past commercial logging, so that these areas can absorb and store more carbon and make a greater contribution to climate change mitigation and biodiversity protection.
7. We further call for immediate action to protect forest defenders, their families and their communities around the world.
8. Finally, we call for measures to advance a shift away from consumption of wood products,⁸ particularly single-use paper and tissue products, much in the same way that we are shifting away from fossil fuel consumption, and to promote tree-free, sustainable alternatives for buildings and paper, including through restructuring supply chains so that they are circular and reliant on alternative feedstocks to relieve pressure on the world’s remaining primary forests and do not cause negative impacts on local communities.

⁸ See: <https://johnmuirproject.org/2020/05/breaking-news-over-200-top-u-s-climate-and-forest-scientists-urge-congress-protect-forests-to-mitigate-climate-crisis/> (May 2020 letter to U.S. Congress from over 200 climate scientists and ecologists).

ANNEX I: ADDITIONAL INFORMATION:

I. What Are Primary Forests?

Primary forests (aka “old growth”, “intact” or “virgin forests”) are naturally regenerating forests of native tree species, whose structure, composition and dynamics are dominated by ecological and evolutionary processes—i.e. they have “ecosystem integrity.” Primary forests therefore have a low degree of non-industrial human disturbance: prior significant human intervention may have occurred, but long enough ago to have enabled an ecologically mature forest ecosystem to re-establish, including all of its native plant and animal species. This does not mean that primary forests are uninhabited by humans. On the contrary, the world’s tropical primary forests are the customary homelands of Indigenous Peoples who play a critical role in their protection and conservation management. “Proforestation” is a forest management strategy that enables secondary and degraded forests to grow to ecological maturity, i.e. to reach their primary forest state. [[Mackey et al 2020](#)] [[Moomaw et al. 2019](#)] [[Kormos et al. 2017](#)]

II. Primary Forests Offer Solutions to Climate, Biodiversity, and Public Health Crises

The global community is now grappling with multiple major crises: a climate crisis, a biodiversity crisis, an equity crisis and a planetary public health crisis. all of the above three crises fall disproportionately on those least responsible for them.

Global Climate Crisis

The impacts from the 1 °C of global warming we are currently experiencing, such as the recent Australian and Amazonian fire disasters, extreme weather events and massive coral reef die-offs are already proving devastating. The Intergovernmental Panel on Climate Change (IPCC) now warns that to avoid catastrophic climate impacts, global warming must be limited to 1.5 °C above pre-industrial levels. Staying below 1.5 °C will require a huge effort: we need to reduce greenhouse gas emissions by approximately 50% by 2030 and achieve net zero by 2050, leaving only some 420-570 Gt CO₂ budget that can be emitted, or about 10 years of emissions at current levels. We are therefore quickly running out of time to avert a climate disaster. [[IPCC 2018](#)]

Global Biodiversity Crisis

The biodiversity crisis is characterized by the widespread erosion and destruction of ecosystems, massive declines in wildlife populations and accelerating species extinctions. Only about 25% of Earth’s terrestrial area is now free of significant human disturbance and projections suggest that we may have 15.5m miles (25 million km) of new paved roads by 2050 - enough to circle the planet more than 600 times. Wildlife populations are also crashing: species population sizes have declined about 60% overall between 1970 and 2014, with an 83% decline in freshwater species. Global biomass of wild mammals has declined 82% since prehistory and human biomass now outweighs wild mammal biomass by an order of magnitude. Species are also going extinct: extinction rates are currently one thousand times higher than background rates, and one million species are currently threatened with extinction. The biodiversity crisis is therefore accelerating: we are rapidly destroying the diversity of life on Earth and the natural life support systems that we and future generations depend upon for our health and well-being. [[IPBES 2019](#), [WWF 2018](#)]

Global Public Health Crisis

The hundreds of thousands of lives lost and massive social and economic dislocation caused by the COVID-19 pandemic reveal how exposed we are to viruses transmitted to humans from wildlife. SARS, Ebola, the Zika virus and now the COVID-19 pandemic are all zoonotic viral diseases that have been enabled and exacerbated by deforestation and forest degradation: logging and other roads into primary forests greatly facilitate the bushmeat and wildlife trade, and create favorable micro habitats for vectors such as mosquitos [[Faust et al. 2018](#)].

Social-Justice Crisis

The importance of securing the land and resource rights of Indigenous Peoples and local communities – as a fundamental legal and moral obligation and as a critical step towards ensuring good environmental stewardship and fighting climate – is increasingly gaining acceptance. However, progress remains much too slow. In many cases rights have yet to be recognized or are only partially recognized. In other cases, systematic attempts are being made to weaken or infringe upon previously granted rights: tactics range from intimidation to physical violence, including assassinations, to efforts to weaken the institutions ensuring the full exercise of rights and territorial control, from costly harassing lawsuits designed to drain agency resources, to lack of government of enforcement, to delays in providing essential government funding. COVID19 has unfortunately provided an impetus for these tactics in many parts of the world as civil society is unable or less able to support Indigenous and local communities.

