

reservas
VOTORANTIM

rV23

RESERVAS

PEOPLE

CARBON
PROJECTS

BIODIVERSITY
INITIATIVES

LAND
MANAGEMENT



Opening letter

2023 was a milestone year for Reservas Votorantim. We set the goal of placing the company on the international stage, particularly in the carbon market. The proposal seemed bold at first and it truly was.

However, to be able to go to Climate Week NYC, the largest annual climate event of today, and announce the implementation of PSA Carbonflor in the Atlantic Forest—a groundbreaking methodology for generating carbon credits via Payments for Environmental Services—required much more than boldness; it demanded technical rigor and strong partnerships. The methodology entered the market with an excellent reputation, competing at the highest level after three years of extensive studies to advance the measurement of Environmental Services and meet decarbonization and biodiversity conservation goals through forest conservation. This contributes to climate stability challenges not only in Brazil but globally.

Also in relation to New York, we celebrated the progress of a year since the certification and sale of the first REDD+ project in the Brazilian Cerrado, reaffirming our strength in developing carbon projects while providing an opportunity for the multiple uses of this significant biome that occupies 25% of Brazil's territory.

Parallel to the carbon market, 2023 was also a successful year for ecological rehabilitation, another business front Reservas Votorantim operates in. We developed projects for clients in voluntary reforestation and environmental offsetting. Rehabilitation has progressed and generated new business, driven largely by national environmental agendas and global agreements embedded by Brazilian companies in their ESG objectives and goals. To this segment we presented what we call "A to Z" solutions—tailored to the diverse needs of each rehabilitation project, adding convenience and practicality for our clients in all biomes where there is demand.

Our experience accumulated over a decade in managing conserved areas and multiple land uses has not only boosted other business fronts for Reservas Votorantim—such as Legal Reserve Offsets and bioprospecting—but also spurred new services like consulting. This proves the effectiveness of our operating model, with strategies for developing traditional activities and the new economy, combining biodiversity conservation with business generation, demonstrating the value of standing forests.

With an increasingly robust portfolio of products and services, grounded in solid and responsible governance, in 2023 Reservas Votorantim proved to be one of the leading Brazilian entities specializing in nature-based solutions. We showcased to the world that our role goes beyond being a land manager, possessing the competence and expertise to create innovative solutions that meet our clients' diverse ESG agenda needs.

We are not only spearheading the transformations we want to see in the world, but we are also making it a business, creating solutions for those who also want to be part of the change.



David Canassa,
Executive Director at Reservas Votorantim

Reservas Votorantim Ltda.

Management Board David Canassa, João Schmidt and Mauro Ribeiro Neto

Direction David Canassa

Coordination Cicero de Melo Junior, Marcia Feitosa, Mayara Mira, Kamilla Lopes, Tatiana Motta

Team Aline Taminato, Andrei Pires, Barbara Aquino, Beatriz Rita, Elisângela Coutinho, Felipe Araujo, Fernando França, Marcello Pimentel, Marina Giusti, William Mendes

Writing Laila Rebecca

Editing and review Laila Rebecca, Kamilla Lopes, Karla Fernandes

Translation LATAM Translations

Graphic project and design Rafael Agostinho Estudio

Photos and illustrations Adobe Stock, Laila Rebecca, Luciano Candisani, Panóptica Multimídia, and internal archive

Contents

6 About us
A Brazilian company specializing in land management and nature-based solutions for traditional and green economy businesses.

8 Timeline
Reservas Votorantim's history is marked by significant events that reaffirm its competitiveness and innovation in the green economy market.

10 People
The advancements in Reservas Votorantim's corporate governance and business management structure reflect the growth of the business itself.

14 Business model
Reservas has developed an innovative business model that creates shared value through standing forests.

16 Carbon projects
Reservas Votorantim is spearheading two unprecedented projects in Brazil to combat climate change.

18 PSA Carbonflor
Discover the groundbreaking methodology for generating carbon credits through Payments for Environmental Services in the Atlantic Forest.

20 REDD+ Cerrado
The first REDD+ project in the Brazilian Cerrado, available for the voluntary carbon market.

22 Biodiversity initiatives
Combines the production of native plants with biodiversity conservation, urban landscaping and ecological rehabilitation.

32 Land management
Reservas Votorantim currently manages over 130,000 hectares of conserved natural areas.

34 Legado das Águas
A national benchmark in environmental asset management, with the sustainable use of natural resources and creating shared value.

40 Legado Verdes do Cerrado
A pioneering initiative in Brazil for Cerrado conservation through multiple land use, combining conventional economy businesses with the new economy.

46 Fazenda Bodoquena
Through this territory in Miranda and Corumbá - MS, the Pantanal swamplands join rV's portfolio of new businesses, exploring the application of new carbon projects.

48 Pátio Caeté
This helps bring the Atlantic Forest back to urban centers, serving as a business strategy for Reservas Votorantim in the landscaping market.

50 Um novo horizonte
rV is spearheading the transformations it wants to see in the world and is also making it a business for those who also want to be part of the change.



Reservas Votorantim

Nature-based businesses and solutions

Reservas Votorantim is a Brazilian company specializing in land management and nature-based solutions for traditional and green economy businesses.

Based in São Paulo, the company operates nationwide and is present in three of Brazil's six biomes: Atlantic Forest, Cerrado and Pantanal, managing over 130,000 hectares of conserved areas. The company develops projects, products and services through a business model that values Brazilian biodiversity and adds market value through ESG initiatives.

Stability and innovation

Throughout its history, Votorantim S.A. has acquired land that goes beyond the needs of its enterprises. The company maintains highly conserved forest areas across Brazil, shoring up its commitment to protecting natural resources.

With a proposal for creating social, economic and environmental value, Reservas Votorantim is consolidating its strategy of growth, differentiation and diversification

In 2015, the first step was taken to manage some of these geographies and find nature-based solutions, combining biodiversity conservation and business: the creation of Reservas Votorantim, a developer of green economy projects.

Introduced to the market in 2022, the company now operates with the solidity of a century-old company, experienced in managing conserved areas and multiple land use, developing sustainable businesses in sectors such as carbon credits, Legal Reserves and biodiversity.

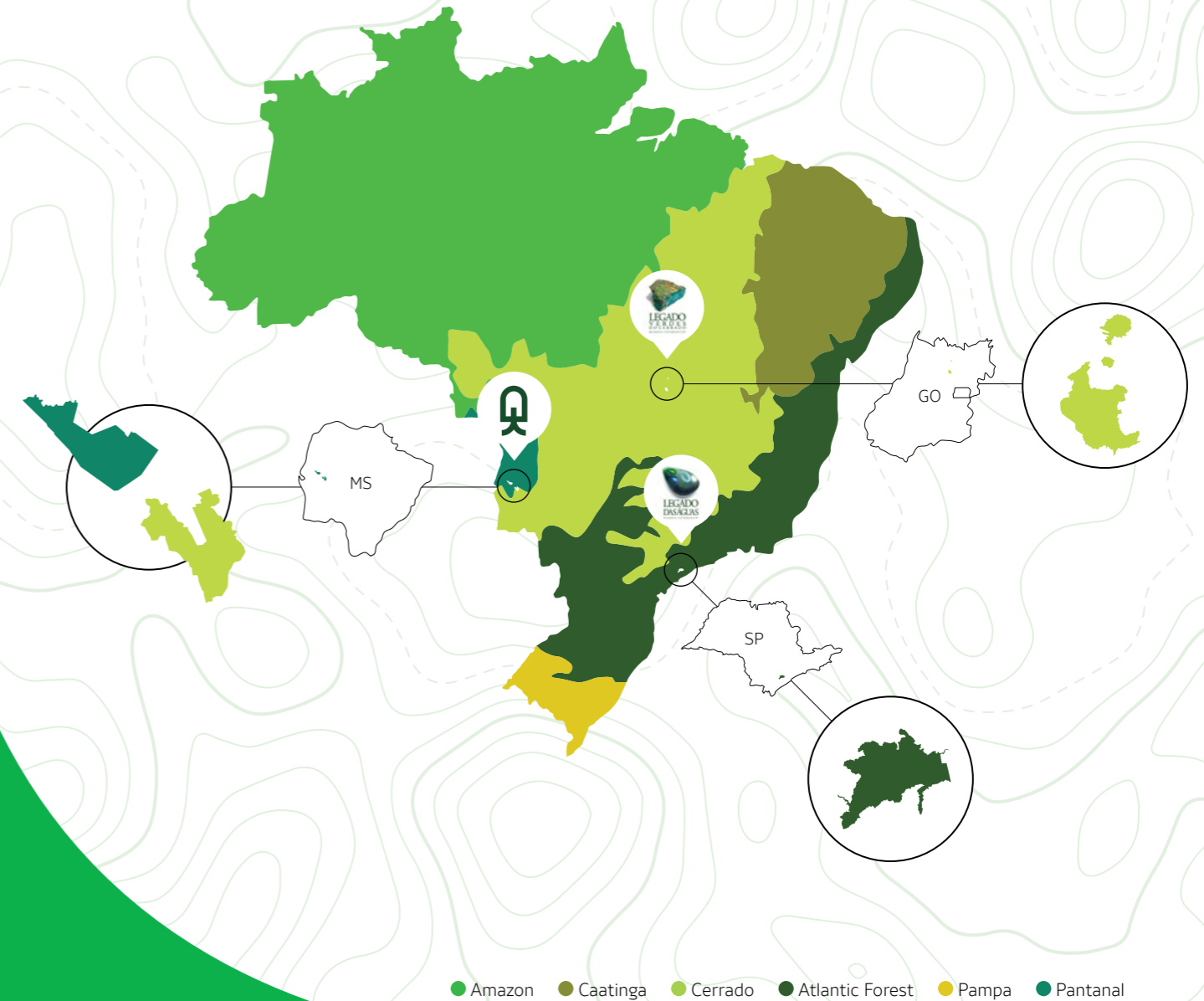
Reservas Votorantim currently manages:

Legado das Águas: The largest private Atlantic Forest reserve in the country, covering 31,000 hectares, founded in 2012 by four Votorantim portfolio companies: CBA - Companhia Brasileira de Alumínio, Nexa, Votorantim Cimentos and Auren.

