SUBMISSION BY OBSERVATÓRIO DO CLIMA TO THE COP30 PRESIDENCY ROADMAP TO HALT AND REVERSE DEFORESTATION AND FOREST DEGRADATION BY 2030

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SUMMARY: BARRIERS AND LEVERS FOR HALTING AND REVERSING DEFORESTATION AND FOREST DEGRADATION

Barrier	Lever
1. Economic dependence on agriculture and cattle ranching Tropical countries account for ~90% of global forest loss since 1990. Between 90% and 99% of tropical deforestation is driven directly or indirectly by agriculture, just six commodities account for 58% of forest loss tied to EU imports	**Subsidy reform and financial incentives** Redirect public finance toward forest-positive practices with zero-deforestation conditionalities; develop sustainable taxonomies to guide private investment and instruments such as green bonds
2. Weak land governance and environmental crime Only 13% of customary lands are formally recognized; 61–94% of tropical deforestation for agriculture is illegal; environmental crime generates up to USD 281 billion annually	**Tenure security and law enforcement** Time-bound national targets for land recognition; georeferenced registries interoperable with forest monitoring systems; strengthened financial intelligence to track illicit flows

3. Delayed and fragmented demand-side regulation Demand-side regulation is not forthcoming. The EUDR has been delayed twice; China, destination of ~80% of Brazilian soy exports, has no mandatory deforestation-free import requirements	**Responsible trade and supply chains** Integrate DCF (deforestation and conversion-free) provisions into trade agreements; expand farm-to-market traceability with satellite monitoring; harmonize regulations across major markets to prevent regulatory arbitrage
4. Fire and forest degradation invisible in climate policy Fire remains critically under-recognized in global frameworks despite being a central driver of degradation in tropical forests	**Integration of fire into MRV systems and climate finance** Include fire-related emissions in national GHG inventories and IPCC frameworks; incorporate fire risk into climate finance mechanisms to ensure the permanence of forest-based solutions
5. Multilateral fragmentation and absence of permanent institutional home Forests are scattered across multiple disconnected tracks within the UNFCCC and the three Rio Conventions, with no clear mandate, budget, or authority for coordinated implementation beyond a single COP presidency	**Roadmap institutionalization and the Antalya Call** Establish a UNFCCC agenda item for the forest roadmap forests; create a credible institutional home with clear mandate, budget, and authority; mobilize a coalition of willing countries to publicly commit by COP31 to developing national roadmaps in 2027

SUMÁRIO: BARREIRAS E ALAVANCAS PARA ZERAR E REVERTER O DESMATAMENTO E A DEGRADAÇÃO FLORESTAL

Barreira	Alavanca
1. Dependência econômica da agropecuária Países tropicais respondem por cerca de 90% do desmatamento no mundo desde 1990. Entre 90% e 99% do desmatamento tropical é feito para a agropecuária. Apenas seis commodities respondem por quase 60% do desmatamento ligado a importações da UE.	**Reforma de subsídios e incentivos financeiros** Redirecionar finanças públicas para práticas pró-floresta com condicionalidades de desmatamento zero; criar taxonomias sustentáveis que guiem investimentos privados e instrumentos como green bonds

