

REPORT IN  
ENGLISH  
(summary)

  
**IPE**  
2020

3856



# REPORT IN ENGLISH (SUMMARY)

**“** *We need to take care of nature and people, because it's us, human beings, those responsible for what happens around us. The impacts come from our actions. Our actions reflect the values that urgently need to be transformed so that we can glimpse a promising future. And the time is now!* **”**

Suzana Machado Padua, IPÊ president

## .SUMMARY

1.HIGHLIGHTS 2020 **10**

2.LOCAL PROJECTS **12**

3.THEME PROJECTS **28**

4.EDUCATION **36**

5.PARTNERSHIPS AND  
SUSTAINABLE BUSINESSES **41**

## IPÊ in 2020

IPÊ exists due to its ability to gather people who have a common purpose: harmonize the relation between humans and the planet. Underpinned by this idea and the desire for transformation, all of us, through a team with diverse knowledge, contribute with our abilities to these changes, celebrating biodiversity and, without a doubt, society. Our performance as a Civil Society Organization is of interest to Brazilian citizens, as we seek day-by-day, with our work, to protect our greatest heritage, which is also a world heritage.

This multidisciplinary perspective and this sense of purpose were extremely important for us to go through a year that was different from anything we've already experienced. 2020 represented a time of great challenges and a year to test our ability to deal with adversity. The changes that the world has undergone, which have also affected us, made us rethink some of our approaches, always with the concern to maintain our commitment to the institutional mission, keeping the team tied and strengthened.

Despite the great difficulties the moment imposed on us, we have managed to keep up our efforts to transform the maps of dreams that we have for the Atlantic Forest into reality and we managed to plant even more trees! We have adapted our activities and continued our research to conservation our flag species, such as the black lion tamarin, the tapir and the giant armadillo. We have continued actions to conserve the Cantareira watershed, strengthened protected areas in the Amazon and also outreached information, knowledge and good practices to communities that live in the biomes where we operate. With our

school (ESCAS), without a doubt, the change was great, with adjustments to the new reality of virtual communication. You can follow the results and impact of our work here in the Activity Report.

To get this far and remain resilient to change, we rely on our long-standing partners and the support from society. During this period, we felt people's commitment to our cause, reflecting people's will to seek ways to join our efforts, given so many important social and environmental issues. Climate change and biodiversity come to fill a much more important place on the global agenda - whether in government, in the private sector, or even in the conscience of citizens. We hope that this report will also help to inspire people who are looking for ways to engage and contribute to this harmonization between human beings and the planet.

*Eduardo H. Ditt*  
*Executive Secretary*



Eduardo Ditt.  
Credits: Ilana Bar.

Could someone on this planet have been through 2020 unscathed? The year changed the structures of the world. And, perhaps, the environmental challenge has never been in such evidence. There was a lot of evidence of imbalance, such as the pandemic that overwhelmingly affected everyone in the world – a battle against an invisible enemy. In Brazil, we witnessed astonished the alarming fires in the Pantanal and the Amazon. Again, these biomes, climate regulators and pulse of life, turned into ashes.

There is much more to say about 2020, but the need to see nature through a different prism of respect and love became clear. Who knows, through crises, we can create opportunities for transformation, so that the necessary changes can happen?

Brazil, a country with one of the richest biodiversity in the world, has this responsibility. We need to take care of nature and people, because it's us, human beings, those responsible for what happens around us. The impacts come from our actions. Our actions reflect the values that urgently need to be transformed so that we can glimpse a promising future. And the time is now!

Life needs to be valued, celebrated, cared for, whether we are referring to people, animals, plants, or any element of nature. We need inspiring examples. We have to be what we preach and want. And IPÊ has pursued its mission of protecting life, restoring degraded environments and improving the well-being the populations we work with. At the same time, we have been training students in our School (ESCAS - School of Environmental Conservation and Sustainability), who delivers IPÊ's seeds to remote locations in Brazil and Latin America. The idea is to mobilize whoever we can to act in favour of a world with less social

inequalities and with more values that promote regeneration.

Despite the 2020 challenges, we remain firm in our mission. We are reaping the fruits of what we sowed. We seek to adapt to the changes that the world has imposed on us. We transform our activities not to leaving those around us without support. We work harder than ever in cooperation with people and organizations to deliver the best. We certainly leave this moment strengthened and ready to move forward. Together, the chances of making significant differences are greater. May the future be smooth for everyone – people and nature!

*Suzana Machado Padua*  
*President*



Suzana Machado Padua, presidente do IPÊ.  
Credits: Visionaris UBS.

# MISSION

*To develop and disseminate innovative models for conservation of biodiversity that promote socioeconomic benefits through science, education, and sustainable business.*

IPÊ is an institution dedicated to conservation of biodiversity on scientific bases. It operates in research, training of professionals, environmental education, and programs for generation of income and sustainable business that may expand the socio-environmental responsibility of communities, businessmen and influencers.

## Objectives

- To research rare and/or endangered species and implement conservation management plans, integrating nature and captivity, through the adoption of techniques for introduction, reintroduction, and translocation of species;
- Develop programs for environmental education and archaeological extension alongside the communities neighboring natural reservations;
- Promote training of professionals in several areas of conservation, especially in Conservation Biology;
- Influence public policies that benefit conservation of biodiversity in Brazil;
- Restore, regenerate, and rebuild the habitat of species that are facing extinction;
- Obtain financial support for projects in progress;
- Develop projects for training and propose sustainable alternatives for generation of income for communities in the areas that

surround protected areas, reducing pressure on the environment;

- Promote partnerships with companies that adopt socio-environmental responsibilities to help disseminate the potential of the business world for changes to sustainability

## SDGs

IPÊ IS ENGAGED WITH THE UN GLOBAL AGENDA

The **17** Sustainable Development Goals (SDGs) should be implemented by all countries worldwide in coming years, by 2030. Our projects contribute to the following SDGs:

**Is it possible for anyone on the planet to have escaped 2020 unharmed? This was a year that moved global structures like never before. And environmental matters may never have been so present in our lives. Be it due to threats to our lives, directly and brutally, with a pandemic that affected the lives of everybody - a battle against an invisible enemy. Be it due to the threats that are taking place, in real time, visibly, with the unprecedented fires in the Pantanal and Amazon. Once again we have seen our biomes, climate regulators, throbbing with life, being burnt to ashes.**

**There is so much to say about 2020. About the importance of respecting biodiversity, taking care of people and all beings. It is us, humans, who are responsible for such change in the world. For such impact, measuring no consequence. It is us, humans, who are causing the imbalance that is leaving us a legacy of uncertainty about the future, or even, unfortunately, a certainty about the present: that we**

can no longer wait. It is also us, humans, who are responsible for causing the transformation that may revert this scenery.

We must act. We must become a single voice and mobilize ourselves for a world with less social inequality, with more regenerating attitudes, with greater actions for recovery of our forests, with more meaning.

As is the case with many, in 2020, we sought to adapt to all the changes that the

world imposed upon us. And we followed firmly in our mission. We transformed our activities not to leave beneficiaries unsupported, we joined forces with other initiatives to take support to other causes, receiving collaboration from all sides so we would not stop reaching results. Our partners, supporters, and friends, as well as the communities in which we operate, continued with us, and that has strengthened us to follow on in the mission of conserving biodiversity and also staying healthy and constantly showing solidarity to all social and environmental causes that are together with us in this route.



**IPÊ IN NUMBERS**

**IN 2020**

*PEOPLE  
BENEFITED  
WITH MORE  
SUSTAINABLE  
PRODUCTIONS*

**+ THAN 420**

*PEOPLE  
MOBILIZED  
AND BENEFITED  
BY INTEGRATED  
SOLUTIONS  
FOR AMAZON*

**+ THAN 1,000**

**OVER 2,600**

*PEOPLE  
ACHIEVED WITH  
ACTIONS THAT  
GENERATE  
SOCIAL AND-  
ENVIRONMENTAL  
BENEFITS*

**+ 450.000**

*NEW  
TREES  
PLANTED*

**GENERAL NUMBERS**

**OVER 150**

**MASTERS  
TRAINED  
BY ESCAS**

**OVER 12,000**

**PEOPLE  
BENEFITED  
EACH YEAR**

**OVER 330**

**SCHOLARSHIPS**

**TREES  
PLANTED IN  
ATLANTIC  
FOREST TO  
CONSERVE  
FAUNA AND  
WATER  
RESOURCES**

**3,7 MILLION**

**PEOPLE  
TRAINED  
IN CONSERVATION  
AND SUSTAINABILITY  
WITH COURSES AT  
IPÊ'S SCHOOL,  
ESCAS**

**6**

**SPECIES  
OF FAUNA  
RESEARCHED  
GENERATING  
BENEFITS  
FOR OTHER  
SPECIES**

**OVER 7,000**

# HIGHLIGHTS 2020

**Throughout the year, we created free content for several audiences and proposed debates on varied themes.**

The IPÊ Technical Series provides information on innovation in the socio-environmental field, granting people opportunities to dive into relevant themes in the área:

## CONSERVATION DIALOGUES

Three meetings between specialists to discuss themes like Social Participation in Protected Areas, Volunteering for Conservation of Biodiversity, and Environmental Education is Science – making challenges into results. These are all IPÊ initiatives at ESCAS / Faculty for Environmental Conservation and Sustainability.

## LIVES ON INSTAGRAM

To bring the public closer to the work we perform in the Amazon, we developed a series of eight live meetings on Instagram to discuss the Participative Monitoring of Biodiversity. Social participation, chestnut and pirarucu productive chains, and many other themes were discussed in the chats with IPÊ researchers.

## EDUCATION ACTIVITIES

For free, you can view the socio-environmental activities we have prepared

especially for teachers, parents, and children, or for any person interested in amusement, while thinking about the environment and sustainability.

## A NEW SHOP

The IPÊ Shop has been redesigned: [www.lojadoipe.org.br](http://www.lojadoipe.org.br). At the shop, you can buy products that appreciate national biodiversity, contributing to socio-environmental conservation and also generating income for families.



## AID TO PANTANAL

In 2020, we joined other organizations to answer to the emergency faced by the Pantanal due to the unprecedented fires in the region, which destroyed **30%** of the biome.

Through the LTCI - Lowland Tapir Conservation Initiative, IPÊ supported actions to fight fires and assist animals in two ways: making professionals and technicians available, as well as field teams who had to capture, anaesthetize, and treat the tapirs, and promoting a great donor campaign to help the animals and fight the fire. People all over Brazil and the world supported this action. Havaianas, an IPÊ partner for **17** years, has reaffirmed its engagement with biodiversity and donated **100,000** reais specifically for the Pantanal.

The resources raised were applied to the purchase of equipment, medication, and other consumer material for the vet team at the Center for Medicine and Research on Wild Animals (CEMPAS) and the Veterinary Hospital (HOVET) of the Federal University of Mato Gross (UFMT). These professionals started treating the animals rescued in more serious conditions.

The campaign worked out so well that it currently supports research on the fauna at sites affected by fires and, with the resources, it should also be possible to structure a continuous fire brigade and establish partnerships with farms to fight fire. Learn more about the LTCI plans for the Pantanal.

One of the areas that was most affected by the fire in 2002, the Natural Asset Private Reservation - RPPN Sesc Pantanal, now counts on LTCI support to monitor animals, using camera traps.

*“The Pantanal is an asset of humanity and the largest wetlands on the planet, and its part played in maintenance of biodiversity and ecological systems cannot be denied, as well as the value of resources and ecosystem services coming from the biome that humanity receives and uses. Protection is the responsibility of all society, public and civil, which, at different levels, in a shared manner, may promote actions for protection of ecosystems, development of good practices and promotion of sustainable development for communities that live in the territory, always considering and respecting the characteristics of the region.”* Christiane Caetano, superintendent of the Sesc Pantanal Socio-environmental Hub.

