bio diversity

A commitment by the Brazilian planted tree industry

Photo: Suzano

Production alongside **conservation** is **possible**!

A 2020 study from the World Economic Forum stated that humanity has already caused the loss of 83% of the volume of wild land mammals and 50% of the plants that used to exist on the planet. It also said that over half of global GDP strongly depends on nature and the services it provides, a value estimated at US$ 44 trillion.

To halt biodiversity loss, 196 countries have committed to the Kunming-Montreal Global Biodiversity Framework, within the scope of the Convention on Biological Diversity (CBD). The Global Framework is an ambitious, robust plan with four objectives to be met by 2050, along with 23 global targets. Although they address specific topics, the objectives and targets are interconnected and in line with the three pillars of the CBD: conservation of biological diversity, sustainable use of the components of this biological diversity, and fair and equitable sharing of the benefits arising from the utilization of genetic resources and traditional knowledge associated these resources.

To reach the targets and consequently ensure that biodiversity will be valued, preserved, restored, and used wisely, the engagement of all countries and segments of society is necessary, particularly the private sector.

The Brazilian planted tree industry has long considered sustainability to be a strategic pillar of its business plan, and has shown that production alongside conservation is possible. There is no dichotomy or dilemma: both can walk hand in hand and be at the heart of decisions at the highest levels that focus on caring for the environment, soil, water, and biodiversity.

196 COUNTRIES

HAVE COMMITTED TO THE GLOBAL **BIODIVERSITY FRAMEWORK**

Callithrix geoffroyi

This sector sustainably cultivates 10.23 million hectares across all of Brazil. These trees are planted, harvested, and replanted, generally in previously degraded areas. Wood, our raw material, is used in nearly 5,000 bioproducts which are part of the entire population's everyday lives, from the well-known ones in our homes like notebooks, pencils, diapers, cardboard boxes, wood furniture, laminate flooring, and toilet paper, as well as new products in the market or those being developed as sustainable alternatives to materials from fossil sources. They have various uses in the textile, pharmaceutical, electronics, food and beverage, and even automotive industries.

Brazil's forest-based industry also preserves another 6.91 million hectares. Together, planted and preserved areas store 4.9 billion tCO_2eq and offer habitat for rich biodiversity. According to monitoring data obtained by Ibá (2022), over 8,310 species including flora, mammals, birds, fish, reptiles, amphibians, invertebrates, and fungi were recorded in areas managed by the Brazilian planted tree industry, distributed across five Brazilian biomes: The Amazon Forest, Caatinga, Cerrado, Atlantic Forest, and Pampa.

Of these, 335 were considered threatened. For the Cerrado and Atlantic Forest biomes, 26 species (birds, mammals, and flora) were classified as bioindicators, species which are very sensitive to changes in the environment and are consequently considered indicators of environmental quality. In these same two biomes, 7 species of flora and 14 species of fauna were classified as rare.

10,2 MILLION

HECTARES **OF PLANTED FORESTS**

6,9 MILLION

HECTARES **OF PRESERVED FORESTS**

Photo: Suzano

The Brazilian **planted tree** industry uses **land** intelligently, cares for **people**, and respects **nature**.

+8000

SPECIES RECORDED IN AREAS PERTAINING TO THIS INDUSTRY

335

THREATENED SPECIES

The following section presents activities by Brazilian companies in the planted tree sector and their respective contributions to the targets of the Kunming-Montreal Global Biodiversity Framework. It is important to note that these activities are not limited to a single target, since the companies have a wide range of initiatives and commitments as part of their biodiversity agendas.

Target 1: Land planning and management

This target ensures that by 2030 all areas will be under participative, integrated spatial planning that considers biological diversity, including ecosystems of high ecological integrity.

Read more about how Dexco is contributing to Target 1.

Other targets that Dexco contributes to directly:

3 4 5 7 8 10 11 15 20 22

Scan here for more information:

Bokermannohyla sazimai

Dexco

In 2019, an amphibian called *Bokermannohyla sazimai* was recorded in an area managed by Dexco in the state of Minas Gerais. This frog species is endemic to the Mineiro Triangle region, and occurs in a very restricted area, which makes it possible to classify this location as a High Conservation Value Area (HCVA). This classification is applied to certain sites with exceptional or critically important environmental or social value, recognizing their special significance for conservation and need for expanded care measures.

HCVAs are defined by standards defined by the Forest Stewardship Council® (FSC®) and associated methodologies. These standards include the presence of species that occur in very restricted areas, such as *Bokermannohyla sazimai*.

Duratex Florestal Ltda. is a company in the Dexco group; its forest management has been FSC®- certified for almost 30 years (FSC-C006042), and it has adopted a methodology that establishes six categories of HCVAs. The company's surveys to identify the presence of these attributes, the methodology used, and potential additional protection measures undergo participatory validation by public consultation that includes specialists, reference institutions and neighbors, as well as auditing by an external certification team.

Measures were adopted to preserve the area in Minas Gerais, such as intensifying activities to prevent and combat forest fires, security surveillance, and complying with operational procedures to avoid environmental impacts.

More recent monitoring identified at least 25 adult individuals of *Bokermannohyla sazimai* vocalizing, as well as tadpoles and young frogs, indicating that the species is encountering suitable conditions for reproduction. This is one motive for Dexco to continue with its environmental commitments.

Target 2: Restoration

Ensure that by 2030 at least 30% of degraded terrestrial, inland water, and marine and coastal ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services and connectivity.

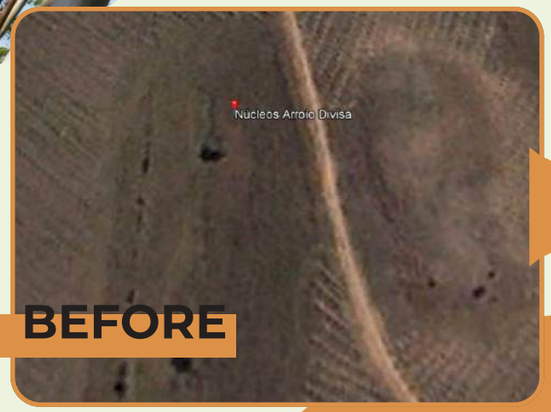
Read more about how CMPC is contributing to Target 2.

Other targets that CMPC contributes to directly:

1 3 4 5 6 7 8 9 10 11

12 13 16 18 19 20 21 22 23

Scan here for more information:



Since 2012 CMPC Brasil's Ecology Restoration Program has restored mediated degraded and altered ecosystems in forested areas of the Atlantic Forest biome as well as native Pampa grasslands in the state of Rio Grande do Sul.

After more than a decade, operations have been carried out on over 100,000 hectares of managed and restored ecosystems in the company's woodland areas in the state. In recent years CMPC has specifically invested in research and development projects in partnerships with universities and regional and national research institutes. These partnerships are intended to refine the use of restoration methods, making them more effective in terms of recovery potential and promoting natural regeneration of forests and native grasslands, as well as encouraging the reestablishment of the integrity, function, services, and connectivity of these ecosystems.

These partnerships led to the testing of new techniques, such as recovering seedlings of native species from commercial eucalyptus plantations. A number of these species are Butia palms (*Butia* spp.), threatened at the national and international levels, and have social, economic, biological, and cultural importance in the state. The recovered seedlings are used for planting in restoration areas. Expanding the successful restoration of degraded and altered ecosystems is extremely important for CMPC to meet the environmental requirements for its operations, promoting the resilience of ecosystem processes and services we all depend on and preserving biodiversity.

Target 3: Protected areas and other effective area-based conservation measures (OECMs)

Ensure and enable that by 2030 at least 30% of terrestrial and inland water areas, and of marine and coastal areas are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other OECMs.

