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# UNITED TO ACCELERATE SOLUTIONS

**JOSÉ BERENGUER** Chairman of the Deliberative Board, FUNBIO



Sharm El-Sheikh, Egypt is globally known as one of the most spectacular diving spots in the world. And, in November 2022, it was there that the more than 40,000 climate COP27 participants heard decision makers emphasize an inevitable and natural approach, which until then had not always been verbalized in large forums: biodiversity and climate go hand in hand. Forests and people as well. These are intrinsic themes that, if at some point were thought of as containment tactics, need to be treated as a large dynamic network, in which one movement impacts the other, making it move forward or backwards.

This perception opens up listen, inclusive perspectives, which are distribucrucial at a time when urgencies, Througsuch as the tipping point for lasting large forests like the Amazon (the threshold beyond which An ongreturning to the previous state is suppor considered unfeasible), are being progra discussed, global commitments for cor to mitigate the climate change genera are being evaluated, and new and th arrangements and partnerships bioeco

In this context, Brazil's socioenvironmental wealth coexists with opportunities and, of course, challenges of similar dimension. At the meeting in Egypt, the hub of the Legal Amazon Consortium, which has FUNBIO as financial manager, highlighted some of them: there is a willingness of large donors to support long-term national and regional initiatives that are sustainable and present tangible and measurable results. For this to materialize, it is essential to

to fund conservation projects

are being created.

listen, structure, have data, plan, distribute knowledge, and train. Through this, we can envision lasting impacts.

An ongoing example is the support of the COPAÍBAS program, financed by Norway, for conservation and income generation in the Cerrado and the Amazon through bioeconomy. Support goes beyond financial resources: a follow-up program trains and advises the beneficiary associations, presenting them with a perspective of the up and downstream supply chains. This allows them to become familiar with concepts such as added value and perceive the value of strategies such as marketing for a fairer and more lasting presence in markets.

Twenty-twenty-two (2022) was also the year in which an unprecedented BNDES match funding initiative mobilized massive resources in a short

### LETTER FROM THE CHAIRMAN

period of time for ecological restoration. Named Floresta Viva, the initiative announced at the same COP27 a first call for proposals, which will allocate BRL 44.4 million to the restoration of mangroves and *restingas* [coastal forests], in partnership with Petrobras. Floresta Viva has an investment target of BRL 700 million over seven years, and brings together partners that include some of the largest companies operating in Brazil.

We are pleased to be the managers of the initiative, an unprecedented fund raising initiative that highlights the importance of alliances between different sectors. This joint commitment not only enhances, but also accelerates, solutions for a planet where climate and biodiversity, forests and people go hand in hand, and should not become nostalgic reminders of a time when extremes were exception, and not the norm.

# NEW ARRANGEMENTS FOR KNOWN CHALLENGES

**ROSA LEMOS DE SÁ** Secretary-General of FUNBIO



In 2015, the United Nations (UN) launched 17 Sustainable Development Goals (SDGs), related to the main challenges to ensure peace and prosperity in the world. The work carried out by FUNBIO for over 26 years is intrinsically related to a significant number of these SDGs, which, in order to be achieved, require an unprecedented effort and multisectoral mobilization: civil society, governments, financiers, and companies.

According to the UN, for the SDGs to be achieved by 2030, approximately USD 5 trillion to USD 7 trillion\* in funding will be needed. In developing countries, however, there is an estimated gap of USD 2.5 trillion.

It is in this context that arrangements such as blended finance, which uses nonreimbursable funding such as philanthropy to attract and mobilize capital from the private sector, become increasingly relevant. This combination, in which there is gain both for the benefited communities and projects, as well as for the financial institution, has generated growing interest, reflected, for example, in discussions at the COP27 on Climate, held in November in Egypt, which attracted some of the biggest private banks on the planet.

Blended finance is already, for example, the core of the Global

Fund for Coral Reefs, which includes the United Nations as one of the parties involved, an innovative initiative that aims to mitigate the degradation of priority areas, while generating financial returns to scale. It focuses on SDG 14, "Life below water".