2. Governança fundiária fraca e crime ambiental Apenas 13% das terras de povos tradicionais são formalmente reconhecidas; 61–94% do desmatamento tropical para agricultura é ilegal; crime ambiental gera até US$ 281 bi/ano	**Regularização fundiária e *enforcement*** Metas nacionais com prazo para reconhecimento de territórios; registros georreferenciados interoperáveis com sistemas de monitoramento; fortalecimento de inteligência financeira para rastrear fluxos ilícitos
3. Regulação de demanda atrasada e fragmentada Regulação da demanda não acontece: a EUDR foi adiada duas vezes; a China, destino de ~80% da soja brasileira, não tem requisitos obrigatórios de importação livres de desmatamento e conversão	**Cadeias de suprimento e comércio responsável** Integrar provisões DCF (produtos livres de desmate e conversão) em acordos comerciais; expandir rastreabilidade *farm-to-market* com monitoramento satelital; harmonizar regulações entre grandes mercados para evitar arbitragem regulatória
4. Fogo e degradação florestal invisíveis nas políticas climáticas Com a mudança do clima, o fogo é um agente cada vez mais importante de degradação em florestas, sobretudo nos trópicos, mas não é reconhecido nos arcabouços internacionais de proteção florestal e mitigação climática.	**Integração do fogo nos sistemas de MRV e financiamento climático** Incluir emissões de fogo nos inventários nacionais de gases-estufa e nos frameworks do IPCC; incorporar risco de fogo em mecanismos de finanças climáticas para garantir permanência de soluções baseadas na natureza
5. Fragmentação multilateral e ausência de institucionalidade permanente As florestas estão dispersas em múltiplas trilhas desconectadas dentro da UNFCCC e das três Convenções do Rio, sem mandato claro, orçamento ou autoridade para implementação coordenada além de uma única presidência de COP	**Institucionalização do Roadmap e Chamado de Antalya** Criar item de agenda na UNFCCC para o roteiro de florestas; estabelecer "lar institucional" com mandato, orçamento e autoridade claros; mobilizar coalizão de países para compromisso público até a COP31 com roadmaps nacionais em 2027

INTRODUCTION

Observatório do Clima (OC) is a Brazilian network of 161 organizations working towards a fair, prosperous and decarbonized Brazil. OC monitors Brazilian emissions, watches federal climate policy, advocates for more ambition, litigates on climate and communicates the climate emergency. This submission is a contribution from the network in response to the invitation from the COP 30 Presidency to the Roadmap on Halting and Reversing Deforestation and Forest Degradation by 2030.

The world is still far off track to halt and reverse deforestation and forest degradation by 2030, as emphasized by Decision 1/CMA.5 (Outcome of the Global Stocktake) — in 2024 alone, 8.1 million ha were lost , with the emission of 4.6 billion metric tons of carbon dioxide equivalent ($GtCO_2e$). Finance remains grossly misaligned, with harmful subsidies outweighing green subsidies by over 200:1 (Forest Declaration Assessment 2025)[1].

Meanwhile, the Global Tipping Points report warns that even at around 1.5 °C warming—or potentially lower thresholds—the Amazon faces the risk of irreversible dieback due to the combined stress of deforestation and rising temperatures[2]. Repeated disturbances, especially the interaction between deforestation, degradation, drought, and fire, can trigger self-reinforcing feedback that reduces forest resilience. Fire-driven degradation remains critically under-recognized in global climate frameworks, despite being one of the main drivers of forest degradation in tropical regions. Even if deforestation is halted, uncontrolled fires will sustain forest emissions, erode biodiversity, and compromise ecosystem functions.

Without immediate and coordinated action, forests may be pushed past safe tipping points. The Atlantic forest in Brazil, for instance, has already passed the threshold for biodiversity conservation. This in turn would undermine global climate stability, given the dual role of forests as carbon stocks and sinks, helping mitigate climate change and build resilience, and as sources of emissions under climate stress.

The Roadmap on Halting and Reversing Deforestation and Forest Degradation by 2030, a COP30 Presidency-led process, offers an opportunity to better connect forest action with the financial, trade, and policy systems that shape land-use decisions, recognising that halting deforestation will require not only stronger commitments, but also shifts in the incentives and regulatory frameworks that continue to drive conversion.

[1] See https://forestdeclaration.org/resources/forest-declaration-assessment-2025/
[2] Global Tipping Points Report 2025. https://global-tipping-points.org/download/1418/