Legado Verdes do Cerrado: a Private Sustainable Development Reserve of 32,000 hectares that combines traditional and new economy businesses, owned by CBA - Companhia Brasileira de Alumínio, in Niquelândia, Goiás.

Fazenda Bodoquena in Miranda and Corumbá, Mato Grosso do Sul, occupying 74,000 hectares, where Reservas Votorantim is carrying out the conservation and maintenance and enabling environmental services, nature-based solutions, and multiple land use;

Pátio Caeté: a space for selling plants and supplies for avant-garde landscaping, focused on Brazilian biodiversity.



We manage over 130,000 thousand hectares of conserved areas.

We are present in three of Brazil's six biomes: Atlantic Forest, Cerrado and Pantanal.

We boast the stability and expertise of a century-old company.

With over a decade of experience in managing conserved areas and multiple land use, we have consolidated a new business model with nature-based solutions for different economic segments.

We have a robust portfolio of businesses, products and services that generate revenue streams while conserving Brazilian biodiversity.

Historic milestones

Reservas Votorantim's history is marked by milestones events, many of which reaffirm its competitiveness, leadership and innovation in the green economy market. There were milestones aplenty in 2023 in the territories the company manages.



Creation of **Legado das Águas**, the largest private Atlantic Forest reserve in Brazil.

Creation of **Reservas Votorantim**, focused on nature-based solutions.

Inauguration of the **Legado das Águas Biodiversity Center**, the first productive activity of rV's business model.

Creation of **Legado Verdes do Cerrado**, located on property owned by CBA - Companhia Brasileira de Alumínio, in Goiás.

Reservas Votorantim positions itself as a nature-based solutions company for multiple land use and has entered the carbon market with the announcement of **REDD+ Cerrado** and **PSA Carbonflor**.



foto: Elvis Japão

Implementation begins in **Fazenda Bodoquena** of the multiple land use management model in Miranda and Corumbá - MS for green economy businesses like carbon projects.

Reservas Votorantim reformulated the business strategy for the **Environmental Study** program at Legado das Águas, making it one of the main products of the year. The new structure at Legado das Águas prepared the site to host the *Graded School* for four days, accommodating over 100 students.

Completion of the landscaping **project "O Parque"** by real estate developer Gamaro, located in the Brooklin neighborhood of São Paulo, using plants grown at the Legado das Águas Biodiversity Center.

Reservas Votorantim's international expansion; inclusion in two official events at Climate Week NYC, announcing the application of PSA Carbonflor at Legado das Águas, and engaging in various international agendas to showcase rV's contributions to climate change mitigation.

Legado das Águas hosted the **Forest Carbon Immersion** course, a partnership between Reservas Votorantim, Trevisan Escola de Negócios, DC Associados and ECCON Soluções Ambientais.

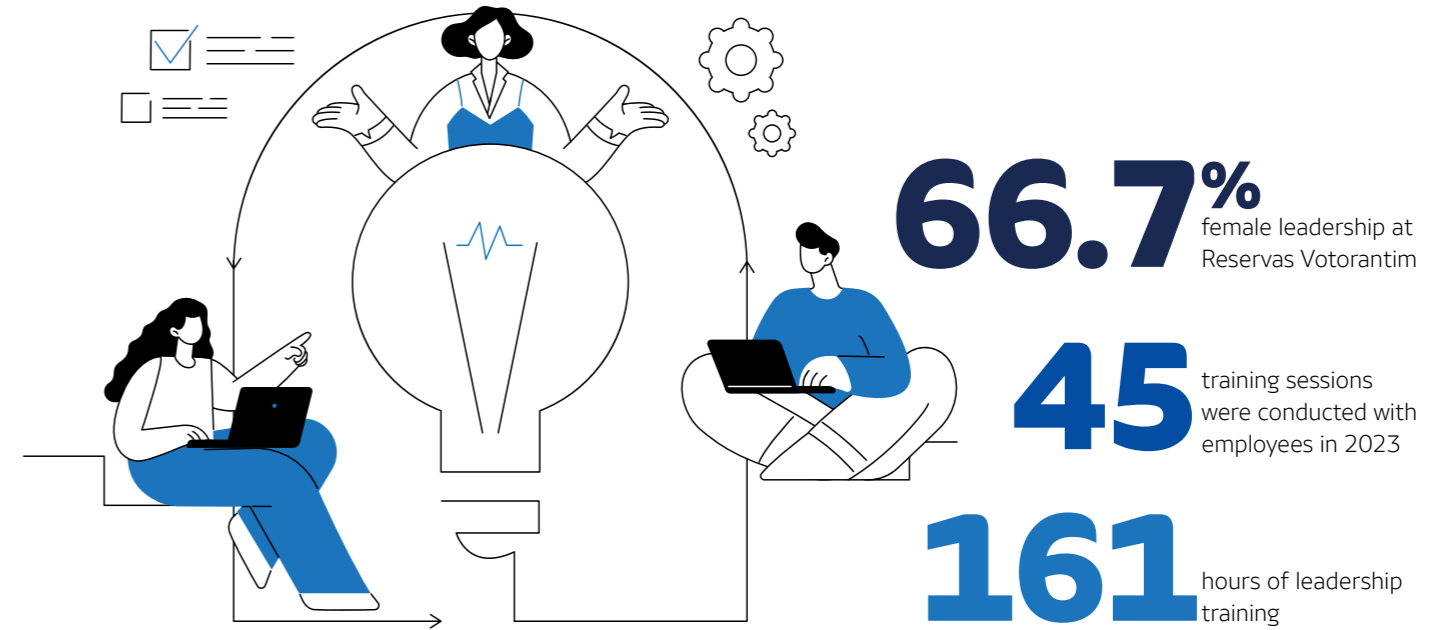
The new public use format implemented by rV at **Legado das Águas** enabled significant events such as October Big Day, a global birdwatching event, which earned Legado the title of the 2nd best birdwatching spot in Brazil.

Guided by Reservas Votorantim's growth strategy, Legado Verdes do Cerrado restructured the **production of native Cerrado species at the Biodiversity Center**, initiating its entry into the landscaping market.

Participation in the 28th United Nations Climate Change Conference (**COP28**).

Throughout the year, three events were held at Legado Verdes do Cerrado with outside groups, advancing the **public use strategy** implemented by rV in the territory.

The Reservas Votorantim Way of Working



The advancements in Reservas Votorantim's corporate governance and business management structure reflect the growth of the company itself. These advancements are guided by the Oversight Board, which remains committed to identifying, discussing and ensuring the dissemination of the company's values and principles. The board makes decisions aligned with the defined strategy, optimizing long-term investment returns with positive social and environmental impacts.

Many of the corporate governance advancements in 2023 were related to business management and human resources results. The good news includes the career development policy, which has been strengthened with more transparent and effective evaluation processes, feedback mechanisms, and clear career plans aimed at upskilling or reskilling. This process also involved extensive leadership training, featuring professionals who are national benchmarks in leader development.

In addition to continuing essential actions such as the Internal Work Accident Prevention Week at Legado das Águas—managed by Reservas Votorantim—in health and safety, mental health was addressed for a month. This aimed to improve and implement recommendations from global organizations to mitigate the long-term impacts of the COVID-19 pandemic.

Furthermore, we continued urging Reservas' technical staff, which grew in 2023, to seek further training, tempted by a benefits package that includes incentives for education and professional training. The focus on people led to a rare achievement in human resources within private initiatives: 100% approval in the climate survey. The result highlighted potential areas for improvement and provided a more effective path for the company to address challenges.

For outside stakeholders, i.e. hiring suppliers, Reservas Votorantim maintained analyses to identify practices incompatible with established policies, thereby forestalling potential cases of non-compliance. The company also strengthened relationships with local suppliers, both in the Legado das Águas region and in Legado Verdes do Cerrado, prioritizing products and services offered in these geographies.

Diversity and gender equity

In 2023, rV reached another significant milestone: the formation of the Diversity and Inclusion Committee, focusing on leadership. At Legado das Águas, the "Race and LGBTQIAPN+ Workshop" was conducted, featuring activities designed to foster inclusive and respectful communication on these topics.

In terms of positive outcomes, Reservas Votorantim maintained competitive gender equity indicators, demonstrating responsibility and commitment to these agendas.

Think globally, act locally

Reservas Votorantim organizes annual events like **Huddles, Technical Meetings and Semear**, in order to share information with civil society, government authorities, researchers and partners. It also participates in various initiatives in its geographies. Reservas Votorantim believes in the importance of maintaining dialog with its stakeholders to share the main results of scientific research, social projects and economic development conducted in its operational territories.

In respect of global sustainable development commitments and agendas, Reservas Votorantim joined the **United Nations Global Compact**, expressing its intention to implement principles regarding human rights, labor, the environment and anti-corruption in its strategy, culture and daily operations. Moreover, all activities in its first managed reserve, Legado das Águas, were aligned with the UN Sustainable Development Goals (SDGs) and since 2021, it has been publishing progress and monitoring reports. **The reports are available on the Legado das Águas website.**



The compliance guidelines practiced by Reservas Votorantim derive from those of Votorantim S.A. and are outlined in the Code of Conduct and Anti-Corruption Policy, which can be seen [here](#).





We are growing, developing and caring for people while epitomizing the "Reservas Votorantim Way"





Businesses and services

The value of standing forests

To meet the increasingly complex demands of the Brazilian and international markets, Reservas Votorantim has defined its core businesses as Land Management, Biodiversity Initiatives and Carbon Projects.

Each core business offers tailored products, services, and solutions to meet diverse needs, affording its clients ease, practicality, quality and innovation.

