

POSITION ON

SILVICULTURE OF NATIVE SPECIES

AS SUPPORT
FOR RESTORATION



ALIANÇA
PELA RESTAURAÇÃO NA
AMAZÔNIA



Proposed by the Alliance for Restoration in the Amazon, with support from the Brazilian Coalition on Climate, Forests, and Agriculture, this initiative promotes the silviculture of native species as a key strategy to recover vegetation in the Amazon biome, integrating production, conservation, and territorial development. While restoring complex ecosystems like the Amazon is inherently challenging, this approach seeks to recover functionality and some biodiversity of Amazon landscapes, ultimately enhancing their resilience and sustainability.

Introduction

The Amazon, a biome of global significance for biodiversity and climate regulation, presently faces a triad of challenges: to halt the advance of deforestation, restore degraded ecosystems, and promote alternative land uses that reconcile conservation with socio-economic development. In this context, the silviculture of native species, when executed in a technically structured, diversified, and legally secure manner, presents a promising solution for ecosystem recovery, income generation, carbon sequestration, biodiversity and landscape conservation, as well as enhancing the value of Amazonian territories, fauna, and their populations. This strategy enables local communities to re-establish a connection with the forest, restore ecological functions, and strengthen the forest economy, thereby fostering a perception of productive value within the forest that may be more immediate in certain regions.

This positioning aims to establish technical, legal, and political consensus to guide the formulation of public policies, investments, and projects intended to promote the silviculture of native species as a fundamental element of forest recovery in the Amazon. The Alliance for Restoration in the Amazon recognizes the strategic role of silviculture in meeting both national and international recovery targets. By supporting the cultivation, management, and protection of forests, silviculture is crucial for combating illegal deforestation, strengthening the bioeconomy, and promoting climate justice. However, for silviculture of native species to be seen as a legitimate model for forest restoration, it is essential to establish clear scientific standards, update legal frameworks, and ensure technical and legal security for producers, foresters, investors, and local communities.

The Goal | This positioning advocates for recognizing silviculture of native species as a legitimate and essential strategy for both ecological forest recovery¹ and productive forest recovery² within the Amazon biome. This is contingent upon its adherence to minimum technical criteria for species diversity and long-term management. Our goal is to promote productive models that strike a balance between technical and economic viability and forest restoration, thereby contributing to income generation and land valuation. To achieve this, it's crucial to advance the development and implementation of public policies and financing mechanisms. We also need to ensure legal certainty for producers by establishing a specific legal framework that regulates and promotes silviculture of native species as a tool for ecological and productive restoration.

Guiding Principles

Silviculture of native species must be recognized as a legitimate strategy for advancing forest recovery in the Amazon. This practice should be implemented to restore essential ecological functions, ensure productivity, conserve a portion of biodiversity, and generate income. By seamlessly integrating forest production with biodiversity conservation, this methodology offers a strategic path toward building sustainable, resilient, and productive landscapes.

It's crucial, however, to distinguish between different approaches. Monospecific, low-diversity, and short-cycle systems that rely on clear-cutting and focus exclusively on production may support the forest economy, but they should not be confused with true recovery measures. While simpler models might be more easily adopted by farmers and local communities—given their lower risks and maximized opportunities—only systems that incorporate biological diversity and long-term management can be considered genuine silviculture of native species that aids forest recovery and enhances landscape connectivity. In this regard, mixed systems (utilizing native and/or initially exotic species) can serve as a cost-effective solution to initiate recovery and gradually transition to more biodiverse models.

For the Alliance, silviculture of native species is viewed as a vital opportunity to connect people with the forest, restore ecological functions, generate revenue, strengthen the forest economy, and validate local knowledge, ultimately making a profound contribution to the Amazon's future.

Minimum technical criteria for Silviculture of Native Species to contribute to ecological and productive recovery in the Amazon biome

Ecological structure

Forest systems should be designed to foster and maintain diverse vertical layers, including canopies of varying heights and arrangements. This structure is influenced by the diversity of species and their ecological roles, as well as the silvicultural techniques applied. Continuous soil coverage and sustainable management are crucial from the outset. Whenever possible, these forest plantations should be integrated with surrounding native vegetation patches to boost ecological connectivity, particularly in fragile or human-impacted landscapes.

Species diversity

Plantations should prioritize species diversity by incorporating a variety of native species. This practice helps restore forests and establishes a multi-layered canopy with varying heights and diameters. To ensure healthy, resilient populations, it's essential that these plants are genetically diverse, originating from a range of seed and seedling sources.

Long-term management

Short-cycle clear-cutting should be avoided. Instead, management should focus on selective or systematic harvesting (like clearings or strip harvesting) that promotes natural regeneration and allows for the replanting of new trees and species.

Socio-environmental focus

The Alliance promotes a form of silviculture of native species, aimed at forest restoration, that involves diverse social groups and elevates the leadership of Indigenous peoples, quilombolas, traditional communities, and family farmers. This means ensuring their active participation in the planning, implementation, and monitoring of these systems to ensure that economic, ecological, and cultural benefits are shared fairly and respectfully. Valuing traditional knowledge alongside scientific innovation is essential for strengthening these systems, fostering autonomy, territorial management, and productive security. Generating long-term income for local populations is vital to the success of restoration programs and helps prevent repeated land degradation.