At FUNBIO, we are partners with Natura and Vert Consultoria e Assessoria Financeira in a pioneering blended finance initiative of this type, which was selected in the first public call for blended finance by the BNDES bank, in 2022. The work should benefit producers in the sociobiodiversity chain in the Amazon. Previously, through the Probio II opportunity fund, we had also worked in the Pampa on this hybrid model, which has the potential to bring greater scale to socioenvironmental initiatives.

In the coming years, we will be even more focused on this modality, which will require

### PERSPECTIVES

civil society organizations and private banks to acquire knowledge: among others, learning and becoming fluent in the partner's language, improving evaluations and impact measures (and, thus, it is worth thinking about issues that are not always unanimous, such as the valuation of biodiversity). Listening and talking find points of convergence that promote the greatest possible impact is another key step in projects of this nature.

At FUNBIO, innovation and emphasis on the dynamics of socioenvironmental financing are an inseparable part of the way of thinking and working. Therefore, it is natural that modalities such as blended finance are the focus of our attention, aimed at preserving the future.

\*https://www.undp.org/eurasia/blog/whatkind-blender-do-we-need-finance-sdgs







# **MISSION**

To provide **strategic resources** for biodiversity conservation



# VISION

To be the benchmark in enabling strategic resources and solutions for the conservation of biodiversity



FUNBIO is guided by the following values:

