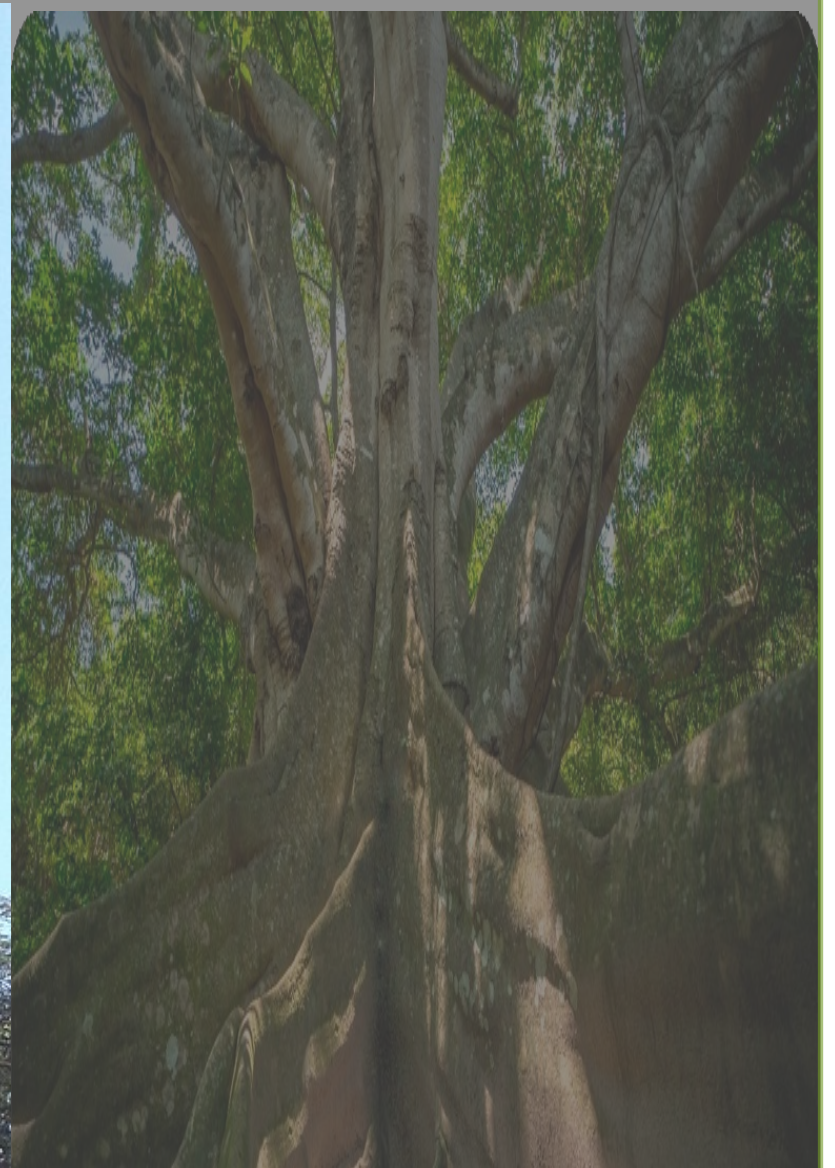


RESTORATION STRATEGIES AND EXPERIENCES IN SOUTH AMERICA: PRODUCTIVE AND CONSERVATION LANDSCAPES





BOLIVIA

Preserving valuable native species

Photos: Tajibo, *Tabebuia* spp.; Bibosi higuерón, *Ficus* spp.

How is the local urban community involved in restoration initiatives with native species

- In Bolivia, each project is required to restore at least 10% of the territory covered by the project.
- The government has a Restoration Plan for ecosystems outside of Protected Areas, some focuses on buffer areas.
- Local governments coordinate with municipalities for the management of forest nurseries that include capacity development for reforestation in the communities.
- Each community has its urban core with its school, etc. This community – Motacusito nuevo (Municipality of Puerto Suárez, Santa Cruz), near of the Parque Nacional Otuquis, a RAMSAR site, of approximately 40 families, focused on landscape restoration in urban areas of the city, reforesting with native species (tajibo, *Tabebuia* spp), and promote ecotourism which involve all the community.
- In one of the communities that started in 2019, you can already see the trees, landscape with flowers, very beautiful ones. They worked with interns on the designs, focusing on the species of Tajibo (*Tabebuia* spp) (CITES, Appendix II), promoting the knowledge of the value of the species, of the forest as ecosystem restoration an productive landscape (identifying/zoning areas where they can have productive activities).
- Although men, women and children have participated, women have participated with greater enthusiasm and it is considered a successful experience , also of women empowerment.
- They had labor support from the Army Command during their visit.



