

RESERVAS PARTICULARES DO PATRIMÔNIO NATURAL

Panorama of Private Conservation in Chapada dos Veadeiros: Assessment of the Private Natural Heritage Reserves (RPPNs)

1. INTRODUCTION

The Private Natural Heritage Reserves (RPPNs) represent one of the most important instruments of Brazil's national policy for biodiversity conservation on private lands. Established in 1990 through Federal Decree No. 98.914, later incorporated into Law No. 9.985/2000, which created the National System of Conservation Units (SNUC), and regulated by Decree No. 5.746/2006, RPPNs are privately owned areas officially recognized by the government for the relevance of their environmental attributes, with landowners committing to the perpetual conservation of the ecosystems present within them. By reconciling private property with public interest, this model has proven to be an essential pillar of the National Biodiversity Strategy and Action Plan (NBSAP), contributing to the international targets established by the Convention on Biological Diversity (CBD) and the Sustainable Development Goals (SDGs), especially SDG 15 – Life on Land.

In the context of the Cerrado biome—Brazil's second largest and recognized as one of the world's biodiversity hotspots—RPPNs play an important role in protecting areas that complement public conservation units. They harbor springs, threatened species, and cultural heritage while forming ecological corridors. The Chapada dos Veadeiros region (Goiás) stands out as a leading example of private conservation in the Cerrado, bringing together a significant concentration of reserves that act in coordination, enhancing landscape connectivity and strengthening territorial biodiversity conservation strategies.

Funatura, with support from the Critical Ecosystem Partnership Fund (CEPF) and the International Institute of Education of Brazil (IEB), within the scope of the project Strengthening RPPNs in Chapada dos Veadeiros, conducted an assessment of the region's

RPPNs, covering basic data on the units and the profile of their landowners. This document aims to provide a quantitative and qualitative overview to support strategic planning and decision-making by partner institutions, landowner networks, and management agencies, contributing to the strengthening of private conservation in the Cerrado.

2. OVERVIEW OF RPPNS IN CHAPADA DOS VEADEIROS

The Chapada dos Veadeiros Microregion covers a total area of 21,337.58 km² and has 62,656 inhabitants distributed across eight municipalities. Of the total population, 67.21% live in urban areas and 32.79% in rural areas¹. Goiás is the fifth Brazilian state with the highest number of RPPNs² and the largest total area protected by RPPNs. The Chapada dos Veadeiros region, which contains the highest concentration of RPPNs in the state, comprises approximately 42.14% of the reserves, currently totaling 121 units and 45,548.03 hectares. In terms of protected area, the Chapada accounts for 59.27% of the state's total extent.

The consolidated assessment, updated to August 2025, indicates the existence of 51 officially established RPPNs in the region, totaling 26,997.67 ha of protected Cerrado, and an additional eight reserves in the process of creation. These reserves, distributed across five municipalities (Alto Paraíso de Goiás, Cavalcante, Colinas do Sul, São João d'Aliança, and Teresina de Goiás), reflect the continued expansion of private conservation in the territory, driven by public policies, civil society incentives, and the direct engagement of rural landowners.

RPPNs vary widely in size. Among the largest are RPPN Fazenda Campo Alegre (7,500.82 ha), the region's first reserve, created in 1994, and RPPN Reserva Natural Serra do Tombador (8,730.45 ha), created in 2009, followed by a set of areas above 1,000 hectares (e.g., Parque do Capetinga, Flor do Cerrado, Flor do Cerrado III, Avá-Canoeiro, and Cara Preta, the latter with 971.38 ha). At the opposite

¹ "Economic, social, and educational studies and research on the microregions of the State of Goiás – Chapada dos Veadeiros Microregion." MEC/IFG, 2014. Available at: https://www.ifg.edu.br/attachments/article/493/microrregiao_chapada_dos_veadeiros.pdf

² Lima, Priscylla C. A. de; Franco, José Luiz A. "Private Natural Heritage Reserves (RPPNs) as a strategy for biodiversity conservation: The case of Chapada dos Veadeiros." Soc. & Nat., Uberlândia, 26(1): 113–125, Jan/Apr 2014

extreme, very small units include Varanda da Serra (1.43 ha), Acauã (1.70 ha), and Biorregional (2.50 ha). The difference between the largest and smallest reserve is 8,729.02 ha, highlighting the strong heterogeneity in the size of private protected areas.