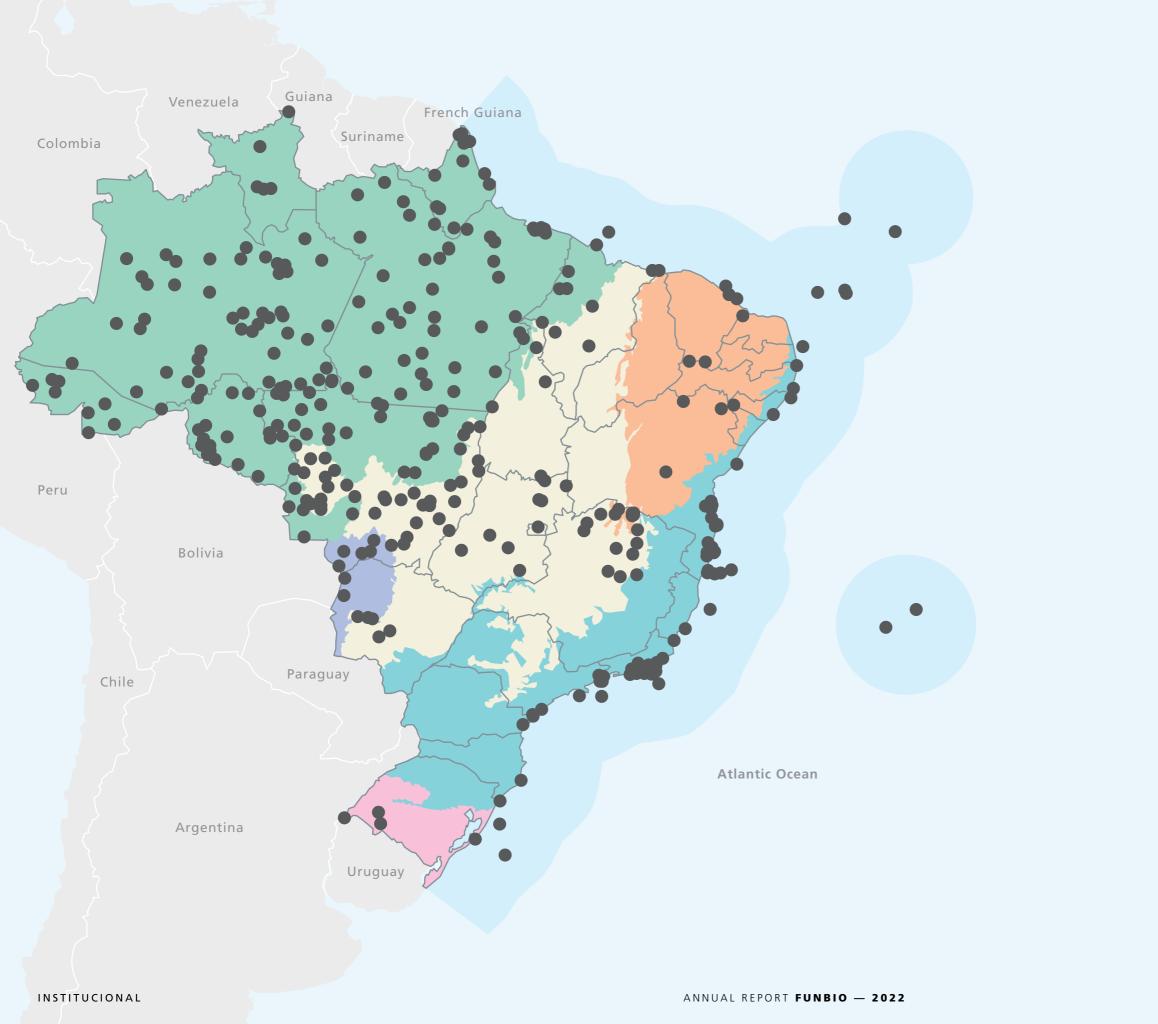
- → Ethics
- → Effectiveness

# VALUES

- → Transparency
- → Receptiveness
- → Independence Intellectuality
- → Innovation



# **OUR PROJECTS\***



# AMAZON CAATINGA CERRADO ATLANTIC FOREST PAMPA PANTANAL ECOSYSTEM

BIOMES

\*Data consolidated in December 2022.





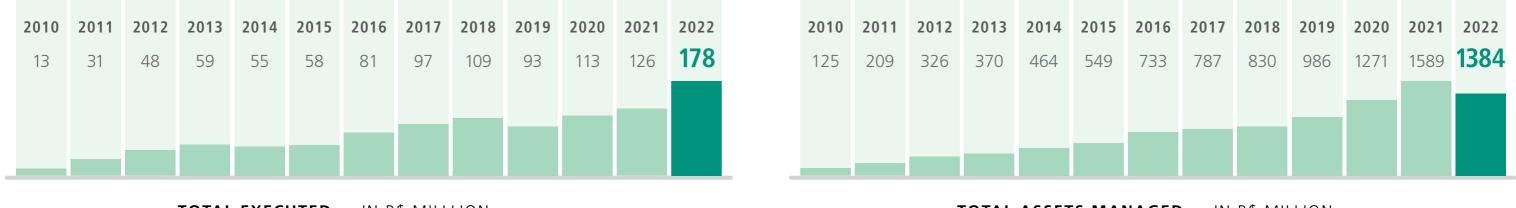
\*Cumulative data since the beginning of FUNBIO's activities



