

MOVIMENTO FLORAZ

To the COP30 Presidency,

In support of the development of the Roadmap for Halting and Reversing Deforestation and Forest Degradation by 2030, we respectfully present this contribution based on the analysis developed in the study [“The Leading Role of Brazilian Forests in the Global Climate Agenda.”](#) The study highlights Brazil’s experience, which offers particularly relevant lessons given the scale and diversity of its forest ecosystems and the country’s long-standing efforts to reconcile forest conservation, restoration and forest-based economic development.

Introductory Note

This contribution draws on the analysis presented in the study [“The Leading Role of Brazilian Forests in the Global Climate Agenda”](#), developed through a collaborative effort involving research institutions, civil society organizations and private sector stakeholders.

A central premise of this analysis is the recognition that forests should be understood through a broader landscape perspective, where conservation, restoration, sustainable management and productive activities form part of a continuous and interconnected system. This forest continuum approach highlights the complementary roles of different forest-based strategies in maintaining ecosystem integrity while supporting economic development and social inclusion.

Building on the evidence and insights generated by this work, this contribution aims to support the development of the **COP30 Presidency Roadmap on Halting and Reversing Deforestation and Forest Degradation by 2030**. The reflections presented here highlight lessons learned, policy approaches and implementation pathways that may inform global efforts to protect forests while advancing climate mitigation, biodiversity conservation and sustainable development.

Halting and reversing forest loss requires integrated approaches that combine effective governance, economic incentives, sustainable land-use systems and inclusive development strategies. In this context, the Brazilian experience offers relevant insights for other tropical forest countries seeking to reconcile forest conservation with economic and social development.

Part I – Why Halting and Reversing Deforestation and Forest Degradation Is Central to the Paris Agreement

Forests are among the most scalable and cost-effective climate solutions available today. They absorb roughly one-third of annual global greenhouse gas emissions from human activities and, according to UNEP estimates, have the potential to mitigate between 4.1 and 6.5 gigatonnes of carbon dioxide equivalent by 2030 — accounting for nearly 30% of the mitigation options available in the coming decade and represent one of the largest natural carbon reservoirs on the planet. Without preserving, sustainably managing and restoring forests, achieving the objectives of the Paris Agreement will not be possible.

This critical role is largely driven by the capacity of forest ecosystems to regulate the carbon cycle by removing and storing carbon dioxide in biomass and soils over long periods. Maintaining forest cover preserves this natural sink function, while deforestation and forest degradation release previously stored carbon and reduce the future carbon removal capacity of ecosystems. Conversely, strategies that combine effective deforestation control, ecosystem restoration and the sustainable expansion of forest cover can significantly influence national carbon balances. In countries with large forest areas, such strategies have the potential not only to halt the loss of forest carbon stocks but also to enhance forests' capacity to remove carbon from the atmosphere.

Beyond their role in the carbon cycle, forests are also essential for regulating the global water cycle and sustaining rainfall patterns at regional and continental scales. Through evapotranspiration and other ecological processes, large forest ecosystems recycle and transport atmospheric moisture, influencing precipitation across vast regions. In the Amazon, this process contributes to the formation of the so-called “flying rivers”, atmospheric moisture flows that distribute rainfall across much of South America. Forest loss and degradation can disrupt these hydrological processes, potentially altering rainfall regimes and affecting sectors that depend on stable water availability, including agriculture, energy production and water supply.

MOVIMENTO FLORAZ

This interdependence highlights that forest protection is not only an environmental imperative but also an economic one: large-scale agricultural production itself depends critically on the hydrological stability that intact forests provide.

Tropical forests are also among the most biodiverse ecosystems on Earth, hosting more than half of all terrestrial species and sustaining essential ecological processes. Protecting these ecosystems is therefore critical to preserving global biodiversity and maintaining the integrity of natural systems that support climate and environmental stability. Large forest biomes such as the Amazon and the Atlantic Forest play a particularly important role in safeguarding habitats and sustaining ecosystem resilience.