Reservas Votorantim's business model is based on multiple land use, where conservation and biodiversity enhancement initiatives, such as scientific research and socio-environmental projects, occur alongside sustainable economic activities, such as environmental offsetting and growing plants.

This ensures the maintenance of the land itself and foment new local productive chains, creating shared value for both the company and society.

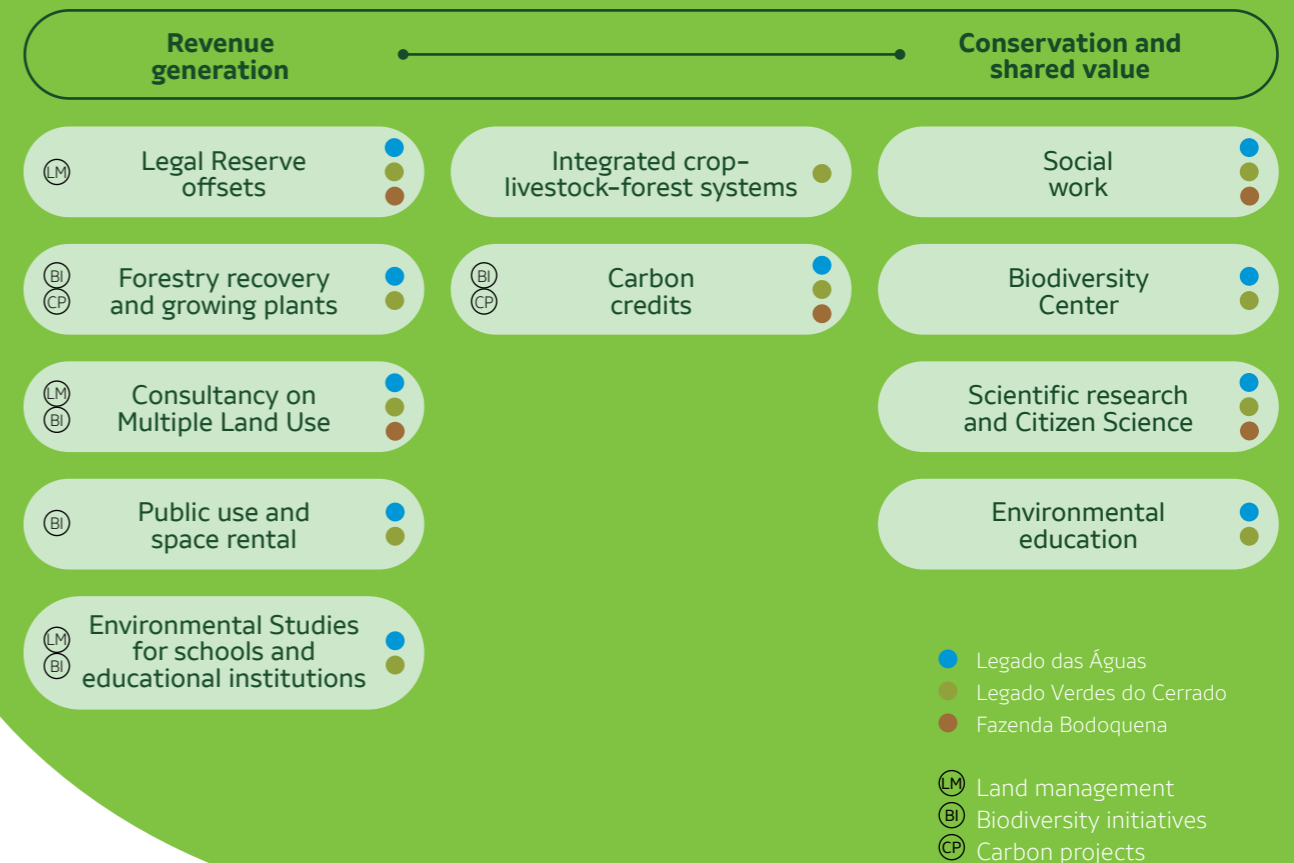
Land management conservation of biodiversity, community development, and creating shared value

Reservas Votorantim manages territories within an innovative green economy model, carrying out activities that conserve biodiversity while generating economic potential. Among these activities are the management of forest reserves, the development of multiple land use strategies and Legal Reserve offsetting.

Biodiversity initiatives unlocking the potential of the forest

rV maps the biodiversity wealth of the reserves it manages through scientific surveys harnessing biotechnology, identifying the forest's potential with support from researchers and universities. It also produces native plant species from the biomes where it operates to offer sustainable solutions for ecological rehabilitation initiatives.

Business model – forest and biodiversity conservation



Carbon projects building viable alternatives for conservation

By entering Brazil's carbon credit market within the context of climate change and decarbonization strategies, Reservas Votorantim is enhancing studies to unlock new biomes and foster innovative methodologies that harness forest protection as a viable alternative for maintaining biodiversity. We conduct studies to identify and value the carbon potential in stock and through sequestration via ecological rehabilitation, generating a viable alternative for maintaining socio-biodiversity.

Reservas Votorantim's portfolio currently includes the implementation of the first REDD+ project in the Brazilian Cerrado and the creation of a groundbreaking methodology for generating carbon credits through Payments for Environmental Services (PES) in the Atlantic Forest.

Learn about our products and services that combine revenue generation with biodiversity conservation on pages 16 to 31.





Blazing a trail in carbon trading

Reservas Votorantim is spearheading two unprecedented projects in Brazil to combat climate change



We implemented the first REDD+ project in the Brazilian Cerrado and launched a groundbreaking methodology for generating carbon credits through Payments for Environmental Services in the Atlantic Forest

The greatest challenge of the century can be summed up in two numbers: 1.5°C. By 2100, it is crucial to prevent the planet's temperature from rising by more than 1.5°C compared to the 19th century, to avoid the most severe effects of climate change. While some countries see this goal as an obstacle, others view it as an opportunity to further their own development based on not only a sustainable economy but also a green and even regenerative one. Brazil is one such country! The country is home to the most biodiverse biomes on earth, and the success of climate change action depends on sustainable management and conservation of forests and their biodiversity.

According to the Ministry of Development, Trade, Industry and Services, Brazil has a potential carbon credit market worth USD 120 billion, which could grow Brazilian GDP by a 5%. Moreover, according to the US consultancy firm McKinsey, Brazil harnesses less than 1% of its annual capacity to generate carbon credits, yet the country holds 15% of the global potential for carbon capture through forests.

In light of this, Reservas Votorantim has been mindful of these demands and sought alternatives to generate carbon credits from conserved forests or by planting new forest areas through ecological rehabilitation.

In 2023, the company enjoyed success in all these endeavors. Reservas Votorantim is spearheading two unprecedented projects in Brazil: the first REDD+ project in the Brazilian Cerrado, which celebrated its first anniversary of certification last year, and PSA Carbonflor, a unique methodology for measuring ecosystem services, including forest carbon, through a Payment for Environmental Services (PES) project.

By entering Brazil's carbon credit market within the context of climate change and decarbonization strategies, Reservas Votorantim is enhancing studies to unlock new biomes and foster innovative methodologies that harness forest protection as a viable alternative for maintaining biodiversity and supporting a low-carbon economy, thus contributing to the challenge of maintaining global climate stability.

PSA Carbonflor

Groundbreaking methodology for generating carbon credits through Payments for Environmental Services in the Atlantic Forest

In partnership with ECCON Soluções Ambientais, Reservas Votorantim led a groundbreaking study to enable payments for environmental services, including carbon, in the Atlantic Forest. Officially launched in September 2023, the methodology provides solutions that make conserving one of the planet's most biodiverse biomes increasingly relevant. It offers an economically viable alternative for companies aiming to enhance their ESG practices.

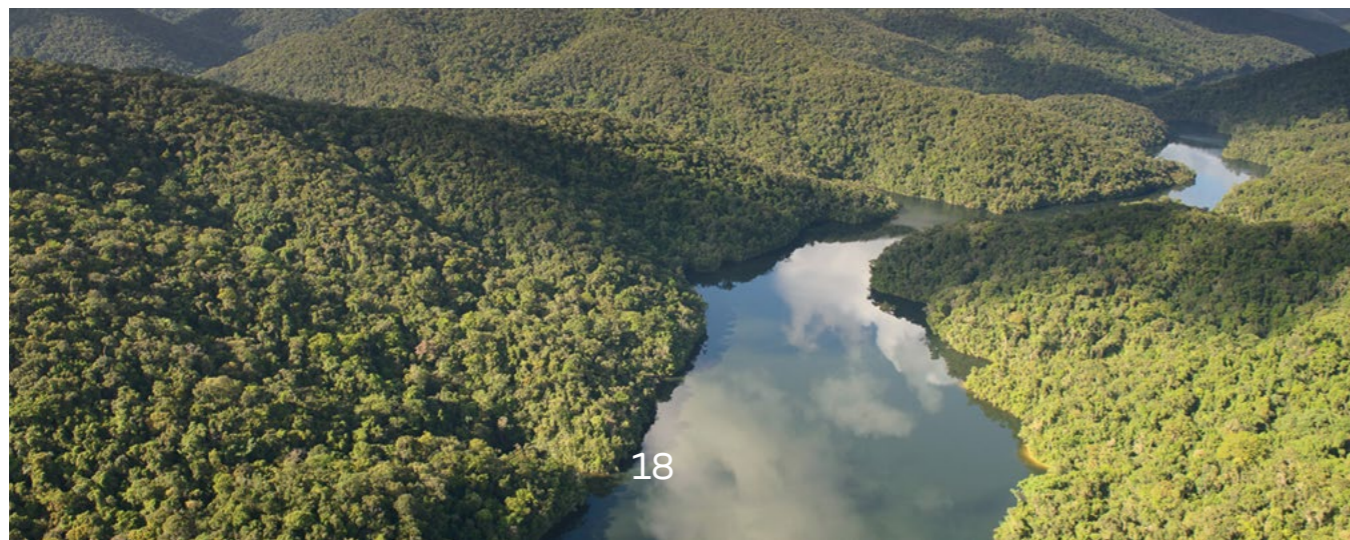
With a pioneering spirit, technical rigor and strong partnerships, Reservas Votorantim is presenting another nature-based solution, creating value through the conservation of standing forests

PSA Carbonflor unlocks new potential for the forest, combining conservation strategies for the biome with voluntary carbon markets. The methodology was evaluated and improved over more than three years, receiving contributions through Public Consultations from Brazilian institutions such as Embrapa and other international experts.