Challenges and lessons learned

- The Chiquitanía restoration plan is managed by the government, where natural restoration is preferred.
- There is a feeling that the concept of restoration has not yet taken hold and is confused with reforestation.
- There is a feeling that there is a lack of regulations to have clear parameters on how to work on the subject of restoration, the concepts and information about the areas.
- People are unaware of the impacts and the affected areas. (Community Monteverde, Municipality of Concepción Ñuflo de Chávez, aprox. 2000 ha burned).
- There is a natural impact after the fire, and must be analyzed what happens to that ecosystem in order to establish and apply a policy in those protected areas.
- When it comes to Protected Areas, it is generally assumed that there must be natural restoration and that this allows for the conservation of the landscape. However, this must be ensured in buffer areas.
- Also, the species that proliferate in natural restoration are not trees, they are vines, bushes, climbers that close spaces and do not allow the growth of trees.
- Legume species were once planted in the pastures, which are very difficult to eliminate and do not allow the regrowth of other species.





BRAZIL

**Ecological restoration and sociobiodiversity protection:
Contemporary challenges and strategies**

Ecological restoration has become an essential strategy for reversing environmental impacts and protecting sociobiodiversity — a concept that integrates ecological and sociocultural dimensions, recognizing the role of human communities in nature conservation. This process goes beyond restoring degraded ecosystems; it seeks to reestablish ecological functions and ensure that local human populations can maintain traditional and sustainable practices. However, the implementation of ecological restoration faces significant challenges, especially when combined with the protection of sociobiodiversity.



1. Conflicts between economic interests and environmental conservation

The expansion of agriculture and extractive activities often conflicts with restoration initiatives. These economic interests often prevail over environmental objectives, making it difficult to allocate priority areas for restoration and to implement effective measures to protect sociobiodiversity. Deforestation in the Amazon, often driven by the expansion of agriculture and livestock, exemplifies the clash between economic and environmental interests. In areas such as the Arc of Deforestation, restoration projects face resistance from large landowners and sectors linked to agribusiness. In the Cerrado, the conversion of native vegetation into soybean monocultures also hinders restoration and conservation efforts.

2. Landscape fragmentation and loss of ecological connectivity

Fragmented ecosystems hinder species dispersal and natural regeneration. Restoring ecological corridors, while essential, faces challenges related to land availability, high costs, and local resistance in areas occupied by economic activities. The Atlantic Forest, the most fragmented biome in Brazil, has only about 12% of its original coverage. Projects such as the Pact for the Restoration of the Atlantic Forest attempt to restore ecological connectivity, but face challenges related to human occupation and urban expansion, especially in areas such as the Metropolitan Region of São Paulo.

3. Devaluation of traditional knowledge and local practices

Indigenous and traditional communities play a crucial role in protecting sociobiodiversity, but their practices and knowledge are often marginalized. Recognizing and integrating these forms of knowledge into restoration projects is a challenge that requires institutional and cultural changes. In the Ribeira Valley (SP), quilombola communities have traditional knowledge about agroforestry management that contributes to restoration. However, many of these practices are disregarded in restoration programs, which prioritize technical approaches. Local movements have sought to reverse this scenario, but marginalization remains a significant barrier.

4. Climate change and environmental unpredictability

Changes in climate patterns make it difficult to select suitable species for restoration and compromise the success of interventions. In addition, extreme weather events, such as prolonged droughts and floods, can destroy restored areas or limit their development. In the semiarid region of the Northeast, restoration efforts are hampered by periods of extreme drought, exacerbated by climate change. Initiatives such as the Program for the Recovery of Degraded Areas in the Caatinga face difficulties in selecting native species that can withstand future climate conditions, making projects more expensive and risky.

5. Financial and governance constraints

Ecological restoration requires significant investment, which is not always available. In addition, the lack of integrated public policies and institutional fragmentation make it difficult to coordinate large-scale actions. The Environmental Regularization Program (PRA), provided for in the Forest Code, seeks to restore degraded areas on rural properties. However, the lack of financial resources and adequate monitoring has delayed implementation in states such as Mato Grosso and Pará. In addition, many restoration initiatives depend on international funding, which is not always sustained.

