Pacto Global
Rede Brasil

TAFF ROADMAP | FOREST ROADMAP

Transition Away from Fossil Fuels in a Just, Orderly and Equitable Manner and Halting and Reversing Deforestation and Forest Degradation by 2030

1. Overview

The Roadmap for the Transition Away from Fossil Fuels, in a Just, Orderly and Equitable Manner, announced by the COP30 Presidency in Belém, is a structured and direct response to one of the most significant and debated outcomes of COP28 (Dubai, 2023): paragraph 28(d) of the first Global Stocktake (GST).

At that historic moment, after three decades of climate conferences, the Parties of UNFCCC reached an unprecedented consensus: for the first time, the final text of a COP explicitly called on all countries to "contribute to transitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner." This was a conceptual milestone that translated into diplomatic language what science had long been demanding.

We have advanced to COP30 in Belém, in the heart of Amazon, which carried the mission of transforming this global consensus into concrete action. The TAFF Roadmap proposed by the Brazilian COP30 Presidency explicitly assumes an implementation-oriented character. More than consolidating consensuses already established since the first Global Stocktake (GST), the document addresses the critical gap between ambition and action. Its central objective is to structure a practical pathway that identifies systemic bottlenecks, mobilize existing instruments, and organizes feasible solutions, recognizing that there is no single pathway for all countries, sectors, or socioeconomic realities.

Alongside the transition away from fossil fuels, there is the imperative to halt and reverse forest deforestation, establishing an explicit connection among the three Rio Conventions – the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Convention to Combat Desertification (UNCCD), and the Convention on Biological Diversity (CBD).

The focus of the Forest Roadmap is to propose a pathway that: 1. **Identifies existing means of implementation for solutions within the action agenda**; 2. **highlights bottlenecks and obstacles to halting and reversing deforestation**; and 3. **shares good practices of measures and policies that are succeeding in real-world cases of halting and reversing deforestation**.

2. Roadmap for the Transition Away from Fossil Fuels in a Just, Orderly and Equitable Manner

2.1. Context

According to the latest report of the Intergovernmental Panel on Climate Change (IPCC), there has been an increase of 1.1°C in the Earth's average temperature relative to pre-industrial levels. This datum places the planet in a scenario of alerts, characterized by drastic changes in the biosphere, which generate natural phenomena that are increasingly frequent and intense. Such events directly impact the economic, social, and environmental spheres, deepening existing vulnerabilities and inequalities. The same report indicates that certain regions are more vulnerable to these impacts, as is the case of countries in the Southern Hemisphere, including Brazil. Although these countries are not historically among the largest contributors to global warming, projections indicate that they will be severely affected by climate change. Given this context, to act in a fair and equitable manner, actions and investments adjusted to the specific needs of these critical regions are necessary, with common but differentiated responsibilities.

Still within this context, Brazil becomes a fundamental country for the advancement of the implementation agenda aimed at the transition away from fossil fuels. This is due, first and foremost, to the fact that it is the sixth largest CO_2 emitter in the world, although more than half of its emissions originate from the land-use change and agriculture sectors, with emphasis on deforestation. This reality shows Brazil as a country with a high impact on the acceleration of global warming, due to its volume of emissions, but also positions it as a potential benchmark for other countries, as it possesses an energy matrix composed of 88% renewable sources. However, the country faces major challenges, since a significant part of its industrial and consumption processes remain dependent on fossil fuels.

To identify the main barriers and levers for the transition away from fossil fuels in a just, orderly and equitable manner by the private sector, the UN Global Compact – Network Brazil (UNGC) received contributions from **25 organizations committed to the Net Zero Ambition Movement and the Amazonia Impact Movement**. These are initiatives that aim to accelerate, through public commitment, the reduction of GHG emissions, and the fight against deforestation in the Amazon region by the private sector, respectively.

Through this process, the most critical obstacles to the advancement of this transition were identified, as well as which mechanisms should be enabled. It is worth noting that this listing was developed based on workshops conducted by the UNGC Brazil Network, discussion forums, and key scientific documents, such as the IPCC reports.

2.2. Barriers Preventing a Transition Away from Fossil Fuels for the Private Sector

The UN Global Compact - Network Brazil identified that the **high cost and economic non-viability of mitigation technologies are** among the main bottlenecks hindering the private sector's adoption of low-carbon technologies and, consequently, the transition away from fossil fuels. This is because there is a high cost for companies in adopting such technologies, which may result in an unclear ROI (return on investment), discouraging investment.

Furthermore, many technologies are still incipient and present a high risk that an investment will not generate returns in the short or medium term. This is the case for CCUS (carbon capture, utilization, and storage) and green hydrogen, whose large-scale production is not economically viable without public incentives or still depends on significant cost reductions. Although climate finance more than doubled between 2018 and 2023 (Climate Policy Initiative, 2025), a fourfold increase is necessary to reach the level of investment required by 2030 in the 1.5°C scenario. This demonstrates the insufficiency of current financing structures for the private sector to access resources compatible with climate urgency.