**DONATE NOW! There are several ways to donate to IPÊ**

<https://ipe.org.br/en/donate-now>

## FEMALE SCIENTISTS

**More than half the IPÊ leadership positions are occupied by women: 56% Female scientists in the Institution develop projects to cause an impact and transform the socio-environmental reality in Brazil. Overcoming challenges, balancing several social papers that perform and inspire more girls and women in Science.**

Granted the Whitley Awards, the Oscar of Conservation in 2020, Patrícia Medici and Gabriela Cabral Rezende are a proof of how this inspiration crosses generations within the organization.

Patrícia is one of the co-founders at IPÊ, and she kick-started the research on the lowland tapir in Brazil, **25** years ago, making it her life mission, alongside the Institute. This is so true that today we have the world's largest data bank on the species and scientists from several countries use the Brazilian research techniques to develop their studies at other sites. All of this is thanks to Patrícia's National Initiative for Conservation of the Lowland Tapir project, which takes place in the Atlantic Forest, Pantanal, Cerrado and Amazon. The scientist was awarded the Whitley Gold Award, the main award by the WFN – Whitley Fund for Nature.

A Biologist, for **nine** years, Gabriela has been ahead of the Program for Conservation of the Black Lion Tamarin, one of the longest conservation programs in Brazil (**35** years). She continues facing the challenge of continuing the mission and saving the species that originate IPÊ. The researcher and another **five** scientists in other parts of the world competed with another **100** people and were granted the 2020 Whitley Award, a prize of **40,000** pounds each, to be invested in their projects.

The ceremony took place online.  
You can view it here.  
<https://bit.ly/ipe-wfn2020>

## Prize guarantees 1 million more trees

Researcher Laury Cullen Jr. was one of the **13** winners of the Whitley Continuation Funding. The Whitley Fund for Nature (England) award is turned to conservationists worldwide, to provide scale to projects that have already been supported by the organization once. Laury coordinates project Corridors for Life, which has already planted some **3 million** trees in the Atlantic Forest and is responsible for the largest reforestation corridor ever developed in Brazil.

*“This is one more significant step in the mission of reconnecting the Pontal do Paranapanema forests. We have been working on this for over 25 years and, certainly, we have taken a great step thanks to the Whitley fund. This is an award for us, at IPÊ, but, above all, for the Atlantic Forest,”* explains Laury.

With the Continuation Funding, it will be possible to plant another **500** hectares of the forest over the next two years. This means that another **1 million** trees will be planted in the Atlantic Forest, generating the following benefits: climate, compensating **43,000** tons of carbon; conservation of threatened species like the black lion tamarin and the lowland tapir; generation of income with work in forestry restoration for the local communities.

# LOCAL PROJECTS

## PONTAL DO PARANAPANEMA

**BIOME:** Atlantic Forest

**REGION:** southeast of the state of São Paulo  
**354 people benefited**

### **CHALLENGE:**

DEVELOP SYSTEMS AND METHODOLOGY FOR MANAGEMENT OF LANDSCAPES, BALANCING SOCIO-ECONOMIC GAINS WITH THE MAINTENANCE OF ECOSYSTEM SERVICES AND CONSERVATION OF THREATENED SPECIES.

### **MAIN CONQUESTS IN THE REGION:**

- Main Atlantic Forest corridor reforested in Brazil
- Database on the black lion tamarin and improvement in the red list of species category (from critically endangered to endangered)
- Research on the lowland tapir, which is part of the main data bank on the species
- Support in the creation of protected areas with the black lion tamarin ecological station
- Environmental education officialy in the school curriculum of Teodoro Sampaio
- Over **500** people benefited with sustainable alternatives for production and income
- Mapping in the west of São Paulo state for restructuring and forestry connection

## Planting new routes for the fauna and for people

Our actions in Pontal do Paranapanema started in the city of Teodoro Sampaio (São Paulo) and started spread to cities in the surrounding region, which influence the forestry areas of the region in the far West of the State of São Paulo.

Ever since our black lion tamarin (*Leontopithecus chrysopygus*) research showed the need for restoration of the landscape to guarantee the survival of this and other species that are endangered and vulnerable to extinction, we started planting trees in the Pontal do Paranapanema. All of this was based on a strategy originated in our field research. That is how the Dream Map for the Pontal was born, showing the future we desire for the region in terms of landscape and social and environmental impacts.

Today, one of the Atlantic Forest regions most affected by deforestation in the past can already see results for nature, with forestry corridors, and for the population, with generation of income.

We have already planted and influenced the plantation of **3,220** hectares in the region, among them active plants, enrichment and passive restoration.

**That means: 4 million trees.**

In 2020, we planted **445,500** new trees, which created corridors that help connect the Protected Areas: Black Lion Tamarin Ecological Station (ESEC MLP) and Morro do Diabo State Park (PEMD). The main continuous corridor up to now is that of Rosanela farm, **12** kilometers in length

and including **2.4 million** trees. Now, we are concentrating the plantation in the region in the north of PEMD.

The corridors create a safe route for circulation of animals and eliminate isolation, which may result in extinction of their populations.

**To connect PEMD to ESEC, 43 kilometers of corridors must be planted. IPÊ has already implemented 17 kilometers.**  
**Rosanela Corridor: 12 km- 2.4 million trees**  
**North Corridor (stretches 2 and 3) 5 km- 487,200 trees**

IPÊ partners have already planted **12** kilometers through projects. Together, the private initiative, socio-environmental organizations, farmers and citizens are, together, building a good Pontal for all.

With the IPÊ plantation in 2020, some **124** people were directly benefited: **75** people involved in the collection of seeds and in operations at nurseries and in providing services; **49** people, including scientists, technicians, students and professional partners.

To reach these figures, IPÊ counted on several partners. Natura, BNDES, Petrobras, Funbio, Whitley Fund for Nature, Durrell Wildlife Conservation Fund, CTG Brasil, CESP, Parque Estadual Morro do Diabo, Teodoro Sampaio City Hall, State Prosecutor's Office, Saving Species Fund, Ecosia and Weforest.

In the Corridors of Life project, the community nurseries are directly involved. The proposal of the nurseries is that they may be an activity that generates income, with less impact on nature, being business managed by small

farmers. They all supply native saplings for the corridors and other restoration initiatives. Currently, IPÊ follows **nine** nurseries up close, which it helped establish. In 2020, they produced **800,000** saplings, donating **10,000**. But their production capacity is almost double. The potential for even further scale is enormous, as the environmental deficit in the West of the State of São Paulo is over **75,000** hectares. In IPÊ projects in 2021 alone, the expectation is to plant **1,000** hectares of native trees, consuming a total of **2 million** saplings.

## Female leadership in community nurseries

Women are protagonists in the native sapling nurseries in the Atlantic Forest in Teodoro Sampaio, in the Pontal do Paranapanema region (São Paulo state). Of the **nine** community nurseries that IPÊ assists, **five** are led by women. The female force is leading production from the collection of seeds to the moment of plantation in the field, as well as trade. Production is negotiated with IPÊ projects, with farmers, businessmen and city halls, for reforestation.

A year and a half ago, Maria Regina dos Santos set up nursery Mata Nativa, where she employs one person and produces around **100,000** saplings a year. At the moment, the nursery is being redone, to expand the cultivation area. After completion, it will be possible to produce **250,000** saplings a year. Before opening her own business, she learned the profession while working at one of the pioneering nurseries implemented by IPÊ, Viva Verde, managed by Iraci Lopes Duveza.

**Maria's nursery worked out so well that it is the only source of income for her family, which includes herself, her husband and one adolescent son. "My husband shares the work of selling saplings with me, but I alone am also responsible for collecting, planting, and treating the saplings, although my employee helps me with that. There are periods in which the demand increases, and I have to hire daily workers," she explains.**

Apart from the women leading in nurseries, they are also a majority of the employees. In total, the **nine** nurseries benefit **26** people: **15** women and **11** men.

Marcela's life story has included several changes and, according to her, working in nurseries was transforming, not just due to the income. To the nursery owner, nature is a human being's best teacher. With the plants, she explains, she grew to respect time.

A long process takes place in the development of a sapling. The first phase is collecting the seeds in the forests in the region, processing them and planting them in tubes. Then, the tubes go to the nursery, to await germination. After germination, they are transferred to larger tubes as time goes by. The next phase is the change of area, that is, they leave the nursery and are taken to the sunny area, where they undergo a process or rustification. Primary species, like jacaranda, inga and mutambo take around **four** months to be ready for plantation in the field.

Secondary trees, like peroba and amendoim bravo take from **six** months to one year to be ready for plantation in restoration areas.

*"It was this process of saplings that taught me patience, to understand that not everything takes place according to my time*

*schedule. That is how I changed from being a fast-paced person to becoming patient, understanding that things occur in their own time. Today, I would not change the peace of working with saplings for any other job. The nursery gives you peace," she finishes off.*

## Agroforestry Systems

IPÊ supports **51** families in the Pontal do Paranapanema, in the so-called Agroforestry Systems (SAFs). In this sustainable agricultural production system, free from pesticides, the proposal is to balance economic gains with social and environmental improvement. On cultivating trees among crops, farmers contribute to an improvement of the soil and the diversity of local wildlife. The trees serve as trampolines for animals to travel between the fragments of Atlantic Forest, helping them survive. The food, produced without pesticides and in the shade helps generate family income and well-being to farmers.

IPÊ implemented the system on **1** hectare of land of each family participating in the project, combining the cultivation of species of native trees with native fruit, other cultures, and also coffee, which, when planted between trees, benefits from the shade. In 2020, farmers produced **1,422** kg of agro-forestry coffee alongside coconuts, and sold **1,093** packets.

## Anyone can plant by searching on the internet

Wherever you are, you can contribute to the plantation of forestry corridors in the Pontal do Paranapanema. All you have to do is use site

Ecosia when searching on the internet: [www.ecosia.com](http://www.ecosia.com)

The internet research mechanism developed as a social business has already financed the planting of **1,160,000** trees in the largest reforestation corridor in Brazil, in Pontal do Paranapanema (São Paulo state).

## FAUNA

### A year of challenges and victories in the Black Lion tamarin (*Leontopithecus chrysopygus*) research

One of the longest initiatives in conservation of the species in Brazil, the Program for Conservation of the Black Lion Tamarin, created by IPÊ in the Atlantic Forest in São Paulo, started prior to the foundation of the organization, **36** years ago. The history of the program is closely tied to the Institute's trajectory. After all, it was the studies with the tamarin that granted us the base for all our work developed to date, focusing on: scientific research, environmental education, community involvement in sustainable business, restoration of vegetation in the landscape and support to public policies.

We want to guarantee at least two viable and self-sustaining populations of black lion tamarins, living in a larger, more protected and connected habitat. The data in the research contributes to the process of restoration of the habitat and of connectivity of the landscape, aiming to improve the quality of the forest for the animals and for

the ecosystem services it provides, like climate regulation, and air and water purification, which directly benefit the population of the Pontal.

In 2020, the pandemic brought new challenges. Until a moment of safety was reached for contact with primates, we suspended our field trips for **six** months and focused on data analysis. The Environmental Education activities scheduled for the year were also suspended. The return to field research took place in September, at Black Lion Tamarin Ecological Station/ICMBio. For that to be possible, the team followed a restricted biosafety protocol. Apart from that, we started performing inhalation anesthetic on animals captured for research, reducing the time of manipulation.

We captured black lion tamarins for the collection of genetic and health samples, turned to several analyses, in partnership with universities like UNESP and UFSCar. Radio-collars were also placed for monitoring of the tamarins in nature. A tamarin in each group captured also received a GPS backpack with an accelerometer, which collects information on its movement.

The accelerometers allow us to understand how the animals use the forest in **three** dimensions, apart from the two-dimensional data supplied by GPS, making it possible to estimate their daily energy expenditure in different environments and evaluating whether there is any change in more preserved or more degraded areas. The results of this research are going to guide the restoration actions so that the tamarins may have a more appropriate environment for life and reproduction.

Throughout the year, we continued the work on artificial dens. Currently, there are **20**

installed in fragments and corridors, and they are monitored in the field, with camera traps and also with dataloggers, which record temperature and humidity data, also installed in natural dens, making it possible to compare them to the artificial ones.