With scientific and technical rigor, ensuring security and reliability, PSA Carbonflor helps advance the carbon market with appropriate standards for the specificities of Brazilian biomes like the Atlantic Forest.

Aligned with the National Payment for Environmental Services Policy, Federal Law 14.119/2021, the methodology emphasizes the value of biodiversity conservation, water supply services, water quality maintenance, and forest connectivity. It creates value by preserving standing forests through the creation and trading of C+ (**carbon plus**) carbon credits.

These C+ credits aim to reward landowners who preserve and maintain their land and ensure its upkeep so that the territory remains biodiverse and healthy over the years, guaranteeing ecosystem services for future generations.



Global launch

The methodology was launched globally in September 2023 during Climate Week NYC, the largest annual climate event, held in New York City, USA. The event drew in representatives from banks and companies to learn about the methodology. This occasion also marked the international expansion of Reservas Votorantim, reaffirming the company's innovative capacity, Brazil's competitiveness in the carbon market and its leadership in climate change mitigation.

Application

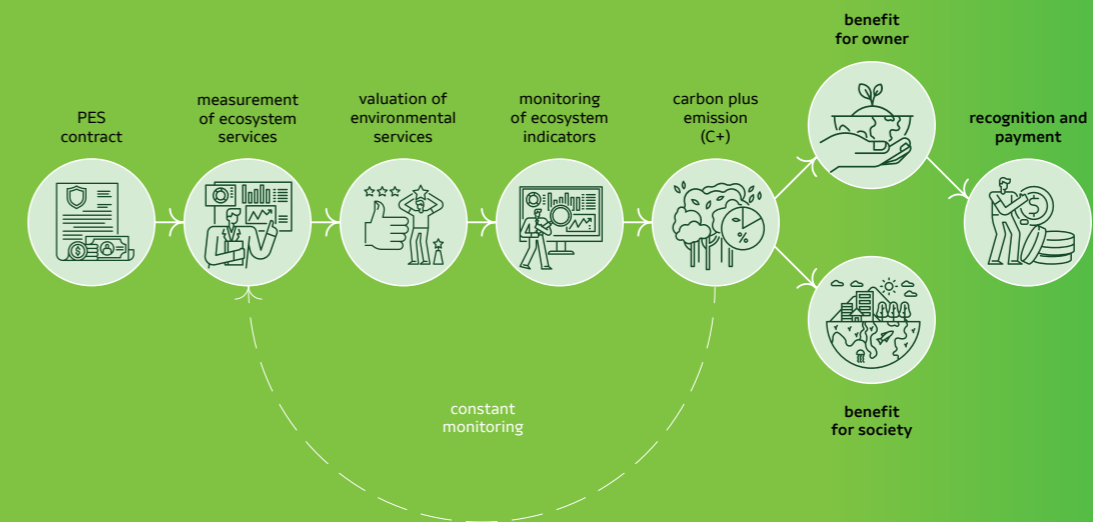
PSA Carbonflor will be applied for the first time in certain areas of native forest within Legado das Águas, the largest private Atlantic Forest reserve in Brazil, managed by Reservas Votorantim.

The calculated potential is to generate 1.7 million "C+" credits over 100 years. In the first issuance, 93,410 credits were generated, which will be directed to the Voluntary Carbon Market, benefiting environmentally and socially responsible enterprises.



The launch of PSA Carbonflor was covered in both national and international media, highlighting the pioneering nature and details of the methodology

PSA Carbonflor Model



Benefits of PSA Carbonflor

- Promoting ESG Initiatives.
- GHG emissions neutralized.
- Climate change mitigation.
- Maintaining native vegetation.
- Water quality.
- Regulating the local microclimate.
- Conserving biodiversity.

The complete methodology is available [here](#).



REDD+ Cerrado

First carbon credit project in the Brazilian Cerrado

How to tap the potential of Brazil's second largest biome without harming it? The answer to part of this challenge came with a new opportunity: REDD+ Cerrado.

In 2023, the certification of the project's credits marked its first year since its market launch. This pioneering initiative in the country stems from a partnership between Reservas Votorantim, CBA - Companhia Brasileira de Alumínio, and the consultancy firms Ecosystem Regeneration Associates (ERA) and ECCON Soluções Ambientais.

REDD+ is the outcome of work developed at Legado Verdes do Cerrado, a 32,000-hectare private sustainable development reserve located in Niquelândia, Goiás. The reserve is owned by CBA and managed by Reservas Votorantim.

The program covers 11,500 hectares of land yielding 50,000 carbon credits per year. The first issuance generated 316,000 carbon credits for the period 2017 to 2021.

In addition to the innovative application and global recognition, the REDD+ Cerrado project stands out for an innovative component among REDD (Reducing Emissions from Deforestation and Forest Degradation) projects,

which aim to ease greenhouse gas (GHG) emissions to prevent deforestation and conserve forest areas. It took over two years of studies to adapt one of the world's most respected methodologies, previously applied only in the Amazon, for use in the Cerrado. The approval of REDD+ Cerrado in this model represents a significant stride forward in consolidating Brazil's position in the international voluntary carbon market.

Apart from the REDD+ methodology, the project is also certified with the CCB Standard (The Climate, Community and Biodiversity), which recognizes and quantifies the socio-environmental benefits of carbon credit projects.

In 2023, we conducted the first sale of REDD+ Cerrado credits, for the sum of R\$ 4.3 million



Positive social and environmental impacts associated with REDD+ Cerrado

- Protecting headwaters and water bodies.
- Protecting rare and endangered species of the Cerrado's wildlife and flora.
- Creating job and income opportunities for local communities.
- Maintaining and growing the largest Cerrado seed bank in Brazil.
- Protecting soil carbon stock.
- Expanding forest firefighting systems.
- Incentives and sponsorship for scientific research on the Cerrado's biodiversity; more than 10 studies have already been conducted.



REDD+ Cerrado credits are available for the voluntary carbon market and for companies aiming to strengthen their ESG goals

The potential of the multiple land use business model

REDD+ Cerrado exemplifies the opportunities of the multiple land use business model, which allows revenue to be derived from the conservation of the biome through green economy businesses, combined with traditional activities.

For the REDD+ Cerrado project, a conserved forest surplus area was utilized, with agricultural production in adjacent areas. The native vegetation surplus area designated for the project is set aside for conservation.

Beyond revenue generation, the REDD+ Cerrado has attributed socio-environmental benefits, including the protection of the country's main watersheds, which helps prevent water crises, especially in the Midwest, North and Northeast regions; the protection of the Cerrado's biodiversity; and the socio-economic development of communities, particularly through job and income creation and gender equity.

Out of the 17 Sustainable Development Goals listed by the UN, 11 are covered by the actions and business fronts of Legado Verdes do Cerrado, which are associated with REDD+ Cerrado credits.

The project is registered with Verra under no. 2465. Check it out [here](#).





Reforestation land

The Biodiversity Centers of Legado das Águas and Legado Verdes do Cerrado are increasingly prepared to be a significant differentiator for Reservas Votorantim's activities in the landscaping and ecological rehabilitation segments



Reservas Votorantim applies a native plant production model in its geographies, where research and the study of best cultivation practices for species become a differentiator, leading to the creation of Biodiversity Centers, which entail much more than mere nurseries. Legado das Águas and Legado Verdes do Cerrado have centers which grow Atlantic Forest and Cerrado species for trading in landscaping and the ecological rehabilitation of degraded areas. The centers have a joint production capacity of 450,000 seedlings per year.

Inaugurated in 2016, the Atlantic Forest Biodiversity Center of Legado das Águas (CBMA) now supplies native plants to São Paulo and the surrounding region, with two major differentiators: digital traceability throughout the production chain, ensuring the quality and legality of the plants, and working with rare and endangered species. The CBMA made significant progress in landscaping production in 2023 by expanding the sale of bromeliads and orchids.

In ecological rehabilitation, 2023 was a milestone for the CBMA with the implementation of two projects: one by Votorantim Cimentos at the Salto de Pirapora and Santa Helena units in the metropolitan region of Sorocaba, SP; and the continuation of a 164-hectare reforestation project in Jurupará State Park, in Ibiúna, SP, which is part of the Springs program run by the São Paulo State Department of Infrastructure and Environment and which

will be carried out in partnership with the NGO Iniciativa Verde. In addition to plants, the CBMA also ran these projects in the field. Legado das Águas' enviable expertise in this segment also resulted in the development of six voluntary rehabilitation projects, with CBMA responsible for all stages, from planning to execution.

Following Reservas Votorantim's strategy, focusing on business growth, the Legado Verdes do Cerrado Biodiversity Center (CBC) took an important step by starting production for landscaping projects. The ornamental plants selected for this segment already have market value, making the production thereof more effective and economically smart.

Both centers are increasingly preparing to be a significant differentiator for Reservas Votorantim's operations in the landscaping and ecological rehabilitation segments, adding reliability, technical quality, reputational value and environmental value to the projects.





Ecological rehabilitation



With comprehensive solutions, ranging from technical expertise to operational capacity for project delivery, Reservas Votorantim's competitiveness in the segment is going from strength to strength

Ecological rehabilitation in the Atlantic Forest has unleashed opportunities for a forest-based economy. In the past three years, it has become evident that rehabilitation has progressed and generated new business, driven largely by national environmental agendas and the progress of global agreements, which have been incorporated by Brazilian companies into their sustainability objectives and goals, whether for legal compliance or voluntary initiatives.