Read more about how Veracel is contributing to Target 3

Other targets that Veracel contributes to directly:

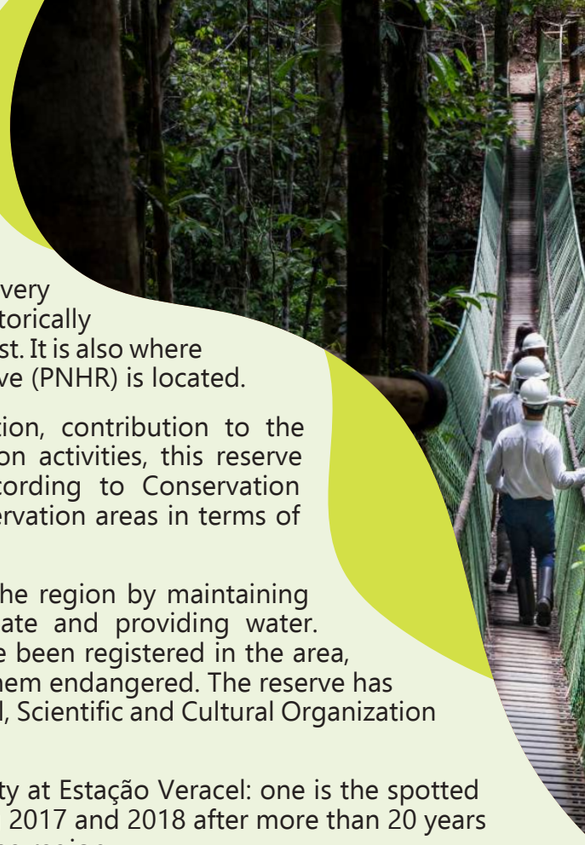
1 2 4 5 10 11 19 20 21 22 23

Scan here for more information:

Harpia harpyja

Foto: João Marcos Rosa

VERACEL



Southern Bahia state, the place known as the Discovery Coast where Brazil's colonization began, is historically significant and a key region for Brazil's Atlantic Forest. It is also where the Estação Veracel Private Natural Heritage Reserve (PNHR) is located.

With over 25 years of environmental conservation, contribution to the scientific community, and environmental education activities, this reserve contains 6,069 hectares of Atlantic Forest. According to Conservation International, it is one of the world's top 20 conservation areas in terms of number of tree species.

This reserve helps deliver ecosystem services to the region by maintaining biodiversity and pollinators, regulating the climate and providing water. Approximately 300 bird and mammal species have been registered in the area, and 291 flora species have been identified, 26 of them endangered. The reserve has been recognized by the United Nations Educational, Scientific and Cultural Organization (UNESCO) as a Natural World Heritage Site.

A few species stand out among the rich biodiversity at Estação Veracel: one is the spotted jaguar (*Panthera onca*), which was recorded during 2017 and 2018 after more than 20 years without photographic evidence of this species in the region.

As for birds, 269 species have been identified, including the harpy eagle (*Harpia harpyja*), one of the world's largest birds of prey. The presence of species like the harpy eagle and jaguar, animals at the top of the food chain, demonstrate the high degree of conservation at Estação Veracel.

Besides protecting rich biodiversity, the reserve plays a strategic role in providing water to the city of Porto Seguro, protecting 115 essential springs and bodies of water. Estação Veracel is also noteworthy for its educational and scientific initiatives that promote environmental awareness. To the company, the reserve represents an unwavering commitment to environmental conservation.

Target 4: Recovery and preservation of species

Ensure urgent management actions for recovery and conservation of species, in particular threatened species, as well as to maintain and restore the genetic diversity within and between populations.

Read more about how TTG is contributing to Target 4.

Other targets that TTG contributes to directly:

1 2 3 5 8 20

Scan here for more information:

Tapirus terrestris

ttg brasil

Apis mellifera

The Cerrado, South America's second-largest biome, is recognized for its incredible biodiversity and ecological complexity. This biome spans a vast area of Brazil and is essential to the conservation of biodiversity and water resources, and also plays a crucial role in climate regulation.

Since 2010, TTG Brasil has been studying the fauna and flora of this important biome in different regions. Continuous monitoring helps in species conservation, making it possible to identify changes and environmental threats and permitting management activities to protect local biodiversity.

Located within the Cerrado biome, Project Alpha covers roughly 24,000 hectares in the northeast of Mato Grosso do Sul state. This project is intended to transform 17,000 hectares of pasture into areas for ecological restoration as well as forest activity.

Combining assessments of flora and fauna through the project's biodiversity monitoring program has indicated the presence of some species that choose this area for their habitat. For example, the pampas deer (*Ozotoceros bezoarticus*) only occurs in regenerating Cerrado areas, while the marsh deer (*Blastocerus dichotomus*) is a specialized species that only inhabits wet areas like swamps and marshes.

Considering the importance of preserving Cerrado areas, the project involves restoring approximately 2,500 more hectares alongside Permanent Preservation and Legal Reserve Areas. Through these efforts, the project will form an important ecological corridor connecting roughly 10,000 preserved areas in the region. Protecting biodiversity, mitigating risk, and strengthening social responsibility are pillars that reinforce the company's commitment to the environment.

Target 5: Sustainable harvesting and trade of wild species

Ensure that the use, harvesting and trade of wild species is sustainable, safe and legal, preventing overexploitation while respecting and protecting customary sustainable use by indigenous peoples and local communities.

Read more about how Cenibra is contributing to Target 5.

Other targets that Cenibra contributes to directly:

1 2 3 4 8 9 11 12 13 15 19 20 21

Scan here for more information:

CENIBRA

Crafts have been made from the fiber of the indaiá palm (*Attalea* spp. or *Pindorea concinna*) for three hundred years in the town of Antônio Dias, in Minas Gerais, and are extremely important to local communities in cultural and economic terms.

The strong fiber forms the base of handicrafts that start with collecting the palm leaves, respecting the growth of the plant as part of sustainable management, and then involves braiding their fibers, an indigenous practice known to the local population for many generations which has been officially recognized as the town's intangible heritage.

As part of this economic and cultural vocation, Cenibra signed an agreement with the nonprofit Indaiá Cultural Association to promote Project Indaiá and help generate jobs and income for the local community. Since 2005, Cenibra has supported the association through various initiatives that allow it to access its forest management areas to collect palm leaves, offer training, sponsor participation in regional and national fairs, and also support other exhibitions in order to sell products and improve living conditions for families who participate in the project, which currently involves 40 female artisans from the town.

The crafts are truly magnificent, each piece bearing within it the artistic skills, emotion, and dedication of each artisan. Anyone who receives a craft from Project Indaiá as a gift is receiving a piece of the region's history, along with love in every detail of the piece.

Project Indaiá also works to identify and train craftswomen in order to preserve and protect the production of these crafts and promote sustainable and legal use of wild species.

Target 6: Reduce introduction of invasive alien species

Eliminate, minimize, reduce and or mitigate the impacts of invasive alien species on biodiversity and ecosystem services by identifying and managing pathways of introduction of alien species.

Read more about how Bracell is contributing to Target 6.

Other targets that Bracell contributes to directly:

1 2 4 5 7 8 9 10 11
13 15 16 21 22

Scan here for more information:

Bracell

In Bahia state, the environmental adjustment programs (EAPs) established in Brazil's Forest Code require management of degraded environments through projects involving ecological restoration, control of exotic species, and passive and active monitoring of regeneration. With the objective of going far beyond the requirements of the EAP, Bracell's program considers the natural ecological complexity of the environment in an effort to build networks of interactions between flora and fauna.