I. BARRIERS TO HALTING AND REVERSING DEFORESTATION AND FOREST DEGRADATION

- **The primary barrier to halting and reversing deforestation and forest degradation is economic.** Forest countries, especially in tropical regions, which account for ~90% of global forest loss since 1990[3], are strongly dependent on agriculture and cattle ranching. Between 90% and 99% of tropical deforestation is driven directly or indirectly by agriculture[4], and agriculture, forestry and land use account for roughly one fifth of total greenhouse gas emissions. Of the 8.1 million hectares of deforestation in 2024, permanent agriculture accounted for almost 6.8 million – about 84%. Just six commodities (beef, palm oil, soy, cocoa, coffee, rubber) account for 58% of forest loss tied to EU imports alone. Intervening at the supply chain level is one of the few levers with both the institutional architecture and the global reach to deliver change at the scale and speed the 2030 goals demand.
- **Forest and territorial governance are often shaky in many countries, adding to extractivist economic models as key barriers** against halting deforestation and degradation . Where land tenure is uncertain, land-grabbing and deforestation ensue, as a way to take possession of land and sell it to agriculture. Weak governance over land tenure, including unclear or overlapping rights, creates enabling conditions for deforestation and degradation practices. Moreover, the lack of coordination between different levels of government and agencies responsible for environmental policy can result in overlaps and gaps in action to combat deforestation.
- **Governance failures, in turn, perpetuate supply chain-related deforestation, especially in places where illegality is rife**: between 61% and 94% of tropical deforestation for agriculture is illegal[5]. Environmental crime – including illegal deforestation, and timber and wildlife trafficking – pays big: it generates as much as USD 281 billion annually[6]. Weak enforcement of national environmental laws, compounded by organized crime and territorial control in conflict-affected areas, creates governance vacuums that are actively exploited to drive deforestation with impunity. Further, only 13% of customary lands in tropical forests are formally recognized[7], there are rising attacks on

[3] FAO, 2025 *Global Forest Resources Assessment 2025: Main report*. Available at:https://fra-data.fao.org/assessments/fra/2025

[4] Pendrill, F., et al. (2022). *Disentangling the numbers behind agriculture-driven tropical deforestation*. Science, 377(6611), https://doi.org/10.1126/science.abm9267

[5] Forest Trends (2021). *Illicit Harvest, Complicit Goods: The State of Illegal Deforestation for Agriculture* https://www.forest-trends.org/wp-content/uploads/2021/05/Illicit-Harvest-Complicit-Goods_rev.pdf

[6] Financial Action Task Force (FATF) (2021). *Money Laundering from Environmental Crime*. https://www.fatf-gafi.org/en/publications/Environmentalcrime/Money-laundering-from-environmental-crime.html

[7] Forest Declaration Assessment Partners. (2025).

environmental defenders, democracy is backsliding, and environmental regulations are being rolled back.

- **Fire, used as a major tool to convert forests into agricultural and pasture fields, is getting out of control, and becoming a major driver of change in standing tropical forests.** Limited integration of fire into forest and climate governance frameworks represents a major barrier. This omission undermines the effectiveness of nature-based solutions, including restoration, REDD+, payment for environmental services and bioeconomy.
- Against this backdrop of extractive development models, **the lack of planning and effective financial incentives for bioeconomy**, agroforestry and forest conservation discourages sustainable practices, as exploiting forests can be more profitable in the short term. Pressure from the international market for agricultural products often leads to an increase in deforested areas.
- **Demand-side regulation has been delayed and diluted before it could deliver.** The EUDR has been delayed twice, with enforcement now pushed to December 2026 and the country-risk benchmarking system weakened under industry pressure. China – destination for close to 80% of Brazil's soy exports in 2023 and approximately 14% of Indonesian palm oil in 2022 – remains without mandatory deforestation and conversion-free (DCF) import requirements. Most international trade agreements contain no systematic DCF provisions. The absence of a coherent global regulatory architecture creates both regulatory arbitrage opportunities and a race to the lowest compliance bar. These challenges are compounded by the inherent complexity of agricultural supply chains themselves.
- Indigenous Peoples and Local Communities (IPLCs) are the most effective forest guardians and, yet, only very small fractions of climate finance actually reach them, despite their consistent calls for direct access to financial mechanisms for climate and biodiversity. **Direct access must be ensured for scaling up of funds for IP&LCs** aligned with the Principles & Guidelines for Direct Access Funding for Indigenous Peoples' Climate Action, Biodiversity, Conservation, and Fighting Desertification for a Sustainable Planet[8].
- **The fragmented and uncoordinated way forests and ecosystems are currently being approached at the national level is mirrored at the multilateral level**, both throughout the UN and within the UNFCCC. There are unconnected tracks of work at the Subsidiary Bodies (SBs), which raise specific issues concerning forests and ecosystems. As per COP30, forests were spread around: Matters relating to the GST; the Mitigation Work Programme (MWP); the Just Transition Work Programme (JTWP); Matters relating to Adaptation; and Agriculture. There are also other unconnected relevant tracks under the Paris Agreement, including Further Guidance on Features of Nationally Determined

[8] Available at: http://afpat.net/wp-content/uploads/2023/02/Indigenous-Peoples-Direct-Access-to-Funding-ENGLISH.pdf.