Integration with Agricultural Crops

Combining silvicultural systems with agricultural crops is often beneficial, especially for traditional communities and family farmers. This integration, particularly in the initial years of planting, can provide early income for producers and improve food security.

Monitoring

Ecological, social, economic, and cultural indicators for forest or productive recovery projects, programs, and initiatives should be monitored based on their specific characteristics.

Priority Areas for Action by the Alliance’s Working Group on Silviculture of Native Species (WG)

In addition to acknowledging the importance of silviculture of native species in ecological recovery, it is imperative to promote the development of a regulatory framework that provides legal certainty and technical clarity. It is essential to harmonize state legislation with the Native Vegetation Protection Act (Act No. 12,651/2012), particularly regarding the utilization of silviculture within Legal Reserve areas and alternative land use practices.

Public Policies and Federal Regulation | The Alliance identifies several shortcomings in the National System for Controlling the Origin of Forest Products (SINAFLOR) and advocates for its improvement to provide greater legal certainty for silviculture of native species. This measure is essential so that, through sustainable management without clear-cutting, economic value can be generated via the lawful commercialization of timber. It is imperative that public policies remain robust and sustained, with investments allocated to applied research, local technical training, and methodologies specifically adapted to the realities of the Amazon, thereby avoiding the importation of models incompatible with the biomes’ unique characteristics.

Regulation in Amazonian States | The Alliance will endeavour to support the regulation and harmonization of state regulatory instruments with federal guidelines, fostering a transparent legal environment conducive to silviculture of native species as a technique that facilitates restoration throughout the Amazon.

Financing and Investment | It is essential to promote financing and investment that ensure the economic viability of silviculture of native species, particularly for local populations, since sustained income generation is vital for the success and longevity of restoration initiatives. This encompasses attracting investments in research and development, establishing production and processing centers (such as cooperatives) to absorb production and mitigate risks for producers, thereby securing future remuneration. Furthermore, support should be extended to projects dedicated to the use, management, and conservation of Amazonian soils and the integrity of water resources.

The Alliance advocates for the formal recognition of silviculture of native species as a legitimate activity for fulfilling legal obligations and voluntary commitments to restore native vegetation across various land categories, including Legal Reserves on rural properties and other privately owned areas, Sustainable Use Conservation Units (particularly Extractive Reserves - Resex, Private Natural Heritage Reserves - RPPNs, Sustainable Development Reserves - RDS, National Forests, and State Forests). This should be conducted in accordance with the guidelines outlined in their respective Management Plans, as well as on Indigenous Lands and Quilombola Territories, if these populations wish.

Finally, we propose creating a sustainable value chain for silviculture of native species. This involves strengthening the production and marketing of legal timber through improved traceability, certification, and value addition. By expanding the market for certified native species, we can directly and indirectly support large-scale conservation and restoration efforts, including spring preservation, biodiversity enhancement, and improved landscape connectivity. Integrating silviculture of native species with the bioeconomy through non-timber forest products is also critical for increasing economic and ecological resilience while promoting social inclusion.

Conclusion

Faced with the twin challenges of the climate crisis and land scarcity, plus the pressing need for large-scale ecosystem restoration, silviculture of native species presents a strategic solution. This approach integrates sustainable production with environmental services, biodiversity conservation, and social inclusion. By establishing clear technical guidelines, promoting ecological diversity, adopting long-term management strategies, and creating a stable legal framework, Brazil can transform silviculture of native species into a driving force for forest recovery and regional development in the Amazon.

The Alliance for Restoration in the Amazon is dedicated to creating public policies, incentives, and legal structures that acknowledge and facilitate forestry systems using native species for multiple purposes. The Alliance also advocates for cross-sector collaboration to develop specific regulatory guidelines and a national program to promote, monitor, and research silviculture of native species in its various forms. The Alliance's strategy includes offering methodological guidance and creating indicators to ensure that silviculture is ecologically and socio-economically effective. Disseminating models that support and advance the restoration of forest ecosystems in the Amazon—using valuable, productive tree species that benefit local communities—is a historic opportunity. Reforesting the Amazon with regenerative, productive trees that are integral to the landscape ensures both restoration and conservation, paving the way for a sustainable and promising future.

Notes

¹ Recovery or restoration of native vegetation - restoring native vegetation cover through the implementation of agroforestry systems, reforestation, natural vegetation regeneration, ecological rehabilitation, and ecological restoration.

² Productive Forest Restoration is a set of strategies and practices that aim to restore degraded areas, combining ecosystem recovery with productivity, social inclusion, and economic development.

³ Silviculture of native species involves planting, cultivating, and managing forests with trees from the local region. It aims to produce timber, non-timber products, and ecosystem services while promoting production, social inclusion, and better landscape connectivity (WRI 2021).



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