As part of the activities in this initiative of the company, over 8,000 hectares were involved in active restoration and control of invasive alien species control as of 2023. More robust strategies have been developed since 2021, such as control of invasive alien species by localized applications without impacts from felling trees, developing partnerships, and more assertive monitoring methods for natural regeneration. By 2030, Bracell hopes to have only 10% of areas infested with exotic species in the regions where it works in Bahia.

With its One-for-One Commitment initiative , Bracell will contribute to conservation of areas of native vegetation that are the same size as the eucalyptus forests the company manages in the states of São Paulo, Bahia, and Mato Grosso do Sul. This commitment represents an important step in Bracell's sustainability strategy and will expand its work to conserve and promote biodiversity beyond company areas, since it involves supporting private and public areas.

As for its work in public areas, specifically in São Paulo the company has presented a plan to manage the exotic invasive plant species *Hedychium coroniarum*, *Musa rosacea*, and *Hovenia dulcis* for the Carlos Botelho and Nascentes do Paranapanema state parks. It has also contracted a project for geospatial analysis and control of invasive pine at the Itapeva Ecological Station.

Target 7: Reduce pollution levels

Reduce pollution risks and the negative impact of pollution from all sources by 2030, to levels that are not harmful to biodiversity and ecosystem functions and services, preventing, reducing, and working toward eliminating plastic pollution.

Read more about how Melhoramentos is contributing to Target 7.

Other targets that Melhoramentos contributes to directly:

1 3 4 5 8 10 21

Scan here for more information:

Melhoramentos

Made from renewable sources, new-generation packaging manufactured from cellulose presents a sustainable alternative to packages from fossil sources like single-use plastics, which take an average of 400 years to decompose in the environment. In order to produce 100% compostable packaging, especially for the food industry, the Melhoramentos company will build a new factory to address new expectations in the market and from consumers seeking alternatives that contribute to the sustainable future of the planet.

This packaging is designed to withstand oil, moisture, and extreme temperatures, and can be used in settings that vary from the freezer to a 220ºC oven. They effectively replace single-use plastics and decompose in up to 75 days.

Located in Camanducaia, Minas Gerais, where Melhoramentos has been operating for over 80 years, the new factory will have initial annual production capacity of 60 million packages, with the potential to expand in the future; the unit will begin operations in early 2025. The project was developed in partnership with an Israeli startup specializing in barrier solutions in sustainable packaging, and the union of the two companies ensures personalized and cost-competitive design.

Part of Melhoramentos' strategy is vertical integration into the production of wood and cellulose pulp, making it possible to develop packaging at a competitive cost compared to plastic. This integrated production model ensures not only sustainability but also economic feasibility.

The cellulose fiber packaging Melhoramentos produces represents a significant change for a more sustainable future, facilitating reuse, recycling, or composting.

Target 8: Minimize impacts of climate change on biodiversity

Minimize the impact of climate change on biodiversity and improve its resilience through mitigation, adaptation, and disaster risk reduction actions, including through nature-based solutions and/or ecosystem-based approaches.

Read more about how Suzano is contributing to Target 8.

Other targets that Suzano contributes to directly:

1 2 3 4 5 7 10 11 15 16 17 18 19 23

Scan here for more information:

Photo: Suzano

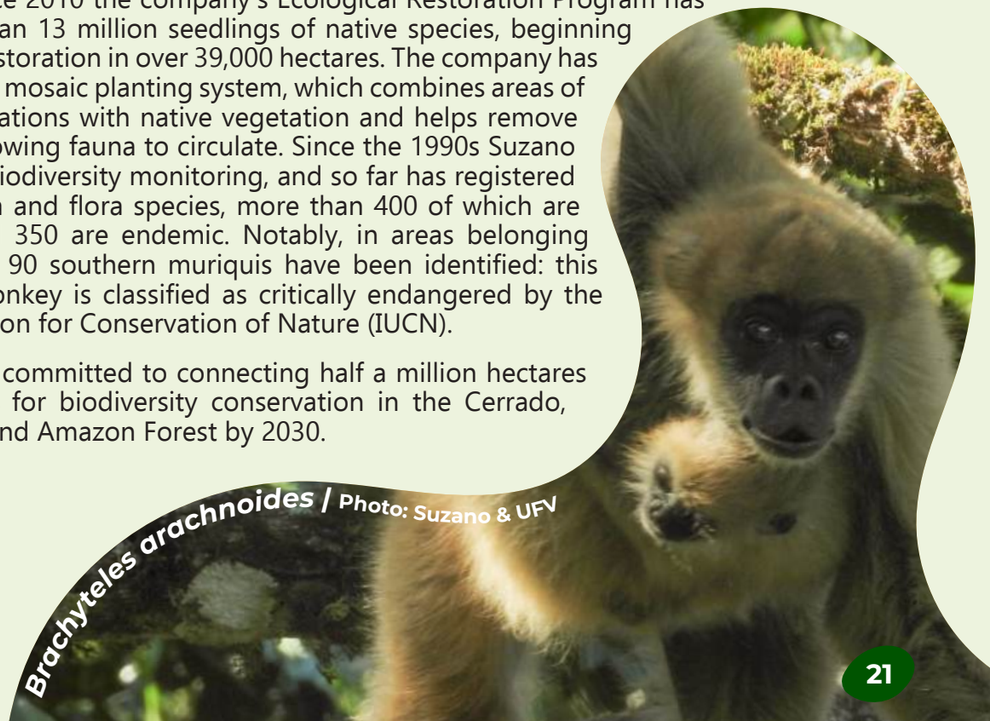
Photo: Suzano & UFV

suzano

Suzano's business model is founded on 2.7 million hectares of forests, almost half (1.1 million) of which are protected native areas. These forests help mitigate and adapt to climate change through functions that include removing carbon dioxide (CO_2) from the air, preserving biodiversity, and regulating water resources. Suzano's model is centered on eco-efficient operations, supplying renewable products to replace those from fossil sources, and the company has committed to removing 40 million tons of CO_2 from 2020 to 2025 and reducing its carbon emissions (tCO_2eq) by 15% per ton of products produced by 2030.

Additionally, since 2010 the company's Ecological Restoration Program has planted more than 13 million seedlings of native species, beginning the process of restoration in over 39,000 hectares. The company has also adopted the mosaic planting system, which combines areas of eucalyptus plantations with native vegetation and helps remove carbon while allowing fauna to circulate. Since the 1990s Suzano has conducted biodiversity monitoring, and so far has registered over 4,000 fauna and flora species, more than 400 of which are endangered and 350 are endemic. Notably, in areas belonging to the company 90 southern muriquis have been identified: this wooly spider monkey is classified as critically endangered by the International Union for Conservation of Nature (IUCN).

Suzano has also committed to connecting half a million hectares of priority areas for biodiversity conservation in the Cerrado, Atlantic Forest, and Amazon Forest by 2030.



Brachyteles arachnoides / Photo: Suzano & UFV

Target 9: Manage wild species to benefit people

Ensure that the management and use of wild species are sustainable, thereby providing social, economic and environmental benefits for people through activities that strengthen biodiversity, indigenous peoples, and local communities.

Read more about how Klabin is contributing to Target 9.