# MORE THAN 500 INDIGENOUS SUPPORTED

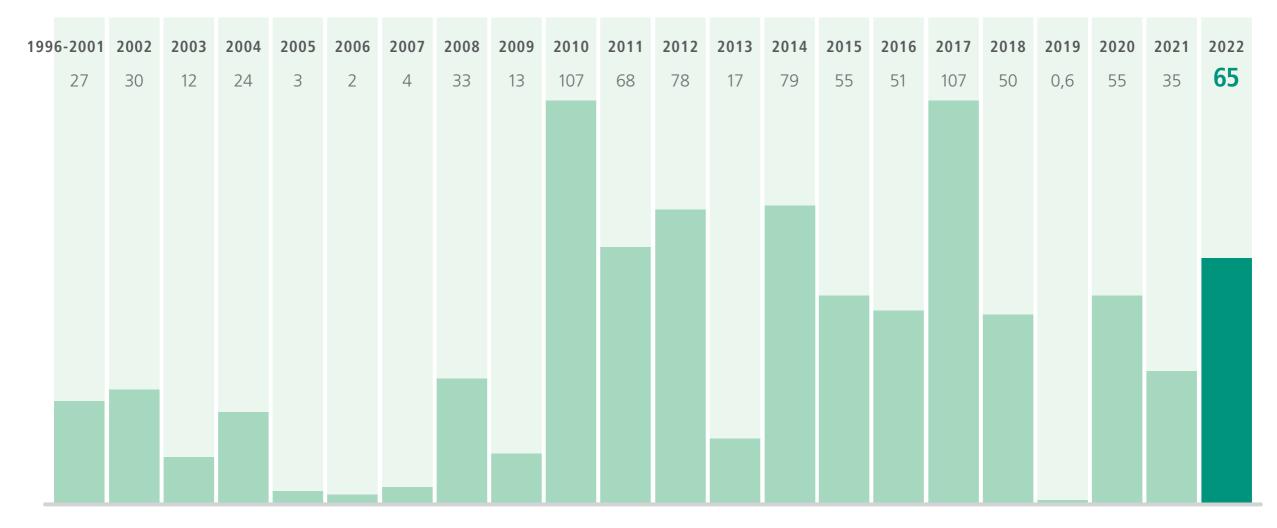


# **IN NUMBERS**





TOTAL EXECUTED — IN R\$ MILLLION



### SUM CONTRACTED PER YEAR\* — IN USD MILLION

\*Project value converted into dollars (last day of the month of the contract). As of 2019, amounts converted on the date the contract was signed



# THEMATIC AREAS

	SUSTAINABLE		ESTABLISHMENT		INSTITUTIONAL	ENVIRONMENTAL	A Company of the second			FOREST	
	PRODUCTIVE ACTIVITIES	TRAINING OF TEAMS AND PARTNERS	AND CONSOLIDATION OF PROTECTED AREAS	GENDER EQUITY	STRENGTHENING OF PARTNERS	MANAGEMENT OF INDIGENOUS LANDS	SPECIES MANAGEMENT	FINANCIAL MECHANISMS	CLIMATE CHANGE	RESTORATION	
A MILLION TREES FOR THE XINGU					$\odot$	Diffes			$\odot$	$\odot$	
ABROLHOS LAND AND SEA FUND	$\odot$		$\odot$					$\odot$			
AMAPÁ FUND	$\oslash$			$\bigcirc$	$\odot$			$\odot$		$\odot$	
ARPA		$\odot$	$\odot$	$\bigcirc$					$\oslash$		
ATLANTIC FOREST		$\odot$	$\odot$		$\odot$				$\oslash$	$\odot$	
CLEAN OCEAN NETWORK	$\odot$	$\odot$									
COPAÍBAS	$\oslash$	$\odot$	$\odot$	$\oslash$	$\odot$	$\odot$			$\oslash$		
CORAL REEF								$\odot$	$\oslash$		
EASTERN AMAZON FUND	$\oslash$	$\odot$	$\odot$		$\odot$			$\odot$	$\oslash$	$\odot$	
ENVIRONMENTAL EDUCATION	$\odot$	$\odot$		$\bigcirc$	$\odot$						
FLORESTA VIVA	$\oslash$	$\odot$			$\odot$				$\oslash$	$\odot$	
FRANCISCANA CONSERVATION					$\odot$		$\odot$				
FUNBIO GRANTS – CONSERVING THE FUTURE		$\odot$		$\odot$			$\odot$		$\odot$	$\odot$	
GCF TASK FORCE		$\odot$							$\oslash$		
GEF MAR	$\oslash$	$\odot$	$\odot$		$\odot$						
GEF TERRESTRE	$\odot$	$\odot$	$\odot$		$\odot$		$\odot$		$\oslash$	$\odot$	
GOLDEN LION TAMARIN (PHASE II)					$\odot$		$\odot$			$\odot$	
GOLDEN LION TAMARIN (PHASE III)					$\odot$		$\odot$			$\odot$	
KAYAPÓ FUND	$\odot$	$\odot$		$\odot$	$\odot$	$\odot$					
LEGAL AMAZON CONSORTIUM	${igodot}$	$\odot$			$\odot$			$\odot$	$\oslash$	$\odot$	
MARINE AND FISHERIES RESEARCH					$\odot$		$\odot$				
PRÓ-ESPÉCIES		$\odot$		$\odot$	$\odot$		$\odot$				
PROBIO II	$\oslash$	$\oslash$		$\oslash$			$\odot$	$\odot$	$\oslash$	$\odot$	
RAPID RESCUE FUND	$\oslash$	$\bigcirc$			$\odot$	$\odot$			$\oslash$	$\odot$	
REM MT	$\oslash$	$\oslash$		$\bigcirc$	$\odot$	$\odot$	$\bigcirc$		$\oslash$	$\odot$	
SUPPORT TO PAS		$\odot$	$\odot$								
TAC ALSUB	$\odot$		$\odot$		$\odot$						
TAC CORAL-SOL							$\odot$				
TAJ PARANAGUÁ		$\odot$	$\odot$					$\odot$			
TCSA PORTO SUL		$\odot$	$\odot$						$\odot$	$\odot$	
TRADITION AND FUTURE IN THE AMAZON	$\odot$	$\odot$		$\odot$	$\odot$	$\odot$			$\odot$		