At the same time, forests are closely linked to human well-being. Forest conservation and restoration can catalyze sustainable livelihoods, diversify local income and contribute to food security. By promoting sustainable value chains for timber and non-timber forest products and supporting inclusive value chains, forest-based bioeconomies can provide viable economic alternatives to deforestation while strengthening community resilience and contributing to poverty reduction.

Indigenous Peoples and Traditional Communities are indispensable stewards of forest ecosystems. Their territorial management has consistently proven highly effective in maintaining forest cover while preserving traditional knowledge and sustainable practices. Strengthening their rights and supporting their role in forest governance contributes not only to preventing emissions but also to advancing climate justice and inclusive forest economies aligned with the objectives of the Paris Agreement.

Part II – What Countries Can and Should Do

1. Deforestation and Forest Degradation: Drivers and Barriers

Addressing deforestation requires a clear understanding of its structural drivers and barriers. Evidence indicates that deforestation is often linked to historical patterns of unplanned land-use expansion, socio-economic inequalities in forest regions, and the absence of competitive economic models based on standing forests. In many tropical regions, pressures are further intensified by global demand for agricultural commodities and by persistent gaps in financing for forest conservation. Weak territorial governance and the insufficient economic valuation of ecosystem services can further undermine efforts to protect forests. These factors highlight the importance of integrated strategies that combine effective governance, sustainable land-use planning, inclusive economic development, and adequate financial mechanisms to address the root causes of deforestation.

Brazil offers illustrative examples of policy instruments and institutional arrangements that may inform efforts in other forest countries. The Brazilian Forest Code establishes one of the largest systems of conservation on private lands in the world, requiring the protection of extensive areas of native vegetation within rural properties. This framework is supported by the Rural Environmental Registry (CAR), which enables large-scale environmental monitoring and compliance tracking across millions of rural properties. In parallel, satellite-based monitoring systems have allowed authorities to track deforestation in near real time, strengthening enforcement and transparency. Through the Forest Code, Brazil maintains approximately 215 million hectares of preserved forests and restored vegetation within rural properties dedicated to agricultural production.

In addition to regulatory instruments, territorial governance and integrated policy frameworks have played a decisive role in reducing deforestation. Brazil's Action Plan for the Prevention and Control of Deforestation in the Amazon (PPCDAm) demonstrated how coordinated action across multiple institutions can significantly reduce forest loss by combining monitoring, law enforcement, territorial planning, and sustainable development initiatives. Experiences such as this highlight the importance of cross-sectoral coordination and long-term policy continuity in addressing deforestation.

Brazil's experience also illustrates the significant potential associated with integrated forest strategies. Evidence suggests that if deforestation is effectively controlled and efforts in forest restoration and forestry development are sustained, the country has the potential to reverse the trajectory of forest loss and achieve a net expansion of forest cover, accompanied by substantial growth in forest carbon stocks. This demonstrates how coordinated action across conservation, restoration and sustainable forest management can transform forest landscapes into a major source of climate mitigation and ecosystem recovery.

MOVIMENTO FLORAZ

Economic and territorial approaches also complement these efforts. Indigenous Territories and Protected Areas have proven highly effective in maintaining forest cover and safeguarding biodiversity, while economic mechanisms such as Payments for Environmental Services, forest restoration initiatives, and REDD+ projects demonstrate how conservation efforts can be aligned with income generation and local development. In parallel, forest concessions in public forests represent an important model for promoting sustainable forest management, enabling regulated economic use of forest resources while maintaining forest cover and supporting regional development.

At the international level, strengthening carbon market frameworks will also be critical to mobilize climate finance for forest protection. The development of a global carbon market capable of supporting efforts to reduce deforestation depends on the effective implementation of Article 6 of the Paris Agreement. Under Article 6.2, ITMOs are central to enabling climate finance flows; however, the lack of clear and predictable rules has limited the development of projects, particularly in the land-use and forestry sectors. Under Article 6.4 and other international initiatives such as SBTi and CORSIA, overly restrictive criteria have also constrained the participation of nature-based solutions in global mitigation mechanisms.