Other targets that Klabin contributes to directly:

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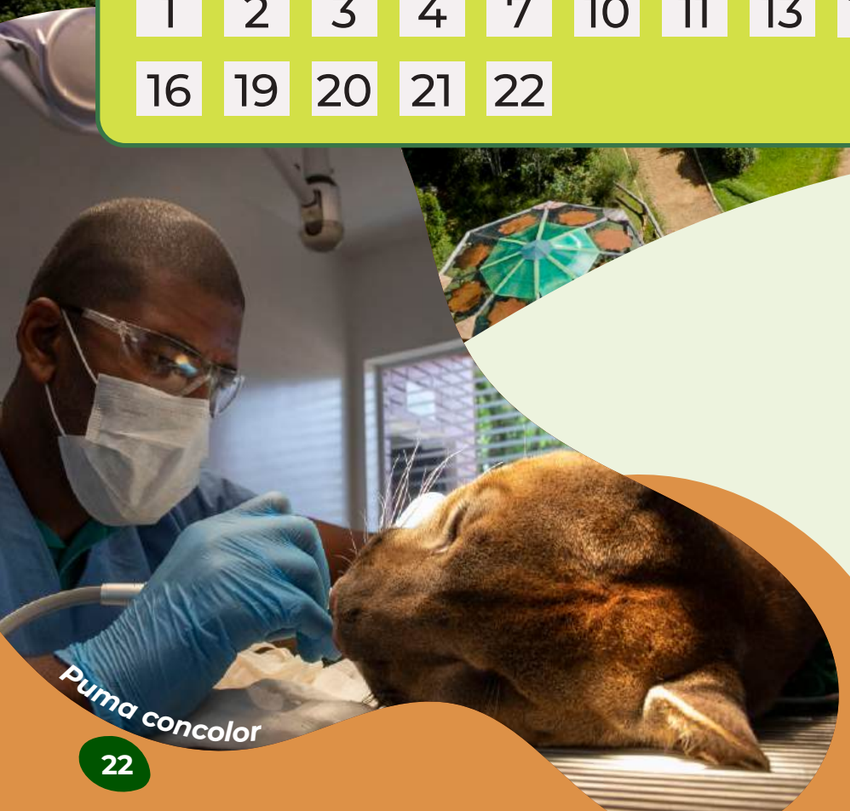
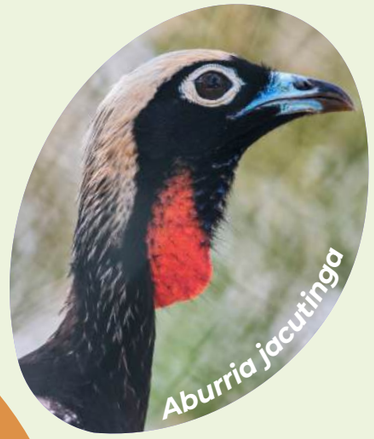


Puma concolor



Aburria jacutinga

Klabin

The Klabin Ecological Park (PEK), with over four decades of history, emerged as a symbol of the company's commitment to biodiversity conservation. Spanning 9,852 hectares, the park plays a fundamental role in protecting the region's ecosystems and endangered species. Notable initiatives include the reintroduction of the black-fronted piping guan (*Aburria jacutinga*), population einforcement for species like the vinaceous-breasted amazon parrot (*Amazona vinacea*), and an offsite conservation project for the pygmy brocket deer (*Mazama nana*).

The park has become a reference for conservation and biodiversity projects as well as excellence in environmental education and scientific research in partnerships with 14 public and private institutions.

In 2022, the PEK released 30 black-fronted piping guans, a species classified as extinct in the central forests in Paraná state. Reintroduction of this species within the park contributes to local biodiversity, since this practice is intended not only to restore declining populations but also reestablish the functionality of the ecosystems, promoting ecological stability and resilience. The species plays an important ecological role in dispersing seeds, and its reintroduction directly contributes to diversity and regeneration of the native forests and local fauna.

Located in a region with rich biodiversity, the PEK promotes the conservation and well-being of the species that live there. Programs for monitoring, research, and environmental education help scientists understand the needs of animal populations and implement effective conservation strategies.

Target 10: Sustainably managed areas

Ensure that areas under agriculture, aquaculture, fisheries and forestry are managed sustainably, in particular through the sustainable use of biodiversity, including through a substantial increase of the application of biodiversity friendly practices such as sustainable intensification.

Read more about how Eldorado is contributing to Target 10.

Other targets that Eldorado contributes to directly

1 2 3 4 8 11 12 15 16 17 18 21

Scan here for more information:

Myrmecophaga tridactyla

Eldorado Brasil

Speothos venaticus

Eldorado Brasil adopts sustainable management in its operations through responsible use of natural resources and implementing practices that show it is possible to combine production with environmental conservation.

Last year the company's declaration of ecosystem services was verified by FSC® (FSC-C113536); Eldorado was the first company to receive this recognition for the declaration of ecosystem services in watersheds for conservation efforts on the Pântano Farm in Mato Grosso do Sul, located within the Cerrado biome. This is a High Conservation Value Area (HCVA) containing 1,341 hectares, which maintains the quality of the water there. This same site was also recognized for its protection of biodiversity, serving as a refuge for endangered species. This commitment to biodiversity reinforces the importance of integrated strategies that combine productivity and conservation, providing long-term environmental, economic, and social benefits.

One notable indicator of conservation is the presence of the bush dog (*Speothos venaticus*), which indicates that the environment is healthy and well-preserved since this species is extremely sensitive to habitat changes and requires large areas to survive.

To ensure the environmental quality of this area, Eldorado has sustainable intensification activities that include good forest management practices, expanding monitoring, ensuring conservation, and restauration of biodiversity in areas that were impacted in the past.

Eldorado not only promotes responsible forest management but also plays a vital role in biodiversity conservation and in maintaining ecosystem services, reaffirming its commitment to a sustainable future for everyone.

Target 11: Ecosystem services

Restore, maintain and enhance nature's contributions to people, including ecosystem functions and services such as the regulation of air, water, and climate, soil health, pollination and reduction of disease risk.

Read more about how Eucatex is contributing to Target 11.

Other targets that Eucatex contributes to directly:

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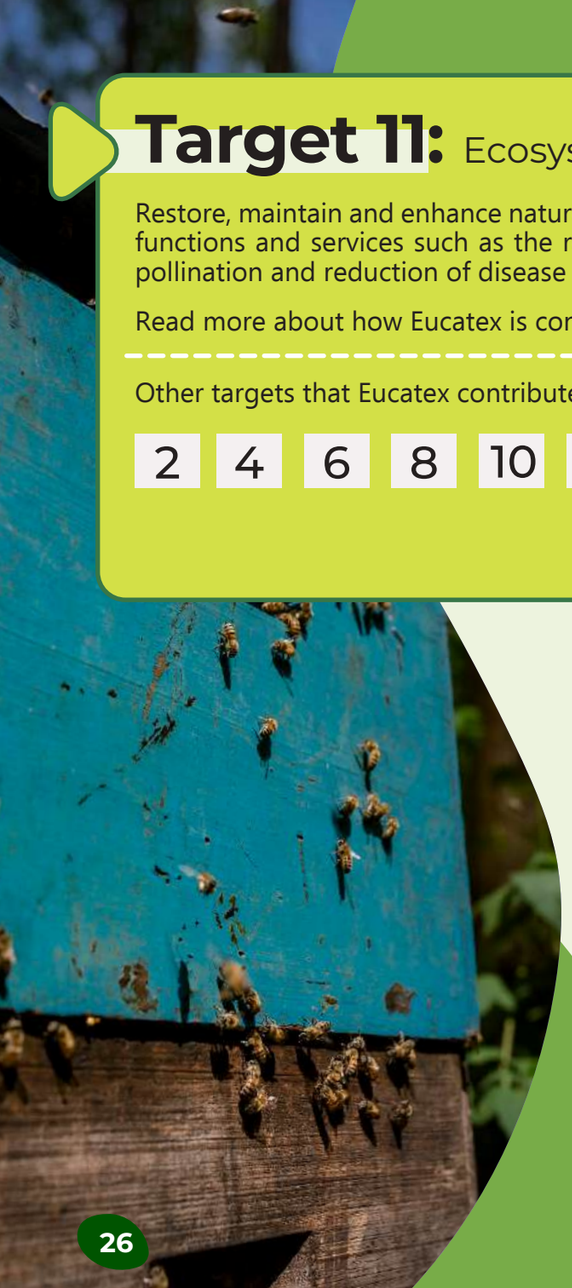


eucatex

Bees play a crucial role in sustaining human life as well as environmental equilibrium. In the Cerrado and Atlantic Forest biomes, where areas pertaining to Eucatex in the state of São Paulo are located, this performance extends beyond just producing honey to preserving biodiversity through pollination.