6. Long-term monitoring and evaluation

Monitoring is a crucial step in ecological restoration projects, as it allows the effectiveness of actions to be assessed, failures to be identified and strategies to be adjusted. However, in Brazil, monitoring of restoration projects is still insufficient, with few programs implemented in a continuous and systematic manner. The lack of resources, tools and specific policies are some of the factors that limit this practice, although the topic is gaining increasing attention in the scientific literature. The effectiveness of restoration projects can only be assessed over decades, but few programs have funding and ongoing support for this monitoring. This compromises the ability to adapt strategies and ensure lasting results.

The **Águas do Cerrado project**, which aims to restore springs in the Federal District, is an example of the difficulty in long-term monitoring. Despite presenting positive initial results, insufficient funding to monitor ecological recovery and impacts on water recharge prevents a full assessment of its effectiveness. Limitations in Monitoring:

- 1) Lack of financial and human resources - most restoration projects in Brazil do not have a budget dedicated to long-term monitoring. Resource allocation often focuses on the initial stages, such as planting and soil preparation, leaving aside the monitoring necessary to ensure the success of the restoration.
- 2) Lack of standardized indicators - defining indicators is essential to measure the progress of restoration projects. However, there is still little standardization on which metrics to use, such as species richness, biomass or vegetation cover, making it difficult to compare projects and generate consistent data.
- 3) Limitations in the use of technologies - although drones, remote sensors and spatial modeling have great potential for large-scale monitoring, these technologies are still underutilized in Brazil due to their high cost and lack of technical training in many local projects.
- 4) Low integration of local actors - local communities are often not involved in monitoring, despite their importance as agents capable of providing continuous and low-cost data.

Restoration Networks in Brazil: one of the strategies to face the challenges

1. Pact for the Restoration of the Atlantic Forest

- **Focus:** Brings together organizations to restore 15 million hectares of the Atlantic Forest by 2050, promoting ecological connectivity and biodiversity conservation.
- **Activities:** Develops projects on different scales, shares good practices and encourages public policies, such as the Municipal Atlantic Forest Plans.
- **Impact:** Over 700 thousand hectares restored and mobilization of international and national resources for restoration actions



2. Pact for the Restoration of the Pantanal



Açaí - *Euterpe oleracea*



Cambará - *Vochysia divergens*

- **Focus:** Works on the recovery of degraded areas in the Pantanal, especially after forest fires, using strategies adapted to local conditions.
- **Activity:** Promotes the use of native species, such as cambará and ipê, and works in partnership with ranchers to combine ecological restoration with sustainable land use.
- **Impact:** Assists in the recovery of aquatic and terrestrial habitats, with a focus on preserving key species and maintaining the biome's ecosystem services.

3. Articulation for the Restoration of the Cerrado (Araticum)



- **Focus:** Brings together researchers and professionals to promote ecological restoration in the Cerrado biome, which is suffering from rapid conversion to agriculture and livestock farming.
- **Activities:** Develops technical guides, conducts experiments with native species and supports local restoration initiatives, such as the recovery of springs.
- **Impact:** Support for public policies, such as the Environmental Regularization Program (PRA), and promotes the use of typical species of the Cerrado in recovery projects

4. Amazon Ecological Restoration Network (Restaura Amazônia)



- **Focus:** Recover deforested areas in the Amazon biome, with attention to ecological diversity and social inclusion.
- **Action:** Mobilizes communities to collect seeds and reforest, promoting assisted natural regeneration and direct planting of native species.
- **Impact:** Contribution to meeting national and international restoration goals, such as the Paris Agreement and the Decade of Restoration.

5. Caatinga Restoration Network (Recaa)



- **Focus:** Conservation and ecological restoration of the Caatinga biome.
- **Action:** Strengthening, public policy opportunities, spatial planning and monitoring, research and good practices in restoration.