However, it remains a complex segment with regulatory uncertainties for associating voluntary projects with the carbon market and a lack of technical support, among other issues that delay its growth. With its expertise in green economy markets, Reservas Votorantim has accordingly diversified its portfolio over the years to offer what we call "A to Z" solutions, providing all the necessary support and operational capacity for project execution.

Through the Biodiversity Center of Legado das Águas, in 2023 the company sponsored six voluntary rehabilitation projects for companies like Deode, Nexway, Sugar Cane Conference and DB Shenker. This planting was geared towards Conservation Units in São Paulo state that require rehabilitation, further emphasizing the projects' importance since they are within areas already protected by the state for their ecological and cultural value. Projects of this nature not only offer environmental benefits but also have a positive impact on climate change mitigation and social development, going far beyond reputational value for the brand.

Also in 2023, Reservas Votorantim's technical team initiated a series of studies for the development of a large productive forest rehabilitation project aimed at generating carbon credits. We used geoprocessing tools to prioritize effective planting areas, which were later validated through a forest inventory. In 2024, the focus will be on studying productive arrangements and developing the best planting techniques for this project.

The experience gained over the years has allowed Reservas Votorantim to operate in Brazilian biomes and states beyond its managed territories, a demand that began in 2023 with the development of projects for other regions of the country, indicating promising prospects for 2024.

Ecological rehabilitation opportunities

- Ecological rehabilitation is among the leading nature-based solutions for mitigating climate change and biodiversity loss.
- Carbon projects and payments for environmental services are strong incentives for large-scale voluntary ecological rehabilitation initiatives.
- To develop rehabilitation chain projects in the country that yield high-integrity carbon credits, investment in research, innovation and professional training is needed, a task that Reservas Votorantim has been undertaking for a decade.
- Reservas Votorantim has honed its expertise to operate nationwide, beyond the regions where it runs the Biodiversity Centers.
- In 2023, Reservas Votorantim supported seven ecological rehabilitation projects, including two offsetting and six voluntary projects, totaling approximately 300 hectares in planting or maintenance.
- Reservas Votorantim's technical team is carrying out a study to develop a large productive forest rehabilitation project aimed at generating carbon credits.

Landscaping with native plants



In 2023, Reservas Votorantim fortified partnerships with companies and landscapers to increase the use of native species in landscaping projects



It may seem ironic, but in the country with the most biodiverse flora on the planet, 90% of landscaping consists of exotic species, i.e., plants from other countries. This is a long story, and the solutions involve complex challenges, mainly production-related, which depend on market demand.

Reservas Votorantim is addressing these two points, demand and production, to offer alternatives for Brazilian landscaping. From the onset of the Legado das Águas and Legado Verdes do Cerrado Biodiversity Centers, Reservas has sought to partner with initiatives and companies already working with native species, so as to inform the process.

These partnerships grew and matured in 2023. One example is **Papo de Paisagista**, an event that brings together a collective of landscapers from different regions of the country. The third edition of this event took place at Legado das Águas and, for the first time, at Legado Verdes do Cerrado. Reservas Votorantim organized the exchange to provide an overview of the opportunities generated by using native species, both for landscapers and for the teams themselves, creating demand and driving production to be more targeted and strategic, as well as innovative.

At Legado Verdes do Cerrado, where the first major steps towards landscaping production were taken in 2023, an important partnership was entered with **Deflora** in Goiânia, a retail company specializing in landscaping. Under this partnership, Legado will begin testing the production of native Cerrado species with ornamental potential, leveraging Deflora's experience and infrastructure. Work will commence in earnest in 2024.

Investing in species that other nurseries do not produce also requires developing production and cultivation protocols from scratch. Alongside partnerships, scientific research also therefore strengthens the production chain at the Biodiversity Centers managed by Reservas Votorantim, aiming to ensure not only the quality of the plants but also their ecological role for more functional and sustainable landscaping.





Public use and venue rental

Among Reservas Votorantim's management model methodologies is public use, which, alongside revenue generation, also aims to involve people in conservation solutions for standing forests. In the managed territories, public use has ushered in significant advances, from the creation of new products to socio-environmental initiatives.

In the product segment, the Environmental Study at Legado das Águas in 2023 stole the limelight, receiving more than 400 students throughout the year from seven educational institutions: USP Post Doc, Aprendizes da Mata, Colégio Sidarta, Tree House, UNESP Rio Claro, Bee Happy and Graded School.

Another area of public use is venue rental. With hotel, auditorium and restaurant facilities, Reservas Votorantim offers Legado das Águas to the market as an option for hosting corporate events and audiovisual productions such as fashion editorials, advertising campaigns and reality shows. In 2023, a major happening was a corporate event with influencers from Columbia, the American sportswear company, for their event **#ColumbiaTrip**.

Legado das Águas' socio-environmental agenda also exerted a significant positive impact on public use, welcoming students and representatives from non-profit institutions through the 4th edition of the Open Doors Program, alongside researchers and members of Legado's partner public institutions.

Legado Verdes do Cerrado's public infrastructure has been improving over recent years. In 2023, three events with external stakeholders were held, including ticket sales, a crucial step to assess the ecotourism potential of the territory. Modeled after Legado das Águas, The **Open Doors Program** had its 2nd edition, forming an important link between the community and the reserve.



Scientific research

Reservas Votorantim adopts the concept of "scientific entrepreneurship" to transform scientific research into viable products with shared value



Scientific research forms the foundation of the business model and the products and services of Reservas Votorantim. Legado das Águas, the first managed territory, and later Legado Verdes do Cerrado, were established under a scientific framework that validated the value of these territories for biome conservation and sustainable development.

The initial investments in scientific research in the Legados were to survey the territories' ecological potential. The findings were not only surprising but also confirmed the most optimistic of suspicions about the biodiversity richness in these areas.

These discoveries firmly placed Reservas Votorantim in the global conservation spotlight, while the results also had a significant positive impact on generating new business opportunities. With over a decade of experience, Reservas Votorantim has now matured and elevated scientific research in the managed territories to the concept of "scientific entrepreneurship," aiming to transform research into viable, self-sustaining products.

To achieve this, in 2023, the Legados' research tenders were structured with specific thematic axes to generate data for the creation of new products, such as bioeconomy, carbon, hydrology, soil, fungi and ecosystem services. New partnerships, particularly public-private ones, are focused on research involving wildlife and flora as opportunities for environmental assets to generate revenue for municipalities through wildlife watching tourism.

The maturation of research from a business perspective led to the creation of a product that became a crucial part of the Reservas Votorantim portfolio in 2023: the Environmental Study. This initiative evolved from Environmental Education activities, supported by over 10 years of scientific research at Legado das Águas. In 2023, the Environmental Study brought more than 400 students to the reserve, allowing them to use the reserve's facilities and transform the forest into a huge open-air classroom.

Reservas Votorantim's scientific framework strengthened through robust partnerships, enabled the company to pioneer significant market innovations in the new economy. Examples include the launch of PSA Carbonflor, a groundbreaking methodology for generating carbon credits through Payments for Environmental Services in the Atlantic Forest, the first REDD+ project for generating carbon credits in the Cerrado, and production advances at the Biodiversity Centers.

The "scientific entrepreneurship" concept creates a virtuous cycle, generating revenue to keep the forest standing with new products, while expanding expertise about the biomes, contributing to the conservation of these environments, and diversifying the resource base to sustain long-term research.

The new phase of scientific research at Reservas Votorantim reflects the business's growth and drives the sector toward innovation.



Atlantic Forest

Legal Reserve

Although each state has its own rules and time frames, the regularization of rural properties with a Legal Reserve deficit is a necessity and obligation throughout the country, as stipulated by the Forest Code. The property owner can decide whether to restore their reserves on their own land by reforesting the area required by law or to offset by using an area of existing native vegetation on another property.

As a practical and swift solution, Reservas Votorantim offers rural property owners the opportunity to lease the area they need in the territories it manages in the Atlantic Forest, Cerrado and Pantanal, by paying an annual fee. It is the responsibility of Reservas Votorantim to manage and maintain this area, safeguarding the territory from threats.

Rural property owners and companies that partner with Reservas Votorantim not only meet their legal requirements but also help protect endangered species, encourage scientific research of wildlife and flora, help protect water resources and drive local development. This is because Reservas Votorantim aids local economic development through socio-environmental projects applied in the territories it manages.

This business model led to the strengthening of an important partnership in 2023. Cerradinho Participações, one of the largest ethanol producers in Brazil, increased the number of hectares leased in Legado das Águas, an

area managed by Reservas Votorantim that represents an important ecological corridor of the Atlantic Forest in São Paulo state.

This partnership is a significant step forward for Reservas Votorantim to showcase its solutions to agribusiness and industry, and through the products and services available in its portfolio, help entrepreneurs in these sectors who need to adjust their practices or make their journey more sustainable.



Cerrado



Consulting

In nature-based solutions or Multiple Land Use

Reservas Votorantim develops solutions for forest area management, implementation of new economy activities, and structuring socio-environmental projects, including carbon credits and ecological rehabilitation projects.

The consultancy service aims to help large landowners of conserved areas to monetize their properties, creating opportunities to generate revenue while keeping the forest standing. Leveraging the experience of managing two large native vegetation areas, Reservas Votorantim's methodology of multiple land use demonstrates that it is possible to create value in conserved areas by integrating business, community and biodiversity conservation.

The interest in this service has been steadily increasing. Proof of this is the three major consultancies conducted in 2023.