In particular, it is essential to ensure that nature-based solutions are fully recognized as an integral, rather than marginal, component of mitigation strategies. This includes ensuring their eligibility within international climate mechanisms and recognizing their capacity to generate high-integrity environmental assets. Without greater alignment across regulatory frameworks, there is a risk that the global carbon market will evolve in a way that is disconnected from the actual mitigation potential available, undermining both the effectiveness of climate action and the economic viability of initiatives that are fundamental to reducing and reversing deforestation.

Emerging international initiatives, such as the proposed Tropical Forests Forever Fund (TFFF), further illustrate the potential of innovative financing mechanisms capable of mobilizing large-scale resources for forest conservation in tropical countries. Together, these experiences suggest that combining governance, monitoring, economic incentives, and sustainable forest-based development strategies can significantly contribute to halting deforestation and forest degradation while supporting climate mitigation and sustainable development objectives.

2. Forest Restoration, Reforestation and Afforestation

Forest restoration and reforestation represent key opportunities to address climate change while promoting sustainable development. Evidence shows that large-scale restoration initiatives can generate multiple benefits, including carbon sequestration, biodiversity recovery, and new economic opportunities in rural and forest regions. National strategies such as Brazil's commitment to restore 12 million hectares of native vegetation by 2030 illustrate the scale of ambition required. Similar commitments in other tropical countries highlight the growing recognition that large-scale restoration will be essential for achieving global climate and biodiversity targets. Restoration models applied in Brazil's different biomes have the potential to remove between 6.7 and 12.5 tonnes of carbon dioxide equivalent per hectare each year, and forests growing over a decade can accumulate between 80 and 200 tCO₂e/ha depending on restoration method — illustrating the magnitude of mitigation achievable through landscape-scale action. Achieving restoration at this scale will also depend on leveraging existing productive capacities and land-use models that reconcile forest conservation with economic activity.

It is also important to recognize the heterogeneity of productive structures and national contexts. In some countries, particularly in Brazil, production systems coexist with the conservation of native ecosystems, with industrial activities operating in a complementary way to conservation. These models help reduce pressure for illegal deforestation by combining production, the expansion of conserved areas, increased carbon stocks, and the generation of economic value from planted forests. Such integrated approaches deserve greater recognition, strengthening and, where appropriate, replication.

The planted forest sector represents a particularly relevant example of this dynamic. Practices grounded in sustainability can generate positive climate impacts while contributing to environmental regeneration. The sector's potential to provide environmental services for Brazil and for the global climate is closely linked to the high levels of forest productivity achieved in the country. Brazil's eucalyptus and pine plantations achieve mean annual increments of over 34 and 31 cubic metres per hectare per year respectively — figures that far exceed benchmarks found elsewhere in the world and reflect decades of investment in genetic improvement, silvicultural management and operational scale.

MOVIMENTO FLORAZ

Brazil's long-standing experience with planted forests has also created a strong technological and operational platform that can support the expansion of native forest restoration. Advances in areas such as genetic improvement, nursery production, silvicultural management, monitoring systems, and large-scale forest operations provide valuable capabilities that can be adapted to restoration initiatives. Leveraging this accumulated expertise can accelerate the development of scalable restoration models, strengthen supply chains for seeds and seedlings, and improve the efficiency and resilience of restoration projects across diverse ecological contexts.

However, achieving restoration at scale requires overcoming several barriers, including high upfront investment costs and limited access to appropriate financial mechanisms. A central challenge is transforming forest restoration into a well-defined investment asset class: once restoration projects are standardized with predictable return profiles and defined risk parameters, it becomes significantly easier for capital market participants to incorporate them into dedicated portfolios.