The second obstacle raised is the **failure in the implementation of public policies**. The private sector needs a solid public policy framework to support the adoption of biofuels, renewable energies, and the creation of financing mechanisms. Although there have been major advances, such as the Pró-Álcool law, which incentivized ethanol and made Brazil a world reference in its production and use, a failure in the formulation of consistent government environmental policies persists. Many public policy initiatives remain unfinished and fragmented, being conceived as government projects rather than state policies, which weakens permanent adoption by the private sector and makes the legal security of long-term projects vulnerable.

Another impediment identified by the private sector, through the UN Global Compact – Network Brazil, is the **Europeanization of concepts**, whether in the application of climate models, sustainability standards, or even indicators, taxonomies, and demands not inherent to Latin geopolitics. At the beginning of global climate negotiations (1990s), norms and guidelines were created with the objective of rationalizing environmental protection and ensuring the sustainability of businesses and ecosystems. However, these standards were based on the characteristics and needs of the Global North, ignoring that, although mitigation has global effects, adaptation, in particular, requires local solutions. Countries of the Global South, with a history of colonial exploitation and high social vulnerability, are often held to the same standard of requirement as more developed nations. Without due recognition of their territorial characteristics and technological capabilities, these countries struggle to adapt to North American or European standards, which presuppose technological and implementation advances still inaccessible to much of the developing world, in addition to

failing to adequately differentiate the impacts of climate change on these nations. Although the UNFCCC establishes the principle of common but differentiated responsibilities, Global North Sustainability Standards often ignore it.

A priority obstacle identified is the **lack of internalization of climate risk in decision-making by the private sector**, a factor that impedes the transition away from fossil fuels. This is because, for the climate transition to occur, it is necessary to quantify and translate climate risk into financial metrics (such as cash flow, cost of capital, and valuation) that effectively influence business decisions. Although frameworks such as the TCFD (Task Force on Climate-related Financial Disclosures) have existed since 2017, a gap persists in standardized and accessible methodologies to interpret how risks caused by climate change — both physical (extreme events, gradual changes) and transition (regulatory, technological, and market changes) — can affect businesses in their assets, operations, and supply chains. Data indicate that 82% of companies disclosed information aligned with at least one of the 11 TCFD recommendations, but only 2–3% met all recommended items (CDP, 2021). This difficulty may be due to small and medium-sized enterprises, which do not have specialized teams nor financial models capable of projecting climate impacts over long-term horizons (30+ years), incompatible with traditional business planning cycles (3 to 5 years).

Finally, the business sector pointed out that **fossil fuel subsidies** are among the main obstacles to the transition to a low-carbon economy. The IPCC has warned, in its latest reports, that the primary cause of the worsening of climate change is the increase of GHGs in the atmosphere, originating mainly from the burning of fossil fuels. Although the International Energy Agency (IEA) recorded a slowdown in the growth of global oil demand, from 1.9% in 2023 to 0.8% in 2024, and oil's share in the global energy matrix fell below 30% for the first time in history, these numbers do not signify a drop in absolute consumption.

It is worth noting that at COP30, the presence of fossil fuel lobbyists increased by 12% compared to the previous year, according to the Climate Observatory. Adding to this reality is the volatility of oil prices, caused by geopolitical conflicts, which exposes the vulnerability of a system still dependent on fossil fuels. Faced with growing demand, governments have expanded their appetite for oil exploration in sensitive lands, which endangers the future of investment in renewable energy and in the prevention and fight against deforestation. This occurs because government subsidies to fossil fuels keep prices artificially low for the end consumer, stimulating demand and signaling to the market that oil will remain economically viable for years. If this competitive imbalance persists, the private sector will have little incentive to direct capital toward clean sources, perpetuating the cycle of fossil dependence.

2.3. Priority Levers for the Phase-Out of Fossil Fuels for the Private Sector in Brazil

The UN Global Compact – Network Brazil identified a set of levers to be prioritized by the private sector, among which the **improvement of regulatory instruments stands out**. Although Brazil is recognized as a reference in certain aspects of its regulatory framework for corporate sustainability, including the recently approved Plano Clima (Climate Plan) and the Forest Code, a lack of more specific technical norms and legal mandates with greater effectiveness persists, aiming to ensure legal security and financial predictability for long-term investments.