Contributions (NDCs), finance mobilisation, and the definition of cooperative approaches under Article 6 (markets and non-markets). Finally, there remains no clear pathway for the essential joint work across the three Rio Conventions.

II. LEVERS FOR HALTING AND REVERSING DEFORESTATION AND FOREST DEGRADATION

- Not stopping deforestation and forest degradation drivers is economically irrational, systemically risky, and financially mispriced. Current economic and financial systems fail to account for the full biophysical and economic functions of standing forests, including their role in regulating rainfall, stabilizing temperatures, sustaining agricultural productivity, and securing energy systems as hydropower.

- **Secure land tenure and strong forest governance are foundational to stopping and reversing forest loss and degradation**. Formalising tenure rights to Indigenous peoples and local and traditional communities has been shown to reduce deforestation and support restoration[9], even in regions facing intense agricultural and development pressures. COP30 in Belém marked a critical step forward, with nine countries endorsing the Intergovernmental Commitment on Land Tenure, pledging to recognise and secure 160 million hectares for Indigenous peoples, people of African descent and local communities, alongside a $1.8 billion financing commitment. This dedicated financing window should disburse directly to Indigenous Peoples and Local Communities (IPLCs), coupled by fiduciary capacity building. The Roadmap must build on this momentum by establishing clear guidelines for comprehensive, equitable land use planning that prevents competing land uses from eroding community rights to lands, territories and resources, and by setting out clear pathways to ensure Indigenous peoples, people of African descent and local communities have direct access to the financial, technical and political support they need to strengthen tenure systems and lead the governance of their forests. This could be accomplished by establishing nationally determined, time-bound national targets for tenure regularization (e.g., % of customary lands recognized by 2030), with public and georeferenced registries interoperable with forest monitoring systems.
- In addition, the **Roadmap must indicate a timeline requiring countries to align their land laws with the zero deforestation target,** since some laws allow land titling for private landholders who occupy and illegally deforest

[9] FAO, 2021. *Forest governance by indigenous and tribal peoples. An opportunity for climate action in Latin America and the Caribbean.* https://www.fao.org/documents/card/en/c/cb2953en

public land, creating an incentive for ongoing encroachment on public forests[10]. Tenure recognition has to be linked to preferential access to finance, technical assistance, and market programs, creating immediate economic incentives for conservation.

- **Developing integrated land-use plans that are legally binding across ministries and subnational entities**, with clear zoning and no-conversion areas in order to strengthen policy coherence across environmental, climate, agricultural and land-use frameworks. For this approach to work, countries must implement a cross-ministerial budget tagging, ensuring that public expenditures are screened for deforestation risk.
- Countries must establish clear regulatory distinctions between ecological restoration and commercial plantations, supported by robust safeguards, monitoring (MRV) systems and alignment with climate and biodiversity strategies. Align NDCs, NAPs, and national biodiversity strategies through a single coordination platform or authority with decision-making power.
- **Reducing food waste and shifting toward plant-rich diets shall be recognized as effective ways to stop agricultural expansion into forests.** Moving away from animal-based foods, specifically cattle, is vital for biodiversity and planetary health[11]. Redesigning our food systems is the logical first step toward a nature-positive future. To make it work, countries need to 1) introduce fiscal incentives and disincentives to shift consumption away from high-deforestation commodities; 2) implement food procurement standards (schools, hospitals, public institutions) prioritizing plant-rich and deforestation-free supply chains; 3) mandate food loss and waste reduction targets across supply chains, supported by infrastructure (storage and logistics) and corporate reporting requirements; and 4) integrate dietary guidelines into national climate and health strategies, linking food systems to NDC implementation.
- The success of this Roadmap depends on the ability to **mobilize, align, and scale financial flows at a pace and magnitude commensurate with the value of standing forests as a global public good**. Key priorities include: (1) Expanding performance-based finance (e.g., jurisdictional REDD+, TFFF); (2) Catalyzing private investment through responsible blended finance, without disproportionately shifting the costs of de-risking onto the public sector, while ensuring a rights-based approach that protects the most vulnerable segments of society; (3) Integrating deforestation risks into financial systems; and (4) Ensuring equitable and transparent benefit-sharing, respecting the rights of IPLCs.