The first consultancy was for the Re flora CBA Project, an initiative of CBA - Companhia Brasileira de Alumínio, aimed at reforesting degraded areas of Legal Reserve or Permanent Protection Areas (APP). The goal is to rehabilitate Brazilian ecosystems and boost biodiversity by helping smallholders to bring their properties into compliance with the Brazilian Forest Code. For this consultancy, Reservas Votorantim conducted geospatial and documentary analysis of 86 properties enrolled in the project across the states of Minas Gerais, Goiás and

São Paulo. After the analyses had been completed, on-site validation was carried out for about 30 properties, where the planting conditions were assessed for project implementation, providing full technical support.

AngloGold Ashanti, a multinational mining company, hired Reservas Votorantim to develop a Multiple Land Use Management Plan for the municipality of Crixás, GO. The plan evaluated opportunities to create added value for the business through Multiple Land Use around the company's operations in the municipality.

Lastly, Reservas Votorantim's expertise and pioneering role in the carbon market helped secure a contract with CCR Group - a Brazilian infrastructure, transport and services concession company and one of the leaders in highway management in Brazil. The contract was to develop a Carbon Neutralization Proposal for CCR RioSP, under the Carbon Zero Program of the National Land Transportation Agency (ANTT). The program is in its initial phase, with progress expected in 2024.

Territories managed



Reservas Votorantim is currently managing two environmental reserves and a space for selling native plants. It also participates in managing other territories such as Fazenda Bodoquena. It has over 130,000 hectares under its management.



Legado das Águas

Created in 2012, this is the largest private Atlantic Forest reserve in Brazil, covering an area of 31,000 hectares in the municipalities of Juquiã, Miracatu and Tapiraí, in Vale do Ribeira, in the São Paulo state countryside. Located just over 100 kilometers from São Paulo city, Legado das Águas is at an advanced stage of conservation like few other areas in Brazil, with the Juquiã River crossing it from end to end. Legado das Águas' mission to establish a new model of private protected area, generating social, environmental and economic benefits in a sustainable manner. This is achieved by balancing forest protection and scientific research with green economy activities such as native plant production, public use and carbon credit generation through a novel Payment for Environmental Services methodology, including forest carbon, in the Atlantic Forest.

Legado Verdes do Cerrado

A 32,000-hectare reserve belonging to CBA – Companhia Brasileira de Alumínio, located in Niquelândia, Goiás, about three hours from Brasília. Legado Verdes do Cerrado combines conventional and new economy activities to create value and save the forest through Reservas Votorantim's multiple land use business model. Approximately 80% of the reserve consists of native Cerrado and is divided into two cores.

At the Núcleo Engenho core, spanning 22,000 hectares, scientific research and environmental education activities are conducted, along with new economy activities such as plant production, Legal Reserve offsets, and the first REDD+ project in the Brazilian Cerrado. In the remaining 5,000 hectares, integrated cattle ranching and agriculture operations are conducted.

The 5,000-hectare Santo Antônio Serra Negra core contains virgin native Cerrado savannah vegetation and is partly bordered by the Lago da Serra lake.

Fazenda Bodoquena

Located in Miranda and Corumbá, MS, this territory spans 74,000 hectares, of which 50,000 are conserved areas. The farm is divided into two cores: Miranda, home to the Cerrado biome, and Corumbá, with the Pantanal biome. Traditional economic activities such as cattle ranching are conducted, and since 2021, Reservas Votorantim has been exploring the feasibility of green economy businesses to generate revenue through sustainable natural resource use, alongside traditional activities.

In 2023, Reservas Votorantim began implementing the multiple land use model in the territory, developing a project to generate forest carbon credits under the REDD+ Pantanal form, currently undergoing assurance, and another project called REDD+ Carbonflor in the Cerrado area of the farm, currently in the certification phase. Initial socio-environmental actions following Reservas Votorantim's business model have also begun.

Pátio Caeté

Pátio Caeté is a center for selling plants and supplies for landscaping based on Brazilian biodiversity, serving as a distribution center for plants produced at Legado das Águas. Managed by Reservas Votorantim, Pátio Caeté aims to meet the demand for native and often rare species that provide environmental and economic benefits to landscaping and ecological rehabilitation projects.



Legado das Águas scales up forest-based businesses

Located in southern São Paulo, within the largest and best-preserved continuous area of Atlantic Forest in the country, Legado das Águas has become a national benchmark in managing environmental assets through the sustainable use of natural resources and the creation of shared value.

Over the past 11 years, Reservas Votorantim has diversified the portfolio of Legado das Águas, the largest private reserve of Atlantic Forest in the country, offering new products and solutions that balance sustainable territory use and forest conservation, scaling up forest-based businesses, particularly through innovation.

Among the 2023 results is the Atlantic Forest Biodiversity Center (CBMA) at Legado das Águas, which combines the expertise of scientific research conducted in the territory with the smart production of native flora species, focusing on landscaping and ecological rehabilitation. The space, which was an unprecedented initiative in the country, took a new step forward with the production of epiphytic species (plants that live on other plants without being parasitic).

The innovation met the landscaping project's demand for the hair care network Laces Belvedere, at their Belo Horizonte location. The brand wanted to recreate the Atlantic Forest in its purest form. For this, 900 seedlings of 10 different species, including bromeliads, orchids, and other epiphytes, were grown. These plants were attached to small pieces of wood to simulate their natural forest environment and how they appear in the Legado's research orchidarium. Now, these plants are also available for purchase. This work materializes CBMA's objective of combining an ecological need with market demand or opportunity, viewing conservation as a business.

The reserve's growth strategy has demonstrated the business model's economic efficiency and biodiversity as a valuable asset for financing sustainable development

CBMA also did important work in ecological rehabilitation, involving three environmental offsetting projects and six voluntary reforestation projects. These projects not only utilized high-quality and traceable plants grown in the reserve but also received technical support from the team to apply the best techniques, boosting the projects' success while optimizing resources, a crucial differentiator in this market. CBMA also invested in training to support the growth of the segment. The technical team led training for the operational team throughout the year, focusing primarily on the management of exotic species, one of the main challenges in ecological rehabilitation.

A personalized and tailored service ensures that projects fulfill their ecological role and meet clients' expectations and goals, adding reputational and environmental value to restoration initiatives.



Hospitality in the Atlantic Forest: satisfaction and environmental awareness in the customer journey

Legado das Águas is currently one of the few, if not the only, nature tourism destinations in Brazil located in the heart of the Atlantic Forest, with complete infrastructure including a lodge, restaurant and more than 20 terrestrial and aquatic tourist attractions all in one place.

Maintaining this structure is already a challenge, but innovating by elevating it to a hospitality concept is even greater. In 2023, guided by Reservas Votorantim's growth strategy, significant advancements were made in public use service, bringing recent market trends and practices through training for all teams to improve the customer journey and ensure satisfaction at every stage.

This restructuring made it possible to host large-scale events such as **Papo de Paisagista**, which in its third edition brought together landscapers to discuss the use of native plants in their projects; the **Forest Carbon Immersion course**; the international **Graded School** with a group of over 100 students; and **October Big Day**, a global birdwatching event that earned Legado the title of the 2nd best place in Brazil for this activity due to the comfort and safety provided to observers.

But the improvement also had another important goal: to facilitate the visitor's connection with nature. With nearly 300 visits per month, the audience is becoming increasingly diverse. While the positive impact of ecotourism on environmental awareness is well-known, it doesn't happen on its own. Environmental Education has therefore become part of the customer journey, from reception to guided tours.

The new phase of hospitality at Legado das Águas aims to offer comfortable and quality accommodation, providing tourists with an immersive experience in the forest and strengthening their bond with the Atlantic Forest.

From top to bottom: visit of Papo de Paisagista, in-person class of the Forest Carbon Immersion course, students from Graded School, and October Big Day participants at Legado das Águas



photo: Papo de Paisagista

photo: Márcio Magalhães

Inclusive Business

Legado das Águas was created with a clear purpose: to derive revenue with the forest standing while creating shared value. The socio-economic development of Vale do Ribeira—especially Miracatu, Juquiã and Tapiraí, the region where it is located—has been inseparable from its areas of operation and its value chain since its inception in 2012.

Moreover, three years ago, Legado das Águas rolled out a strategy with specific and ambitious goals and indicators to align 100% of its operations with the **UN's Sustainable Development Goals**, considering the context of Vale do Ribeira while also addressing global goals. In 2023, the results showed clear progress in this strategy, reinforcing the commitment to sustainable development.

Public Use

In 2023, 89.8% of Legado das Águas' employees were from local communities, working in various areas of the reserve, especially ecotourism.

The **Environmental Study**, one of Legado's business fronts that transforms the forest into a large, wall-less classroom and an open-air laboratory, saw a significant leap. Seven educational institutions visited Legado das Águas, totaling over 400 students who had the opportunity to immerse themselves in the forest, learning first hand what is in the books and expanding their knowledge of the Atlantic biome.

From top to bottom: SDG circle; activities of the Atlantic Forest Guardians Program; lectures by Instituto Butantan and Onçafari

Vale do Ribeira Sustainable Development Program (PDS)

Starting in 2023, Legado das Águas strengthened the Vale do Ribeira Sustainable Development Program, which informs and concentrates socio-environmental development initiatives in Vale do Ribeira. The program aims to strengthen the network of partners to address challenges across different sectors and communities, using human or financial resources combined with local know-how and coordination to implement initiatives with positive impacts. In 2023 alone, seven municipalities were covered, reaching 10,402 people through 238 actions carried out via 20 partnerships within 39 initiatives.

In the **Scientific Research Axis of PDS**, one of the year's leading lights was the **One Health Program (PSU)**, a robust strategy adopted globally (especially post-pandemic) that represents a seamless vision, based on the belief that human, animal and environmental health are inseparable. In 2023, it was the third year of the program in Tapiraí and the first in Juquiã. Local governments in both municipalities partnered with the initiative, targeting Health and Zoonosis agents. The program's actions included lectures and other technical-scientific support with Legado's research partner institutions, such as **Instituto Butantan**, **Onçafari**, the Tropical Medicine Institute of São Paulo at the University of São Paulo (IMT/FMUSP), and the ABC Medical School University Center (FMABC). The aim is to aid health initiatives by sharing the know-how acquired through the scientific research conducted at Legado das Águas.





