Cultivating Just Resilience



Photo: Government of Paraná

Shared management of the Metropolitan State Forest of Paraná

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A compilation of good practices and lessons learned to bring innovative subnational solutions to global problems

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Introduction

Ecosystem and biodiversity conservation has become a global challenge, especially in contexts where development pressure and environmental degradation affect protected areas. Ensuring the resilience of these territories involves not only ecological strategies, but also an inclusive approach that integrates local communities in their management. In this regard, indigenous peoples have proven to be key allies in protecting nature, providing ancestral knowledge and sustainable practices. As governance models evolve, shared management emerges as an innovative solution to balance environmental preservation with the recognition of indigenous peoples' territorial and cultural rights.

Project summary

The shared management initiative of the Metropolitan State Forest of Paraná in Brazil establishes a pioneering model of co-management between the Instituto Água e Terra (IAT) and the local indigenous community. Formalised in 2022, this agreement allows 35 indigenous people to remain in the conservation unit, guaranteeing their right to use the territory under a sustainable management plan. Activities include reforestation with native species, environmental education, responsible tourism and community policing. This approach strengthens ecological and social resilience, promoting the conservation of the Atlantic Forest biome while valuing indigenous culture and traditional knowledge.

Key information

Location: Paraná, Brazil

Focus areas: Just resilience; protected areas; sustainable tourism

Created in: 2021

Sustainable Development Goals addressed:

SDG 10, 13, 15 and 17

Kunming-Montreal Global Biodiversity Framework targets addressed:

Targets 1, 2 and 3, 10, 11 and 22

Special Collection

This case study is part of a special collection developed within the framework of Regions4's work on Subnational Just Resilience, with the support of the Government of Scotland. Its objective is to identify, highlight, and analyze experiences led by regional governments in the Global South that exemplify approaches and actions integrating environmental sustainability with social and/or economic justice. Each case is analyzed based on Just Resilience criteria (available here).

Just Resilience criteria addressed:

1.1.1.; 1.1.2.; 1.1.3.; 1.1.5.; 1.2.1.; 2.1.2.; 2.1.3.; 2.1.4.; 2.1.5.; 2.2.1.; 2.2.4.; 3.1.3.; 3.2.3.; 4.1.2.; 4.1.3.; 4.1.4.; 4.2.1.; 4.2.3.; 5.1.1.; 5.1.2.; 5.1.3.; 5.2.1.; 5.2.3.; 5.2.4.

Author

Regions4, in partnership with the Government of Paraná and with the support of the Scottish Government

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BACKGROUND AND CONTEXT:

Origins and historical characteristics of the territory

The Floresta Estadual Metropolitana (Metropolitan State Forest) was established as a sustainable use conservation unit in 1988, in an area originally covering approximately 455 hectares, which over time has been adjusted through state decrees to a current size of 409.65 hectares. This territory, located in the city of Piraquara (Paraná, Brazil), is characterised by a combination of landscapes: It has natural fields, pioneer species that affect the river system and fragments of forest made up of emblematic species such as the genus Araucaria.



Photo: Roberto Dziura Jr/AEN

These characteristics not only make it valuable from an ecological point of view, but also position it as an enclave of great importance for research and monitoring of natural regeneration processes in ecosystems altered by human activity.

In the past, dating back to the 1950s, part of the area was affected by the installation of commercial plantations of exotic species, mainly pine and eucalyptus. These plantations, initially conceived to provide timber for the maintenance of the railway infrastructure – the line connecting Curitiba to Paranaguá – significantly transformed the composition of the natural landscape. Over time, a lack of management of these plantations reduced their value from an ecological point of view, highlighting the need to recover and restore the remnants of native flora.

Indigenous communities and the shared management model

The Kaingang community's connection to this area dates back to 2009, when Kretã Kaingang, then coordinator of the Articulação dos Povos Indígenas da Região Sul (Arpin-Sul), submitted a formal request to occupy the land. The community cited an ancestral link and connection to these lands. However, the lack of legal backing prevented this initiative from materialising at the time.

Over the next ten years, the indigenous movement continued its struggle to have their right to territory recognised, arguing the importance of indigenous management for biodiversity protection and cultural revitalisation. Finally, the State Government approved the creation of an indigenous culture training centre in the requested area, the Instituto e Centro de Formação Etno Bio Diverso Ângelo Kretã.