INSTITUTIONAL

# SDG AND CONTRIBUTIONS

The conservation initiatives FUNBIO supports work toward the 17 Sustainable Development Goals (SDGs), Brazil's Nationally Determined Contributions (NDCs) and the National Action Plan and Strategy for Biodiversity (EPANB, in Portuguese). In this report, projects with a bearing on the SDGs, Brazil's NDCs, or the EPANB are flagged with the respective icons.

# SUSTAINABLE DEVELOPMENT GOALS (SDGS)

In 2015, the United Nations (UN) announced that its member states were adopting 17 Sustainable Development Goals in order to protect the planet, eradicate poverty and ensure prosperity for all. The SDGs carry on from where the Millennium Development Goals left off in 2000, giving those who fell short of those targets a second chance to hit the mark. The set of measures will guide Brazil and the 192 other signatories in drafting national policies and negotiating international cooperation agreements between now and 2030.

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# NATIONALLY DETERMINED CONTRIBUTION (NDC)

The same year, Brazil presented its Nationally Determined Contribution (NDC), the nation's commitment to the Paris Agreement. The NDC was revised in 2020, when, in accordance with the Third National Inventory, Brazil promised a 37% reduction in greenhouse gas emissions by 2025 relative to the year 2005, and a 43% cut by 2030. The new version of the inventory replaced the earlier, both of which were produced by the Ministry of Science, Technology and Innovations (MCTI).



## THE NATIONAL BIODIVERSITY STRATEGY AND ACTION PLANS (NBSAP)

The National Biodiversity Strategy and Action Plans – NBSAP is intended to promote the conservation and sustainable use of biodiversity, with an equitable sharing of the benefits of genetic use. It was created by the Federal Government in collaboration with state governments, business, academia and civil society. It contributes to the country's biodiversity goals. All FUNBIO projects contribute to the NBSAP.