Developing financial structures tailored to this sector — including blended finance structures, guarantee mechanisms, and insurance instruments suited to long-duration biological assets — is therefore as important as addressing operational and ecological barriers. In addition to financial and institutional barriers, large-scale forest restoration faces important technological, scientific and market challenges.

Many tropical countries still lack long-term research infrastructure capable of generating applied knowledge and scalable technologies for native forest restoration. Existing experiments are often fragmented and limited in scale, while supply chains for seeds and seedlings face constraints related to genetic diversity, traceability and production capacity. Monitoring systems also remain incipient in many contexts, relying on sporadic assessments rather than integrated approaches that combine remote sensing technologies, artificial intelligence and field-based ecological monitoring. At the same time, the economic value of ecosystem services such as carbon sequestration and biodiversity conservation is still insufficiently reflected in markets and public policies.

Large-scale restoration also faces barriers related to land governance and social inclusion. Secure land tenure and clear land-use arrangements are often necessary to enable restoration projects at scale, particularly in regions where land rights remain uncertain or fragmented. In Brazil, degraded pasturelands represent a major opportunity in this regard: many such areas are economically underperforming for their current use and could generate substantially higher returns through restoration, without displacing agricultural production. Developing long-term contractual models that align the interests of landowners and restoration operators — including appropriate benefit-sharing and tenure security arrangements — is essential to unlock this potential at scale. Social dimensions are equally critical, including the need to develop local skills, strengthen community participation, and build inclusive value chains associated with restoration activities.

Scaling restoration further requires addressing several financial and investment risks. These include knowledge gaps regarding restoration practices, exposure to climate-related hazards such as fires and water stress, and uncertainties related to land tenure and regulatory frameworks. Additional constraints arise from immature markets for carbon, ecosystem services, and forest products, as well as contractual imbalances, leakage risks, and challenges in valuing ecosystem services. Addressing these issues through clearer regulations, stronger data systems, and improved market standards will be essential to mobilize large-scale investment in restoration.

Taken together, these barriers highlight that scaling restoration requires coordinated action across several key pillars, including technological development, market formation, financial mobilization, secure land access, and social development.

Recent initiatives in Brazil illustrate how private sector engagement can help scale up forest restoration. In a context of supportive policies, growing demand for climate and nature solutions, and increasing availability of climate finance, companies are developing large-scale restoration projects using native species that combine ecological recovery with economic activities such as timber production and carbon credits. Multi-stakeholder platforms and restoration networks are also helping coordinate actors, generate data, and monitor progress. The sector is rapidly maturing, with private restoration initiatives already delivering results and moving toward the restoration of millions of hectares in the coming decade.

MOVIMENTO FLORAZ

3. Sustainable Forest Management, Bioeconomy and Agroforestry

Sustainable forest management can play a critical role in aligning conservation, economic development, and territorial governance in forest regions. In many tropical forest countries, large areas of public forests remain without clear designation or effective management frameworks, creating governance gaps that increase the risk of illegal logging, irregular land occupation, and deforestation. Addressing these gaps requires strengthening institutional arrangements that enable the sustainable economic use of forest resources while maintaining forest cover and ecosystem integrity.

Brazil's experience with forest concessions under the Public Forest Management Law offers an illustrative example of how sustainable forest management can be implemented at scale. Under this model, companies operate under approved management plans, monitoring systems, traceability mechanisms, and independent audits, ensuring that timber extraction occurs within sustainable limits and follows reduced-impact logging practices. By establishing clear rules for the economic use of public forests, concession systems can help prevent illegal activities while promoting sustainable production and territorial governance.

The development of Brazil's planted forest sector also illustrates how structured forest value chains can generate economic scale while maintaining forest cover. Over the past decades, the sector has built integrated production systems, strong industrial value chains and internationally competitive markets for forest-based products. These experiences offer important lessons for the emerging forest bioeconomy, demonstrating how sustainable forest production can attract investment, generate employment and create long-term economic value linked to standing forests and restored landscapes. Agroforestry systems further expand this potential by combining timber and food production with ecological benefits — including carbon sequestration, soil conservation and biodiversity support — offering flexible and productive models that can be adapted across different scales and land-use contexts.