In Eucatex's beekeeping project, honey is managed by beekeepers and helps generate alternative income for families in the communities surrounding the regions where the company works. As part of this project, over 290 tons of honey were produced over the past 10 years in areas containing eucalyptus plantations combined in a mosaic with native forests.

Bees are also key species for maintaining biodiversity: through pollination, they ensure the reproductive success of countless plant species with flowers that depend on pollinators to create new individuals. This symbiotic relationship not only sustains the diversity of flora but also extends through entire ecosystems, affecting the abundance and distribution of fauna species that depend on these plants for food and shelter.

The beekeeping program is a point of pride for Eucatex, since it benefits society by generating income as well as a nutritious food, preserves the environment, and perpetuates ecosystem services by preserving bees. Protecting bee species not only guarantees the continuity of honey production but also supports rich biodiversity and the ecological resilience of the forests for future generations.

Target 12: Green and blue spaces and urban planning

Significantly increase the area and quality, and connectivity of green and blue spaces in urban and densely populated areas sustainably, as well as access to these spaces and the benefits they generate.

Read more about how Cenibra is contributing to Target 12.

Other targets that Cenibra contributes to directly:

1 2 3 4 5 8 9 11 13 15 19 20 21

Scan here for more information:

CENIBRA

Located in the district of Perpétuo Socorro (Cachoeira Escura) in Belo Oriente, Minas Gerais, the Multifunctional Park is the result of a partnership between Cenibra, the Cenibra Institute, and the local municipal government. This space, which is notable for its expansive green area, offers a structure for sociocultural projects, leisure, and sports.

Since 2016, the Cenibra Institute has played an essential role in managing the park. The company was responsible for building all the infrastructure it contains, as well as maintaining and preserving these structures. It also cares for the green spaces, carries out any necessary improvements, holds thematic events, and implements socioenvironmental projects there that always focus on collective well-being and integrated development of the town. Located within the Atlantic Forest biome, the park covers 24.63 hectares of native forests and green areas and provides a space for leisure, cultural interaction, and environmental awareness.

The objective of the Multifunctional Park is to promote awareness about the importance of environmental preservation and the role of each individual in this process by offering visits to ecological trails and activities as part of the company's environmental education program, reinforcing Cenibra's commitment to biodiversity and preservation activities.

The space is designated for community use and was designed to foster cultural, sports, and environmental activities as well as social programs. The Cenibra Institute believes that the park provides residents a chance to interact with nature and biodiversity while simultaneously promoting cultural, sporting, and social development.

This set of initiatives rooted in the promotion of citizenship results in social, ecological, and environmental benefits, along with a significant improvement in quality of life for the local community and visitors.

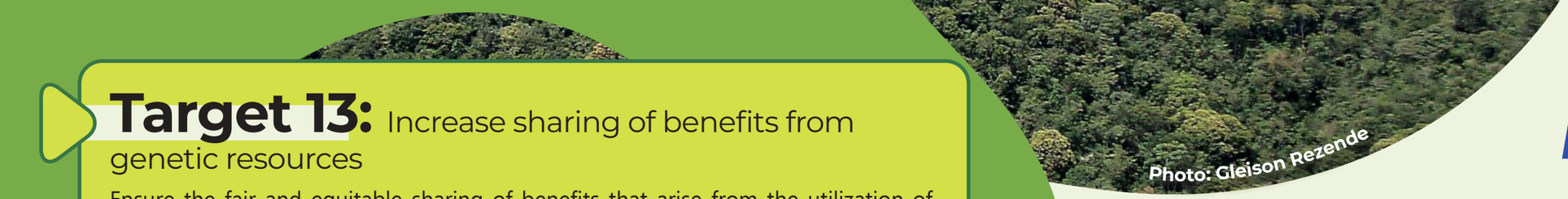


Photo: Gleison Rezende

Target 13: Increase sharing of benefits from genetic resources

Ensure the fair and equitable sharing of benefits that arise from the utilization of genetic resources and from digital sequence information on genetic resources, as well as traditional knowledge associated with genetic resources.

Read more about how Bracell is contributing to Target 13.

Other targets that Bracell contributes to directly:

1 2 4 5 6 7 8 9 10

11 15 16 21 22

Scan here for more information:

Bracell

Bracell's Ecomunidade and Green Pharmacy programs are implemented to value local cultural repertoires and develop sustainable practices.

Created in 2016, Ecomunidade ["Ecommunity"] focuses on peer education by training community members to serve as eco-agents or environmental boosters where they live. One notable activity is cultivating and planting native tree species for remediation of springs and degraded areas. The community of Prata in Entre Rios, Bahia, stands out for its work to remediate the source of one of the tributaries of the Subaúma River, efforts which have already resulted in the planting of over 1,500 seedlings in riparian forests.

Along similar lines of generating shared value, the objective of the Green Pharmacy program is to help preserve traditional knowledge about medicinal plants. The project recognizes folk uses of plants in health care, herbal home remedies, and maintaining biodiversity. The Green Pharmacy program stimulates female empowerment, social entrepreneurship, and income generation through fostering the production chain for native, medicinal, and aromatic plants.

Some notable items produced are medicinal and artisanal soaps, bath salts, and scented candles. Besides support for producing and distributing these products, the project invests in refining sustainable practices. In 2022, the Cangula quilombola community in Alagoinhas, Bahia, was selected as the winner of a R$ 250,000 competitive process held by the United Nations Development Program and the Brazilian Ministry of the Environment to construct a space to produce and handle plants and their derivatives and also establish a nursery.

Target 14: Integrate biodiversity into governance

Ensure the full integration of biodiversity into regulations, planning and development processes, poverty eradication strategies, strategic environmental assessments, environmental impact assessments, and, as appropriate, national accounting within and across all levels of government.