[10] Brito, B., Almeida, J., 2026. Legal incentives for public land grabbing via deforestation in the Brazilian Amazon. *Land use policy 164*. https://doi.org/10.1016/j.landusepol.2026.107968

[11] Sparovek, G., Guidotti, V., Pinto, L. F. G., Berndes, G., Barretto, A., & Cerignoni, F. (2018). Asymmetries of cattle and crop productivity and efficiency during Brazil's agricultural expansion from 1975 to 2006. *Elem Sci Anth*, 6, 25.sa

- Specifically to public finance, **a reform of agricultural subsidies can redirect public finance towards forest-positive practices if they use conditionality linked to zero-deforestation compliance**. For the private sector, a mandatory disclosure of deforestation-related financial risks by companies, banks, and insurers aligned with emerging global standards (e.g., TNFD-like frameworks) can create supply chains deforestation-free. The integration of deforestation risk into central bank supervision and stress testing could influence capital requirements and credit allocation.
- **Sustainable taxonomies must be developed for land use activities at national and international levels**, to clearly differentiate deforestation-free, degradation-free, and restoration-aligned activities. These taxonomies should guide investments compatible with climate and nature conservation objectives, in addition to the support of financial instruments, like green bonds, concessional finance, and investment portfolios. Also, strengthening and standardizing MMRV systems across instruments and jurisdictions will be essential to ensure credibility, comparability, and accountability, while enabling coordination across financial flows and avoiding fragmentation.
- MRV systems must be strengthened to include fire-related emissions and advancing methodologies for attribution. **Fire must be fully integrated into national GHG inventories and international reporting frameworks** (e.g. IPCC). This would help the integrated fire management agenda of cooperation and scalable solutions including fire risk and resilience into climate finance mechanisms to ensure the permanence and effectiveness of forest-based solutions. This will also strengthen the technical and policy foundations for addressing wildfires impact within loss and damage discussions, by improving the attribution and quantification of fire-related emissions and impacts.
- Countries must **integrate deforestation- and conversion-free (DCF) provisions into trade agreements** and policies; and harmonize deforestation-free import regulations across major markets to avoid leakage and regulatory arbitrage. The classification of commodities into different levels of deforestation risk can help the development of full traceability systems that integrate satellite monitoring with supply chain data (farm-to-market). It is also necessary to ensure supply chain transitions include family farmers-inclusive financing mechanisms. It needs to come with technical and financial support for those family farmers to comply with traceability and sustainability requirements. Finally, establishing jurisdictional approaches addresses several structural failures (leakage, high transaction costs, lack of land registries) that currently allow deforestation and degradation to persist. They are effective because they promote the shifting from fragmented, actor-by-actor interventions to territory-wide governance and accountability systems.
- **Scaling up international finance to support traceability systems**, enforcement capacity and sustainable supply chains, particularly in developing countries, is also crucial, as is expanding blended finance and results-based

mechanisms, while ensuring predictable and accessible funding for implementation.