Another advance in the program was the study to identify potential areas for management of populations, that is, to know where there are enough resources to guarantee the life of tamarins in new areas, when the animals are managed.



Black lion tamarin.  
Credits: Rachel Hughes.

## Planning of actions for the black lion tamarin continued

Instead of the workshop that had been scheduled to take place in March 2020, and that would elaborate the Plan for Management of the Black Lion Tamarin Metapopulation (PMM), we started developing the Populational Viability Analyses (PVA) during online meetings. We promoted **six** online meetings from April to June, involving a group of specialists in the species, including representatives of universities, zoological institutions, government, NGOs and IUCN.

# CANTAREIRA SYSTEM

**BIOME:** Atlantic Forest

**REGION:** Southeast of the state of São Paulo and south Minas Gerais

**125** people benefited

**CHALLENGE:** Conservation of ecosystemic services, with the application of scientific research and involvement of the community. Actions propose better use of the soil with new productive systems and environmental education, favoring the water resources and the forest remains in the region.

## MAIN CONQUESTS IN THE REGION:

- Plantation of over **370,000** native trees of the Atlantic forest in watershed areas
- Largest and most detailed mapping of the socio-environmental situation in the Cantareira System
- Promotion of environmental education in **100%** of the state schools in Nazaré Paulista and expansion of the activities to another seven cities in the Cantareira system.

The city of Nazaré Paulista (SP), where IPÊ and ESCAS is headquartered, is located in a strategic region for conservation of the Atlantic Forest, its fauna, flora, and ecosystem services, especially the water resources. The work of the institute, however, includes neighboring cities with similar ecological characteristics and that are water producers for the Cantareira System: Bragança Paulista, Joanópolis, Mairiporã, Nazaré Paulista, Piracaia, in São Paulo, as well as Extrema, Camanducaia and Itapeva, in Minas Gerais. One of the largest in the world, the system supplies water to around **7.6 million** people in the metropolitan region of São Paulo

and another **five million** in Campinas and Piracicaba. Even with this grandeur, the Cantareira System is suffering degradation of its Permanent Preservation Areas (PPAs), which may result in lack of water to millions of people and expressive environmental imbalance. IPÊ figures show that there is a **35 million** tree deficit in the watershed PPAs included in the system.

## Sowing water

The water crisis is a reality in the world and its lack is already felt in several parts of Brazil. With project Sowing Water, sponsored by the Petrobras Socio-environmental Program, we aim to overcome the serious resilience problem of the Cantareira System. In the cities that produce water, we have promoted environmental education, courses, and practices for improvement of the use of soil alongside farmers, social engagement, restoration of the soil and public policies in favor of ecological improvement and, consequently, of the life of people. Even with the pandemic, in 2020, we managed to progress in several research fronts, actions for restoration, implementation of productive systems, public policies and communication, actions that will contribute to the scale of the project in 2021.

This is the second phase of the IPÊ initiative that started in 2013. Ever since the start of the project, we have directly benefitted **7,300** people, including educators and farmers through training, as well as students and the public in general in campaigns for generation of environmental awareness.

With new support from Caterpillar Foundation, we continue the actions for restoration and implementation of productive systems in small properties.

Today, due to the project, **15** properties in these cities have more sustainable models for use: Agroforestry Systems, Management of Ecological Grazing Grounds, Fruit Farming, Silviculture of native plants and forestry restoration. Such models help water infiltration and its retention in the soil, which contributes significantly for production of water in the region, generating socioeconomic benefits to producers.

*“I took an IPÊ course three years ago and was enchanted by the silvopastoral system. I have always understood that I wanted to develop the farm in a way that was more adequate to the environment. The farm belonged to my grandfather, then it went to my father. During their lives, these activities were not discussed because people thought it would not work out. But in a short while after the implementation of the techniques, we can already see the results. You start asking yourself, why should my cow not be able to graze between the trees? It is not necessary to destroy to be able to produce,”* says Marcio Peçanha Abu, from Rancho Alegre farm. There, some **20** hectares are turned to sustainable production models.

In 2020, alongside the Sowing Water, Márcio also implemented silviculture at his property. *“Here, I have some 4,000 trees planted in the silviculture system that I will be able to use commercially in around 20 years. But just imagining the change that will come with them is making me very proud. It was an area turned to grazing but will now become a forest.”*

An agroforestry model property that serves as an open-air laboratory for students. That is the dream that the Sowing Water project is helping make reality, alongside Luca Mantovanelli, a farmer in Nazaré Paullista (São Paulo state). The university professor’s family property was just a leisure area for the family until recently, but with the pandemic, Luca decided to innovate and asked for IPÊ assistance. *“I had been considering development of Agroforestry Systems on the property and found in the project the adequate technical and scientific support,”* he explains.

At the property, there are two springs that supply the Cantareira System. In **1.6 hectares, 1,030** Atlantic Forest saplings were planted to enrich the soil and help against silting. In a second area that has already been selected, covering **0.5** hectares, the soil is being prepared for the cultivation of fruit trees and vegetables, as well as coffee. The food diversity guarantees production throughout the year. *“We want our area to produce food free from pesticides, and for it to get to people. In this respect, the people in the project have also been discussing the best ways to transfer the food produced”,* says Luca, who, as a professor, can also see the great potential of the area for scientific studies. *“It is fundamental for students to go into the field in the course I teach at university. In an area like this, it is possible to develop a series of works as analysis for permeability of the soil, bird, and small mammal observation, among other activities that enrich the curriculum of students. I hope that the property may be visited by students with the objective of learning more about the theme,”* he concludes.

In 2020:

**65**

**PEOPLE**  
*benefitted*  
*through*  
**ENVIRONMENTAL**  
**EDUCATION**

**15**

*owners and*  
*their families*  
*benefitted by*  
**RURAL**  
**EXTENSIONISM**

**1,600**

**TREES PLANTED**  
*in watershed PPAs*

**+5**

*new dem*  
*onstrative*  
*units implemented*

## Environmental Education

The environmental education actions, mostly executed in person, suffered a great impact from the pandemic in 2020. During the year, we did virtual meetings that could contribute to teacher training and would provide students with information.

## Public Policies

One of the main IPÊ contributions in the territory is stimulating articulation between the civil society, private initiative, and governmental spheres (states and cities) with the objective of promoting joint operation between sectors for socioeconomic development.

In the year, we presented proposals and solutions aligned to sustainability for decision makers, for the conservation of the Cantareira System in Nazaré Paulista. We maintained our operation at the São Paulo State Environmental Front, providing technical subsidies for the improvement of public policy actions related to the matter. We also created a communications Network for researchers and managers of Protected Areas who work in the Continuous Cantareira system, in partnership with the Forestry Foundation, with the objective of stimulating the exchange of experience between participants.

## People worldwide donate trees to IPÊ via Tree Nation

**1,500** trees planted by the project in the Cantareira System in 2020, part of a partnership with site Tree Nation. The international platform brings together **30** projects in **25** countries whose objective is to plant forests to face climate change, wwand they are supported by donations. Project Sowing Water has been registered on the platform.

<https://bit.ly/ipetnation>

## Research aims at the fight against climate change and its impacts

With support of the Fapesp and of the Forestry Foundation, we started a project whose objective is to evaluate how the offer of ecosystem services and the natural landscapes of the Atlantic Forest are being affected by climate change. Ecosystem services are services offered by nature, which we often don't even notice. For example, regulation of rains and pollination. In this project, the focus is on the water availability services or production of water, including carbon capture and seed dispersion by birds and mammals.

The study takes place in the Protected Areas in the Cantareira Continuum: APA Bairro Represa da Usina, APA Sistema Cantareira, Guarulhos State Forest, Pedra Grande Natural State Monument, Alberto Löfgren State Park, Cantareira State Park, Itaberaba State Park and Itapetinga State Park. We want to identify how these Protected Areas influence the availability of ecosystem services, including during a climate emergency period.

Based on new sampling technology, we have collected precise information about the soil and biodiversity, to simulate future sceneries. Based on the MapBiomas, it has been possible to identify that soil use has been significantly altered over **34** years. From 1985 to 2019, agriculture and livestock farming have become dominant and there has been significant growth (sixfold) in the cultivation of eucalyptus and urban areas (**64%** of the area has been urbanized, eliminating forests). The project also maps biodiversity. Based on a pilot study in the Pontal do Paranapanema, researchers have identified, through audio, the presence of birds, bats and other animals, showing the health of the forests.

The results support the planning of actions for adaptation to these global climate changes, aiming at maintaining more resilient landscapes that guarantee greater water safety and productivity in the rural environment, as well as adequate operation of ecosystems.

In 2020, our partners joined our work, as did a network of researchers in the Cantareira Continuum: project Governing the Atlantic Forest Transition (FAPESP), the Research & Development project (R&D by CTG Brasil and IPÊ), project Water, Energy and Food (CNPq), São Carlos Federal University (UFSCAR - Center for Natural Science/CCN/UFSCAR), Lavras Federal University (Department of Administration and Economics and of Soil Science), RainForest Connection and São Paulo State University – UNESP/Rio Claro.

## We aim to reduce the impact of the climate crisis on the territory

- 1.** We work on research, studying actions for management that may increase the resilience of supply of ecosystem services, especially water, in the Cantareira System region;
- 2.** With the forestry restoration and implementation of productive systems, we help reach a positive carbon balance, reducing the concentration of greenhouse gas in the atmosphere; and
- 3.** With the diversification and supply of small and medium farmers in the region, we support people in adaptation to changes that have already taken place due to the climate emergency.

## PANTANAL AND CERRADO

**BIOMES:** Pantanal and Cerrado

**REGION:** Mato Grosso Do Sul

**150 PEOPLES BENEFITED**

**Challenge:** Conserve species that are emblematic and promote actions for sustainable development in these **two** biomes in the state of Mato Grosso do Sul. We work for conservation of the lowland tapir (*Tapirus terrestris*), the giant armadillo (*Priodontes maximus*) and the giant anteater (*Myrmecophaga tridactyla*). For such, we executed projects with scientific research, population models, development of conservation strategies, environmental education, training, scientific tourism and communication.

In Pantanal, we also developed work aimed at sustainable livestock farming and development of strategies for protection against forest fires.

### Main Accomplishments:

- The most complete data bank and information about the giant anteater in the world: the work contributed to define strategies for conservation of the species in different biomes and also to promote the cause, expanding Brazilian knowledge on the fauna and the importance of its protection;
- Collection of new data about the giant armadillo which helped develop plans for its conservation.
- Research and education activities that aim to deter roadkill and support the conservation of giant anteaters in the Cerrado.
- All projects work intensely in the search for information and implementation of public policies for the species, reducing the impacts that threaten their survival, including roadkill.

## LOWLAND TAPIR (*Tapirus terrestris*)

Activities for conservation of the lowland tapir have been executed since 1996. The work began in the Atlantic Forest in the Pontal do Paranapanema (São Paulo state). In 2008, we advanced to the Pantanal and, in 2015, to Mato Grosso do Sul, definitely establishing the Lowland Tapir Conservation Initiative (LTCI), which celebrates its 25th anniversary in operation in 2021. In 2019, we started research on the species in the Amazon.

LTCI is currently the main tapir research and conservation program in the world. The work resulted in the largest and most complete databank on the species, which supplies information to scientists in several countries and is used to influence the decision-making process and policies for conservation of the species, nationally and internationally.



Brazilian tapir in nature.  
Credits: INCAB-IPÊ.

*In the Atlantic Forest, Pantanal and Cerrado:*

**500+**  
*genetic samples  
in our “biobank”*

**650,000+**  
*photographs and videos of tapirs  
obtained by camera traps*

**172** *different tapirs  
captured and sampled*

**35** *in the Atlantic Forest,*

**102** *in the Pantanal,*

*and* **35** *in the Cerrado*

**104** *tapirs monitored by telemetry*

LTCI works with **two** great objectives:

- Unite and apply data and top-quality scientific results to provide the basis for development and implementation of strategies for conservation of tapirs and their habitat, in different biomes throughout Brazil.
- Use tapirs as ambassadors for conservation in Brazil, providing a catalyst for actions for conservation of their habitats, environmental education, promotion and generation of awareness, and initiatives for scientific tourism.