Interrelated Crises

These crises have been largely treated as distinct problems requiring separate solutions. However: they are not just related they are inextricably linked. They can, and indeed must be solved *together*.

Primary forests are essential to solving all three crises because:

- **Forests store massive amounts of carbon** (at least 862 Gt C, more than in known oil and coal reserves combined and more than is currently in the atmosphere) and primary forests store far more carbon than degraded forests or plantations (e.g. a tropical forest that has been logged stores about 35% less carbon than a tropical primary forest of the same type). Releasing even a fraction of this carbon can put us over the 1.5 °C threshold (there is enough carbon stored in primary tropical forests alone to put us over 1.5 °C if emitted), even if we end fossil fuel emissions tomorrow. In addition, primary forests also drawdown over 3.7 billion tonnes of carbon from the atmosphere every year. And yet carbon dioxide emissions from forests are enormous: degradation and deforestation of tropical forests alone emits 4.7 billion tonnes of carbon dioxide each year.
- **Primary forests have both the largest carbon stocks and also the most secure carbon stocks** – they are more stable and resilient than degraded forests and can persist for millennia (or even millions of years). Primary forests are more stable precisely because they still retain all of their native plant and animal species – i.e. they have the highest level of “ecosystem integrity.”
- **Allowing degraded forests to recover and allowing cleared forests to regenerate naturally provides significant biodiversity and climate benefits** which will accrue over the next 10-30 years, i.e. the critical decades in which to address the climate and biodiversity crises. Estimates of how much carbon can be drawn down by recovering forests vary, but could amount to a third to half of annual carbon dioxide emissions.

- **Primary forests protect over two-thirds of all terrestrial plant and animal species**, many of which do not survive in degraded forests. We cannot solve the biodiversity crisis without primary forests.
- **Primary forests are natural quarantine areas** – protecting primary forests from external human disruptions is essential to preventing the spread of zoonotic disease. Deforestation and degradation, and associated road building, from logging and other land uses, also enables and promotes bushmeat trade and wildlife trafficking.
- **Primary forests are the homes and sanctuaries of Indigenous Peoples** and are essential to the ability of Indigenous communities to maintain their traditional cultures and livelihoods. Many primary forests have survived precisely because they are the traditional lands of Indigenous Peoples and remain under their customary guardianship. Indigenous Peoples have known for millennia what we are now demonstrating through scientific research: that everything in nature is connected, and that unraveling the web of life has dire consequences for humankind, materially and spiritually.

Primary forests also provide many other benefits essential to life, including ecosystem support for clean, fresh water. Road building, logging, and clearing land for commercial crops, development, or mining all lead to soil erosion and water pollution. Water flowing from watersheds covered by primary forest is clean and free of excess sediments [Furniss et al. 2010]. Forests also help regulate regional rainfall through globally scaled teleconnections: for example, deforestation in the Amazon can impact rainfall patterns as far away as California [Sheil 2014].

III. Primary Forest Policy Breakthroughs:

- ✓ 2018: The Convention on Biological Diversity (CBD) passes decision 14/5 noting the importance of “ecosystem integrity,” and 14/30 noting “the urgent necessity to avoid major fragmentation, damage and loss of primary forests of the planet.”
- ✓ 2019: The New York Declaration on Forests progress assessment report notes that “[t]he continued loss of primary forests, at ever increasing rates, despite their incalculable value and irreplaceability is both shocking and tragic.”
- ✓ 2020: The International Union for Conservation of Nature passed a new policy on the protection of Primary Forests and Intact Forest Landscapes.
- ✓ 2020: The European Union Biodiversity Strategy 2030 calls for the protection of the remaining EU primary and old growth forests.
- ✓ 2020-2021: The joint IPBES-IPCC report in 2021 and U.N. Framework Convention on Climate Change decisions 1/CP.25 and 1/CP.26 in 2020 and 2021 all strongly emphasize the fundamental importance of ecosystem integrity and of integrated climate-biodiversity solutions to resolving the climate crisis.
- ✓ 2021: The Glasgow Declaration on Forests and Land Use, signed by over 140 countries, commits signatories to “halt and reverse forest loss and land degradation by 2030” and affirms the importance of Indigenous and locally led forest stewardship.
- ✓ 2022: The IPCC’s 6th Assessment Report (Working Group III, Climate Change Mitigation) notes that “avoiding the conversion of carbon-rich primary peatlands, coastal wetlands and forests is particularly important as most carbon lost from those ecosystems are irrecoverable through restoration by the 2050 timeline of achieving net zero carbon emissions” and that “the protection of high biodiversity ecosystems such as primary forests deliver high synergies with GHG abatement.