From the standpoint of central tendency, the average size per RPPN is approximately 529.36 ha, while the median is 60.00 ha. The large difference between the mean and the median indicates an asymmetric distribution, pulled upward by a few very large reserves. In terms of size classes, about six RPPNs equal to or larger than 1,000 ha account for just over 80% of the total RPPN area in the Chapada; medium-sized units (100 to < 1,000 ha) represent a smaller share, and most reserves are under 100 ha, forming the broadest numerical base.

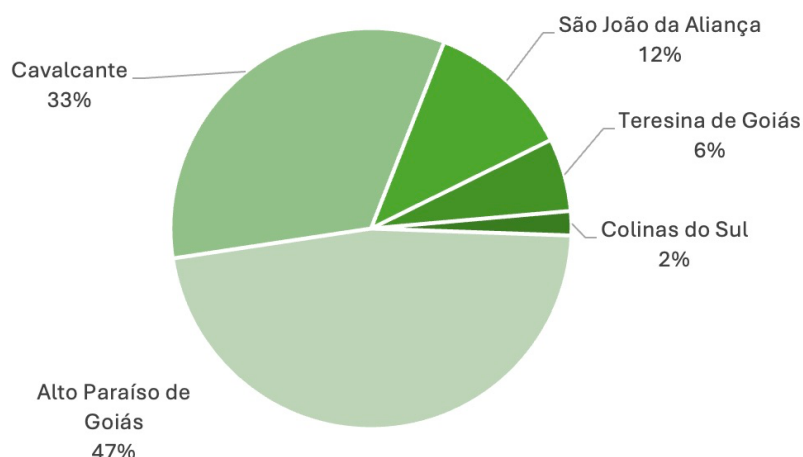
This configuration has notable ecological and management implications. Larger reserves act as “core areas” capable of maintaining ecological processes at landscape scale and hosting mosaics of Cerrado vegetation types. Smaller units, meanwhile, are strategic for connectivity, protection of springs, veredas, and microhabitats, and may serve as buffers between natural areas and productive land-use matrices.

Within the national context of RPPNs across Brazil, Chapada dos Veadeiros represents 2.68% of consolidated reserves (1,902) and accounts for 26,997.67 ha, equivalent to 3.22% of the approximately 837,000 hectares protected in the country. Overall, these indicators reinforce the strategic role of Chapada dos Veadeiros as an epicenter of private conservation in the Cerrado, with large reserves and high ecological connectivity enhancing the effectiveness of biodiversity protection and the maintenance of ecological processes at landscape scale.

3. TERRITORIAL DISTRIBUTION AND STRATEGIC IMPORTANCE

The territorial distribution of RPPNs in Chapada dos Veadeiros is strongly concentrated in Alto Paraíso de Goiás and Cavalcante, which together account for 24 and 17 units respectively, followed by São João d’Aliança (6), Teresina de Goiás (3), and Colinas do Sul (1). This forms an axis of municipalities that supports the majority of RPPN-based conservation in the region. The following figure shows the percentage distribution of the reserves by municipality.

Distribution of RPPNs by Municipality



Source: Funatura (agosto/2025)

In terms of the distribution of RPPN areas by municipality in Chapada dos Veadeiros, there is a strong concentration in Alto Paraíso de Goiás, with 13,235.14 ha (about 49.0% of the total), followed by Cavalcante, with 10,801.12 ha (approximately 40.0%), and São João d'Aliança, with 2,582.81 ha (9.6%). Teresina de Goiás and Colinas do Sul hold only residual fractions of 286.40 ha (1.06%) and 92.20 ha (0.34%), respectively.

This arrangement is strategically valuable because the RPPNs function as ecological corridors that connect and protect key Cerrado vegetation types—veredas, gallery forests, and rocky fields—as well as springs, while also reducing edge effects on public protected areas, especially the Chapada dos Veadeiros National Park (PNCV) and the Pouso Alto Environmental Protection Area (APA). In addition, they support high biodiversity and important populations of threatened species, such as the giant anteater (*Myrmecophaga tridactyla*), giant armadillo (*Prionomys maximus*), pampas deer (*Ozotoceros bezoarticus*), and the critically endangered Brazilian merganser (*Mergus octosetaceus*).