It is worth mentioning the **increase in climate finance** lines for the adoption of low-carbon economy practices by the private sector. During COP29 in Baku, it was approved that countries allocate US$ 1.3 trillion per year by 2035 to combat climate change, but the mechanisms and bureaucracy for accessing this capital are not yet known. BloombergNEF warns that, although investments have reached a record high, growth has slowed (from 27% in 2021 to 8% in 2025), and it is necessary to accelerate to US$ 5.2 trillion annually for the remainder of the decade. In Brazil, financing lines destined for the private sector are insufficient, because a large portion of investments in low-carbon technologies occurs with high risk and without significant government participation. Consequently, the volume of blended finance operations is still very low, and the high CAPEX required for new low-emission technologies demands the combination of the private sector with the public sector. Another point to increase the penetration of access to climate finance by the business sector is the adoption of lines with reduced interest rates, in addition to hybrid investment, which helps lower the risk perceived by investors and enables electrification, energy efficiency, and climate innovation projects. Finally, from the global financing perspective, developing countries need more resources due to their higher vulnerability; therefore, developed countries, which have historically benefited most from the exploitation and industrialization arising from fossil fuels, should provide these resources so that they can be distributed in a just and equitable manner.

A lever identified by the private sector is the **increase of investments in research and innovation**. In this context, Brazil has been piloting projects underway but lacks resources to scale it.

Although it ranks among the world's largest producers of scientific knowledge, the country invests only 1.2% of GDP in R&D, well below the OECD average of 2.7%. This budgetary limitation explains why research centers and universities face difficulties in crossing the so-called "valley of death" between the laboratory and the market. Strategic sectors such as biofuels, green hydrogen, energy efficiency, and biotechnology represent real demands, and Brazil possesses a wealth of solutions that need to be scaled up. Therefore, it is necessary to

expand public-private investment in technology and development centers to reduce the gap between research and commercial applicability of these solutions in combating climate urgency.

There also must be **commitment and alignment of multilevel governance** among municipal, state, and federal spheres for a more efficient and transparent action on the climate agenda. Brazil, as a country of continental scale, has more than 5,570 municipalities, of which more than 85% lack an adaptation plan, placing them in a situation of vulnerability to the impacts of climate change (Sustainable Cities and Society, 2025). The lack of preparedness of states and municipalities generates great vulnerability to economic losses in sectors such as agriculture, urban infrastructure, and public health, in the face of increasingly intense and frequent events. Thus, greater effectiveness is needed in the distribution of the federal budget for investment in climate adaptation plans, as well as clarity on how emission reductions will be carried out at the local level.

Finally, to drive the climate transition, it is necessary for Brazil to incentivize mechanisms such as **green premiums**. By rewarding projects and organizations that develop solutions, products, and services with a low carbon footprint, this initiative not only confers visibility to innovators but also encourages other organizations to rethink and transform their existing business models.

3. Best Practices for the Low-Carbon Economy in Brazil

Brazil is among the 46 countries that possess a **national decarbonization plan**. One of the tools to implement this plan is going to be through binational partnerships, as exemplified by Vietnam and Senegal, for the acceleration of international financing for a just energy transition.

Colombia and Brazil are advancing with national plans for roadmaps to exit oil dependence, aiming to reduce domestic demand for petroleum derivatives and to export with lower carbon intensity; however, this initiative demonstrates geopolitical and economic complexities.

The Brazil Climate Plan (Plano Clima) should be highlighted as a major policy mechanism to be used as a benchmark by other countries. The current challenge is its extrapolation to municipalities and its implementation by the private sector, given the urgency for each company to build a climate planning framework that is coherent and aligned with its strategic business planning, encompassing a just energy transition and adaptation of business models.

The **Sustainable Taxonomy** was also recently approved in Brazil. This is a classification system for economic activities aligned with sustainability. Inspired by the European model, this tool

aims to assess and categorize initiatives aimed at emission reductions and other environmental objectives. In doing so, it will help the market consciously direct investments toward sustainable projects, in addition to creating an objective standard that hinders greenwashing practices.

Another relevant benchmark is **Eco Invest Brazil**, a recent program within the scope of the Ecological Transformation Plan. Its objective is to attract international investment to provide blended finance lines to the private sector in areas such as energy transition, bioeconomy, circular economy, green infrastructure, and climate adaptation. In its first year of operation, it has already mobilized US$ 13.4 billion across three auctions, with a leverage ratio of 4x (each public R$ 1 generates R$ 4 from private sources). Furthermore, it offers an unprecedented currency hedge mechanism — protection against exchange rate volatility — which reduces the perceived risk for foreign investors and enables long-maturation projects in the country.

Another initiative worth highlighting is Brazil's adoption of the position of being the **first country in the world** to require publicly traded companies to report in accordance with the **International Financial Reporting Standard S2** (IFRS) issued by the International **Sustainability Standards Board (ISSB)**. In practice, companies will be required to report their environmental information, especially climate risks, and how these risks link to their financial flows. Approved by the Brazilian Securities and Exchange Commission (CVM) and mandatory as of 2027, this practice will be a unique moment positioning Brazil as a global **leader in climate transparency in the capital markets**.

The UN Global Compact – Network Brazil highlights the development of the **roadmap mechanism for the Brazilian Road Freight Transport Sector**, through the **HUB of Biofuels and Electrification**. Companies can use this tool to conduct self-diagnosis and apply a step-by-step approach to develop a decarbonization strategy centered on the transition away from diesel demand by incentivizing and investing in alternative technological routes, whether biofuels or electrification.