In 2020, **six** expeditions were performed to Baía das Pedras Farm, a study area in the Pantanal. In all, there were **31** captures/recaptures of tapirs, with **five** individuals

captured and sampled for the first time and capture of **three** young individuals who received expanding GPS collars. The data collected from these individuals will be the first documentation of dispersion of tapirs.

In the Cerrado, the field research ended in late 2018. The results obtained are being applied in plans for reduction of threats: tapir roadkill on highways, contamination by pesticides and illegal hunting.

In the Atlantic Forest, our team returned to Morro do Diabo State Park for promotion of a counting of tapirs, to estimate the size of the population present in the protected area **10** years after the completion of the first studies in the LTCI region. The data will be evaluated throughout 2021.

In the Amazon, expeditions were postponed to 2021, due to the pandemic.

## Health under debate

The health of tapirs is another constant concern for LTCI and is an important focus of the studies performed. In all biomes in which it operates, when tapirs are captured and anaesthetized for the placement of telemetry collars, or when roadkill samples undergo post-mortems, biological material is collected for several health studies. Several scientific articles have already been published on the theme.

In 2020, we advanced in the future toxicological analysis of biological samples to be collected in the Amazon and in studies on the reproduction of tapirs, to be developed in partnership with the Rural Federal University of the Semiarid (UFERSA) in Rio Grande do Norte state (Brazil).

## Tapirs in the Cerrado: roadkill on highways in Mato Grosso do Sul grow in the year

In March 2019, LTCI concluded **six** years of monitoring of tapir roadkill in the Cerrado in Mato Grosso do Sul state. Since 2013, **34** federal and state highways were monitored, with **500** tapir carcasses recorded.

However, a complementary evaluation performed in March 2020, using additional field monitoring data and media stories about roadkill in the state, showed an increase to **613** tapir carcasses. In all, **77** people were injured, with **28** deaths due to vehicle collisions with tapirs on state and federal highways in the state of Mato Grosso do Sul. **FURTHER THREATS:** Apart from roadkill, which reduces the population of tapirs in the Cerrado, pesticides stand out as a serious problem in the biome.

Learn about the studies:

[http://bit.ly/report\\_agrotoxicos](http://bit.ly/report_agrotoxicos)

<http://bit.ly/atropelamento-anta>

<http://bit.ly/impacto-atropelamentos>

## Data seeks practical actions for conservation

In 2020:

- We updated and organized the following data on contamination of tapirs with pesticides and we wrote articles for publication. Data shows that tapirs are

affected by pesticides in the Cerrado.

- We continued participating in the Commission to Fight the Impact of Pesticides in the state of Mato Grosso do Sul.

- We filed a civil court case alongside the Prosecutor's office requesting investigation on the wild animal roadkill along highway BR-267.

- We participated in a 15-year study about the biogeography of the Lowland Tapir in the Atlantic Forest, to contribute to the next evaluation of the red list of endangered species in Brazil, in 2022.

Camera traps are also important study tools, for example, for Analysis of the Population Viability.

## Education and Communication

Digitally, through our social media, [@incab\\_brasil](https://twitter.com/incab_brasil), we continue promoting the cause. One of the highlights this year was the participation of Patricia Medici, LTCI coordinator, in the Whitley Gold Awards special for Women in Conservation. Furthermore, we also participated in lives and interviews in several platforms.

## Fires in the Pantanal

In 2020, with the environmental crisis due to the fires in the Pantanal, LTCI, in association with the Institute for Conservation of Wildlife (ICAS), articulated several partners and developed a large campaign to raise funds to support the firefighting and support several projects operating in the region. In all, over **one million** reais were raised.

In 2020, LTICI-IPÊ and ICAS started a coalition of farms in Nhecolândia in the Pantanal region of Mato Grosso do Sul state). The farms are prepared to act against possible future fires.

## Future conservationists

To train conservationists of the future, making them capable of dealing with conservation demands, LTICI-IPÊ provides a spaces to assist students and new professionals in the area.

## Return to the Atlantic Forest counted on a team of volunteers

A dream come true. But still much left to do for nature in Brazil. That is how vet Miriã Ribeiro Costa describes her experience in 2020, after entering the LTICI as a participant in the volunteer research team.

Alongside another **five** researchers, Mirã is part of the group that promoted a census of the tapirs of Morro do Diabo State Park, during a **three**-month expedition, which marked the return of LTICI to the Atlantic Forest after **10** years. There, in Pontal do Paranapanema, where the IPÊ history and that of lowland tapir research began, she and the group became responsible for executing a transect - a technique that involves walking along pre-determined routes for collection of data - and observation of tapirs. Developed by UNESP (the Federal University of the State of São Paulo), the activity was a discovery in her professional life, as it was her first activity in the field.

*"I had dreamed of working with wildlife but noticed that it was not easy in veterinary medicine. I registered alongside the LTICI when they made the call and I had no clue what was awaiting me, as it was my first experience in the field. I had to learn almost everything from scratch - from the use of GPS to the technique protocols," she explains. The walks along the trails took place at night, for maximum tapir activity. Due to the pandemic, after the first month of the census of animals, the research was suspended, returning only in October.*

The researchers were closely followed by project field assistants José Maria de Aragão and Rodrigo Alves, as well as Patrícia Medici, the initiative coordinator. The figures shall be analyzed in 2021 and should generate a comparison with the research performed before.

*"The experience was fantastic. In the end, we even learnt to identify animals by the sound of their footsteps and their movement through the woods. To me, it was a great evolution and great learning, especially as I was alongside as experienced professionals as Patrícia," she says, adding that after her experience as a volunteer she became a member of the Bandeiras e Rodovias team, in Mato Grosso do Sul, which evaluates the impact on giant anteaters due to roadkill on highways in the state.*

## GIANT ARMADILLO (*Prionomys maximus*)

The Giant Amradillo project developed by IPÊ - the Ecological Research Institute and the Wildlife Conservation Institute (ICAS) was started in 2010, in the Pantanal in Mato Grosso do Sul state (Baía das Pedras

farm) and expanded its actions to areas in the Cerrado (Mato Grosso do Sul) and the Atlantic Forest (Minas Gerais and Espírito Santo) over the years. The main objectives of the actions are researching the natural history and biology of armadillos and using the field data in the planning and influencing of public policies for their conservation. The project combines scientific research, environmental education, training, influence in public policies and communication to reach results.

## 10 years of great advances for research of the species

In 2020, we celebrated the first decade of the project, which is marked by innovation. In **10** years, we documented the important part of armadillos as engineers of the ecosystem, and we generated consistent data about the spatial ecology of the species and their selection of habitats. Studies on health, genetics, diet and reproduction complete this research which is a reference in Brazil.

## Victories and positive impacts over 10 years

- Recognition of the species among the **five** main mammals selected for the establishment of protected areas and conservation corridors in the state of Mato Grosso do Sul.
- Information on armadillos used in decision making regarding conservation, like the National Action Plan for Conservation of the Giant Armadillo, by CPB - the National Center for Conservation of Brazilian Primates (CPB), Ministry of Environment (MMA) and Chico Mendes Institute for Biodiversity Conservation (ICMBio).

- Over **80** biologists and vets trained by the project, a reference for students and professionals interested in Conservation on site.

- Some **2,500** students from **50** public schools in Mato Grosso do Sul were benefitted.

- Citizen Science bringing the species closer to society. In Mato Grosso do Sul, of the **178** points with evidence of the presence of the giant armadillo, **127** were identified by residents.

- National and international awards received, including the Whitley Awards, granted by Whitley Fund for Nature.

## Pantanal: we managed to continue research

In Pantanal, the project area fortunately was not affected by the fires of 2020, and it was possible to proceed with the research, taking all care necessary due to the pandemic. In all, **nine** expeditions were made to Baía das Pedras Farm. Seven armadillos were monitored and equipped with GPS tags. Due to these tags, we were able to closely follow their behavior and interactions of a young giant armadillo with its mother.

We also proceeded with the work for rural extension at neighboring farms, sharing information about giant armadillos and their conservation needs. We distributed life-saving veterinary material and equipment for the rescue centers in the North and South Pantanal.

## Cerrado: danger to the armadillos and urgent creation of protected areas

The Cerrado in Mato Grosso do Sul is definitely not a good home for armadillos. The state has less than **20%** of the native vegetation of the biome and our studies show that there are very few areas for survival of the giant armadillo: in **200** kilometers, only **seven** areas show the presence of the species.

From April 2018 to November 2020, we developed **15** campaigns in the area of study around the BR 267 and MS-040 to evaluate the density and occupation of the giant armadillo in the biome. We worked in over **60** rural properties and sampled a total of **120** locations, with **360** exclusive camera trap sites, from which we obtained a total of **333,058** pictures of wildlife. The figures became maps that we made available to authorities. The aim was to get the government to create protected areas, which are urgent to protect not just the armadillo, but also other species.

## Armadillos, honey and beekeepers

Also in the Cerrado, production by beekeepers is close to native forestry areas, and they attract giant armadillos, which destroy the hives to eat the larvae. To avoid conflict between the armadillos and the beekeepers, the project created stamp Apicultor Amigo do Tatu-canastra (Beekeeper Friend of the Giant Armadillo), which aims to generate awareness among beekeepers to promote pride in the species. The idea is that the seal may generate a sense of

responsibility in taking care of the native fauna and become a differential in the market.

## Atlantic Forest: new project monitors armadillos

The giant armadillo is critically endangered in the Atlantic Forest. In Rio Doce State Park (Minas Gerais state), the situation of the giant armadillo is extremely critical, according to studies performed in collaboration between Aureo Banhos and Bruno Fontes, from the Federal University of Espírito Santo (UFES). Just two, maybe **three** animals, were recorded after **two** years of work with camera traps and fieldwork in the park.

Financed by Whitley Fund for Nature, we started a new project in 2020, to evaluate the viability of the population of the giant armadillo and to engage the local population, so the species may not go extinct. The aim is to make it a reason of pride and a symbol of conservation efforts in the park. A total of **10** expeditions took place in 2020. We installed **31** cameras at **30** points to the south of the park, and **26** cameras at **24** spots in the north. Apart from picturing armadillos (**82** records of **26** animals recognized due to their patterns), other rare animals have been spotted by the cameras: the Rufous-vented ground cuckoo (*Neomorphus geoffroyi*) and jaguars (*Panthera onca*). We have already developed information for a giant armadillo trail in the park. Other actions, like environmental education, are forecasted for the post-pandemic period, in 2021.

**Scientific articles:** We published several articles in 2020. Many of them were on new themes. Learn more here: <https://tinyurl.com/wr5v3996>

## GIANT ANTEATER (*Myrmecophaga tridactyla*)

**Roadkill is the greatest threat:** The Bandeiras e Rodovias (Anteaters and Highways) project evaluates, monitors and recommends solutions on the problem of roadkill and accidents with giant anteaters in the highways of the State of Mato Grosso do Sul, which have alarming incidents of animal deaths as a result of being hit by vehicles. Advances in this direction should make highways safer for people and anteaters, and also provide the potential to benefit other species.

The project monitors highways every **15** days to know where most collisions occur. In **three** years, **85,500** km of highways in Mato Grosso do Sul were monitored and **12,350** carcasses of animals were recorded, **760** of them being giant anteaters. On the highways, samples of **1,630** animals that were run over were collected, and **122** post-mortems were performed (**62** on giant anteaters).

Furthermore, the project performed interviews with truck drivers in the state of Mato Grosso do Sul to collect information about the human dimensions of collisions between trucks and wildlife. A total of **118** truck drivers said that, upon seeing an animal on the road, their reactions, like breaking and swerving to avoid a collision, were considered riskier to themselves and to other users than crashing into the animal.

Since 2017, the project has captured **44** giant anteaters in **10** expeditions. The idea is to understand their movement in fragments of forest and in areas close to highways. We collected samples in **120** areas (**60** per road), with **360** exclusive sites for camera traps (**180** per road) and on another **60** on

rural properties. In all, we collected **333,058** images from camera traps. The relative abundance of giant anteaters was lower when closer to highways. The figures are still under analysis.