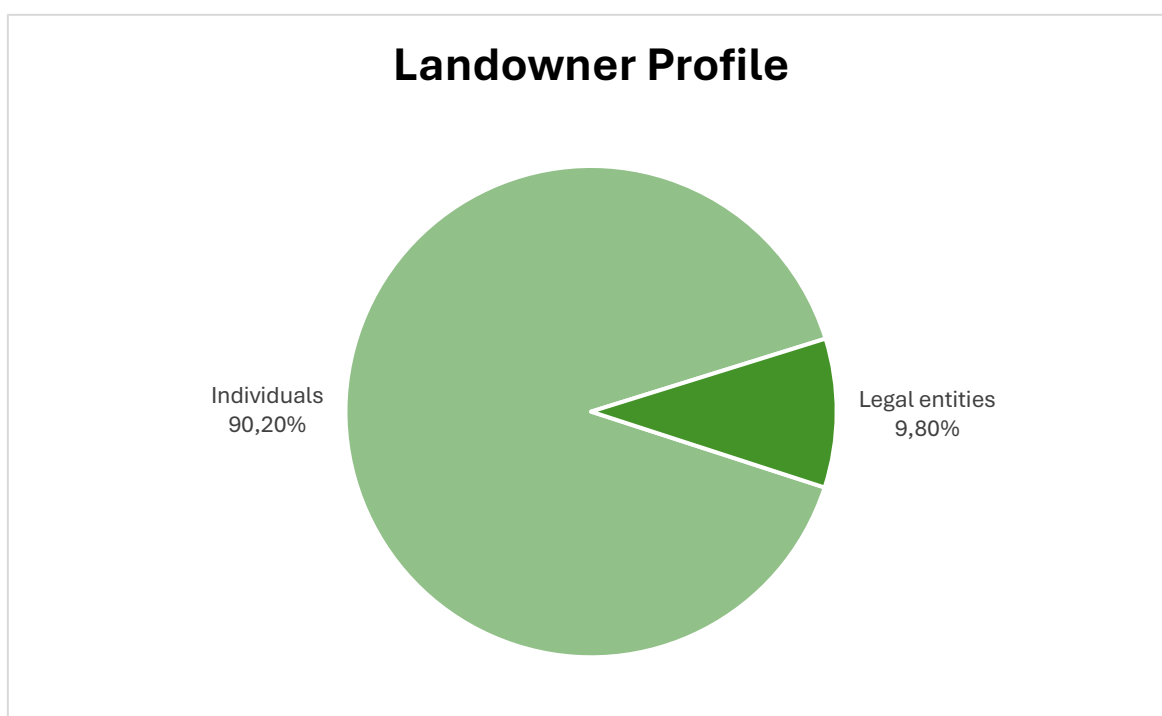
The integration between RPPNs and public conservation units—particularly in the surroundings of the Chapada dos Veadeiros National Park and the Pouso Alto Environmental Protection Area—consolidates the Chapada as a core area for Cerrado conservation. This integration is essential for enhancing habitat connectivity and

strengthening biodiversity, ecosystem services, and water security for the municipalities.

This set of characteristics reinforces the strategic value of RPPNs not only as conservation areas, but also as “living laboratories” for scientific research and environmental education, as well as hubs for responsible ecotourism and the appreciation of the region’s natural heritage.

4. LANDOWNER PROFILE AND GOVERNANCE MODELS

The assessment shows that most RPPNs in the Chapada dos Veadeiros region are privately owned by individuals (46 reserves), highlighting the strongly voluntary nature of private conservation. Only five reserves are owned by legal entities. Proportionally, this represents approximately 90.20% for individuals (46/51) and 9.80% for organizations (5/51). This confirms the predominance of individual landowners in RPPN governance, while institutions—associations, institutes, and other entities—represent a smaller but strategic portion for expanding this conservation category.



Source: Funatura (agosto/2025)

Although fewer in number, reserves owned by legal entities tend to anchor important institutional capacities, such as fundraising,

technical teams, and the continuity of long-term projects. Examples include Fundação Grupo Boticário (RPPN Serra do Tombador, in Cavalcante), Associação Ecológica Alto Paraíso (RPPN Fazenda Campo Alegre), Instituto Xamanismo Ancestral Sétimo Universo (RPPN Flor do Cerrado), Sociedade Civil Vale da Esperança Ltda. (RPPN Flor do Cerrado III), and IBC – Instituto Biorregional do Cerrado (RPPN Biorregional and RPPN Murundu), all of which have a strong presence in Alto Paraíso de Goiás and Cavalcante.