4. Just, Orderly and Equitable Transition in Different Development Contexts for the End of Fossil Fuels

Although they have distinct origins, Climate Justice and Just Transition converge in establishing that the response to the climate crisis cannot be dissociated from social equity. While the former emerges from struggles for environmental justice and global historical responsibilities, the latter consolidates itself in the defense of workers' rights in the face of the energy transition.

Currently, both concepts operate in a complementary manner: for a transition to be just, it must apply the principles of climate justice, sustaining that mitigation and adaptation actions must be intrinsically inclusive. This intersection aims to ensure that the transition to a low-carbon economy does not deepen existing disparities, adopting the principle that no social group, worker, or territory is left behind in this process of change.

For the business sector, the perspectives of Climate Justice and Just Transition constitute a social approach to climate risk, benefiting both businesses, communities and workers, in a mutually beneficial systemic relationship. It is the responsibility of companies to conduct the transition to a low-carbon economy in a just and inclusive manner, ensuring that their decarbonization efforts consider social impacts, promote equity, and create opportunities for affected workers and communities.

In view of the advancement of this theme within the scope of international climate change conferences and national forums, the Net Zero Ambition Movement of the UN Global Compact – Network Brazil suggests that Brazilian companies committed to reducing greenhouse gas emissions through science-based targets (SBTi) also consider a social approach in their decarbonization plans, taking as examples actions such as: due diligence process on human and climate rights; engaging with affected stakeholders or their legitimate representatives (e.g., workers, trade unions, communities, suppliers, etc., including stakeholders where the risk of adverse impacts may be particularly severe) to develop a just transition plan; integrating national and international guidelines for the promotion of just transition and climate justice (such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), CONAMA Resolution No. 511/2025 on Climate Justice and the Fight Against Environmental Racism, and the International Labour Organization's (ILO) "Guidelines for a just transition towards environmentally sustainable economies and societies for all"); and specifically, the principle of FPIC – Free, Prior and Informed Consent in their plans; investing in a just transition, including in skills and human resource development, mitigating employment impacts through worker retention, reskilling, redeployment, creating additional economic opportunities, and contributing to social protection; establishing targets and monitoring progress in relation to their just transition plan.

With the aim of integrating the Global South perspective into this discussion, the UN Global Compact – Network Brazil, in technical partnership with the Latin American Climate Lawyers Initiative for Mobilizing Action (LACLIMA), has developed a series of Business Thematic Notebooks on Climate Justice for strategic business sectors. The project consists of studies focused on practical business actions that promote climate justice and just transition, carried out through a literature review and interviews with more than 40 companies engaged in the theme, representing 5 distinct sectors (Health; Fashion & Textile; AFOLU – Agriculture, Forestry and Other Land Use; Construction; and Energy). The objective is to support the

integration of these initiatives into companies' strategies and business models, placing vulnerable people at the center of environmental and financial decisions, ensuring the protection of the rights of populations affected by the effects of climate change.

5. Roadmap for the Halting and Reversing Deforestation and Forest Degradation by 2030

5.1. Context

The most recent data consolidated by Embrapa indicates that currently approximately 30% of the national territory is allocated to agriculture and livestock, while 66% remain covered by native vegetation, playing a strategic role in climate stability and the resilience of productive systems. Nevertheless, according to the Intergovernmental Panel on Climate Change (IPCC) and forest monitoring platforms, land use and changes in forest management account for a significant portion of global greenhouse gas emissions, representing the main emission vector in the Brazilian context.

The continued loss of vegetation covers not only compromises the goal of limiting global warming to 1.5°C but also accelerates biodiversity loss and destabilizes hydrological cycles essential for agriculture and energy security. This scenario is aggravated by extreme weather events that disproportionately victimize the most vulnerable populations and communities that depend directly on the forest, deepening social and economic disparities across the different biomes that comprise Brazilian territory.

Recognizing that the preservation of Brazilian biomes is an indispensable pillar for global climate stability, the transition to a deforestation-free economy must occur in a just, orderly and equitable manner. Given this context, the UN Global Compact – Network Brazil consulted its business network to identify structural barriers — whether land-related, financial, social, and/or technological — and the priority levers that will enable the private sector to intensify its actions to combat deforestation, value environmental services, and increasingly contribute to environmental regeneration. It is also worth noting that the preservation of forests and biodiversity is a shared responsibility. Making progress on this challenge depends on building partnerships among the public sector, private sector, research institutions, and civil society. More than a commitment, this is about the need to create solid connections, strengthening the dialogue around the sustainability of issues related to land use and land cover, as indicated in the "Entre Solos: Semeando Conexões" (Among Soils: Sowing Connections) dialogues.