**Training:** **30** students and **37** professionals received training on highway inspection and post-mortems, **20** national volunteers and **6** international ones accompanied us in the capturing of giant anteaters. Due to the pandemic, the training program was interrupted. The project has also already offered opportunities to **11** Master's students (**8** concluded), **7** doctoral students and **1** post-doctoral student. It also provided training to a total of **223** collaborators operating on BR-163.

## Sustainable Landscapes in the Pantanal

Project Sustainable Landscapes in the Pantanal started in 2020, in partnership with Smithsonian Conservation Biology. The proposal is to understand what sustainable landscapes are in the Pantanal and speed up the process of certification of sustainable farms, adding to that efforts like Embrapa Pantanal to expand Sustainable Panatanal Farm certification to the entire biome.

The certification may bring economic benefits to property owners, like ease to raise credit and lower taxes.

# THEME PROJECTS

## PROTECTED AREAS INTEGRATED SOLUTIONS FOR PROTECTED AREAS

Support for consolidation of protected areas should come from integrated solutions for conservation of socio-biodiversity, moved by a set of activities that involve governmental, non-governmental, private institutions and, of course, the society. In the protected areas defined by law in Brazil, the so-called Protected Areas and Indigenous Lands, our operation is through the formation of networks, social mobilization, and strengthening of the actions that help consolidate these areas, that is, help them truly play their parts in conservation of forests and biomes.

To contribute to the consolidation of these areas, we operate in the promotion of solutions alongside a chain of partners, integrating **two** fronts:

Systemic - with structuring activities, based on the National Protected Areas System (SNUC), alongside governmental managers.  
Local - with actions within the protected areas in the Amazon.



## Motivation and Success in Management of Protected Areas

Since 2012, we have been supporting the strengthening of the National System of Protected Areas, providing incentives to the sharing of best management practices, fostering structures that expand human capital for support to management, and establishing platforms that disseminate information and knowledge about Protected Areas. With Chico Mendes Institute for Biodiversity Conservation (ICMBio), we have already developed significant work for Brazilian Protected Areas.

## Volunteer work as a means for engagement

Being a volunteer, be it at Protected Areas, at Research Centers, or at the ICMBio Administrative offices brings significant benefits to all those involved. From volunteers to managers, joint actions are a way to strengthen the comprehension we need of these units and of all they provide. In this research, for example, we discuss the importance of volunteer work at Protected Areas. Volunteer work opens doors so that more and more people may learn about and appreciate Brazilian biodiversity and become agents of socio-environmental conservation.

Four years after the start of the restructuring process of the ICMBio Volunteer Program, which counted on IPÊ support in several ways, from visual communication to the digital restructuring of the volunteer records, we can already celebrate important figures for the initiative.

2017:

**137**

*areas  
recorded*

2020:

**260**

*areas  
recorded*

**30,000**

*volunteers are available*

## A DAY AT THE PARK

To provide incentives for people to learn about the Brazilian Protected Areas and engage for conservation of these areas, we have once again promoted, alongside the Pro-Protected Area Coalition, event "A Day at the Park" In 2020, due to the pandemic, in person activities were promoted in over **130** Protected Areas (always within sanitary safety criteria), as were several on-line actions developed to stimulate people's participation.

## INTEGRATED SOLUTIONS FOR PROTECTED AREAS IN THE AMAZON

### Our History in the Amazon

**Training for sustainable activities for generation of income, people training for agroecological production, activities for strengthening of management of protected**

**areas, development of productive chains, research on fauna species, among others, are activities executed by IPÊ over 20 years of presence in the Amazon. IPÊ activities in the region generate direct benefits for over 5,000 people, with projects that prioritize social participation and respect to local traditions.**

With fundamental importance to the maintenance of climate stability, temperature and rain regulation, the Amazon boasts the greatest biodiversity on the planet and is home to traditional river and indigenous people. These are just some of the reasons that make their conservation essential to survival, even of humans.

The biome faces great challenges, one of which, undoubtedly, is consolidation of its protected areas. What does this mean? It means that the protected areas need effectiveness in their management: so they can be capable of efficiently protecting those hectares in environmental and also social terms.

## MANAGEMENT PLANS FOR THE LOWER RIO NEGRO

**320 families benefited**

In the Lower Rio Negro region, where we have been operating directly for over **20** years, in 2020, IPÊ proceeded with the revision of the Plan for Management of Rio Negro State Park - South Sector, and elaboration of the Plan for Management of Sustainable Development Reservation (RDS) Puranga Conquista. Work consists of studying socio-economic, historic, funding, biotic and abiotic aspects, and updating the geo-referential data bank for the region.

Furthermore, we are going to analyze, update and elaborate the proposal for strategic planning and zoning to be established with the development of players and representatives of institutions that interact with the protected areas, to promote social participation in the construction of the management plan.

## PARTICIPATIVE MONITORING OF BIODIVERSITY

Over **4,000**  
people benefited  
over 7 years

**17** Protected Areas  
in the Amazon  
**11,689,275.01**  
ha in 2020

**18** Protected Areas  
**12,627,894.28**  
ha over 7 years

*Supports promotion of the National Plan  
for Adaptation to Climate Change*

**296** people directly benefited  
**141** men, **155** women,  
including **54** youths in 2020

**With participation of society, the  
Protected Areas in the Amazon gained  
even more management support.**

In partnership with Chico Mendes Institute for Biodiversity Conservation (ICMBio), in the project for Participative Monitoring of Biodiversity (MPB), local residents of Protected Areas and their surrounding areas promoted a study on the status of conservation of local biodiversity. Plants, mammals, fish, and insects that live in the Amazon are closely followed by biodiversity monitors trained by the project.

The data raised provide subsidies for conservation and scientific research. The information helps establish ecological parameters for evaluation of the effectiveness of federal Protected Areas, gain better understanding of consolidation and, locally, support Protected Area and natural resource management. The results also help follow changes in distribution and sites where the species is identified, answering to climate change and other threats. For such, the monitors use protocols, that is, systematic routes for inquiries, created jointly by managers of the ICMBio, local population and IPÊ.

The MPB project also contributes to compliance with the National Plan for Adaptation to Climate Change, which forecasts the implementation of the ICMBio National Program for Biodiversity Monitoring (Monitora) for the monitoring of over **50** federal Protected Areas, to evaluate and follow the impacts of current and future climate change on biodiversity. In the MPB, we operated in **17** Protected Areas in 2020.

The project built a network of local partners and, through training events, collects data and collective construction of knowledge based on local and scientific knowledge, contributing to greater insertion of local residents in the management of conservation of biodiversity, increasing

the knowledge of species and establishment of ecological parameters for evaluation of the effectiveness of Federal Protected Areas. The involvement of communities and local institutions, as well as the partnership with managers of ICMBio and its Protected Areas is essential to the project. USAID, Gordon and Betty Moore Foundation, and ARPA Program are partners in the initiative.

**In 2020, SisMonitora and SISBIA** – We delivered to ICMBio **two** systems for management of biodiversity in Protected Areas, one of them for results of monitoring of biodiversity and the other for management of biodiversity data for impact evaluation.

**We evaluate the impact and results of the MPB Project** alongside members of the Management Council of Protected Areas, environmental analysts and local community leaders (the latter, still in progress).

Members of the management council and ICMBio analysts, respectively, **77%** and **89.5%**, believe that the results contribute to the planning and improvement of management of these protected areas.

In 2020, we also evaluated preliminary data monitoring Amazonian chestnut trees and subsistence farming, as results for 2021.

**We promoted Dialogue with the society** - in a new format, live on social media for promotion of the project, its results and contributions, bringing the public closer to the conservation theme.

Furthermore, we promoted a Sebrae Meeting with **44** participants and **two** events for presentation of the results, including **406** participants.

## Online courses for training did not stop

The training of monitors did not stop in 2020. Even from afar, we managed to train **six** monitors to proceed with the Protected Area activity. In the year, we trained **72** people, **26** who now operate as local monitors of biodiversity for the collection of monitoring data and participate in the knowledge meetings.

In Amazonas, Maria Cunha, 27 years old, is a resident of the Médio Juruá Extractivist Reservation, in the São Raimundo community. She was one of the students in the course for management of the pirarucu.

*“This was my first digital experience, but I managed to assimilate it very well. With the course, local monitors have greater contact to talk to the managers and collect information about the management of the pirarucu. Management requires a monitoring protocol to aid in the organization of management of the pirarucu. Any seed that is planted in the Médio Juruá grows very well, and I believe that the protocol should be like that too,”* says the student, who learnt about the project from the manager of the Protected Area.

*“I fell in love with the project and decided to become a monitor by myself. It has been a singular experience. We developed the monitoring in 2020, complying with all the norms for health due to Covid-19. We apply everything we learn with no difficulty. I greatly appreciated being a monitor and learnt that in this process, I was collaborating with sustainable development of our protected area and our region. Therefore, looking to the future and taking into consideration my reality, I really want to continue as a monitor,”* she finishes off.

In a challenging year, one of a pandemic, we continue further stimulating dialogue between researchers and local communities, remotely. Between June and September 2020, videos were sent by WhatsApp to keep in contact with the local communities during the quarantine.

To support the local population in facing Covid-19, we sent 1,242 face shields and 4,072 masks for individual protection.

In 2020

#### SELF-MONITORING OF FISHERY:

5,382 kg of fish and 43,740 kg of fish consumed locally at Resex Médio Juruá

#### PIRARUCU:

• 28,933 individuals registered (15,145 youths and 13,788 adults) and 1,356 individuals e 85,156 kg fished.

#### FRUGIVOROUS BUTTERFLIES:

120 records in FLONA Jamari

**WATER TURTLES:** 6,523 nests, 213,529 young

#### MAMMALS AND BIRDS:

917 registered.

#### MAMMALS AND BIRDS IN SUSTAINABLE FORESTRY MANAGEMENT AREA: 47,921

records of 46 species in FLONA Jamari

**AMAZONIAN CHESTNUTS:** 37,245 fruits registered at Resex do Cazumbá-Iracema, 4,238 cans and 163 chestnut barrels collected at Resex do Rio Cautário and Resex do Rio Ouro Preto, of which 2,981 cans and 163 barrels were sold, with an average price of R\$ 30.38 the can.

## GENERAL FIGURES

With the participation of local monitors, FROM 2014 TO 2020, the MPB project has already collected records in 18 Protected Areas, including:

**8,793**  
*Birds and  
Mammals*

**2,605**  
*Lumber  
Plants*

**26,486**  
*Frugivorous  
Butterflies*

**1,199**  
*individuals,*

**1,358**  
*chestnut  
trees and*

**22,757**  
*turtle nests*

**147,874**  
*hedgehogs  
monitored*

**5,295**  
*individuals*

*monitored, and*

*of 47 species  
recorded as  
subsistence  
hunting*

**851,571**  
*baby turtles  
released*

**85,777**  
*photographic  
records of*

**46** *species  
of mammals  
in forestry  
concession  
areas*

**165,634** *kg  
fish recorded  
in the fishing  
of tucunares  
(Brazilian Bass)*

**19,080** *kg  
of fish,*

**11,028** *kg  
of fish consumed  
in fishery  
self-monitoring*

**68,569**  
*individuals  
recorded,*

**3,688**  
*individuals and  
230,885 kg  
of pirarucu fished*

# LIRA - INTEGRATED LEGACY OF THE AMAZON REGION

**TOTAL EXPECTATION OF 35,610 PEOPLE DIRECTLY BENEFITED IN 48 CITIES (AMAPÁ, PARÁ, MATO GROSSO, RONDÔNIA AND ACRE STATES) 40 MILLION HECTARES PROTECTED 20 INDIGENOUS PEOPLES INVOLVED 15 EXTRACTIVIST COMMUNITIES**  
**LIRA network strengthens in the Amazon**

Productive activities combined with biodiversity conservation in the Amazon has an enormous potential for the fight against the socio-economic crisis in the territories of the biome, worsened in 2020 by the Covid-19 pandemic. In an even more challenging moment lived by the population, with the greater vulnerability of forest communities and people, due to the frailty imposed to the territories and the greater forest devastation, the Lira Network was established. The initiative is made up of **82** institutions (including indigenous and extractivist associations, organizations of the civil society, companies, cooperatives, research and governmental institutions) which started operating in group, promoting actions in favor of the populations in their territories. IPÊ, ISA, IDESAM, FVA, Instituto Kabu, IEB, SOS Amazônia, Kanindé and AMOREMA lead the network, which implements actions fostering the bioeconomy, planning, and territorial management, regional integration, governance structures, monitoring and protection of the biome.