Beyond timber production, sustainably managed forest areas can also support diversified bioeconomy value chains based on both timber and non-timber forest products. These activities include the sustainable extraction and processing of forest products, the development of bio-based materials, and the promotion of forest-based livelihoods. When properly regulated and supported by adequate market frameworks, such activities can generate local employment, strengthen regional economies, and provide viable economic alternatives to deforestation.

At the same time, expanding forest-based bioeconomies requires strengthening sustainable supply chains, improving market access for forest products, and combating illegal timber extraction that undermines fair competition. In this context, improving governance, traceability, and certification systems is essential to ensure that tropical forest products can gain a reliable and competitive position in both domestic and international markets.

Taken together, sustainable forest management, forest concessions, and bioeconomy initiatives demonstrate how standing forests can support economic development while maintaining ecological functions. These approaches illustrate the potential for forest-based development models that reconcile conservation, sustainable production, and territorial governance in tropical forest regions.

4. Forest Conservation

Forest conservation plays a central role in the global climate and environmental agenda, particularly in tropical countries such as Brazil. With around 73% of the Amazon biome still covered by forests, the country holds one of the largest carbon stocks and reservoirs of biodiversity in the world. At the same time, deforestation remains a major source of greenhouse gas emissions, highlighting the importance of effective forest protection policies. Brazil has developed a range of institutional instruments and public policies to support conservation, including the Forest Code, the Rural Environmental Registry (CAR), advanced satellite-based monitoring systems, and economic incentives such as payments for ecosystem services. Experiences such as the significant reduction in deforestation in the 2000s, together with the role of Indigenous Territories and protected areas, demonstrate that integrated approaches combining territorial governance, economic incentives and monitoring systems can effectively protect forests at scale.

MOVIMENTO FLORAZ

Brazil's experience also highlights the importance of coordinated policy frameworks and governance mechanisms to improve conservation outcomes. Initiatives such as the Action Plan for the Prevention and Control of Deforestation in the Amazon (PPCDAm), combined with satellite-based monitoring systems, strengthened law enforcement and interinstitutional coordination across federal and state agencies, played a decisive role in reducing deforestation during the 2000s. In addition, international cooperation and innovative financial mechanisms have helped support forest protection initiatives, reinforcing the role of Indigenous Territories, protected areas and territorial governance strategies as key pillars for maintaining forest cover and safeguarding ecosystem services.

The experience of Brazil's planted forest sector demonstrates how high-productivity forestry systems established on previously converted lands can supply timber, fiber and other forest products while reducing pressure on natural forests.

By concentrating production in managed plantations and continuously increasing yields through technological innovation, planted forests can contribute to meeting global demand for forest products without expanding deforestation. This experience illustrates how sustainable forest production systems can complement conservation strategies and support the protection of native ecosystems at landscape scale.

In this context, forest conservation can be understood at the landscape level through a set of complementary governance instruments that together form a "forest continuum". This perspective recognizes that conservation, sustainable forest management, planted forests and restoration initiatives should not be treated as isolated agendas, but rather as interconnected components of a broader land-use strategy. Within this continuum, protected areas, Indigenous Territories, public forests, private lands with native vegetation, sustainably managed forests and restoration areas operate in a complementary manner.

By integrating conservation, production and territorial governance, this approach strengthens ecological connectivity and ecosystem resilience while creating opportunities to reconcile environmental protection with socio-economic development. Recognizing the complementary role of these instruments provides a strategic framework for advancing large-scale forest conservation in tropical regions.

Part III – Fostering International Cooperation and Addressing Regulatory Bottlenecks

Accelerating global progress toward halting and reversing deforestation will require stronger international cooperation, improved institutional capacity and regulatory frameworks that enable forest-positive economic development. In many forest countries, important technical, financial and governance barriers continue to limit the large-scale implementation of conservation, restoration and sustainable forest management strategies. Addressing these challenges requires coordinated efforts across countries, international institutions and financial systems.