The contributions are the result of a survey to understand the private sector's perception, as well as documents produced within the scope of the UN Global Compact – Network Brazil Agriculture and Forests Platform, such as the workshops and dialogues of "Entre Solos" (Among Soils), a project whose mission is to enable public debate based on science, contributing to scaling up regenerative and just food systems, and the "Amazônia Impact Movement" , whose mission is to promote sustainable development in the Amazon through

individual, sectoral, and cross-sectoral actions. This technical framework was developed to support the COP30 Presidency's Roadmap with proposals that contribute to halting and reversing deforestation and forest degradation by 2030, integrating forest conservation with climate justice and large-scale bioeconomy.

Additionally, it is important to recognize the role of transport infrastructure as a structuring element in land-use dynamics. The way logistics corridors are planned, implemented, and operated can either mitigate or induce deforestation vectors. In this sense, the incorporation of socio-environmental criteria from planning through to infrastructure operation is essential to align logistics development with the zero-deforestation agenda.

5.2. Obstacles Impeding the Halting and Reversing of Deforestation and Forest Degradation by 2030

Brazil is among the world's largest agricultural producers, supplying domestic and international markets with a wide diversity of food, fiber, and bioenergy. This productive capacity, however, depends directly on the ecosystem services provided by its different biomes, such as rainfall regulation, pollination, soil fertility, and water resource maintenance, without which agricultural productivity cannot be sustained in the long term. Given this scenario, the country's major challenge is to intensify production in already opened areas and restore degraded ecosystems, reconciling efficient land use with the protection of forests and the environmental services that guarantee food and climate security. It is increasingly necessary to clarify the relationship between deforestation and various ESG themes, connecting it to different socio-environmental issues and thereby demonstrating its materiality across different sectors.

For the COP30 Presidency's Roadmap, the UN Global Compact – Network Brazil identifies that **insufficient enforcement of environmental legislation** is one of the greatest obstacles to forest integrity, since limited monitoring and a sense of impunity in remote regions weaken the rule of law. The low institutional capacity to monitor and punish illegal activities in real time allows degrading activities to advance into protected areas, making the cost of non-compliance lower than the immediate economic benefit of predatory exploitation. Without strengthening control agencies and an ostensive state presence, the private sector faces difficulties operating in a fair competitive environment, where companies that invest in compliance are penalized by the costs of legality compared to actors operating outside the law.

Land tenure insecurity and the overlapping of territorial rights constitute the second structural obstacle to forest integrity and one of the main drivers of deforestation, especially in agricultural frontiers. The absence of titles based on a clear chain of ownership, combined

with a lack of transparency and the need to incorporate registry technologies, fuels impunity and land grabbing. This land tenure insecurity hinders direct legal accountability for environmental damage, since without a clear definition of who holds possession or ownership, governance over the territory becomes inaccessible, weakening command-and-control strategies.

The transition to zero deforestation is therefore inseparable from the **economic competitiveness of sustainable models** and from overcoming the high opportunity cost of land. The scenario can be exemplified as follows: according to the Campo Futuro Project, a partnership between the Senar/CNA system and CEPEA researchers, in the 2024 and 2025 harvests, Brazilian soybean producers experienced an average gross margin of approximately R$ 2,300.00/ha. Considering this scenario, the compensation for forest maintenance must be calculated to be compatible with the profitability of cultivated areas. We need to establish financial mechanisms to increase the competitiveness of the preserved hectare relative to the cultivated hectare, so that landowners with surplus native vegetation choose preservation. Thus, compensation mechanisms such as Payment for Environmental Services (PES) must be financially superior to these agricultural gains.

On the technological pillar, the **complexity of traceability** in diverse supply chains, with a focus on the gap in monitoring indirect suppliers (especially for soy and beef), prevents Brazil from consolidating its leadership in low-carbon markets. This challenge extends to infrastructure, where low socio-environmental traceability in supply chains associated with inputs and materials generates indirect risks of association with deforestation. The business sector, coordinated by the UN Global Compact, recognizes that the integration of environmental data systems is the key to overcoming this barrier. End-to-end transparency is fundamental to mitigating reputational risks and ensuring that "zero deforestation" commitments are verifiable and inclusive also for small and medium-sized producers.

Finally, **low coordination among government levels** (federal, state, and municipal) fragments policies and reduces the effectiveness of preservation strategies. The lack of interoperability between data systems and the discontinuity of actions across administrations create gaps that are exploited by illegality. Combating degradation requires integrated multilevel governance, where territorial planning is shared and financial incentives reach the local level. Only through robust federative coordination and transparent technological systems will it be possible to ensure that the transition is orderly, just, and equitable, as recommended by the Thematic Notebook on Climate Justice (AFOLU Sector).

The **consolidation of a large-scale bioeconomy** constitutes the strategic vector for valuing the standing forest, converting environmental conservation into a high-value-added asset and overcoming the historical fragmentation among science, markets, and traditional

communities. The definitive halting of deforestation is inseparable from the economic viability of biomes, which presupposes structuring investments in logistics, rural connectivity, and decentralized bio-industrialization to enable on-site processing of sociobiodiversity. By integrating ancestral knowledge with technological innovation centers, forest populations transcend the role of mere input suppliers and assume leadership in sophisticated value chains, transforming ecosystem protection into the engine of a new industrial frontier and Brazil's main competitive advantage in the global market.