# SDG AND CONTRIBUTIONS

CONTRIBUTIONS	<b>1</b> NO	J ZERO	<b>9</b> GOOD HEALTH	A QUALITY	<b>G</b> ENDER	C CLEAN WATER	7 AFFORDABLE AN	8 DECENT WORK AND ECONOMIC GROWTH	O NOUSTRY, INNOVATION	10 REDUCED	<b>11</b> SUSTAINABLE CITIES	10 RESPONSIBLE	10 CLIMATE	<b>1</b> / UFE	15 UFE	1C PEACE, JUSTICE	<b>17</b> PARTNERSHIPS		4PAAp	
	1 <sup>ng</sup> poverty <b>∭∗∕∰∕∯</b> †Î									10 REDUCED				14 UFE BELOW WATER	15 ON LAND		17 PARTNERSHIPS FOR THE GOALS	l € ∫ β		
																=				
A MILLION TREES FOR THE XINGU					$\odot$	$\odot$							$\oslash$		$\odot$		$\odot$	$\odot$	$\odot$	
ABROLHOS LAND AND SEA FUND								$\odot$				$\odot$	$\odot$	$\odot$	$\odot$		$\odot$			
AMAPÁ FUND		$\odot$						$\odot$					$\oslash$		$\odot$		$\odot$	$\odot$	$\odot$	
ARPA					$\odot$	$\odot$							$\odot$		$\odot$		$\odot$	$\odot$	$\odot$	
ATLANTIC FOREST													$\odot$		$\odot$		$\odot$	$\odot$	$\odot$	
CLEAN OCEAN NETWORK			$\odot$											$\odot$			$\odot$		$\odot$	
COPAÍBAS		$\odot$						$\odot$					$\oslash$		$\odot$		$\odot$	$\odot$	$\odot$	
CORAL REEF					$\odot$									$\odot$			$\odot$	$\odot$		
EASTERN AMAZON FUND		$\odot$				$\odot$	$\odot$	$\odot$				$\odot$	$\oslash$	$\oslash$	$\odot$		$\odot$	$\odot$	$\odot$	
ENVIRONMENTAL EDUCATION		$\odot$			$\odot$									$\odot$			$\odot$		$\odot$	
FLORESTA VIVA						$\odot$							$\oslash$		$\odot$		$\odot$	$\odot$	$\odot$	
FRANCISCANA CONSERVATION														$\odot$			$\odot$		$\odot$	
FUNBIO GRANTS – CONSERVING THE FUTURE				$\oslash$									$\oslash$	$\odot$	$\odot$		$\odot$	$\odot$	$\odot$	
GCF TASK FORCE		$\odot$					$\odot$					$\odot$					$\odot$	$\odot$	$\odot$	
GEF MAR		$\odot$			$\odot$			$\odot$						$\odot$			$\odot$		$\odot$	
GEF TERRESTRE													$\odot$		$\odot$		$\odot$	$\odot$	$\odot$	
GOLDEN LION TAMARIN (PHASE II)								$\oslash$					$\oslash$		$\odot$		$\odot$	$\odot$	$\odot$	
GOLDEN LION TAMARIN (PHASE III)								$\odot$					$\odot$		$\odot$		$\odot$	$\odot$	$\odot$	
KAYAPÓ FUND		$\odot$			$\odot$								$\odot$		$\odot$		$\odot$		$\odot$	
LEGAL AMAZON CONSORTIUM		$\odot$							$\odot$			$\odot$	$\odot$	$\odot$	$\odot$		$\odot$	$\odot$	$\odot$	
MARINE AND FISHERIES RESEARCH					$\odot$							$\odot$		$\odot$			$\odot$		$\odot$	
PRÓ-ESPÉCIES														$\odot$	$\odot$		$\odot$		$\odot$	
PROBIO II		$\odot$			$\odot$	$\odot$	$\oslash$					$\odot$	$\oslash$		$\odot$		$\odot$	$\odot$	$\odot$	
RAPID RESCUE FUND		$\odot$	$\odot$		$\odot$		$\odot$			$\odot$		$\odot$	$\odot$			$\odot$		$\odot$	$\odot$	
REM MT		$\odot$			$\odot$				$\odot$			$\odot$	$\odot$		$\odot$		$\odot$	$\odot$	$\odot$	
SUPPORT TO PAS													$\odot$	$\odot$	$\odot$		$\odot$	$\odot$	$\odot$	
TAC ALSUB								$\odot$			$\odot$	$\odot$	$\oslash$	$\odot$			$\odot$		$\odot$	
TAC CORAL-SOL														$\odot$			$\odot$		$\odot$	
TAJ PARANAGUÁ														$\oslash$	$\odot$			$\odot$	$\odot$	
TCSA PORTO SUL						$\odot$							$\odot$	$\odot$	$\odot$		$\odot$	$\odot$	$\odot$	
TRADITION AND FUTURE IN THE AMAZON					$\odot$								$\odot$		$\odot$		$\odot$		$\odot$	
																	$\sim$			

CONTENTS (

# JANUARY



# **FEBRUARY**



- FUNBIO manages the CAA Coral-Sol, signed between the Federal Public Prosecutor's Office and the companies Petrobras, Transpetro, Vale, Brasfels, and TOP. It includes an assessment and monitoring of biodiversity in the region and the implementation of procedures for the early detection of invasive species, especially at the Tamoios Ecological Station.
- The Strategic Plan for Monitoring and Assessment of Marine Litter (PEMALM, the acronym in Portuguese) is announced, with an initial focus on Rio de Janeiro, Bahia, Amapá, and Paraná. The studies will help fight marine litter throughout Brazil. Partnership between FUNBIO, Institute of Advanced Studies (IEA), Oceanographic Institute of the University of São Paulo (IOUSP), and São Paulo State Secretariat for Infrastructure and Environment (SIMA).

# MARCH





2009 based on a demand from the state of Rio de Janeiro, the Atlantic Forest Fund (AFF/RJ) will have FUNBIO as executor of the component for restoring the biome's forest cover.