Photo: Government of Paraná

KEY ACTIVITIES AND INNOVATIONS

Shared management: A pioneering model in Brazil

A turning point in the history of the Metropolitan State Forest occurred in 2022, when a shared management commitment agreement was signed between the IAT, part of the Secretariat for Sustainable Development of the State of Paraná (Sedest), and an indigenous group represented by the Instituto e Centro de Formação Etno Bio Diverso Ângelo Kretã. This agreement, innovative at the national level, allowed 35 indigenous people from ethnic groups such as the Kaingang, Guarani Ñandeva, Tukano and Terena (10 families in total) to live within the conservation unit, guaranteeing their permanence and authorising the use of exotic wood (mainly pine) for the construction of their houses.

The agreement was formalised on 19 April 2022, with the signature of Governor Carlos Massa Ratinho Junior, in an event that coincided with the celebration of Indigenous Peoples' Day. The State Council of Indigenous Peoples of Paraná was also established that day, reinforcing the State's commitment to cultural and environmental preservation. Although made official in 2022, the agreement started to be implemented in April 2021.

The active participation of indigenous peoples, who bring their traditional practices and worldview of the territory, has transformed the way in which conservation challenges are addressed. In addition, the signing of the shared management commitment agreement has been key to institutionalising indigenous participation in the territory's administration. This agreement:

Guarantees permanence and use rights: Indigenous families are assured of their right to remain in the territory as long as the management plan established by the IAT is respected, which in turn generates an environment of trust and reciprocity between the State and the communities.

Establishes shared responsibilities: The agreement clearly defines the responsibilities of each actor involved, ensuring that conservation and restoration actions are carried out in a coordinated manner and with the support of state institutions and international cooperation.



Photo: Government of Paraná

More specifically, the agreement aims to share management responsibilities for the conservation unit in terms of public use of the site, providing the opportunity to disseminate environmental education from the perspective of the indigenous peoples' knowledge of the land. It also aims to preserve the area by protecting it from encroachment, poaching and forest fires; reforesting it with indigenous trees; conserving and restoring the Atlantic Forest biome, and welcoming tourists wishing to visit the area.





Photo: Government of Paraná

Under the agreement, the IAT guarantees all technical support, including maintenance of the public equipment installed in the Metropolitan State Forest. The Instituto e Centro de Formação Etno Bio Diverso Ângelo Kretã undertakes to respect the conservation unit's management plan and to request authorisation from the environmental body before carrying out any intervention in the conservation unit.

It should be noted that the agreement does not envisage financial transfers, but rather a co-management approach based on traditional knowledge and state support.

Since the signing of the agreement, several actions have been carried out to strengthen conservation and the participation of the indigenous community in the management of the territory.



Photo: Government of Paraná



A model for the future

The success of this shared management has been recognised as an example to be followed in other conservation units in the State. Currently, the Parque do Mate, in Campo Largo, is considered an ideal candidate for replicating this experience.

Social and cultural significance in the context of conservation

The shared management model in Paraná goes beyond a simple conservation strategy; it is a process of revaluing indigenous identity and culture, in which ancestral knowledge plays a central role. According to IAT experts, this model not only strengthens environmental conservation, but also allows for historical reparation by recognising the role of indigenous peoples in the sustainable management of the territory. The recognition and inclusion of indigenous communities in decision-making on territorial management has allowed the creation of a participatory and equitable governance model, in which each actor has a role and an active voice. This approach not only improves the effectiveness of conservation actions, but also contributes to social cohesion and the strengthening of cultural identity.

Challenges and opportunities in the framework of shared management

Despite the progress made, shared management in the Metropolitan State Forest faces significant challenges. Pressure from illegal activities, such as poaching and other environmental crimes, remains a constant threat to the integrity of the territory. However, the active presence of indigenous people and the implementation of regular patrols have proven to be effective measures to deter and reduce such activities.

Another important challenge lies in the need to balance social, economic and environmental demands. The use of exotic species for construction purposes, although it has become a sustainable practice within the framework of shared management, must be carefully managed to avoid the proliferation of these species in critical areas. Likewise, the promotion of sustainable tourism requires appropriate management to ensure that the flow of visitors does not negatively impact the quality of the natural environment and the daily life of local communities.