Scan here for more information:

Crax blumenbachii | Photo: Suzano

Photo: Cenibra

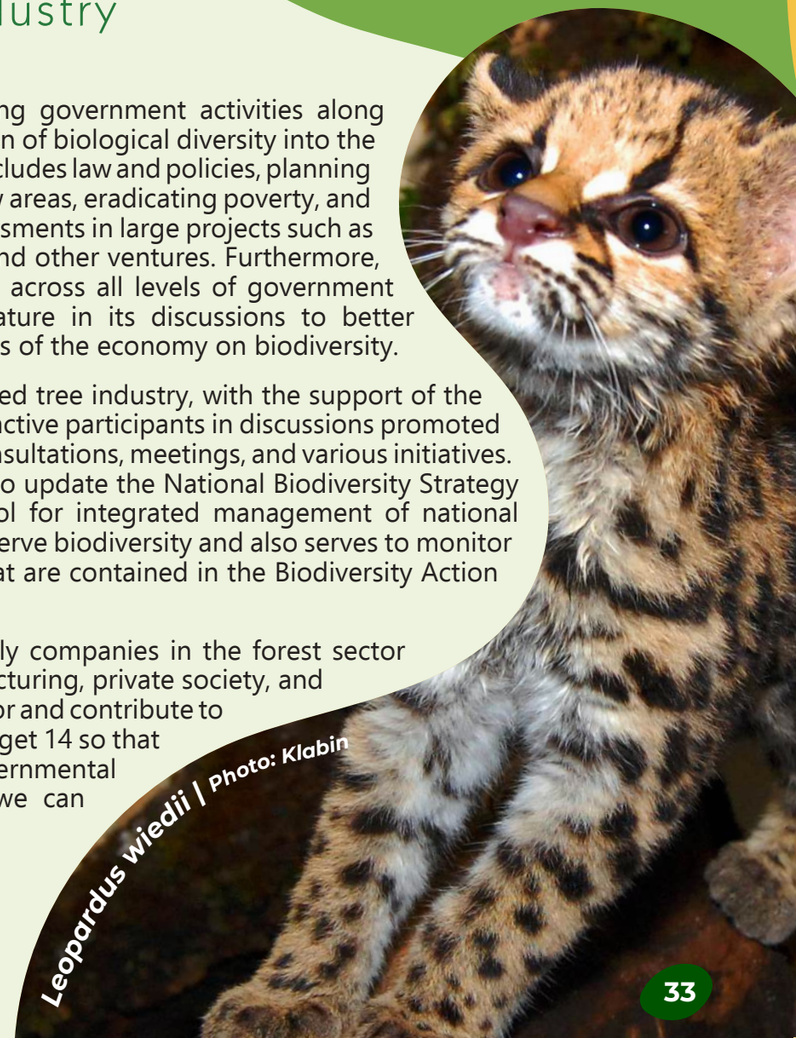
ibá

brazilian tree industry

Target 14 focuses on integrating government activities along with the recognition and insertion of biological diversity into the decision-making process. This includes law and policies, planning and development of cities or new areas, eradicating poverty, and considering environmental assessments in large projects such as road-building, manufacturing, and other ventures. Furthermore, national accounting, within and across all levels of government and sectors, should include nature in its discussions to better understand the potential impacts of the economy on biodiversity.

Brazilian companies in the planted tree industry, with the support of the Brazilian Tree Industry (Ibá), are active participants in discussions promoted by the government via public consultations, meetings, and various initiatives. A good example is the process to update the National Biodiversity Strategy and Action Plan (NBSAP), a tool for integrated management of national activities that is intended to preserve biodiversity and also serves to monitor progress on Brazil's activities that are contained in the Biodiversity Action Plan.

As part of these efforts, not only companies in the forest sector but also all segments of manufacturing, private society, and academia are expected to monitor and contribute to the process of implementing Target 14 so that nature is considered in all governmental and economic decisions and we can protect biodiversity.



Leopardus wiedii | Photo: Klabin

Target 15: Integrate biodiversity into businesses

Take administrative or policy measures to encourage and enable business to ensure that companies regularly monitor, assess, and transparently disclose their risks, dependencies and impacts on biodiversity and provide information needed to consumers in order to progressively reduce negative impacts on biodiversity.

Read more about how Norflor is contributing to Target 15.

Other targets that Norflor contributes to directly:

1 2 3 4 5 6 7 8 9

10 11 16 19 20 22 23

Scan here for more information:

Bothrops jararaca

Norflor

Caracara plancus

Ensuring protection for biodiversity, water resources, and soil is a basic requirement for sustainability at Norflor's forest operations.

For this reason, the company assesses the impacts of its operations on biodiversity, adopts conservation activities, monitors the efficacy of these activities, and publicizes its results biennially through a sustainability report drafted according to the Global Reporting Initiative (GRI) standards.

The company is located in the north of Minas Gerais in the Cerrado biome. In 2021, 11 species classified as endangered according to the IUCN's Red List were identified.

The flora and fauna species present prior to the start of forestry operations were surveyed. Flora monitoring is conducted periodically, especially in the areas that underwent environmental recovery, while fauna monitoring takes place twice yearly.

Over the past six years, 421 species were recorded in all the monitored groups: birds, insects, reptiles and amphibians, fish, and mammals. Fauna species often in company areas include the maned wolf (*Chrysocyon brachyurus*), hoary fox (*Lycalopex vetulus*), giant anteater (*Myrmecophaga tridactyla*), ocelot (*Leopardus pardalis*), hepatic tanager (*Piranga flava*), jararaca (*Bothrops jararaca*), and Brazilian slender opossum (*Marmosops paulensis*). Notable flora species include the pequi (*Cariocar brasilienses*), sucupira branca (*Pterodon emarginatus*), and mangabeira (*Hancornia speciosa*).

In 2022 the presence of a jaguar (*Panthera onca*) was registered, affirming the company's conservation efforts.

Norflor is committed to transparency in its activities as well as the data in its reports, to improving its processes over the years, and to dedicated exploration of impacts and dependences on nature in order to carry out mitigation activities.

Target 16: Sustainable consumption choices

Ensure that people are encouraged and enabled to make sustainable consumption choices, significantly reducing overconsumption and substantially reducing waste generation.

Read more about how Irani is contributing to Target 16.

Other targets that Irani contributes to directly:

1 2 3 4 5 6 8 9 10

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Scan here for more information:

WASTE **PRODUCT**

irani

Irani Papel e Embalagem S.A is located in Santa Catarina, and has other units in the states of Rio Grande do Sul, São Paulo, and Minas Gerais. In efforts toward conscious consumption and reducing its use of raw materials, the company works proactively to foster the circular economy, implementing new technologies, adding value to by-products and inserting them into a new production chain through partnerships with other companies. Always taking an active role, Irani has established various indicators that serve to guide compliance and evolution of the company's commitment to sustainability, strengthening its goal to reduce the quantity of waste sent to landfills down to zero by 2030.

Success stories include the Plastics Recycling Plant, which uses a unique and pioneering technique to process plastic waste that is mixed in with scrap paper, making it possible to send this refuse to a partnering company that uses it as a raw material to manufacture composite wood. In 2023, over 2,300 tons of paper scrap mixed with plastic was sent to the partner company. Irani still maintains other projects and partnerships in order to eliminate 100% of its non-hazardous waste by 2030.

As the result of all these efforts, in 2023 the company was granted Zero Waste certification, earning an A grade for its good practices and 93.4% sustainable trash disposal rate.

Target 17: Biotechnology and biosafety

Establish and implement in all countries biosafety measures as set out in Article 8(g) of the Convention on Biological Diversity and measures for the handling of biotechnology and distribution of its benefits.

Read more about how Suzano is contributing to Target 17.

Other targets that Suzano contributes to directly:

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Scan here for more information:

suzano

FuturaGene, Suzano's Biotechnology Division, conducts research and genetic improvement to enhance the yield and sustainability of eucalyptus varieties.

With R&D facilities in Israel and Brazil, we utilize state-of-the-art technologies including bioinformatics, genomics, gene transformation, and gene editing.

FuturaGene has received commercial approval from the National Biosafety Technical Commission (CTNBio) in Brazil for ten genetically modified (GM) eucalyptus varieties based on the evaluation of rigorous testing and risk assessment dossiers, demonstrating safety for human and animal health, and the environment[1].

Yield-enhanced eucalyptus, the first GM eucalyptus approved worldwide, has been tested extensively in multiple regions in Brazil since 2007 and was approved for commercial use in 2015.

FuturaGene's ten approvals for genetically modified eucalyptus in Brazil include yield enhancement, herbicide-tolerant, insect-resistant, double-stacked traits (yield enhancement and herbicide tolerance), and triple-stacked traits.