Lira Network is the result of the LIRA Project, the second largest Brazilian conservation project, idealized by IPÊ, alongside the Amazon Fund and Gordon and Betty Moore Foundation, which are financing partners. With the project, we aim to increase the

effectiveness of management of areas in the Amazon - Protected Areas and Indigenous Land. The initiative covers **34%** of the territory in the protected areas of the Amazon, in the regions of Upper Rio Negro, Lower Rio Negro, North Pará, Xingu, Madeira-Purus, and Rondônia-Acre, covering a territory of **44 million** hectares.

In 2020, we promoted the first meeting between LIRA Network partners, as well as meeting technical coordinators and communicators. We also trained professionals in administrative and financial processes that guarantee the transparency of the project. With these actions, we mobilized **163** people.

**LIRA should also support the institutional strengthening of indigenous organizations, which is extremely important, as it contributes for the people to fulfil their part in the discussion of the territories and the strengthening of their culture. The project is made of productive chains, developing actions for formation and construction of instruments for territorial economic management, so that favorable market access conditions may be established based on solid and lasting commercial partnerships.**

## Sites of operation and activities of the LIRA Network

### **MADEIRA-PURUS BLOCK**

Brazilian International Education Institute - IEB  
*Forest League Project: strengthening the Integrated Management of Protected Areas in the Southern Amazon* - incentive to integrated management and the sustainable use of natural resources in **9** Indigenous

Areas and **6** Protected Areas. Those directly benefitted totaled **5,276**, with actions like elaboration of pirarucu management plans, organization of commercial fishery, ethnomapping, training and monitoring of the chestnut population, among others.

### **IDESAM**

#### *Forestry City Project*

Médio-Purus: implementation and financial sustainability of Protected Areas through mechanisms forecasted in the Protected Area Legislation, incentivizing sustainable development and generation of income to communities. These are lines of operation in governance mechanisms, sustained use of natural resources, monitoring and protection systems, and integration with local and regional development, at **4** Protected Areas and **6** cities in Amazonas state.

### **UPPER RIO NEGRO BLOCK**

#### **ISA – Instituto Socioambiental**

Support and strengthening of the Indigenous Agents for Environmental Management and the network of Indigenous Wayuri Communicators of the Upper Rio Negro Block. A total of **10,091,000** hectares and **13,347** direct beneficiaries.

### **LOWER RIO NEGRO BLOCK**

#### **FVA – Vitória Amazônica Foundation**

Routes and Footsteps Project: Integrated Routes for the Development of Lower Rio Negro: tourism, governance and regional integration, monitoring and protection.

Furthermore, agreements for fishery organization alongside fishermen, with actions for training and management of the pirarucu. In an extension that covers **8** cities in Amazonas and **8** Protected Areas.

### **XINGU BLOCK**

#### **Instituto Kabu**

Sustainable management of the Kayapó-Paraná territories in the southeast of

the Amazon. Through continued and/or implementation of actions that contribute to the protection of these territories, their natural resources and their respective populations and ways of life, promote autonomy and better quality of life for the people who live there, as well as future generations, and also strengthen the organizations that represent these peoples. They perform actions like environmental monitoring, training of environmental agents, ethnomapping, work on flour chains, cumaru wood, regional integration, governance and public policies. Territorial extension that covers **5** cities in Mato Grosso, **5** in the state of Pará, **5** indigenous areas, **10,874,000** hectares, and **6,462** direct beneficiaries.

### **NORTH PARÁ BLOCK**

#### **Association of Residents of Mapuá Extractivist Reservation (AMOREMA)**

Chestnut Project: consolidation of Paru State Forest and the area surrounding Jari Ecological Station, through territorial management and sustainable use of natural resources by traditional communities, aiming at promotion and maintenance of landscapes, conservation of biodiversity, climate functions and socio-environmental and cultural development of the traditional communities and people of the **two** Protected Areas in the North of Pará. Involves governance actions and chains like the chestnut one, with work for training, installation, and operation of **two** micro mills, among others.

### **RONDÔNIA/ACRE BLOCK**

#### **Kanindé Ethnoenvironmental Defense Association**

Project for Connection of Indigenous Land: socio-environmental sustainability of indigenous land and Protected Areas in Rondônia, with the implementation of territorial and environmental management plans for the conservation of **2,694,827**

hectares of forests, **5** indigenous and **1** extractivist associations to operate in the sustainable development of their territories. The actions are performed in chains like tourism, flour, chestnut, implementation of the Integrated Protection Plan, and biomonitoring, among others.

### SOS Amazônia

Promotion of collective commercial organizations, construction of works and management and good practice course, adding dynamism to the local economy and maintaining standing forests. Involves actions like implementation of the Chico Mendes Trail, tourism plans, and training of value chains like wild cocoa, rubber and açai, among others. **5** Federal Protected Areas and **2,135,552** hectares involved.

## Management of Knowledge: Mediare course goes beyond technique

Through the LIRA, we developed course Mediare, in partnership with Chico Mendes Institute for Biodiversity Conservation (ICMBio) and counting on the support of the Environment Secretariat of the Government of the State of Amazonas (SEMA-AM) and Iderflor-bio - Institute for Forestry and Biodiversity Development.

Mediare is a training trail for development of managerial capacities that can improve the management of protected areas in the Amazon. The course has already trained **32** people (including **29** public managers). The 2020 edition took place in April and had to be adapted to the distance format due to the pandemic. The meetings were changed to bi-weekly. The Mediare proposal is to go

beyond the field technique, which Protected Area professionals already have, covering themes like communication and emotional intelligence. New tools for current realities.

## Project develops Socio-economic Promotion Plan

In 2020, with the Socio-economic Promotion Plan, we identified the main key variables for the potential of socio-economic development in the territories in which LIRA operates. From that, the plan includes guidelines and strategic actions for the consolidation and growth of Sustainable Community Business in the protected areas covered by the project. Six documents were elaborated, one for each bloc, in partnership with Conexus - Sustainable Connections. This plan should be used for guidance and potentializing of LIRA project actions, through:

- financial support to productive activities for sustainable use of the forest alongside indigenous and extractivist communities - creating alternatives that generate income, expand food safety, contribute to the reduction of poverty and of deforestation;
- protagonist in local community-based operations, expanding governance arrangements of vulnerable social groups in protection of their territory - forming and developing individual and organizational capacities with the exchange of knowledge;
- engagement of several players and supportive productive chain links, aiming at guaranteeing the economic visibility for the alternative production fostered;
- use of management instruments for protected areas with social participation in an inclusive and integrated manner.

## Research And Development

We carried out a research project at Pontal do Paranapanema (SP), on economic and monetary valuation of ecosystem services. The studies are carried out in the forest restoration area of the company CTG Brasil and assess how much this action reduces, in terms of environmental damage, mitigation costs and how it brings new business opportunities.

As part of this study, we use camera traps and standalone recorders [CKT1] to capture images and sounds of the local biodiversity, as well as technologies to assess carbon stocks in forests. The initiatives are in partnership with FEALQ - Luiz de Queiroz Agrarian Studies Foundation, ESALQ, Federal University of Lavras and GVCes, Getúlio Vargas Foundation.

For the same project, in 2020, a study of the multifunctionalities of different types of forest (such as agroforestry systems and those undergoing natural regeneration). With other partners, such as Newfor, we are mapping 4,500 hectares of forests to study these typologies.

As next steps, the project will assess how forest restoration actions contribute to the social relations of local communities (social ecosystem services), as this is a way to adapt the planning of business interventions to the socioeconomic and cultural context of the territory that receive them, strengthening relationships and reducing reputational risks.

## EDUCATION

Our education activities exist because, with time, we accumulated valuable learning which we felt could be shared. Knowledge in socio-environmental matters is fundamental, as it permeates all of our lives.

Our perspective is strong operation in higher education, as its premise is an in-depth consideration of new forms of thinking about knowledge, through collection of information, reflection, and exchanges between people.

## ESCAS

Renewal, Transformation and Resilience. If we can define how 2020 worked out at ESCAS - School of Environmental Conservation and Sustainability, these **three** words were very significant.

Education is part of the IPÊ's DNA. Since 1996, our objective has always been sharing the knowledge acquired with people, forming new professionals, creating new perspectives with regard to socio-environmental challenges. Sharing this information and connecting people of several areas not only to discuss, but also to produce socio-environmental transformations through scientific research, environmental education, community involvement and sustainability is what moves us.

Today, ESCAS offers short courses, Professional Master's, and MBA, as well as in company courses, and customized courses in partnership with international universities, like Columbia University, which has been offering the SEE-U - Summer Ecosystem Experiences for Undergraduates at the IPÊ school for **20** years, and Colorado Boulder University.  
[www.escas.org.br](http://www.escas.org.br)

Our contact with students, IPÊ researchers and professors, promoting an atmosphere of belonging and development of practical actions, in the field certainly suffered an impact with the pandemic and the need for social distancing. The moment was, therefore, for adaptation, to try to bring people closer together, as we always do, and transform our lessons into more than online meetings, but into a broad network of people seeking transformative knowledge.

In 2020, we intensified the process of digitalization of our new courses, defined our strategic planning and transferred some courses to the hybrid model (part virtual and part in person) or totally distanced. We also structured and performed the first meeting of our Consultation Council, with the objective of promoting new innovation and thought to add more to our teaching model.

**7,084**

**BENEFITED  
SINCE 1996**

**152**

**MASTERS  
GRADUATED**

**334**

**BENEFITED  
WITH FULL  
AND PARTIAL  
SCHOLARSHIPS**

**66**

**MBA  
GRADUATES**

## SCHOLARSHIPS INCREASE THE REACH OF EDUCATION FOR SUSTAINABILITY

The ESCAS scholarships are possible thanks to the involvement of people and companies in socio-environmental causes; those who believe in education as a tool to empower and transform. In over a year, we count on the partnership with Veracel, WWF, Instituto Arapyaú, and donations by Teresa Bracher and also donations by natural people through the Global Giving and Nota Fiscal Paulista. In 2020, we therefore managed:

**Bahia Master's: 17** full scholarships

**Nazaré Master's: 14** scholarships  
(partial and full)

**MBA: 1** partial scholarship

## Scholarships granted the participation of a native Amerindian in the Master's

José Palahv Gavião is the first native Amerindian in the ESCAS professional Master's through a WWF scholarship (Education for Nature/EFN Program), offered by the course.

*"I aimed to see where I would fit best into a Master's that was connected to me and my culture. I heard about the ESCAS and that the school offered a scholarship. I decided that the time had come," he explains.*

*"I think that ESCAS is the site for indigenous peoples. We have a vision that matches that of the school, focused on protection of nature, of a people that preserves the environment. ESCAS is the place for us. I feel safe going to this college, because it reflects my reality and, by studying, I can contribute to my people. I hope it may open new doors. I hope I am the first of many," says José Palahv Gavião.*



José Palahv Gavião.  
Photo courtesy.

Born in Ji-Paraná, Rondônia, in the Gavião ethnic group, Palahv learnt about the Amazon, its medicinal plants, fishery, hunting and traditions from his grandfather. A speaker of Tupi-Modé, he learnt how to read and write in Portuguese at age 13, and since then he has not stopped seeking knowledge that could be connected to his culture and result in benefits to the Gavião people.

He studied Intercultural Education at the Federal University of Rondônia and got a specialization in medicinal plants. He became a teacher at the village school and, at 39, decided that it was time to improve his knowledge and develop a project that could contribute to the development and conservation of biodiversity in the Gavião territory.