In the **Environmental Education Axis of PDS**, one of the year's highlights was the **Atlantic Forest Guardians Program**. This program brings scientific research from Legado to public schools in Juquiá and Miracatu, aiming to raise students' awareness about the importance of conserving and sustainably using the Atlantic Forest's natural resources, empowering them as guardians of this biome. In 2023, the program carried out 11 initiatives, producing 67 guardians in the two municipalities, reaching 1,768 people directly and indirectly, and collaborating with six partners: the Municipal Education Departments, Instituto Butantan, Diverte Teatro Viajante, Teatro Buzum! and Onçafari. In 2023, the program will focus on teacher training, through a public call for applications.

Created to provide moments of fun, knowledge and contact with nature for public schools, charitable institutions and non-profits, the **Open Doors Program** held its fourth edition in 2023. Five institutions were included, reaching 141 people, who experienced some of the main tourist attractions offered by Legado at no cost, expanding their knowledge of the Atlantic Forest and bringing local communities closer to the business model of Reservas Votorantim.



Scientific Research

Scientific research has always underpinned the activities and business of Legado das Águas. In 2023, through PDS, this focus matured in ongoing programs and projects, especially those of its own initiative, but went further by launching its first scientific research tender notice.

The **scientific research tender notice** was open to individuals affiliated with educational and research institutions. Besides thematic pillars aimed at supporting new green economy businesses, the notice seeks to expand partnerships and diversify research support sources through public-private partnerships, recognized as one of the most effective long-term science investment strategies.

In 2023, the **Participatory Wildlife Monitoring** program completed its third year, involving 59 employees who made 516 records of 95 species present in Legado. With 31,000 hectares, engaging employees in monitoring the reserve's wildlife is an effective strategy to enhance knowledge of species while keeping internal stakeholders engaged in conservation. Besides serving as foundational material for scientific research, these records are published in various media outlets, engaging external audiences and forming a virtuous cycle of knowledge.

Within the realm of **Citizen Science**, in 2023 Legado das Águas appeared on major platforms: iNaturalist, eBird and WikiAves. The latter two have significant global reach, driven primarily by ecotourism in the reserve, placing Legado on the world map for conservation and birdwatching tourism.

Another important integration of business and scientific research were the Safari Adventure and "A Day as a Biologist" activities on the Onça Tikún Trail, attractions operated by **Onçafari**. These activities derived from the partnership between the NGO and Legado for research on large felines. In 2023 alone, nearly 100 tourists participated in these activities.

Left side: participants of the Open Doors Program. Right side, from top to bottom: *Phallus indusiatus*, image used for promoting the scientific research tender notice; G1 Santos highlighting the sighting of the bush dog; iNaturalist app; "A Day as a Biologist," on the Onça Tikún trail



photo: Bianca Marinata



photo: Gregory Fenile



2023 at a Glance

- More than 10,000 people directly and indirectly benefited.
- 7 municipalities covered through 20 partnerships in socio-environmental initiatives, programs and projects.
- 8 scientific research projects ongoing in biodiversity and bioeconomy.
- Over 45,000 plants for landscaping and 50,000 for ecological rehabilitation, through sales and production.
- **400 students participated in Environmental Study activities.**
- Some 3,600 visits by tourists in the year.



Multiple use blending conservation and production

With the multiple land use model spanning 32,000 hectares, Legado Verdes do Cerrado is a pioneering initiative in conserving this biome, employing a management model that combines conventional economy businesses with the new economy

The pursuit of solutions and alternatives to generate revenue while conserving the country's second-largest biome found a new path with the business model applied at Legado Verdes do Cerrado, the first Private Reserve for Sustainable Development in the biome, owned by CBA - Companhia Brasileira de Alumínio, located in Niquelândia, GO.

In 2023, Legado Verdes do Cerrado celebrated its sixth anniversary. Under Reservas Votorantim's innovative business model it implemented a new form of land use and occupation: 20% of its 32,000 hectares are dedicated to traditional economies (agriculture and livestock), used in a profitable and innovative manner. The remaining 80% of conserved Cerrado land is dedicated to the development of green economy businesses.

This includes the production of native Cerrado plants at the Biodiversity Center, ecological rehabilitation and landscaping, REDD+ carbon credits, Legal Reserve leasing, agroforestry, pilot ecotourism and socio-environmental activities, all part of the new economic portfolio in place at Legado Verdes do Cerrado.

Cerrado Biodiversity Center (CBC)

The Cerrado is recognized as the richest savanna in the world, home to approximately 11,600 cataloged native plant species, according to the Ministry of the Environment.

Legado Verdes do Cerrado houses 12% of all these flora species mapped in the biome, with 2% being endemic species, meaning they can only be found in the Cerrado, making the area a valuable genetic heritage site.

However, the aim is for this heritage to extend beyond the boundaries of Legado Verdes do Cerrado. The reserve is therefore spearheading a pioneering initiative in the country: the production of native flora species for sale, focusing on ecological rehabilitation and landscaping through the Cerrado Biodiversity Center (CBC). The CBC combines the expertise of scientific research conducted in the territory with the intelligent production of native species, including some that are rare or endangered.



Cerrado Biodiversity Center (CBC)

In line with Reservas Votorantim's growth strategy, in 2023, the enterprise restructured its production dynamics for the landscaping market. To achieve this, it worked in synergy with the Business area to direct production towards existing demands for native species.

To accelerate growth, the CBC partnered with Deflora in the Metropolitan Region of Goiânia, a company specializing in landscaping, to instill techniques used by the retailer to produce native species. They also used Deflora's physical facilities in the capital for further experiments.

Moreover, Reservas Votorantim brought Papo de Paisagista to Legado Verdes do Cerrado, an event that brings together landscapers to discuss the use of native plants in landscaping projects. The group had the opportunity to learn about CBC's work at and to discuss trends, demands and challenges related to using native Cerrado plants in landscaping.

With a production capacity of 250,000 seedlings per year from 50 different species, the CBC focuses heavily on ecological rehabilitation. In 2023, it branched out into markets in other states, such as Minas Gerais, through ecological rehabilitation projects for environmental offsetting, which received over 20,000 seedlings produced at CBC, ensuring reliable origin and quality.

Traditional economy

While investing in green economy businesses, Reservas Votorantim also pursues more sustainable technologies and management practices for traditional activities at Legado Verdes do Cerrado.

Scientific research conducted in the territory has been essential in enhancing sustainable land use.

In 2023, Legado mobilized its agricultural production team for a "field class" on soil conservation and sustainable management practices, administered by Prof. Dr. Renata Momoli from the Federal University of Goiás (UFG), who conducts soil research at Legado. The class consisted of two modules: one theoretical and one practical, to improve soil management techniques based on research-generated information. This initiative is just one of several implemented in the territory for low-carbon agriculture and livestock.

These results demonstrate that agribusiness and Cerrado conservation can coexist harmoniously. Reservas Votorantim accordingly believes in the Legado Verdes do Cerrado business model as an opportunity for both the biome and the economy.

Field class taught by Prof. Dr. Renata Momoli for the LVC team



Inclusive Business

Reservas Votorantim understands that conservation is easier when the value of the forest is perceived and ensured in the long term. It therefore aims to foster and contribute to the construction and dissemination of scientific expertise about Cerrado biodiversity, assist with the territorial development of northern Goiás, and achieve the Sustainable Development Goals (SDGs) set by the UN's 2030 Agenda.

In 2023, the results in these areas showed clear progress in this strategy, reinforcing our commitment to people and the Cerrado.

Public Use

Thanks to the events held in 2023, Reservas Votorantim progressed in evaluating the feasibility of implementing public use at Legado Verdes do Cerrado. Three events catered to different audience profiles.

In addition to **Papo de Paisagista** in July, Legado Verdes do Cerrado hosted the 2nd edition of the **"Orienta Legado"** orienteering race in partnership with the Goiás Orienteering Federation (FOG), a sport that uses nature as a playing field. The event brought together over 40 participants, including athletes and support staff.

The third event, Bike Adventure, was organized by Javali Bike Club, a partner company of Legado Verdes do Cerrado. It featured a 41km route involving more than 20 cyclists.

The events aim to assess Legado Verdes do Cerrado's infrastructure for hosting tourists and organizing the public use strategy, while generating revenue and engaging diverse audiences.

Scientific Research

Since its creation in 2017, Legado Verdes do Cerrado has fostered and contributed to research programs and projects in five areas: flora, wildlife, water resources, soil and carbon. The research aims to map Legado's biodiversity and its potential socio-environmental and economic impacts, focusing on multiple land use and sustainable development.



To date, more than 20 partnerships have been established with educational and research institutions, and 11 scientific research projects (including internal and external partnerships) have been conducted, with three new projects starting in 2024. These efforts involved 107 researchers and resulted in over 20 publications, including theses, scientific articles, book chapters, and other scientific works.

The new studies are the result of the second public tender in partnership with the Goiás Research Funding Foundation (Fapeg), launched in 2023 to start in 2024.

These include: the cave research titled **"Speleology and Biodiversity in Legado Verdes do Cerrado,"** which will be conducted by Prof. Dr. Renata Santos Momoli. This research will focus on gathering preliminary data and information on the physical, chemical and biological properties of three of the seven caves discovered in Legado.

In the field of biodiversity, Legado will host research using the innovative method of **"iDNA Metabarcoding for Vertebrate Monitoring in Legado Verdes do Cerrado,"** led by Prof. Dr. Mariana Pires de Campos Telles.

And in water resources, the research **"Graphene and Maghemite Nanocomposites for the Absorption of Aquatic Pollutants and Environmental Remediation"** will be conducted by Dr. Simone Maria Teixeira de Sabóia-Morais, in yet another important research project.