The triple-stacked, genetically modified eucalyptus is the most recent approval and combines traits for yield enhancement, herbicide tolerance and insect resistance, enabling the sustainable intensification of eucalyptus farm productivity. This combination allows for more resource-efficient production, reducing operational costs and pesticide use while simultaneously improving worker safety and providing more productive and healthier eucalyptus farms.

FuturaGene is proud to be the only company globally to have taken GM eucalyptus from lab to field, providing a pipeline of varieties for a more sustainable and climate resilient future.

[1]The National Technical Biosafety Commission (CTNBio) is a multidisciplinary collegiate body composed of scientists who perform the safety assessments of biotechnologies in Brazil.

Target 18: Incentives and subsidies

Identify by 2025 and eliminate, phase out or reform incentives, including subsidies, harmful for biodiversity and scale up positive incentives for the conservation and sustainable use of biodiversity.

Read more about how CMPC is contributing to Target 18.

Other targets that CMPC contributes to directly:

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Scan here for more information:

Araucaria angustifolia

Since 2011, CMPC has been conducting flora and fauna monitoring in its forests to understand the dynamics of biodiversity in mosaics containing areas used for forestry as well as preservation. Fauna monitoring covers fish, amphibians, reptiles, birds, and mammals, while the flora monitoring tracks grassland communities, typical ecosystems in the Pampa biome. Biodiversity monitoring and studies are linked to demands from environmental legislation, forest certifications, and CMPC Brasil's environmental policy, and will be catalyzed by the implementation of the Nature and Conservation Strategy and pathway toward being Nature Positive.

In 2023, CMPC Brasil began operations for its BioCMPC project, with an investment of US$630 million which made it possible not only to expand production capacity in the company's Guaíba unit but also implement relevant environmental improvements. One condition encouraged by the BioCMPC funding agency was the development of a diagnostic for critical habitats, a Biodiversity Action Plan, and a Biodiversity Monitoring and Assessment Program in compliance with the International Finance Corporation's (IFC) Performance Standard 6. These efforts led to the creation of a technical database on critical habits located within the area where CMPC Brasil works that can support activities that should be carried out to avoid or ameliorate threats to biodiversity provoked by the company's operations, in order to sustainably administer natural resources.

Based on these results, the effectiveness of adopted conservation practices can be evaluated, along with the need to take additional measures to improve current biodiversity and ecosystem services in the company's forests.

Target 19: Mobilization of financial resources

Substantially and progressively increase the level of financial resources from all sources, in an effective, timely and easily accessible manner, including domestic, international, public and private resources.

Read more about how TRC is contributing to Target 19.

Other targets that TRC contributes to directly:

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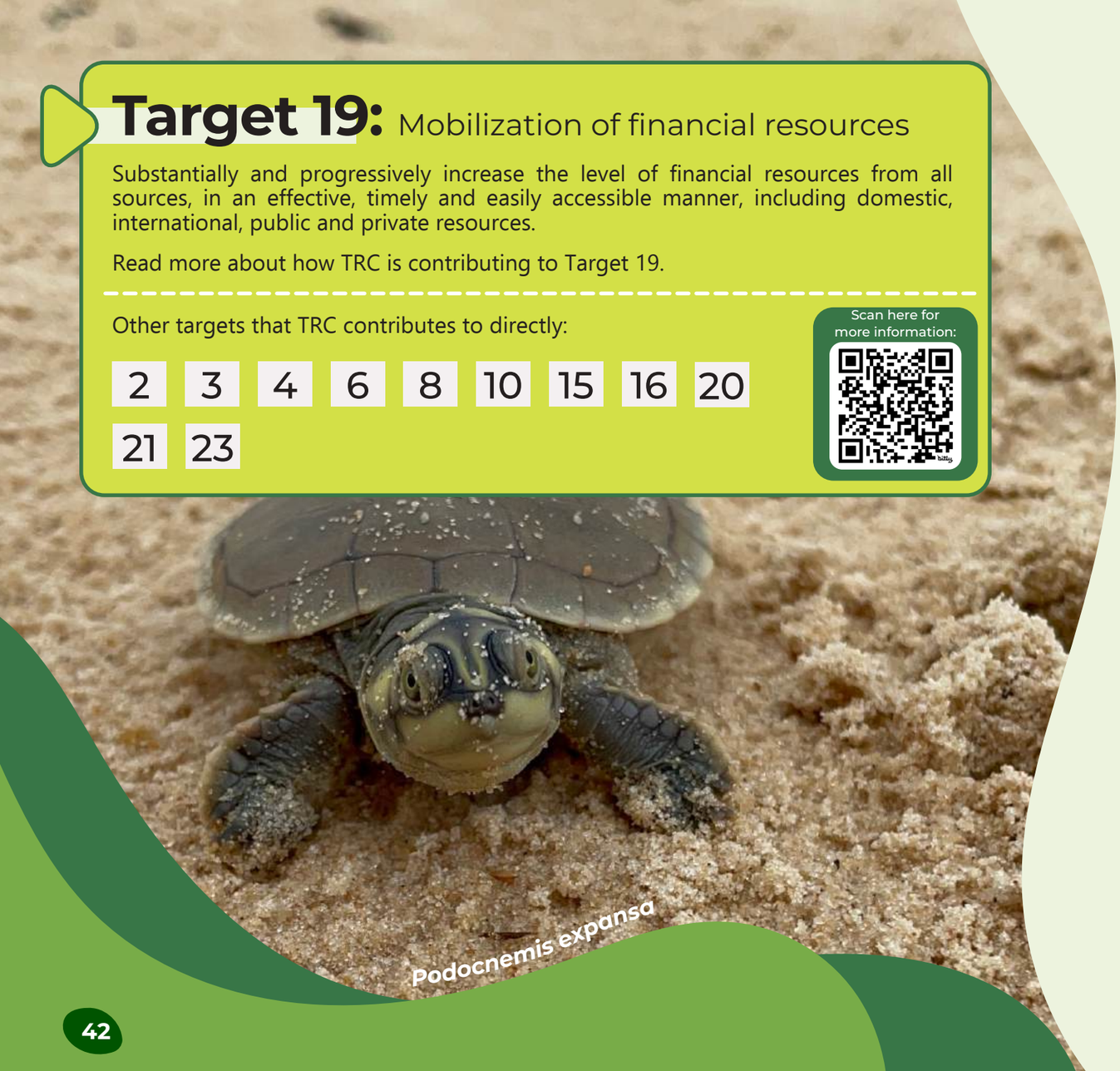
Scan here for more information:



Podocnemis expansa

TRC

Teak Resources Co.

In Santa Maria das Barreira, Pará, TRC is one of the private partners in the Araguaia Chelonians project (PQA) to protect the turtles and other shelled reptiles that comprise this group of animals. This initiative is an institutional municipal program with funding from public as well as private sources that uses research and management to promote conservation practices for freshwater turtles, terrapins, and tortoises that occur in the Araguaia River Basin to raise environmental awareness about predatory activities (like hunting and fishing, for example).

TRC works directly in management stages to understand the importance of conservation practices in the region, bringing sustainable management of biodiversity, commitment to preserving wildlife species, and other practices that are critical for these three pillars of sustainability to the community and stakeholders.

Predatory fishing of the Arrau turtle (*Podocnemis expansa*) in the Araguaia River and worrying scenarios related to the potential extinction of the species have encouraged the municipal government to implement the program, which has already managed thousands of chelonian hatchlings. The outcome of this process has been recognition for the municipality for its significant stock of recoverable turtles that can be involved in sustainable use programs. This is thanks to the municipal government, through its Secretary of the Environment and Sustainability, communities of river dwellers, volunteers, partners, as well as indigenous people who have associated themselves with these management and protection initiatives because of their belief in the everyday importance of these animals.