In this context, strengthening technical cooperation and institutional capacity becomes a key priority. Many tropical countries still lack long-term research infrastructure, technical expertise and integrated monitoring systems capable of supporting forest restoration and sustainable forest management at scale. Existing experiments and initiatives are often fragmented and limited in scope, while forest monitoring systems are not always fully integrated with emerging technologies such as advanced remote sensing, artificial intelligence and digital data platforms. Expanding international technical cooperation, capacity-building initiatives, and shared scientific infrastructure can help close these gaps, improve measurement methodologies, and strengthen forest monitoring systems across countries.

Mobilizing large-scale finance is equally critical to enable forest conservation and restoration. Protecting standing forests and restoring degraded lands require financial architectures capable of mobilizing both public and private capital. Results-based finance initiatives such as REDD+, emerging proposals such as the Tropical Forests Forever Fund (TFFF), and expanded access to international carbon markets illustrate the potential of innovative financial mechanisms to reward forest protection and restoration outcomes. Brazil's financial sector — internationally recognized for its capacity to develop sophisticated financial instruments, insurance mechanisms and guarantee structures — is well positioned to contribute to the development of these solutions at both national and global scale, including blended finance models that can de-risk private investment in restoration. Aligning multilateral finance, development banks and private investment with forest-based economic opportunities will be essential to support sustainable forest value chains and accelerate the transition toward forest-based development pathways.

MOVIMENTO FLORAZ

International partnerships can also play a decisive role in strengthening markets for sustainable forest products. Developing international value chains based on timber and non-timber forest products, bio-based materials and ecosystem services can help create economic incentives for maintaining forest cover while generating employment and income in forest regions. Strengthening cooperation between producing and consuming countries will be essential to ensure that sustainable forest products gain greater access to global markets.

At the same time, strengthening international regulatory frameworks and institutional cooperation is necessary to address persistent governance challenges. Illegal logging and other environmental crimes continue to undermine forest governance and distort global markets for forest products. Improving transparency, traceability and alignment with international sustainability standards can help strengthen responsible supply chains and create fair market conditions for sustainable forest products.

Enhanced cooperation among countries to combat environmental crimes, harmonize regulatory frameworks and promote sustainable trade will be critical to reinforce the integrity of forest-related markets and support the global transition toward sustainable forest economies. By addressing technical gaps, mobilizing finance and strengthening regulatory cooperation, the international community can accelerate the implementation of forest-based solutions capable of delivering climate mitigation, biodiversity protection and sustainable development outcomes.

Final Considerations

In light of the outcomes of the first Global Stocktake of the Paris Agreement, particularly paragraphs 33 and 34, and of the COP30 Presidency's Roadmap for Halting and Reversing Deforestation and Forest Degradation by 2030, the coming years represent a critical window to translate global climate ambition into concrete action for forests. Strengthening international cooperation and accelerating the implementation of forest-based solutions will be essential to align climate ambition with the protection and restoration of the world's forests.

Halting and reversing deforestation requires coordinated action across governance systems, financial mechanisms, sustainable land-use strategies and inclusive development policies. In this context, Brazil offers important lessons derived from its experience in combining forest conservation, restoration, sustainable forest management and forest-based economic activities.

A comprehensive approach that recognizes the forest continuum and integrates conservation, sustainable production and restoration across landscapes can help transform forests into central pillars of climate mitigation, biodiversity protection and sustainable development. Advancing this integrated vision will be essential for strengthening global efforts to halt deforestation and forest degradation while promoting resilient forest economies.

We hope that the reflections and experiences presented in this contribution may support the efforts of the COP30 Presidency to advance an ambitious and actionable roadmap, while highlighting the role that tropical forest countries such as Brazil can play in accelerating global forest solutions.