In terms of area, RPPNs owned by legal entities total 17,818.07 ha, which corresponds to approximately 66.04% of the total area analyzed (26,997.67 ha), while those owned by individuals cover 9,179.60 ha (33.96%). In other words, RPPNs under legal entities encompass nearly twice as much protected private area as those owned by individuals, indicating larger and more continuous units, whereas individually owned reserves distribute a smaller portion of the total area across numerous smaller properties.

5. LAND TENURE AND ENVIRONMENTAL REGULARIZATION

Land tenure and cadastral regularization are essential for consolidating RPPNs, since official recognition may occur at either the federal level (ICMBio) or the state level (state environmental agencies). In Chapada dos Veadeiros, 46 RPPNs (88.5%) are recognized by ICMBio and 6 (11.5%) by Semad/GO, revealing the predominance of federal recognition. This asymmetry is due mainly to the influence of the Chapada dos Veadeiros National Park (PNCV). Although fewer in number, state-level designations serve as an important strategy to improve territorial integration in alignment with local management policies and instruments that support synergies between private conservation structures and municipal/state planning for the expansion and strengthening of the private conservation network.

Georeferencing is central to the legal security and consolidation of the RPPN instrument. Before the creation of SNUC (Law No. 9.985/2000) and Law No. 10.267/2001, there was no legal requirement for the georeferencing of rural properties, which explains the outstanding issues for some of the older reserves. In the Chapada dos Veadeiros region, 46 of the 51 RPPNs (90.2%) already have official georeferencing, while 5 (9.8%) still do not have their boundaries formally approved. It is important to note that, even among those pending official approval by the federal RPPN

authority (ICMBio), all have already completed the Rural Environmental Registry (CAR), which contributes to cadastral integration and tends to accelerate the formal approval of their boundaries.

As noted earlier, 34 of the 51 reserves already have management plans, while 17 still need to develop them. This indicates that 66.67% comply with the legal requirement mandating that, within five years of the creation of a conservation unit, the reserve must have an approved management plan. Moreover, it is essential that each reserve have such a document, as it serves as the guiding framework for the management of the conservation unit.

Regularization of RPPNs that still lack georeferencing and management plans requires ongoing technical and financial support. Strengthening partnerships with ICMBio and Semad/GO, together with support from initiatives such as the GEF Private Areas program and the Strengthening RPPNs in Chapada dos Veadeiros Project (CEPF/IEB), has been crucial for overcoming technical bottlenecks and ensuring the legal security of these reserves. Thanks to the support of civil society organizations, several RPPNs have advanced in formal recognition and in the approval of their management plans. Maintaining and expanding this interinstitutional collaboration should remain a strategic priority for consolidating the management and conservation effectiveness of these areas.

6. ENVIRONMENTAL FEATURES, BIODIVERSITY, AND ECOSYSTEM SERVICES

The RPPNs in the Chapada dos Veadeiros region are characterized by the presence of typical Cerrado vegetation types, such as open grasslands, veredas, and gallery forests, as well as endemic and threatened fauna and flora species, which indicate environments in good conservation status. Water bodies, springs, and veredas are frequently found, especially in areas that directly contribute to the maintenance of the watercourses feeding the Tocantins, São Miguel, and Preto river basins. The role of these reserves in protecting water resources is extremely important, particularly in light of increasing pressures on the Cerrado caused by agricultural expansion, deforestation, and climate change.

By conserving soils, vegetation, and fauna, RPPNs provide important ecosystem services, such as climate regulation, pollination, nutrient cycling, and the maintenance of functional biodiversity. These benefits extend beyond property boundaries, contributing to regional environmental balance and to the quality of life of surrounding human communities.

Several RPPNs have adopted wildlife monitoring practices using camera traps, generating valuable data on the occurrence and behavior of medium- and large-sized mammals. This information supports adaptive management and helps assess the effectiveness of conservation on private lands. The results reveal the continued presence of species sensitive to fragmentation, indicating high environmental quality and habitat connectivity.

In addition to wildlife monitoring, some reserves have developed research projects in partnership with universities and conservation institutes, addressing topics such as natural regeneration, phytosociology, ecological interactions, and the potential for scientific tourism. Encouraging the use of RPPNs as spaces that foster scientific knowledge is one of the most effective tools for valuing these areas and expanding collaboration between science and environmental management.