The program has been an instrument for biodiversity conservation policy that allows people to remain in rural areas, generates jobs and income, and improves the social, economic, and environmental well-being of communities located within the Araguaia River Basin.

Target 20: Capacity building, technology transfer, and cooperation

Strengthen capacity building and access to and transfer of technology, and promote development and access to innovation and technical and scientific cooperation.

Read more about how Dexco is contributing to Target 20.

Other targets that Dexco contributes to directly:

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Scan here for more information:

Dexco

Farmers in the state of Rio Grande do Sul, in the region where Dexco works, can take part in its outgrower program, receiving seedlings and technical guidance for proper forest establishment.

Dexco's outgrower program is an instrument that helps keep rural producers in the country, improving their qualifications from the moment they begin to work in compliance with an internationally-recognized management standard which involves commitment to environmental, economic, and social aspects.

The saplings and guidance provided to these partners incorporate technologies and knowledge developed over the years by Dexco and the forest sector, such as the results of its breeding program. The company's specialized professionals share guidance on responsible forest management with the producers, in a way that is aligned with the practices utilized in the areas Dexco manages.

In line with its Sustainability Strategy, since 2019 Dexco has supported responsible forest management certification for its outgrowers, offering technical support and financial support to comply with the standards. This initiative broadens engagement with its suppliers, transferring knowledge and making it possible to diversify income opportunities in rural areas and reduce adverse impacts on people and biodiversity within the value chain.

Photo: Rafael Renzo

Target 21: Access to knowledge

Ensure that the best available data, information and knowledge are accessible to decision makers to guide effective and equitable governance that strengthens communication, awareness-raising, education, and knowledge management.

Read more about how Sylvamo is contributing to Target 21.

Other targets that Sylvamo contributes to directly:

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Scan here for more information:

Sylvamo

According to its motto "understand to conserve," since 1994 Sylvamo has maintained partnerships with well-known public and private institutions, which are fundamental for development, sustainability, and continuous improvement of the company's forest management and also encourage training to develop new professionals, generate technical and scientific knowledge on biodiversity, and promote ecological restoration of the Cerrado and Atlantic Forest biomes.

Over three decades 89 projects have been carried out in the areas of fauna, flora, ecological restoration, speleology, and forest hydrology: they have involved 16 institutions and yielded 29 master's theses, eight doctoral dissertations, and dozens of articles published in scientific journals.

The public/private partnership between Sylvamo and the Institute of Environmental Research (IPA) was established 25 years ago in order to plan, implement, and monitor the process of ecological recovery involving highly diverse species within the São Marcelo forest in Mogi Guaçu in São Paulo state, an area recognized as a Private Natural Heritage Reserve (PNHR) in 2002.

Assessment and continuous monitoring of restoration have helped generate scientific and technical knowledge that is fundamental to refine government policy on ecological restoration as well as the management activities adopted in Sylvamo's other natural areas. This partnership led to 31 scientific publications.

Over the last year, the flora surveys indicated an increase of 118 native species, 52 families, and 98 genera that have not been registered before in the area in question. A highlight is the presence of fauna species like the buffy-tufted marmoset (*Callithrix aurita*), which has been classified by the International Union for Conservation of Nature (IUCN) as one of the world's 25 most threatened primate species.

BEFORE **AFTER**

1995

2003

2023

Target 22: Participation in decision-making and access to information related to biodiversity

Ensure the full, equitable, inclusive, effective and gender-responsive representation and participation in decision-making, respecting their cultures and their rights over lands, territories, resources, and traditional knowledge.

Read more about how Klabin is contributing to Target 22.

Other targets that Klabin contributes to directly:

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Scan here for more information:

Klabin

Considering the importance and effectiveness of spaces for dialog on sustainability, Klabin maintains a technical structure that is dedicated to contributing to a broad network of forums that discuss and propose activities related to maintaining and improving conditions for biodiversity conservation. One criterion the company considers when determining which forums and platforms it will participate in is equitable participation of all stakeholders or those who may potentially be affected by the use of natural resources at the landscape scale.

With an active presence in organizations like FSC®, where it has a seat on the board of directors; The Forests Dialogue, where it is part of the Steering Committee; Diálogo Florestal, as a member of the Coordinating Council; and the Brazil, Climate, Forests, and Agriculture Coalition, where it is part of the Executive Group, Klabin continuously strives to build collaborative solutions and consensus to ensure management standards and implementation of effective measures to safeguard biodiversity and ecosystem services without ignoring the rights and perspectives of potentially affected communities.

All the organizations cited above include a gender perspective in their directives and governance, along with special attention to indigenous peoples and local communities, considering respect for human rights in their working premises.

By participating in these collaborations and influencing spaces, the company works to share learning and effective practices, align with trends, and feed back into its internal processes to drive innovative practices and achieve positive transformations in the field of conservation.

Target 23: Gender equality

Ensure gender equality through a gender-responsive approach where all women and girls have equal opportunity and capacity to contribute to the three objectives of the Convention.

Read more about how Gerdau is contributing to Target 23.

Other targets that Gerdau contributes to directly:

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Scan here for more information:

GERDAU

Shape the future

Diversity and inclusion are fundamental agendas for a company of Gerdau's size and complexity. The company understands that innovation and plurality, which are essential for the future, result from dedication by talent with different life stories and experiences, which can expand the company's vision and approach.

The importance given to this topic makes diversity and inclusion a feature of various company documents and policies such as its Code of Ethics, Social Responsibility Policy, Human Rights Policy, Sustainability Policy, Travel Policy, and Remote Work Policy for People with Disabilities, and Global Diversity Policy.

Gerdau's goal is to be one of the most inclusive companies in the industrial sector, and to achieve this goal it has committed to having women in 30% of its leadership positions by 2025, and the indicators for these gender equity polities have been showing results. Since 2021, the company has been channeling its efforts towards increasing the number of women in its operations and leadership. The share of women in Gerdau Florestal's operations rose 17% from 2021 to 2024, and in leadership advanced 4.55%.

To support this objective, Gerdau conducts a training program called Project Belonging in its seedling nursery which focuses on people with disabilities and women. The company also works on exclusive development for women with other training programs such as Helda Gerdau, which focuses on initial leadership, and the Intertwine Program, which provides content to drive female career protagonism and permits meetings in a space for exchange and mutual learning. There is also a diversity development track that includes required trainings on a variety of topics including unconscious bias, inclusive leadership, and addressing harassment.

The private sector plays a **key role** in reaching the **Kunming-Montreal targets**

The Brazilian planted tree industry's activities presented herein are the result of large-scale investments over the past decades in research, development, and innovation in the pursuit of best practices in forestry production. These include environmental protection and conservation, restoration, reintroducing species, biosafety, sustainable forestry, ecosystemservices, gender equity, innovation, and technology transfer.

The activities and commitments do not stop here: we continue to build viable and achievable pathways dedicated to making the 2050 Vision of the Global Framework a reality in order to "live in harmony with nature."

Cotinga maculata

Photo: Veracel | Ciro Albano

Ibá

The Brazilian Tree Industry (Ibá) is the association responsible for institutionally representing the planted tree production chain and its main stakeholders, from the fields to the factory. Founded in April 2014, Ibá represents 50 companies and nine state entities for products originating from planted trees (wood panels, laminate floors, pulp, paper, energy forests and biomass) in addition to independent producers of planted trees.

Learn more at our site: iba.org/eng and our social media channels.

Photo: Cenibra

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brazilian tree industry

brazilian tree industry

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