- **On the governance side, integrated policy frameworks must be developed that align forest, climate, economic, and sustainable development agendas**, enabling sustainable forest management and bioeconomy strategies to scale, while fully safeguarding human rights and the land tenure rights of IPLCs and people of African descent.
- **In the fight against forest crime, countries must expand the use of interoperable traceability systems and satellite monitoring** to track commodities and detect illegal activities across borders. Support technology transfer and capacity building to ensure equitable access and effective implementation. Strengthening law enforcement requires a systemic approach, integrating environmental agencies, financial intelligence units, prosecutors and police forces. Key measures include enhancing inter-agency coordination, adopting financial investigation tools to trace illicit flows, and prioritizing the disruption of criminal networks rather than low-level actors. Judicial engagement and strategic litigation can play a critical role in increasing accountability, while transparency mechanisms and civil society oversight are essential to prevent institutional capture. Ensuring the protection of environmental defenders is also central to effective enforcement. Enforcement agencies must have expanded dedicated funding, including resources for investigation and prosecution. Strengthen financial intelligence capacities to track illicit financial flows associated with environmental crimes and support asset recovery mechanisms.
- **Scaling up the use of satellite monitoring and real-time data systems to detect and respond to illegal activities**. Integrating technological platforms across agencies to improve information sharing and enforcement effectiveness.
- **Strengthening community-based monitoring and the role of civil society in oversight and reporting.** Ensure protection mechanisms for Indigenous Peoples, local communities, people of African descent, women, and environmental defenders, and promote inclusive governance approaches that reinforce social legitimacy and trust in enforcement actions.
- **The multilateral climate negotiations must take a comprehensive approach** to guide the implementation of national plans to end forest destruction and drive forest protection and restoration by informing the ongoing tracks of work within the UNFCCC, and ensuring that NDCs and National Adaptation Plans (NAPs) reflect progress toward these goals.
- **The Antalya Call to End Deforestation:** Building on the COP30 Presidency's roadmap to halt and reverse deforestation by 2030, a coalition of willing countries must publicly commit by COP31 to develop national roadmaps in 2027 at the leaders summit and at the Action Agenda and advocate for all countries to join.

- **Institutionalization of the Roadmap:** Countries need to institutionalize the debate at UNFCCC with an agenda item on how to halt and reverse deforestation and forest degradation by 2030. This is the only forum where all countries will be heard and the necessary legislative standards can be set to all. The Global Implementation Accelerator connects national plans, such as NDCs and roadmaps, enabling countries to pledge the necessary international cooperation to implement these plans faster and achieve the higher goal (when there is a range). A credible institutional "home" (with clear mandate, budget and authority) must be created to hold and drive the implementation of the Roadmap to and its milestones beyond a single COP presidency.
- **A joint work programme (JWP) must be established at the COP level across the three Rio Conventions** and the SBI could support implementation of the JWP through the provision of workshops, roundtables, and dialogue on matters including the alignment of national plans (NDCs, NAPs, and NBSAPs); scaling up of finance, including public finance; alignment of approaches related to IPLCs.

III. EXPERIENCES, BEST PRACTICES, AND LESSONS LEARNED

Experience I. Best practices and lessons learned on secure land tenure

Land tenure, indigenous lands, rural settlements and protected areas stand out as highly effective in contexts of high deforestation pressure, noting that deforestation free supply chains fail without land-rights integration. Strengthened tenure security combats land grabbing, conflict and policy failure, and is a cost-effective mechanism for blocking commodity-driven conversion[12]. Assunção et al.[13] cited some good evidence from Brazil, Costa Rica - where the national network of protected areas reduced deforestation by about 10% (Andam et al. 2008), Peru - where Miranda et al. (2016) show that land-use restrictions within protected zones helps lower deforestation, and elsewhere in general, citing that Joppa and Pfaff (2010), analyzing 147 countries, find that in 75% of cases protection reduced land conversion.

Experience II. Best practices and lessons learned on public policy

Between 2005 and 2012, Brazil, the country with the biggest tropical forest area in the world, managed to reduce deforestation rates by 83% in the Amazon[14], reducing its gross carbon dioxide emissions by 1 billion metric tons[15]. Such an impressive

[12] Baragwanath, Kathryn, Bayi, Ella (2020) Collective property rights reduce deforestation in the Brazilian Amazon. *Proceedings of the National Academy of Sciences*, 117 (34) 20495-20502 doi:10.1073/pnas.1917874117.

[13] Assunção, Juliano, João Pedro Arbache, Joana Chiavari, Giovanna de Miranda, and Gabriela Zangiski. *The Forest-Climate Nexus: A Fit-for-Purpose Framework for Climate Impact*. Rio de Janeiro: Climate Policy Initiative, 2025. bit.ly/Forest-Climate-Nexus.

[14] Capobianco, JP, *Amazônia, uma década de esperança. Como o Brasil controlou o desmatamento entre 2004 e 2014 e está pondo tudo a perder*. São Paulo, Estação Liberdade, 2021.