The Parcel de Manuel Luís Marine State

one of the largest ship cemeteries in the

world. Researchers found the origin of three shipwrecks prior to the 1970s, during research

for the creation of the management plan for the

Salinas, West Point, and Ilha Grande are Brazilian

Protected Area — supported by GEF Mar. Now,

archaeological sites recognized by the National

Historical and Artistic Heritage Institute (Iphan).

Park area, in Maranhão, is known as

FUNBIO will be at the forefront of the AFF/

RJ forest restoration component. Created in

# 

MAY





With almost 15 meters in height and 57 steps, the observation tower at the headquarters of the Associação Mico-Leão-Dourado, built with the support of ExxonMobil, is completed. Part of the Project to implement the Golden Lion Tamarin Ecological Park.



INSTITUTIONAL

# IN 2022

 The signing of the project Concerted Strategy to Tackle Ethnoenvironmental Emergencies in the Brazilian Amazon – Rapid RESCUE Brazilian Amazon, which supports areas affected by fires and deforestation in the Amazon.

- The Eastern Amazon Fund (FAO, the acronym in Portuguese), created by Pará in 2019 to promote projects that make the transition to a carbon neutral economy possible from 2036 onwards, will receive BRL 5 million, originating from a Conduct Adjustment Agreement (CAA) signed in February between the Federal Public Prosecutors Office and JBS. The CAA recognizes FUNBIO as the executor of the resources and the State Secretariat for the Environment and Sustainability (SEMAS) as the conductor on public policies.
- The National Bank for Economic and Social Development (BNDES) announces FUNBIO as manager of the Floresta Viva program, which will allocate at least BRL 700 million for the ecological restoration of Brazilian biomes. The initiative is announced with the initial support of 11 institutions. It is recognized as the largest environmental matchmaking in Brazil, a model that provides connections between different peers for more effective results.
- In May, the COPAÍBAS Program went to the field for its first monitoring mission in the state parks of Caldas Novas (Goiás) and Biribiri (Minas Gerais), two of the 21 Protected Areas (PAs) already supported in four states. COPAÍBAS has among its objectives the strengthening of PAs in the Cerrado, the most biodiverse savannah on the planet.

**JUNE** 



The 5th edition of the FUNBIO Grants Program – Conserving the Future is launched, which, in partnership with the Instituto humanize, supports field research by master's and PhD students in all of the country's biomes.





The largest initiative for the conservation of tropical forests on the planet reaches 20 years of effective results and, to celebrate, the second 2022 meeting of the Transition Fund Committee of the Protected Areas of the Amazon Program (ARPA) brings together donors in Santarém, Pará, followed by of a visit to RESEX Tapajós-Arapiuns. The program, inspiration for countries like Peru and Colombia, already supports 62.5 million hectares in 120 Protected Areas.



DIÁLOGOS

**PELO CLIMA** 



The Support for Marine and Fisheries Research project is promoting the assembly of a marine collection that will be part of a permanent exhibition at the National Museum. The institution lost nearly 20 million collection items in a fire in 2018.







The Atlantic Forest Project makes monitoring visits to two projects in the Lagamar Mosaic, on the coast of Paraná, where 1,300 hectares are already being restored. The forecast is to plant 15,000 seedlings, in addition to building nurseries with a production capacity of 250,000 seedlings per year.

### SEPTEMBER



# IN 2022

The online series Dialogues for the Climate begins. Six meetings to bring together public lawyers (including representatives of public prosecutor's offices and judges) and civil society to exchange ideas and seek solutions against deforestation and climate change. The initiative is part of the COPAÍBAS Program.

**GEF Terrestre carries out the first monitoring visit to projects in the Caatinga:** support for more than 100 hectares in the Furna Feia National Park, in addition to innovative techniques, personnel training, and strengthening of the seed network in the Açu National Forest.

- For the fourth consecutive year, ExxonMobil renewed its partnership with Associação Mico-Leão-Dourado (AMLD) and FUNBIO, which will allow the consolidation of support structures for visiting the Golden Lion Tamarin Ecological Park, in Silva Jardim (Rio de Janeiro). The project foresees the creation of the House of the Golden Lion Tamarin, with interactive environments, the structuring of new trails and the maintenance of the security system.
- FUNBIO was present at the second edition of the Global Programming Conference, a Green Climate Fund (GCF) event that brings together governments and institutions to discuss new approaches for the Fund, as well as best practices for environmental projects. Since 2018, FUNBIO has been a national implementing agency for the GCF.