Wildlife monitoring

To expand knowledge, catalog new species and record rare animals, Legado Verdes do Cerrado has been conducting wildlife monitoring since 2019 using camera traps strategically installed throughout its territory.

This is part of the **Participatory Biodiversity Monitoring** project, which also includes records made by employees. The project has cataloged over 90 animal species, such as deer, peccary, tapir, giant anteater, bush dog, maned wolf, jaguarundi, puma and jaguar species.

In 2023, we were extremely privileged to record a **black jaguar**, one of the few sightings in the northern Goiás region.

Although black jaguars have been recorded elsewhere in Goiás, this sighting is rare and reinforces Legado Verdes do Cerrado's status as an ecological corridor for the endangered species.

Social Initiatives

In 2023, the Legado Verdes do Cerrado's Social Engagement initiatives aimed to bring the local community closer to the Reserve's business model.

One such initiative was the **Voluntary Challenge**, where employees of CBA - Companhia Brasileira de Alumínio carried out activities in various community locations. Over 15 actions were conducted, including career talks, book fairs and the renovation of the Runners Association headquarters. These activities gathered approximately 100 volunteers, benefiting over 500 students.

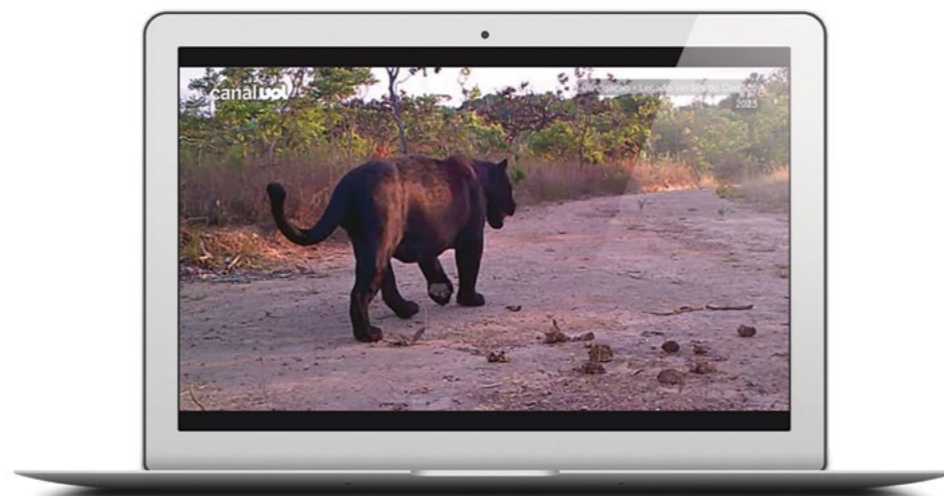
Legado Verdes do Cerrado also participated in two events, the **20th Niquelândia Agricultural Exhibition** and **Josephina's Festival**, with a stand to disclose the Reserve's work.

The **Open Doors Program** served three schools, benefiting 180 students. This environmental education initiative aims to provide public schools and non-profit institutions access to Legado and a day of experiences in the Cerrado.

From top to bottom: participants of the Voluntary Challenge; Legado stands at ExpoNiquel and Josephina's Festival

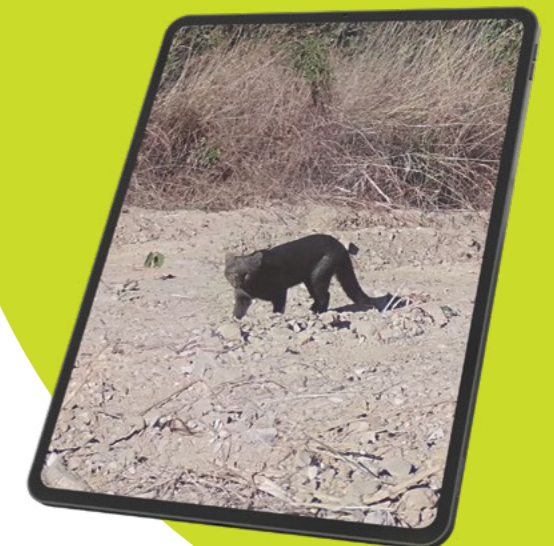


The rare black jaguar sighting at Legado Verdes do Cerrado was reported in the Goiás press. The healthy adult male was recorded at various points in the Reserve



2023 at a Glance

- Three test events conducted to study the feasibility of public use.
- Strategy initiated to insert the Cerrado Biodiversity Center into the landscaping market.
- More than 500 people benefited from our Social Work.
- Three new research projects started through the 2nd tender notice in partnership with Fapeg.
- **Rare and unprecedented sighting of the jaguarundi and black jaguar**, reaffirming the territory's status as an ecological corridor for endangered big cats.



Pantanal enters
the portfolio of
new businesses
for Reservas
Votorantim

With 50,000 hectares of conserved areas, Fazenda Bodoquena spans two biomes: Cerrado and Pantanal, which will receive support from rV's management model, already established in other regions of the country

In the heart of South America, the Pantanal - the largest floodplain on earth - plays a crucial role in conserving Brazilian socio-biodiversity. The biome's unique features make it fertile ground for green economy initiatives.

One of these opportunities is Fazenda Bodoquena, which Reservas Votorantim began co-managing in 2023. Located in Miranda and Corumbá-MS, the territory spans 74,000 hectares, 50,000 of which are conserved areas.

Since 2021, Reservas Votorantim has been mapping the potential for carbon credit projects and other possible businesses based on the multiple land use management model. In 2023, the initial steps were taken to develop REDD Pantanal, a project for generating forest carbon credits under the REDD+ (Reducing Emissions from Deforestation and Forest Degradation) program on the ranch, which is already under assurance.

Similarly, a REDD+ project was designed for the Cerrado area of the ranch, registered as REDD+ Carbonflor, replicating the successful model applied at Legado Verdes do Cerrado, managed by Reservas Votorantim in Northern Goiás. It is expected that the project credits will be certified by 2024.

Reservas Votorantim aims to certify the credits with the CCB Standard (*The Climate, Community and Biodiversity*), which recognizes and quantifies the socio-environmental benefits of carbon credit projects. To achieve this, socio-environmental initiatives were initiated on the ranch's territory in 2023, such as developing a series of activities to improve the quality of life and empower the families of workers living on the farm, including culinary and baking workshops to nurture micro-entrepreneurship. Additionally, in 2023, Reservas Votorantim and Instituto Votorantim partnered to implement two programs in Miranda: the Partnership for Education (PVE) and the Management Support - AGP Health program, starting in 2024.



Brazilian landscapes

From the forest to the city, Pátio Caeté helps bring the Atlantic Forest back to urban centers as a distribution center for plants grown at Legado das Águas

Pátio do Porto Raso, at the Legado das Águas Biodiversity Center



In 2023, we completed the implementation of a landscaping project in one of the largest real estate developments in the Brazilian market in recent years, O Parque, by the developer Gamaro, built in the Brooklin neighborhood of São Paulo.

The architectural landscaping project, developed by Cardim Paisagismo, a partner of Reservas Votorantim, was designed to introduce the concept of the "Third Generation Green City" in Brazil, which strives to strike harmony between the original Atlantic Forest landscape, modern comfort and technology. The project includes 10,000 m² of green area with 35,000 native Atlantic Forest plants supplied by the Legado das Águas' Biodiversity Center, through Pátio Caeté. The landscaping project draw inspiration from Legado das Águas itself, including a stream running through the main garden.

Legado das Águas Quality

Pátio Caeté meets Legado das Águas' ambitious goal of bringing the Atlantic Forest back to urban centers. It distributes native species produced at the Legado das Águas Atlantic Forest Biodiversity Center (CBMA), an initiative that combines the expertise of scientific research conducted in the territory to intelligently produce plants of native Atlantic flora species, focusing on landscaping and reforestation of degraded areas.

Another distinguishing feature of the species produced at Legado das Águas is traceability, ensuring quality standards throughout all stages of the plant production process. This process ensures responsible production in compliance with the law. The plants are tagged with a QR Code that allows anyone with a smartphone to read about the plant's entire history, including its origin in the forest.

CBMA's production is increasingly prepared to meet the growing market demand for native species, driven by the growing demand for Brazilian flora in sustainable architectural projects. With Caeté, Reservas Votorantim is enhancing Legado das Águas' competitiveness and brings the public closer to native species, which, despite being from the Atlantic Forest, are unknown to most people. In terms of concept, there is immense added value in Caeté as it demonstrates the Brazilian essence of our biodiversity.

Inaugurated in 2020 by Reservas Votorantim, Pátio Caeté serves the landscaping market by supplying inputs, seedlings and trees of native species from Brazilian biomes. It is also the distribution center for plants grown at Legado das Águas, the largest private Atlantic Forest reserve in the country, managed by Reservas Votorantim, which is pioneering in Brazil by offering rare and endangered native Atlantic flora species.

In the Tupi-Guarani indigenous language, Caeté means "true forest". The company's name reflects its market focus: valuing beautiful Brazilian plants. In a city like São Paulo, with street and neighborhood names inspired by national wildlife and flora, the company aims to offer an alternative to the usual market, which currently uses more than 90% foreign species in urban landscaping.

Although still a minority, the market for landscaping using native species has been growing in recent years. Compared to exotic plants, native species have advantages: they grow faster, consume less water and are more resistant to climatic variations and natural enemies because they have evolved in that territory over time.

A new horizon

Reservas Votorantim shows that a company remains solid and competitive when business decisions are made with shared value in mind. We are demonstrating to Brazil and the world that biodiversity conservation is a reliable path to sustainable development. With each step, taken with boldness and technical rigor, we move towards a new horizon, spearheading the transformations we wish to see in the world and creating solutions for those who also wish to be part of the change.



reservasvotorantim.com

comercial@reservasvotorantim.com

+55 (11) 94457-2546

[in/reservasvotorantim](https://www.linkedin.com/company/reservasvotorantim)



reservas
VOTORANTIM