[15] Angelo, C., and Azevedo, T., *O silêncio da motosserra - quando o Brasil decidiu salvar a Amazônia*. São Paulo, Companhia das Letras, 2024.

achievement resulted from a combination of a toolkit of public policies, complemented with voluntary private agreements in the soybean and beef production chains. The case of PPCDAm (Amazon deforestation prevention and control plan) could be applied, with some changes, to other tropical regions with similar deforestation drivers. In summary, the Brazilian experience consisted in:

- Tracking deforestation in near-real-time with satellite technology.
- Applying embargoes to farms with illegal deforestation, banning them from bank loans and from selling products from embargoed areas.
- Massively expanding protected areas and Indigenous territories.
- Using Federal Police intelligence to dismantle criminal gangs and arrest civil servants involved in environmental crime.
- Cancelling private land titles in public areas.
- Leading major soybean traders, through pressure from buyers overseas, to establish a moratorium on soy purchases from newly deforested areas.
- Shaming supermarket chains into stopping buying beef from meatpackers with illegal deforestation.

The PPCDAm was made possible through an unprecedented alliance of Executive branch officials from across the government, scientists, NGOs, federal prosecutors, Federal Police, commodity exporters, ranchers and the media. It went to show that:
a) transversal policy can tackle deforestation, and
b) agricultural expansion can forgo deforestation in the tropics[16].

The politics, however, were not prepared to deal with backlash by lawmakers from the agribusiness lobby. Presidential support for PPCDAm waned from 2010 onwards, forest legislation was altered, and Brazil lost control of deforestation after 2012, not to regain it again until 2022. Brazil has since reestablished its policy and reduced deforestation and established deforestation prevention and control plans to all of its biomes.

Brazil also experienced a sharp reduction of forest loss in the Atlantic Forest with the enactment of the Atlantic Forest law (11.428/2006) in 2006. The continuous monitoring of its deforestation since 1990 also contributed to this outcome[17]. However, despite great progress, loss of mature forest still is at an alarming rate, mostly illegal[18]. The lessons from the Atlantic Forest law and other governance mechanisms for the biome are relevant and could be applied to reducing deforestation elsewhere in the tropical world.

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[16] Nepstad, D., et al., Slowing Amazon deforestation through public policy interventions in beef and soy supply chains. *Science*, vol. 344, issue 6188, 6 june 2014, pp 1118-1123.
[17] Guedes Pinto, L. F., & Voivodic, M. (2021). Reverse the tipping point of the Atlantic Forest for mitigation. *Nature Climate Change*, 11(5), 364-365.
[18] Amaral, S., Metzger, J. P., Rosa, M., Adorno, B. V., Gonçalves, G. C., & Guedes Pinto, L. F. (2025). Alarming patterns of mature forest loss in the Brazilian Atlantic Forest. *Nature Sustainability*, 8(3), 256-264.

In the recent past, Brazil experienced a state-run arrangement to organize the forestry production sector that lacked organization on the part of the State. The National Forest Program (PNF), which was created with no new money, just by reorganizing existing assets in the bureaucracy, is an action that governments can immediately undertake to stimulate the sustainable use of native and planted forests, promote reforestation activities, particularly on small rural properties, recover permanent preservation forests, legal reserves and altered areas, and support the economic and social initiatives of populations living in forests.

Experience III. Best practices and lessons learned on responsible trade and supply chains

Momentum on trade and supply chain governance is increasingly visible, and tools are advancing. Demand-side regulation is gaining ground, traceability is increasingly achievable and implemented, and multistakeholder jurisdictional approaches are demonstrating proof of concept at scale. Achieving deforestation-free supply chains at scale will depend on alignment between regulatory frameworks, market incentives, and territorial implementation.

Considering it, full-chain traceability is already operational across major commodity supply chains and could deliver rapid expansion of fully transparent deforestation-free supply chains, scaling up already existing and emerging robust traceability and transparency solutions. A good example is the Soy on Track program (https://www.soyontrack.org/), which provides a platform for soy producers, traders, and other supply chain actors to access tools, data, and technical information to comply with the Amazon Soy Moratorium and Pará's Green Grain Protocol.