7. POTENTIAL FOR EXPANSION AND ECOLOGICAL CONNECTIVITY

The number of RPPNs in the Chapada dos Veadeiros region has been steadily increasing. As noted earlier, this trend is strategic for strengthening ecological corridors, restoring degraded areas, and integrating isolated fragments, especially along the boundaries between the National Park and the Pouso Alto Environmental Protection Area (APA).

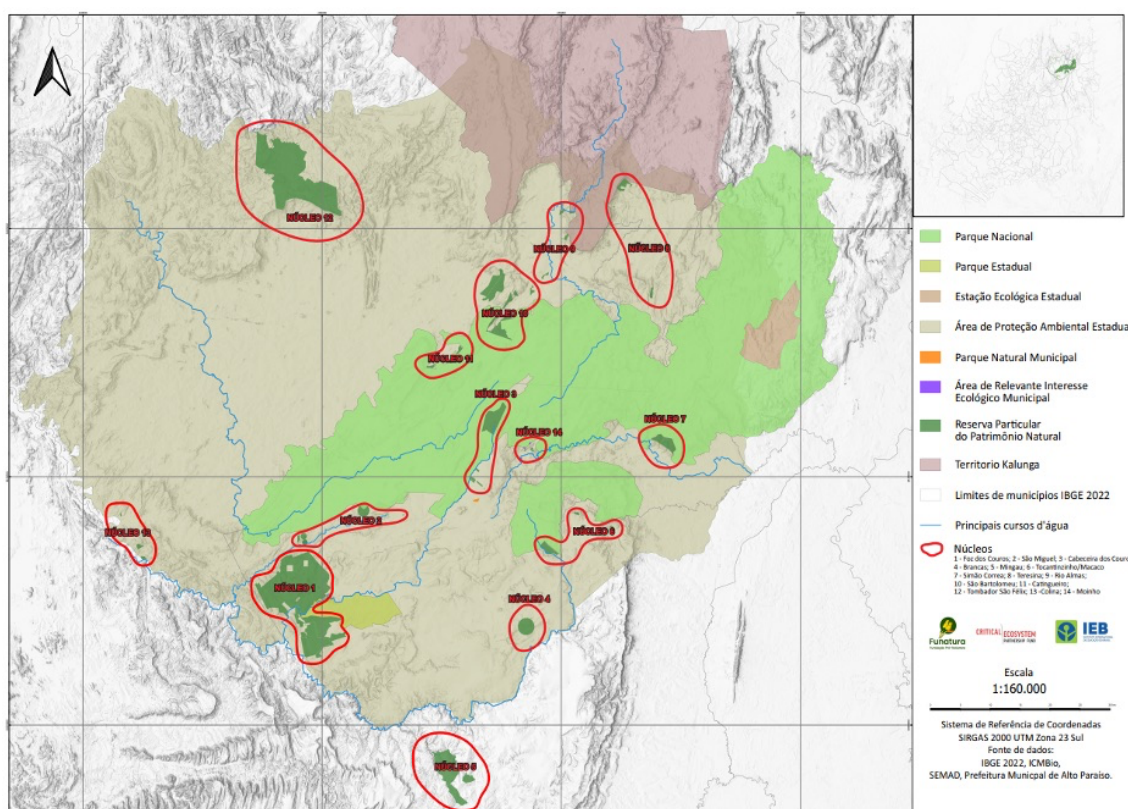
Integrated territorial planning can enable the formation of private conservation mosaics, connecting areas under different protection and sustainable use regimes. This model fosters synergies among conservation, ecotourism, and research, generating long-lasting environmental and social benefits.

The map below illustrates the RPPN clusters in the Chapada dos Veadeiros region, which encompass the Chapada dos Veadeiros National Park, the Águas do Paraíso State Park, the Chapada de

PROJECT TO STRENGTHEN PRIVATE NATURAL HERITAGE RESERVES (RPPNs) IN THE CHAPADA DOS VEADEIROS

Nova Roma Ecological Station, the Pouso Alto Environmental Protection Area (APA), the Lava-pés Municipal Natural Park, the Manhãna Area of Relevant Ecological Interest (ARIE), the Kalunga Quilombola Territory, and the 51 RPPNs. To show the connections among the reserves, they were grouped into 14 clusters, which together form ecological corridors.