5.3. Priority Levers for the Halting and Reversal of Deforestation and Forest Degradation by 2030

Brazil holds the largest area of tropical forests on the planet and harbors between 15% and 20% of the world's biodiversity, distributed across six continental biomes, coastal and marine ecosystems, and the largest river system in the world. We combine environmental wealth and productive strength, both directly impacted by the climate crisis and the degradation of ecosystem services — elements that underpin food production in Brazilian territory. In this context, to maintain productive potential, it is necessary to consolidate a large-scale regenerative model which, among other factors, must leverage the sustainable management of forests. Considering the goal of restoring 12 million hectares of native vegetation by 2030, as indicated by the National Plan for the Recovery of Native Vegetation , we will need to overcome structural challenges while always considering the socioeconomic specificities of each region. For this, the connection between government, the third sector, academia, and the Brazilian business sector is crucial.

For the Brazilian business sector, the i**mplementation of commodity traceability systems and supply chain monitoring** emerges as the primary technical lever to ensure the integrity of corporate commitments. The integration of technologies such as artificial intelligence and satellite monitoring is essential to identify the origin of products down to the producer level, transforming technical transparency into a robust barrier against illegal deforestation and a competitive differentiator in demanding international markets. However, the sector recognizes that traceability loses effectiveness if isolated from a solid legal framework; it is not enough to trace deforestation if there are setbacks in licensing and environmental legislation. MapBiomas 2023 data indicate that land-use dynamics and the expansion of the agricultural frontier are at the center of the deforestation debate in Brazil, which gives the productive sector a unique opportunity to lead the transition to low-carbon models. This reality reinforces the importance of a leading sectoral role, in which agents with the greatest capacity for scale and landscape influence commit to transforming sustainability into a competitive differentiator. This logic of cooperation is synergistic with the global principle of shared responsibilities, where technical support and financial incentives must accompany

those who hold the greatest potential for conservation and regeneration of Brazil's environmental assets.

Multisectoral Partnerships and Supply Chain Transformation to overcome deforestation require an approach that transcends isolated initiatives. Partnerships that unite the private sector, government, academia, and local communities make it possible to transform entire productive chains. **The incorporation of socio-environmental criteria into supply chains**, including environmental compliance requirements, traceability, and zero-deforestation commitments, is also a relevant lever for amplifying the indirect impact of companies. Structured supplier engagement and capacity-building programs are fundamental to raising chain standards. This shared governance ensures that technical assistance and cutting-edge technology reach small producers and traditional communities, guaranteeing a transition that is, in its essence, just and equitable.

The **integration of databases and the guarantee of accountability** represent the institutional lever needed to confer systemic transparency to the territory. By unifying environmental, land tenure, and productive information — which is currently fragmented — the State and companies can cross-reference data efficiently, facilitating compliance verification and streamlining certification processes. This interoperability is fundamental to ensure that financial incentives and green credit effectively reach those actors who comply with the law, punishing offenders and rewarding those who operate legally. Without this data clarity, legal insecurity persists, hindering the necessary distinction between sustainable production and illegal land conversion.

Carbon markets and environmental assets are consolidating as the financial mechanism capable of enabling the transition to a low-carbon economy, channeling global resources toward the conservation of Brazilian biomes. The structuring of a robust, high-integrity regulated market allows forest carbon sequestration to cease being an unpaid positive externality and become a real revenue stream for the private sector and local communities. This lever is strategic for scaling up large-scale restoration projects, provided it is accompanied by safeguards that ensure the fair distribution of benefits and the permanence of carbon stocks, granting Brazil the role of global provider of nature-based solutions.

For this mechanism to function with socio-environmental integrity, it is imperative that **local communities and traditional peoples be properly integrated** into the operation of these markets, ensuring their autonomy and full understanding of their rights and obligations in projects. Furthermore, **land tenure security** presents itself as a primary and non-negotiable requirement; without legal clarity on land possession and ownership, the certification of carbon credit becomes fragile, making it impossible to attract ethical investments and exposing vulnerable populations to risks of exclusion or territorial conflicts. The

environmental effectiveness of the carbon market is, therefore, directly proportional to the robustness of human and territorial rights at the base of the chain.

The **financial valuation of ecosystem services** acts as the link between climate integrity and economic viability, recognizing that the maintenance of biodiversity and water cycles is vital to the productivity of agribusiness itself. The scaling up of international climate finance mechanisms and environmental asset instruments (such as Payment for Environmental Services — PES) is fundamental to enable the transition in rural areas. This financial lever ensures that capital flows effectively reach the local level, especially for the restoration of degraded areas, transforming what was once an environmental liability into a profitable asset attractive to private investors.