The Gavião people live in the Lourdes basin, and along other tributaries of the Machado (or Ji-Paraná) river, an important region in the Amazon biome, close to the border with the state of Mato Grosso. There, extraction of chestnuts generates the bulk of the population's income, along with açai and copaíba.

*“The project I am developing in the Master's is aimed at creating a value chain for the chestnuts collected in our territory. The aim is for the nuts to be sold by the indigenous peoples, directly, free of middlemen, at a more adequate price. I have already helped build a cooperative and we are seeking harvest improvements, modernization of what we already have. I want to learn more about how to do that and I am getting support from the course and from the people I am meeting here,”* he explains.

Started in 2020, the Vakala cooperative already has 44 members and is still seeking fairer trade for the product, improving the quality of the harvest, and working on certification.

## Connection between people and institutions guarantees success in forestry restoration

“An agenda of hope.” That is how Daniel Affifano Venturi, ESCAS Master, defines the objective of his work: forestry restoration. A Conservation and Restoration Analyst for the Atlantic Forest at WWF Brazil, Daniel is the leader in this front, with a broad outlook and pricked ears, as he himself explains.

*“My great specialty is being a generalist. To work on restoration, you need to know how to talk to farmers, businessmen, communities... It is only possible to progress in the restoration agenda if safe spaces for dialogue are created. I always say that a restoration agenda creates a network of affection. It is very important to engage people in something common and important.”*

Alongside the Copaíba Environmental Association, he develops pilot project Raízes do Mogi Guaçu, in the interior of the state of São Paulo, supported by company International Paper. The work started being developed intensely after the Professional Master's at the IPÊ school, fruit of partnerships with Flávia Balderi, founder and executive secretary at the NGO, who also studied at the school. According to him, the possibility of developing a final product turned to practical use, as is the school's proposal, made it possible for him to understand and dive into decisive themes regarding forestry restoration.

*“Restoring forests is much more than planting trees. You have to strengthen everything that involves the activity to make this possible and sustainable through time, guaranteeing*

*continuity, especially financial. This, among so many other points, like the importance of a 2.0 monitoring tool, how to train people and organizations for restoration, or even how to keep farmers engaged in the process, was the fruit of great reflection that the Master's provided and which I am now applying to this project," he explains.*

The project sensitizes farmers to forestry restoration and plans to plant **200** hectares by 2024, adding even more trees to the environmental regeneration that the association has been promoting since 1999, in the Socorro region, in the interior of the state of São Paulo. *"One of the challenges to restoration is the cost, so we add technical knowledge, financial support, contact with people, and network of opportunities, among other players, so that it may all happen, and we can follow the growth of these forests. Partnerships are fundamental to the forestry restoration chain. Without them, the results are slow, or we do not gain scale. We therefore need this union,"* says Flávia Balderi.

## PROFESSIONAL MASTER'S IN CONSERVATION OF BIODIVERSITY AND SUSTAINABLE DEVELOPMENT

**124** SCHOLARSHIPS GRANTED  
SINCE 2006

**27** STUDENTS IN 2020

**11** MASTERS GRADUATED IN 2020

CAPES GRADE **4**

Offered in the distance learning format for the first time, the ESCAS Professional Master's in Conservation of Biodiversity and Sustainable Development had its greatest group in Nazaré Paulista (São Paulo state) in 2020, with **27** students. The format made possible the participation of even more students from outside the Southeast, including the North of the Country, and in the Amazon biome.

The Master's students seek the course with varied interests: from management of fauna to urban ecology, from business sustainability to entrepreneurship in communities.

*"The themes reveal the diversity in the professional profile of students at ESCAS, including - in this group alone - biologists, environmental managers, ecologists, lawyers, engineers in several areas, educators, psychologists, social scientists, among others,"* says Cristiana Saddy Martins, coordinator of the Professional Master's.

In Bahia, in turn, the presential Master's was made online, due to the pandemic. The course is generally developed in the Veracel Private Reserve of Natural Assets (RPPN), in Porto Seguro. The objective is to train professionals who operate in environmental conservation and sustainability in the south of Bahia. The focus is to contribute to potentialize regional sustainable development actions. For this reason, the course is subsidized by scholarships derived from the partnership between Veracel and Arapyauá Institute.

# SOCIAL-ENVIRONMENTAL BUSINESS MBA

12 STUDENTS IN 2020

66 GRADUATES IN TOTAL

The Coronavirus pandemic has increased socioeconomic inequality and has made clear the environmental emergency in Brazil and the world. The theme was one of the main focuses of the 2020 Management of Socio-environmental Business MBA.

*“The pandemic is part of the content and that was fundamental. How can social business contribute and adapt to this crisis? In this context of worsening of social and environmental problems, with high level of unemployment and OSCs not being able to operate in person, socio-environmental initiatives show how fundamental it is for Brazil to overcome the social impacts of the pandemic. Unfortunately, in fact, with the pandemic, the problems and demand for solutions coming from socio-environmental businesses rose,”* says MBA coordinator Graziella Comini.

*“Social businesses and organizations suffered great impacts and, often, had to transform their activities after 2020. They, for example, started performing middle ground activities, answering directly to emergencies (helping in the sanitary area or in the fight against hunger) and continued the work that they already performed in important social matters, like education and generation of income. We are certainly living a very singular and difficult moment,”* says Rachel Añon, ESCAS graduate, who works for a company in providing the connection between donors and social organizations for the fostering of projects.

And if the scenery at the time pointed towards an improvement in this area in the medium term, the Brazilian pandemic management throughout the year, which had serious consequences in early 2021, signal an even more challenging future for socio-environmental businesses and organizations in the short term. *“We still need to make a joint effort to overcome the crossing of 2021. There is lack of governance structure by the public administration and that has made everything more serious. What is positive is that there are initiatives in place, offering a good perspective with regard to private initiative resources and social mobilization to make things happen, and this may provide extra strength to CSOs throughout this trip.”*

## Adaptations

In 2020, some of the most prominent lessons were “Amazon 4.0 - Creation of ecosystems for innovation and the rooting of a new bioeconomy”, with physicist and professor Carlos Nobre, and “Sustainability in Value Chains”, with Imaflora. The lessons had to be rethought and transformed into a distance model.

*“We faced a very complex moment: changing from an in-person course, with fully participative methodology, at a campus in which people promote significant exchange and the environment is stimulating, to an online context... Students, coordinators and professors worked to make it happen. We can say that it was a win. We managed to transmit the content, and students participated very much. There was collaboration, we had to incorporate lessons during the week, three hours a day. In the end, we even had more meetings. What used to take place every two months became weekly, and that is very good,”* celebrated Graziella Comini.

## IN COMPANY

### Taking educational solutions to companies and institutions

The IPÊ research and teaching methodologies developed and tested by ESCAS over the year have been greatly sought to create solutions that are adapted to specific realities.

Since 2017, we have taken game “Sustainability in Play” to the private initiative. It is a board game that engages participants to develop discussions turned to business sustainability. During the pandemic, the game was adapted to a virtual format.



Sustainability Game.  
Credits: IPÊ.

## PARTNERSHIPS AND SUSTAINABLE BUSINESS

## PARTNERSHIPS AND SUSTAINABLE BUSINESS

The IPÊ Business Unit establishes partnerships, promotes initiatives for generation of income in communities and, through a series of actions, engages the society in favor of socio-environmental causes.

In 2020, with the need for social distancing due to the pandemic, many initiatives that took place in person suffered an impact, as did our engagement activities alongside the population through partnerships with retail. But we did not stop. With the support of large partners, we continued innovating, as the moment called for, and we transformed ourselves. We concentrated our efforts on digital, with donor campaigns and activities for participation of natural people and we released a new virtual store.

### WITH RED BULL BRAGANTINO

**500** TREES DONATED

### Twitter activity generated **500** trees for Bragança Paulista

Representatives of Red Bull Bragantino, a soccer team from the city of Bragança Paulista, and IPÊ professionals cultivated **500** saplings in the Atlantic Forest. The action was a result of a game on Twitter promoted by the soccer team, engaging supporters and followers.

The proposal was to promote a different match: Red Bull Bragantino x Forest Fires in Bragança Paulista.

The team simulated a real time match on Twitter against the forest fires in the city, a beneficiary of the IPÊ projects for the Cantareira System. However, instead of the traditional plays of a match, users received informative tweets about the importance of conservation of the entire area of the Cantareira System, with recommendations on how to avoid forest fires and deforestation.

Every **15** interactions, a goal was scored, and **50** saplings guaranteed. Engagement was great and the victory was a great result. **10 x 0, guaranteeing the plantation of 500 new trees.**

## WITH TOUR HOUSE AND EGANCIA

**6,000 TREES DONATED**

## Partnership supports cultivation in the Cantareira System

Egencia Global Alliance (EGA), a company in the Expedia Group, which has Tour House as its partner in Brazil, joined efforts with us in the challenge to plant **35 million** trees in the Cantareira System. In a campaign at the Business Travel Show, a corporate tourism event promoted in London, in February 2020, with each visit to the Egencia booth, a tree would be planted. The result: **6,000** trees donated!

*"We are very happy with the result and with being able to contribute to such an important area for protection of water. This is the second time we participate in an activity like this and, this year, we counted on the strength of our international group. I feel accomplished in being able to do this and in being at a company that collaborates with the environment",* explains Tour House president Carlos Prado. Some of the trees were planted by a task force in January 2021.

## WITH POLI-USP

**R\$3,430.00 DONATED**

## Ecoswim innovates and shows strength during a challenging year

A swimming competition in which the teams cannot jump into the pool? That is it! Ecoswim, an IPÊ partner competition for **13** years, faced the challenge of not being able to promote the 2020 event at the pools, due to the pandemic.

But the organizers, students at the Polytechnic School of the University of São Paulo (POLI-USP) did not give up and created a different competition. And they thus continued with one more year of donations to IPÊ. At Ecoswim, part of competitor enrolment fees are donated to the IPÊ native Sapling Nursery, in Nazaré Paulsita (SP).

To engage athletes, Ecoswim promoted several challenges for which they gave points. From enrolment to the sports challenges to be faced and posted on Instagram, to participation in live events, everything generated points. Thus, the competition raised **R\$3,430.00**

## WITH HAVAIANAS

PAIRS SOLD IN 2020: **355,090**  
QUANTITY TURNED TO THE CAUSE  
IN 2020: **R\$ 431,299.14**  
VOLUME TURNED TO THE CAUSE SINCE  
2004: AROUND **10 MILLION REALS**.

For **16** years, IPÊ and Havaianas have had a partnership that enchants Brazilians and the world through Havaianas-IPÊ, sandals with prints showing the fauna and flora of Brazilian forests. Traded in around **100** countries, they collaborate for the conservation of biodiversity in Brazil, with transfers of **7%** of net sales to the Institute. Throughout the years, more than **14 million** pairs of sandals have already been sold. In 2020, the jaguarundi (*Herpailurus yagouaroundi*), the walking leaf frog (*Phyllomedusa burmeisteri*) and the saffron toucanet (*Pteroglossus bailloni*) were the stars! Havaianas-IPÊ have already turned around **10 million** reais to the Institute's causes.

Resources are invested in institutional strengthening and in the development of conservation work.

***“The work developed by Instituto IPÊ is phenomenal in protecting forests and animals. Something that (IPÊ president) Suzana has taught us is that it is hard for an NGO to raise funds for emergencies, for things that are not forecasted. We developed this partnership 16 years ago, creating a healthy and sustainable form to continue supporting the institute every year, granting it the possibility to navigate all changes that take place, as well as the challenges that materialize day to day, and providing the opportunity to work with future sustainability professionals, training said people with resources that they may access. ... We are very proud of that.”*** Fernanda Romano, Marketing and Innovation Vice-President at Alpargatas.

## WITH TRIBANCO

R\$ **27,230.56** DONATED  
R\$ **868,117.18** DONATED SINCE 2008

An IPÊ partner since 2006, Tribanco supports the Institute's activities through donations connected to its products. With each Tribanco Crédito Certo operation, **10** cents are donated and with each Tricard bill paid, **1** cent is also turned to IPÊ. The most recent action, which has been growing, is the rounding up of the bill, with Round Up Movement.