IV. RIGHTS AND KNOWLEDGE OF INDIGENOUS PEOPLES, WOMEN, PEOPLE OF AFRICAN DESCENT AND LOCAL COMMUNITIES, INCLUDING RURAL AND URBAN SETTLEMENTS

The recognition and integration of traditional knowledge systems are non-negotiable pillars for any successful strategy to halt and reverse deforestation and forest degradation. These millenary forms of knowledge, passed down from generation to generation, underpin the most effective territorial governance practices on the planet. In the Amazon, data consistently demonstrate that territories held by Indigenous Peoples and Local Communities (IPLCs) are significantly more conserved than private properties and even some strict nature reserves (MapBiomas, 2023; FAO & FILAC, 2021). This high level of protection is the result of applied social and management technologies, exemplified by intercultural mapping systems such as the Brazilian

Territorial and Environmental Management Plans (PGTAs); the vital work of Indigenous peoples, *quilombolas* and local fire brigades in preventing and combating wildfires; and traditional swidden (*roça*) management techniques that ensure food security while promoting soil regeneration (IPBES, 2019).

Besides securing land tenure for IPLCs, governments must simplify regulatory frameworks and remove administrative barriers that limit community-based and small-scale initiatives. Institutional support for value chains, including extension services, certification systems and public procurement policies must be streamlined into policies across government areas. Full recognition of Indigenous peoples and local communities' governance systems is due, and participatory decision-making processes must be promoted.

Furthermore, it is essential to explicitly recognize and strengthen the role of women within IPLCs of African descent. Women are central actors for the conservation of biodiversity, the transmission of traditional knowledge, and the sustainable management of territories, often leading practices related to seed preservation, agroecology, water management, and community resilience. Despite their structural contributions, women continue to face systemic barriers to land tenure, decision-making spaces, and direct access to climate and biodiversity finance. Addressing these inequalities is not only a matter of justice, but a prerequisite for effective climate action and forest governance.

In this context, the Roadmap should align with and reinforce the implementation of the Gender Action Plan under the UNFCCC, ensuring gender-responsive approaches across all forest-related policies, financing mechanisms, and governance structures.

Given this evidence, the demarcation of Indigenous peoples' territories and the land tenure regularization of *quilombola* and local communities must be prioritized and addressed not merely as a matter of human rights, but as the primary and most cost-effective climate policy to meet land-use-related mitigation targets. The Paris Agreement itself formally recognized that Indigenous knowledge is an integral and indispensable part of the solution to the climate crisis (UNFCCC, 2015), which culminated in the creation of the Local Communities and Indigenous Peoples Platform (LCIPP). However, in practice, this space is still frequently invisibilized by the member countries of the Convention. The transversal inclusion of IPLCs' knowledge and secure land tenure in this Roadmap is fundamental. This will ensure that the ecosystem services provided, such as the provision of high-integrity carbon, are properly recognized, thereby strategically directing the necessary actions to achieve the objectives of this document.

Based on the study published in Communications Earth & Environment (2025) by Sangat et al., data unequivocally demonstrate that the lands of people of African descent communities in South America also play a crucial role in biodiversity conservation and

climate change mitigation. Quantitative analysis reveals that these lands, despite representing less than 1% of the total land area in four countries, harbor nearly half (46%) of the threatened terrestrial vertebrate species in the region and significant stocks of irrecoverable carbon[19]. The study confirms the effectiveness of communal stewardship by indicating that community management is associated with a 29% to 55% reduction in forest loss compared to similar control sites. These findings support the recommendation that legal recognition of land tenure and the integration of ancestral African knowledge into global environmental policies are essential strategies for countries to meet their carbon neutrality goals and protect critical ecosystems.

In addition, Afro-descendant communities, particularly those with traditional religious affiliations, who work in rural and urban settlements, play a crucial role in socio-environmental preservation and in promoting afforestation and reforestation practices. Many of these communities use ancestral land management methods that not only conserve local ecosystems but also promote the restoration of degraded areas. These communities contribute significantly to the protection of forests and the recovery of habitats, as well as being guardians of a cultural heritage that enriches environmental diversity. It is imperative that their voices and knowledge be included in public conservation policies, recognizing their importance in the fight against environmental degradation and in the promotion of social justice (FAO, 2018; IPBES, 2019).

[19] Sangat, S.S., et al., Afro-descendant lands in South America contribute to biodiversity conservation and climate change mitigation. *Communications Earth & Environment*, (2025) 6:458