A central aspect of this **valuation is the shared benefit generated by ecosystem services**, which transcend the boundaries of individual properties to generate collective gains. By pricing and remunerating services such as pollination, erosion control, and water regulation, the market begins to internalize benefits from nature that were historically ignored in corporate balance sheets, but which sustain the resilience of entire landscapes. The creation of these long-term instruments makes it possible to balance the opportunity cost of land, ensuring that the maintenance of these essential services is fairly rewarded. Thus, valuation ceases to be an abstract concept and becomes a tool for climate justice and productive efficiency, guaranteeing that the value generated by conservation is redistributed among producers, local communities, and society, strengthening the long-term viability of Brazilian supply chains.

Finally, the **strengthening of enforcement** and the rigorous application of command-and-control mechanisms constitute the essential safeguard to ensure the effectiveness of all other initiatives. The strict combat of environmental crimes, such as land grabbing and invasion of indigenous lands, is fundamental to mitigating risks and protecting the physical integrity of those who defend territories. Consistent law enforcement establishes the necessary ethical standard for the transition to occur in a balanced manner, ensuring that economic progress does not come at the expense of environmental degradation or social injustice.

6. Bests Practices and Lessons Learned on Ecosystem Services Preservation from the Business Sector's Perspective

Tropical agriculture is among the most vulnerable to climate change. Temperature variations, changes in rainfall regimes, and the intensification of extreme events have been compromising harvests, delaying plantings, and forcing changes in productive systems. Given this scenario, transforming current agricultural models is no longer an option but an essential condition for agriculture to continue to exist and prosper.

Studies indicate that nature-based solutions — characterized by practices that seek the preservation of ecosystem services and are advocated in regenerative agriculture and forest preservation — have the potential to contribute up to one-third of the climate targets set by the Paris Agreement, helping to limit global warming to 1.5°C above pre-industrial levels. The latest IPCC report indicated that interventions such as reducing the destruction of forests and other ecosystems, their large-scale restoration, and improving the management of productive lands are among the five most efficient strategies to reduce greenhouse gas emissions by 2030.

Although the transition to regenerative productive systems still faces challenges, Brazil has already demonstrated significant progress in the adoption of sustainable practices. Brazilian rural producers have stood out globally for their rapid incorporation of sustainable technologies, such as the use of bioinputs, no-till farming systems, and integrated production systems. This capacity to integrate productive efficiency with environmental responsibility highlights Brazil's potential to build a regenerative, competitive, inclusive, and nature-positive tropical agriculture — a reference model in the face of global food and climate security challenges.

The preservation of Brazilian forest integrity and the success of restoration strategies depend on a vision that harmonizes technological efficiency with positive social impact. In the current scenario of climate emergency, the experiences accumulated by the food, agriculture, and forests sector demonstrate that conservation only becomes perennial when integrated with economic viability and respect for the populations that inhabit these territories. In this sense, the consolidation of national good practices reveals that the path to zero deforestation involves transforming environmental assets into engines of just and inclusive development.

Based on the dialogues and working groups promoted by the Entre Solos (Among Soils) program, one of the central lessons indicated by the business sector is that restoration must be productive to ensure long-term sustainability. Models such as Agroforestry Systems (AFSs) and Crop-Livestock-Forest Integration (ILPF) emerge as fundamental income levers, allowing the recovery of degraded areas to generate immediate revenue and food security, redefining conservation as a form of sustainable intensification rather than exclusion of production. Additionally, ecological restoration initiatives associated with infrastructure projects, including the recovery of environmental liabilities and well-structured environmental compensation, can generate significant gains for habitat connectivity and ecosystem resilience. At the same time, although satellite and artificial intelligence traceability technology is a sectoral success, the findings highlight that it must be inclusive. This means offering technical support so that small suppliers can regularize their status in the Rural Environmental Registry (CAR), preventing digital requirements from becoming tools of social exclusion for vulnerable producers.

The focus is on the rural producer. Initiatives that endure demonstrate that to scale up regeneration, it is crucial to promote the due importance of continuous technical assistance, training, and the development of local capacities to ensure the effective adoption of new practices in the field. The transition to regenerative models depends fundamentally on behavioral change and the reduction of risks perceived by producers, which requires proximity, trust, and qualified technical support.

In the financial field, projects need to be supported by important advances in terms of innovation in financing mechanisms and economic incentives. Cofinancing models, credit lines linked to sustainable practices, and market incentives such as certifications and premiums have been used to enable the adoption of regenerative practices. Nevertheless, it remains evident that access to adequate capital — especially with terms and costs compatible with the productive transition — is a critical factor for the scaling up of these initiatives. The structuring of carbon markets and Payment for Environmental Services (PES) must be accompanied by robust socio-environmental safeguards.

Integration along the value chain also consolidates itself as a strategic factor. The connection between agricultural production, industry, retail, and final consumers reinforces the role of sustainability as a growing criterion for market access and competitive differentiation. In this sense, regenerative practices cease to be merely a technical choice in the field and become a strategic requirement for insertion into global supply chains.