Photo: Roberto Dziura Jr./AEN

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How does the project promote just resilience in the territory?

We define Subnational Just Resilience as a conceptual and operational framework that enables the development of climate and ecosystem adaptation and transformation strategies in the face of environmental and climate shocks in an equitable and inclusive manner. Based on the principles of environmental justice, community participation and multi-level governance, just resilience seeks to ensure that climate and biodiversity responses not only integrate the needs and capacities of the most vulnerable communities, but also address the root causes of vulnerability, such as poverty, discrimination and lack of access to resources, by creating just, inclusive and sustainable solutions.

Checklist of principles and criteria for Just Resilience available here

1. Social Equity and Inclusion

Does the action specifically address the needs of communities? Are attempts being made to reduce existing inequalities rather than reinforce them? **Criteria adressed: 1.1.1.; 1.1.2.; 1.1.3.; 1.1.5.; 1.2.1.**

The initiative responds to the principle of equity and inclusion by recognising and guaranteeing the permanence of the indigenous community in the conservation unit. The participation of the Kaingang, Guarani Ñandeva, Tukano and Terena peoples in land management and activities such as environmental education, community monitoring and ecological restoration is a significant step forward in the integration of historically marginalised groups.

2. Participatory Governance and Decision-Making

Did the affected population participate meaningfully in the decision-making process? Are the governance structures transparent and accountable? **Criteria adressed:: 2.1.2.; 2.1.3.; 2.1.4.; 2.1.5.; 2.2.1.; 2.2.4.**

The shared management model is an important advance in participatory governance, as the indigenous community has an active role in decision-making. The shared management commitment agreement establishes clear responsibilities and recognises traditional knowledge as a fundamental pillar for the conservation of the Atlantic Forest.

The creation of the State Council of Indigenous Peoples of Paraná in the same period reinforces the institutionalisation of indigenous participation in environmental decision-making.

3. Fair Distribution of Resources

Are funding mechanisms accessible to all communities, including those with fewer resources, and does the action prevent financial burdens falling disproportionately on disadvantaged groups? **Criteria adressed: 3.1.3.; 3.2.3.**

The project does not envisage financial transfers, but bases its model on co-management and recognition of indigenous knowledge. Productive initiatives such as reforestation with native species and beekeeping have been developed through the Poliniza Paraná Project, generating sustainable economic opportunities.

4. Intergenerational and Transformational Justice

Does the action consider the long-term impacts on future generations? Is there a strategy for sustaining resilience over time? **Criteria adressed: 4.1.2.; 4.1.3.; 4.1.4.; 4.2.1.; 4.2.3.**

The shared management model allows traditional knowledge to be transferred from generation to generation through environmental education and sustainable management practices. The indigenous community has incorporated activities such as guided tours and workshops for students, ensuring that new generations learn about and value the harmonious relationship between indigenous peoples and nature.

5. Social, Economic, and Ecological Sustainability

¿Promueve la acción prácticas medioambientales sostenibles al tiempo que aborda la resiliencia? En la medida de lo posible, ¿se da Does the action promote sustainable environmental practices while addressing resilience? Where possible, is priority given to nature-based solutions? **Criteria adressed: 5.1.1.; 5.1.2.; 5.1.3.; 5.2.1.; 5.2.3.; 5.2.4.**

The initiative prioritises ecosystem restoration through reforestation with native species and community environmental monitoring. The sustainable use of the territory by the indigenous community strengthens the conservation of the Atlantic Forest and allows the recovery of ecological corridors.

Responsible tourism and beekeeping are strategies that combine environmental conservation with income generation for the community.



Foto: Gobierno de Paraná

FOR MORE INFORMATION

To learn more about this project, contact us by email at info@regions4.org to schedule an informational meeting, clarify your questions, and receive support for the implementation of similar projects.

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ABOUT REGIONS4

Regions4 (formerly known as nrg4SD) is a global network that exclusively represents regional governments (states, regions, and provinces) in UN processes, European Union initiatives, and global discussions on climate change, biodiversity, and sustainable development. Regions4 was established in 2002 at the World Summit in Johannesburg and currently represents more than 40 members from 20 countries across 4 continents. Through advocacy, cooperation, and capacity building, Regions4 empowers regional governments to accelerate global action.

For more information, visit: www.regions4.org
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