RPPN Clusters in the Chapada dos Veadeiros Region



Source: Funatura (agosto/2025)

8. CHALLENGES, NEEDS, AND STRATEGIC RECOMMENDATIONS

Despite the growing number of RPPNs created under the support of legislation and incentive programs, they still face challenges related to land regularization, funding limitations, and governance and communication deficiencies. More broadly, the main barriers that constrain the effectiveness and long-term sustainability of these units in Chapada dos Veadeiros fall into four interrelated dimensions:

1. **Legal-institutional dimension:** includes deficiencies associated with incomplete land and registry regularization, unfinished georeferencing, and the need to develop or update management plans;
2. **Governance and capacity dimension:** refers to gaps in operational and governance capacity for maintaining, overseeing, and monitoring the reserves, as well as limited coordination among landowners;
3. **Financial dimension:** involves difficulties accessing funding opportunities and partnerships, as well as the underuse of economic incentive instruments such as Payments for Environmental Services (PES), Environmental Reserve Quotas (CRA), and carbon and biodiversity credits;
4. **Public use and communication dimension:** relates to the weak structuring of low-impact ecotourism, gaps in environmental education, and the limited institutional visibility of the reserves.

These challenges demonstrate that, although the RPPNs of Chapada dos Veadeiros represent an important environmental asset for the Cerrado, they still require continuous technical, financial, and institutional support to consolidate their management, strengthen networking, and ensure the long-term sustainability of private conservation.

Given this scenario, coordinated actions become essential to address these limitations and ensure the effectiveness of the conservation instrument. These weaknesses point to clear needs for standardized procedures, ongoing technical assistance, strengthened interinstitutional partnerships, capacity-building initiatives, and diversification of revenue sources.

To address these limitations, the following recommendations are proposed:

1. Strengthen the RPPN Landowners' Network of Chapada dos Veadeiros by promoting exchanges and training activities;
2. Implement communication and environmental education campaigns that highlight the role of private reserves;
3. Seek hybrid financing mechanisms that combine public and private resources, including nature credits and PES programs;
4. Encourage low-impact ecotourism that generates income compatible with conservation goals.

These measures may boost the economic sustainability of RPPNs while strengthening their role as a strategic tool for environmental policy and local development.

The analysis conducted for this assessment reveals that only a portion of RPPNs have structured communication channels, such as websites, social media profiles, or outreach materials. This gap hampers engagement with external audiences and reduces the ability to mobilize partners and supporters. Strengthening the visual identity and institutional communication of the reserves is essential for increasing their visibility, attracting volunteers, and promoting public recognition of private conservation initiatives.

The creation of educational materials, low-impact visitation routes, and joint campaigns with other reserves in the Chapada will enhance the potential of RPPNs, integrating them into the region's tourism and cultural dynamics. In addition, transparent communication regarding results, challenges, and best practices will contribute to consolidating the image of RPPNs as spaces of environmental commitment and civic engagement.

9. FINAL CONSIDERATIONS

Based on the information presented, this assessment demonstrates the positive impact of private land conservation in the Cerrado, particularly in Chapada dos Veadeiros, where the integration of science, civil society, and private landowners has generated concrete results for biodiversity protection and for the transition to a more sustainable model for the biome.

The RPPNs analyzed illustrate the transformative power of voluntary landowner engagement in conserving the Cerrado, while also highlighting the need for continued support for regularization, communication, and financial sustainability of these initiatives.

Consolidating this network of private protected areas is an essential step toward meeting national conservation targets and maintaining the ecological and climatic resilience of the Cerrado—a biome that, although threatened, continues to thrive thanks to the efforts of those who have chosen to protect it.

Realization



Funatura

Fundação Pró-Natureza

Support

CRITICAL ECOSYSTEM
PARTNERSHIP FUND



IEB
INSTITUTO INTERNACIONAL
DE EDUCAÇÃO DO BRASIL

CEPF is a joint initiative of l'Agence Française de Développement, Conservation International, the European Union, Fondation Hans Wilsdorf, the Global Environment Facility, the Government of Canada, the Government of Japan and the World Bank. A fundamental goal is to ensure civil society is engaged in biodiversity conservation.

The International Institute of Education of Brazil (IEB) acts as the Regional Implementation Team for the Critical Ecosystem Partnership Fund (CEPF). IEB's mission is to strengthen social actors and their leadership in building a fair and sustainable society through training people, strengthening and coordinating institutions and community groups, and generating and disseminating knowledge.