Finally, more than isolated initiatives, a strategic approach by the business sector is being consolidated, integrated into the core business of organizations and oriented toward the simultaneous generation of economic, environmental, and social values. The growing integration of these initiatives into corporate sustainability and decarbonization strategies stands out. The recommendation is that business sector projects be directly connected to companies' global commitments, such as climate neutrality targets, deforestation-free supply chains, and responsible sourcing policies. In this context, the ESG agenda no longer occupies a peripheral position and becomes a central vector for competitiveness, reputation, and market access.

7. Conservation, Restoration, and Inclusion: Corporate Contribution to a Just Transition

The integration of environmental conservation and social justice is one of the fundamental pillars for the ecological transition in Brazil to be sustainable and resilient in the long term. In the food, agriculture, and forests sector, business projects have the potential to act as agents of transformation, going beyond emissions neutralization to promote human development and equity in the territories where they operate. By adopting a vision that connects natural

resource management with the dignity of local populations, companies can mitigate climate risks while simultaneously reducing the historical vulnerabilities that affect biomes and communities.

In this context, the findings of the Business Thematic Notebook on Climate Justice for the AFOLU Sector of the UN Global Compact – Network Brazil indicate that this contribution occurs primarily by placing the agency of peoples and communities at the center of environmental and financial decisions, valuing traditional knowledge and the fundamental role of local communities and indigenous peoples in conservation.

For this integration to be effective, it is essential to advance even further in the transparency and management of value chain data, as well as to ensure a fair distribution of benefits, using instruments such as Payment for Environmental Services (PES) and carbon markets, provided they are supported by clear rules that materially benefit those who protect ecosystems. The lesson learned is that initiatives focused strictly on carbon metrics, without considering human development and local biodiversity, tend to fail. In other words, we must consolidate the just transition as an indispensable foundation for environmental effectiveness.

A just transition also requires the promotion of productive inclusion and diversification through expanded access to credit, technical assistance, and markets for family farmers and regional entrepreneurs. Initiatives such as agroforestry systems and the restoration of degraded areas not only mitigate the effects of climate change but also increase the resilience of territories, respecting the specific realities of each biome and the historical injustices of land access. Complementarily, traceability must be used as a differentiation tool to curb illegal activities and ensure ethical supply chains. Investment in capacity-building and independence, especially through programs aimed at the professionalization of vulnerable groups and the empowerment of women, consolidates a business approach that unites mitigation, adaptation, and social justice.

A strong emphasis is placed on collaborative and multistakeholder models, involving companies, local populations, civil society organizations, research institutions, and technology providers. This coordination has proven essential to enable the scaling up of initiatives, allowing the sharing of risks, knowledge, and financial resources. The construction of joint solutions along the value chain thus emerges as a key element for the systemic transformation of the sector.

Finally, the initiatives that become consolidated converge on the generation of a positive triple impact, combining increased productivity and profitability, emissions mitigation and environmental regeneration, and the socioeconomic strengthening of territories and

communities. This convergence reinforces the potential of the business sector as one of the main catalysts for a sustainable and inclusive transition.

References

IPCC. Climate Change 2023: Synthesis Report. Summary for Policymakers. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Geneva: IPCC, 2023. p. 1-34. DOI: 10.59327/IPCC/AR6-9789291691647.001. Available from: https://www.ipcc.ch/report/ar6/syr/.

UN GLOBAL COMPACT – NETWORK BRAZIL. **Roadmap for net zero road transport:** . São Paulo: UN Global Compact – Network Brazil, 2025. Available from: https://go.pactoglobal.org.br/DecarbonizationofFreightTransport

UN GLOBAL COMPACT – NETWORK BRAZIL. ***Climate justice in the AFOLU sector: corporate sector responsibility – context and recommendations***. São Paulo: UN Global Compact – Network Brazil, 2025. (Business Thematic Handbooks on Climate Justice). Available from: https://go.pactoglobal.org.br/CorporateThematicNotebookClimateJusticeAFOLUSector

UN GLOBAL COMPACT – NETWORK BRAZIL. ***Dialogues Among Soils: Sowing Connections 2025***. São Paulo: UN Global Compact – Network Brazil, 2025. Available from: https://go.pactoglobal.org.br/posicionamentoentresolos .

UN GLOBAL COMPACT – NETWORK BRAZIL. ***Regenerative agriculture guide: principles, practices and access to financing***. São Paulo: UN Global Compact – Network Brazil, 2025. 120 p. Available from: https://go.pactoglobal.org.br/financiamentopraticasagricultura.

Techinal responsibility

Rubens Filho, M.Sc.

Danielly de Andrade Mello Freire, M.Sc.

Hugo Ricardo, Phd.

Lucas Tiago Araujo

Maria Fernanda Pistori, M.Sc

Paloma Pinheiro

Alexia Porto