Fernanda Avila, Tribanco.  
Credits: Tribanco.

*“Tribanco is very proud of this partnership. This is a 15-year relationship that has worked out very well and is doing good! This evolution is felt among collaborators, even among those arriving at the bank now, who have not been following the process since the beginning. Currently, the financial sector has been flooded by the ESG theme and we are proud of this partnership, with evidence of what we have learned and practiced.*”

*And, of course, there is still much to learn, build and evolve. But we are en route and very pleased with what we have done up to now,”* said Fernanda Avila, who is responsible for the ESG - sustainability | governance, complicity and sustainability area.

With Arredondador, **16,000** donations were made to IPÊ using the Tricard. This participation is expected to grow. *“We aim to stimulate greater and greater client participation in this movement, making them feel part of the environmental protection cause and the donor culture. We, more and more, want to provide channels and experience to optimize and facilitate these choices, and participation, connecting causes and people.”*

## WITH THE ROUND UP MOVEMENT

**R\$ 6,048:00** DONATED

## IPÊ PARTNERS IN THE INITIATIVE: Tribanco and Alpargatas

In Arredondar (Rounding Up), the change of your purchases becomes donations to social and environmental organizations throughout Brazil. The rounding up via Tricard (Tribanco) and at shop cashiers at Havaianas are donated to IPÊ for our biodiversity conservation work.

Individual donations in Arredondar are no greater than **R\$ 0.99**. But the results are significant. Since the beginning of the movement, rounding up has already distributed **6.3 million** reais to NGOs, and another **30 million** in donations have been made.

## WITH TURISTA +

**R\$1,878.54** DONATED

Turista+ stimulates tourists in Atibaia and region to donate part of the Room Tax to IPÊ, an organization that works in environmental conservation in the region. Our partners are hotels and inns in the city. The values donated this year were symbolic because the campaign was interrupted in March 2020, due to the pandemic, which had a significant effect on the sector.

## New partnerships for people engagement

## SERPENTINA BIKINI



Brand item Serpentina Bikini.  
Credits: Rogério Cavalcanti.

In partnership with Cause Related Marketing, Serpentina Bikini has started donating **5%** of the net value of sale of its items to the IPÊ sapling nursery in Nazaré Paulista (São Paulo state).

*“The brand is greatly connected to water and its proposition is to support related causes. Our items are, for example, made out of recycled fishing nets. Supporting IPÊ, which operates in conservation of water in the Atlantic Forest is something that makes total sense and I hope that people see this and can contribute to this cause through Serpentina.”* Simone Nunes, fashion designer, creator of brand Serpentina Bikini.

## FREE HELPER

Since 2020, IPÊ has counted on a partnership with FreeHelper, a startup that connects NGOs with volunteer professionals to promote short- and medium-term actions to increase the impact of several social causes through professionalization, increasing the culture of volunteer work through transformation.

Become a FreeHelper volunteer:  
<https://freehelper.com.br/cadastro>

## COMMUNITIES

### Generation of income and products with the face of biodiversity

Promote products of communities is another constant action of the Business Unit. Sales

totaled **R\$ 125,366.47** in 2020, and funds should be applied to the continuation of product trade activities through IPÊ.

Almost half a ton of Agroforestry Coffee produced by rural settlers in Pontal do Paranapanema sold in 2020. The coffee is the result of Agroforestry-System work that helps increase farmer income and restore the landscape: coffee is produced in the shade of Atlantic Forest trees, cultivated by farmers.

## Sewing the Future

Since 2003, IPÊ has been supporting a group of embroiderers of Nazaré Paulista, through project Sewing the Future. With the paralysis of in-person fairs and sales, the IPÊ online store became the main vehicle to reach people. With the impact of the pandemic, the project counted on extra support of partner Instituto C&A, which donated **7,500** Brazilian reais to the financial sustainability of the initiative for **three** months, for payment of the labor of embroiderers.

*“We are very thankful to Instituto C&A. It is important, at this moment of crisis, for Organizations of the Civil Society to count further on their partners to overcome their challenges. Especially in projects that provide incentives to social entrepreneurship, which are being significantly impacted. The support of companies and the entire society is fundamental now,”* explains Andrea Peçanha, coordinator of the IPÊ Business Unit.

During the pandemic, the group reinvented itself and also started producing masks. Partner Polimix purchased **650** units, which are on sale on their site.



Masks by IPÊ.

## PARTNERS FOR THE FUTURE

**132** DIRECT BENEFICIARIES  
**33** FORESTRY AREAS

## IPÊ and Danone develop more sustainable projects for production

In 2020, IPÊ proceeded with two projects with Danone Brasil financing. The first, Caruanas project, also counts on financing by the Livelihood Fund and on a partnership with SEBRAE (via Ecoaba). The work is

going to implement a total of **100** hectares of Agroforestry Systems (SAFs) in **33** different settlements, small properties and rural communities in Nova Iguaçu and Duque de Caxias, close to Tinguá Biological Reservation (Rio de Janeiro). The idea is to use the SAFs as a tool for agroecological transition, working in the social, economic and environmental dimensions. The agroforestry-system units under implementation allow the uniting of fruit species, annual and perennial cultures, with native trees of the Atlantic Forest, characteristics of the region, which helps the soil and local biodiversity, including food. IPÊ provides technical assistance and inputs for transformation of agroecology to take place.

In the region, we have already promoted:

- Agroforestry system implementation and management workshops for agroecological production given to two groups of farmers interested in joining the project.
- Exchange of experiences with farmers about the different forms and singularities for management of their productive systems. Farmers in areas undergoing implementation and development discussed errors and successes among themselves, in a practical and illustrative manner.
- Technical assistance and rural expansion for farmers involved in the project.

Other actions are forecasted to continue in 2021, with the expansion of areas to at least **50** hectares, as we already have **33** ha.

## Innovative Silvopastoral model for farms

Also with Danone Brasil, we implemented a silvopastoral farm model. The process took place at Fazenda Gordura, in the city of Guaranesia (Minas Gerais).

Flora Project: Accelerating and Adopting Sustainable Livestock Farming with Specialized Training in Brazil is an IPÊ partnership with Danone in collaboration with the Forestry and Environmental Studies School of Yale University and its Environmental Leadership and Training Initiative (ELTI) alongside the Centre for Research in Sustainable Agricultural Production Systems (CIPAV), from Colombia.

The pilot project is taking place on Caio Rivetti's property. Born in São Paulo, he studied Agroecology and, after working in the financial market, decided to dedicate himself fully to his farm and to dairy in Minas Gerais. In the silvopastoral project, he saw an opportunity to expand initiatives that he had been developing on his property, in the form of organic dairy farming, and the cultivation of trees in Legal Preservation Areas and Permanent Preservation Areas. Of his **170** hectares, **40** are already covered in forests.

*"It is greatly connected to what we want for the farm, and is an innovative proposal, because we do not use eucalyptus for lumber, as is the case in the most common systems in Brazil. The IPÊ technique, developed with the team from Colombia, aims to use native Atlantic Forest species in a more complex system, which involves forests and ecosystem, granting a function for the forest, be it for pollination, or for cattle fodder," he explains.*

Caio explains that the proposal behind the project was to have a pilot property, serving as a school for other farmers to access the initiative and see the results. That factor stimulated him further. *"We still have only three hectares with silvopastoral land but want to expand it and multiply the work we had here within this project. Despite being recent, we can see the vigor of the plants that, even in winter, do not suffer with the water stress we noticed before, for example. But, with time, we will certainly notice other benefits,"* he said.

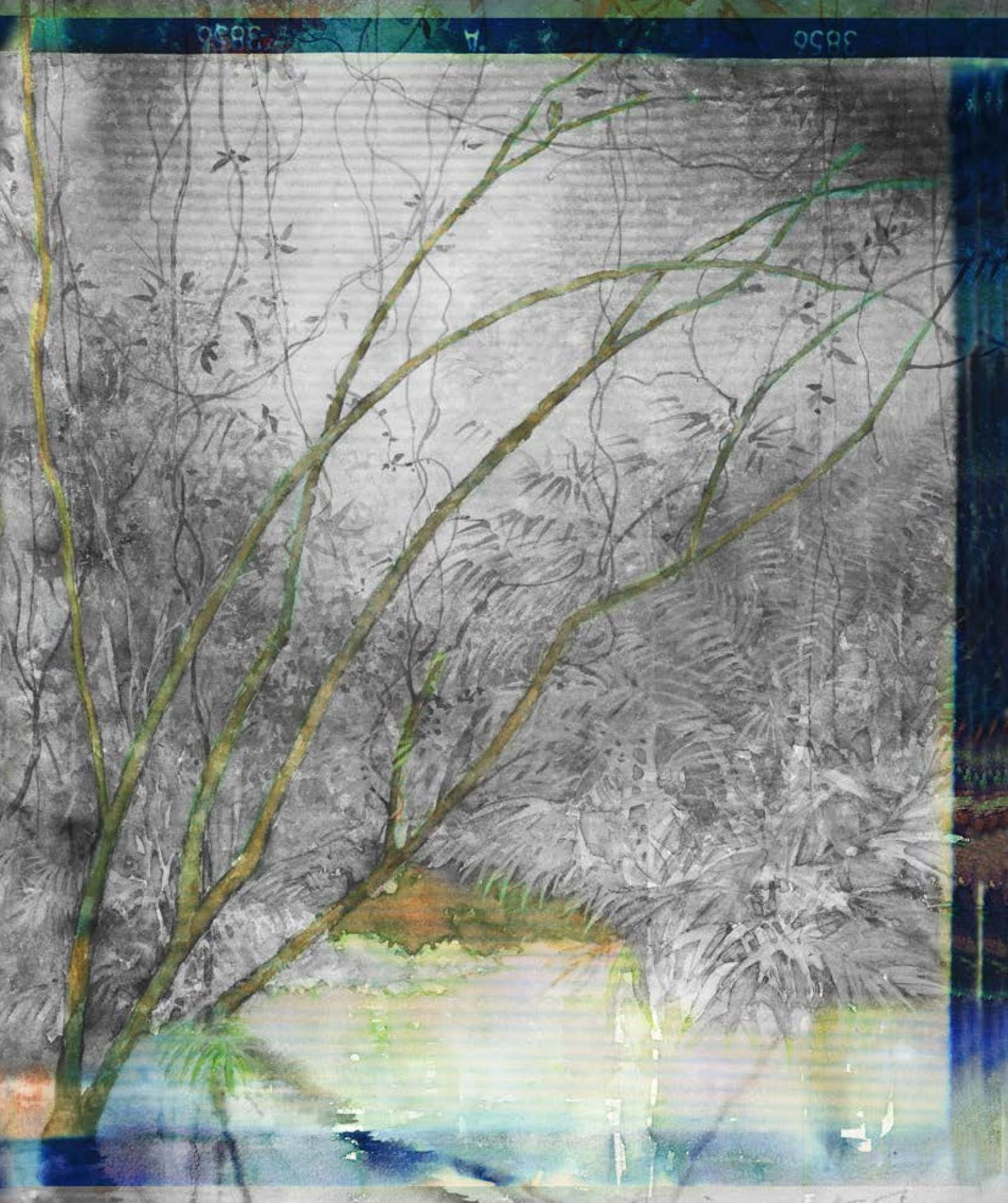
## PEOPLE MAKING A DIFFERENCE

In different campaigns, we seek to engage more and more people in the socio-environmental cause through donations to IPÊ. It is possible to donate to the Institute in several ways, through PayPal, making a checking account deposit, and also through our annual campaign.

In 2020, donations totaled **R\$ 59,749.06** and should be employed in institutional strengthening. Donations are fundamental for socio-environmental and not-for-profit organizations, especially at critical moments like those lived in recent years, with growing threats to forestry.

In partnership with Everest Fundraising, we released our campaigns for Brazilian forests, offering the possibility of single and recurring donations.

You can become a recurring donor and help us in the mission for conservation of Brazilian biodiversity. [Click here and donate now!](#)



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