ECUADOR

Some experiences and lessons learned

Challenges and lessons learned

- Ecuador has a National Plan and Strategy for Landscape Restoration and has the support and joint work of various institutions and projects of international cooperation and civil society. Some projects underway are contributed to the governance and articulation required to improve and /or implement these policy tools. Concepts and tools on Integrated Landscape Management and on Sustainable Land Management are being used /developed.
- There is a feeling that the concept of restoration has not yet taken hold and is confused with reforestation. It is a big difference between replenishing the land with useful species and recovering ecosystems values. What is the objective of restoration?
- The restoration works well on projects/pilots scale. But, it is very expensive. Scaling up thousands of hectares of reforestation and maintaining them is not possible. Project scale of 1-25 ha is considered good. The key is to reduce costs.
- There is a need to understand habitats, microhabitats and what type of degradation we are experiencing, not all are equal.
- The interest of local communities is to recover the forest or habitats with native species that have commercial value or are potentially commercial. They want more useful spaces.
- The interest of projects is to recover community lands but integral holistic concepts are not managed. These concepts must continue to be positioned to achieve a holistic understanding of the benefits of restoration in the various dimensions, environmental, social, economic, health and nutrition, of improving income and livelihoods.
- There is funding for ecosystem recovery and biodiversity conservation, but not for monitoring restoration or generating income for communities. Financing may not be compatible with desires.



Challenges and lessons learned

- It is a jump-start, catalyzing the recovery.
- There is more interest in productive landscapes, the conservation landscape is seen as a conflict. The community want more useful spaces.
- That is why it is necessary to prioritize the sites where work will be done.
- Reducing human impact to the maximum. Mining areas leave no soil, to change that takes years. E.g. alluvial gold mining upper Nangaritza Ecuadorian Amazon
- Thinking about species that allow for cost reduction and are suitable for recovering soils, colonizing, for protecting water sources, riverbeds, like Bamboo. The impact that mining companies generate is very large in the change of riverbeds. The concept of riparian zones must be raised.
- In many regions there are no seedlings of the species that are needed. There are no nursery networks.
- More work is required at the level of nurseries. It is an opportunity to generate local nurseries, for the collection of seeds. This generates income for the communities and specially for women. More work is needed on gender issues: women empowerment; rights and, access and benefit sharing, intersectionality,
- In Peru there are test plots, that some species work better than others, for the recovery of trees; they have selected the top ones.
- Good and bad experiences should be shared. Information on project results and data should be shared.
- Interview about restoration project with bamboo <https://www.youtube.com/watch?v=uY1DFS12tQs>



COMMON SITUATIONS/FEELINGS AROUND RESTORATION

Different vision-positions

Concepts, scope, advances,
challenges, opportunities,
lessons learned

National Plans/Strategies

National initiatives are linked
or should be linked to the
National Landscape
Restoration Plans or Strategies

Common objectives

Zero expansion of the
agricultural frontier, zero
deforestation



THE FAIRWILD VISION

NATURE

Biodiversity conservation through sustainable use of wild plants

PEOPLE

Respect for and fair treatment of collectors to empower communities and offer dignified livelihoods

BUSINESS

Transparent, traceable, and sustainably managed supply chains; resilient businesses

A world where biodiversity, people, and business thrive together through a positive symbiotic relationship wherein everyone has a role to play and can contribute.

“Preserving the land as it is and ensuring there is a sustainable wild harvesting is probably the best conservation tool you can use to ensure biodiversity conservation in the long term” Anastasiya Timoshyna, TRAFFIC

FAIRWILD is the most effective mechanism for providing assurance to all stakeholders regarding the quality of products from the wild and their traceable origins, as well as their positive environmental and social impact.



WHERE ARE OUR COLLECTORS?

26 countries with landscapes under FairWild-certified harvest management



- 1 NO POVERTY
- 3 GOOD HEALTH AND WELL-BEING
- 5 GENDER EQUALITY
- 8 DECENT WORK AND ECONOMIC GROWTH
- 10 REDUCED INEQUALITIES

With the revision of the FairWild Standard to version 3.0, FairWild is inclusive of a broader range of land-use / collection scenarios, including restoration and rewilding projects. The FairWild Standard and certification system is hence a valuable certification framework for certifying sustainable use of restored landscapes.

FairWild Foundation is a partner of TRAFFIC on the project to develop guidance materials for restoration practitioners on how to integrate sustainable use in their restoration projects, and FairWild materials are being integrated into the e-learning resource and toolkit in development. See more information in: [Enhancing Restoration by Sustainable Use | Endangered Landscapes & Seascapes Programme \(Cambridge Endangered Conservation Initiative – CCI\)](#)

See FairWild's impact report: https://static1.squarespace.com/static/5bec424b297114f64cb908d8/t/6696a35c92271e77550d9d3b/1721148265768/FW_IMPACT+REPORT+2023_60339055.pdf



THANK YOU

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