# 



The first face-to-face meeting of the Climate Dialogues, an initiative of the COPAÍBAS program, took place on the 25th, in São Luís (Maranhão). As a result of an agreement between FUNBIO and the local State Public Prosecutor's Office, it gathered around 30 attendees.



# 



For 15 days and with more than 45,000 participants at COP27 on Climate, in Egypt:

- in Egypt, the Gordon and Betty Moore Foundation announced the contribution to the Eastern Amazon Fund (FAO, the acronym in Portuguese) of more than USD 3 million, primarily in quilombola communities.
- COP27

- Additionally at COP27, a memorandum of understanding was announced between Acre and FUNBIO, which provides for the management of future mechanisms for the conservation of biodiversity and climate change, with emphasis on the LEAF Coalition. LEAF brings together donations from countries and companies and has already mobilized USD 1 billion for tropical forests.
- The Amazônia Viva initiative, created jointly by Natura, FUNBIO and Vert, is selected by the Blended Finance BNDES Call for Proposals. The mechanism aims at an initial funding — from different sources — of almost BRL 89 million. The proposal aims to boost the participation of Amazonian products compatible with the forest in the global market.



### DECEMBER



The Renova Foundation signs a contract with FUNBIO for the financial management of five public calls for proposals for scientific research for the conservation of biodiversity in the Doce river basin. The purpose of the calls will be to carry out research, monitoring, information management, and propose public policies for the conservation of terrestrial and aquatic species that have suffered with the impact in the region.



# IN 2022

A study on the carbon stock in the five Kayapó Indigenous Lands (ILs) supported by the Tradition and Future in the Amazon project (TFA) in Pará and Mato Grosso estimates that, annually, emissions avoided by protecting the ILs is 3,500 tons of carbon. The value is equivalent to the emissions of 750 plane trips between Brasília and Tokyo.

Also at COP27, the first call for proposals of the Floresta Viva initiative was launched: Mangroves of Brazil has financial support from Petrobras, and will allocate more than BRL 44 million to up to nine projects aimed at the recovery of mangroves and *restingas* [a type of costal forest] — cradles of marine life.

Suzano becomes a partner of the Probio II Opportunities Fund. The project, in communities in Maranhão, will promote the sustainable extraction of açai, babassu, buriti, cajá, and by-products by strengthening the organization, management, production, and commercialization by local communities.

The Clean Ocean Network is launched, an initiative supported by the Underwater Warehousing CAA in partnership with the Unesco Chair for Ocean Sustainability, linked to the University of São Paulo. The Network connects efforts and outlines strategies to combat marine litter in the state of Rio de Janeiro, with possible future extension to other regions.

### **FUNBIO**

FUNBIO is a private, notfor-profit civil-society organization founded in 1996 with a donation from the Global Environment Facility (GEF) and a federal government brief to support the implementation of the **United Nations Convention** on Biological Diversity.

FUNBIO has extensive experience in managing projects and financial assets deriving from international cooperation, private-sector donations and legal obligations incurred by the Brazilian business sector. FUNBIO does not execute funds from the national budget. In 2015, FUNBIO received accreditation as a Global Environment Facility (GEF) implementing agency, and, in 2018, became a Global Climate Fund (GCF) accredited entity. In 2018, it adopted the International Finance Corporation's social and environmental performance standards. Since its activities began in 1996, FUNBIO has supported over 340 projects that have benefited upwards of 270 institutions Brazil-wide.



# DONATIONS UNIT

Funds from private donations and bi and multilateral accords signed with the Brazilian government.

# **FUNBIO IS STRUCTURED INTO THREE AREAS:**

# **LEGAL OBLIGATIONS** UNIT

Funds deriving from legal obligations, such as environmental compensation payments, offset measures, fine conversions, conditions for the obtention of environmental licenses, consent decrees or conduct adjustment agreements.

# HOW WE WORK



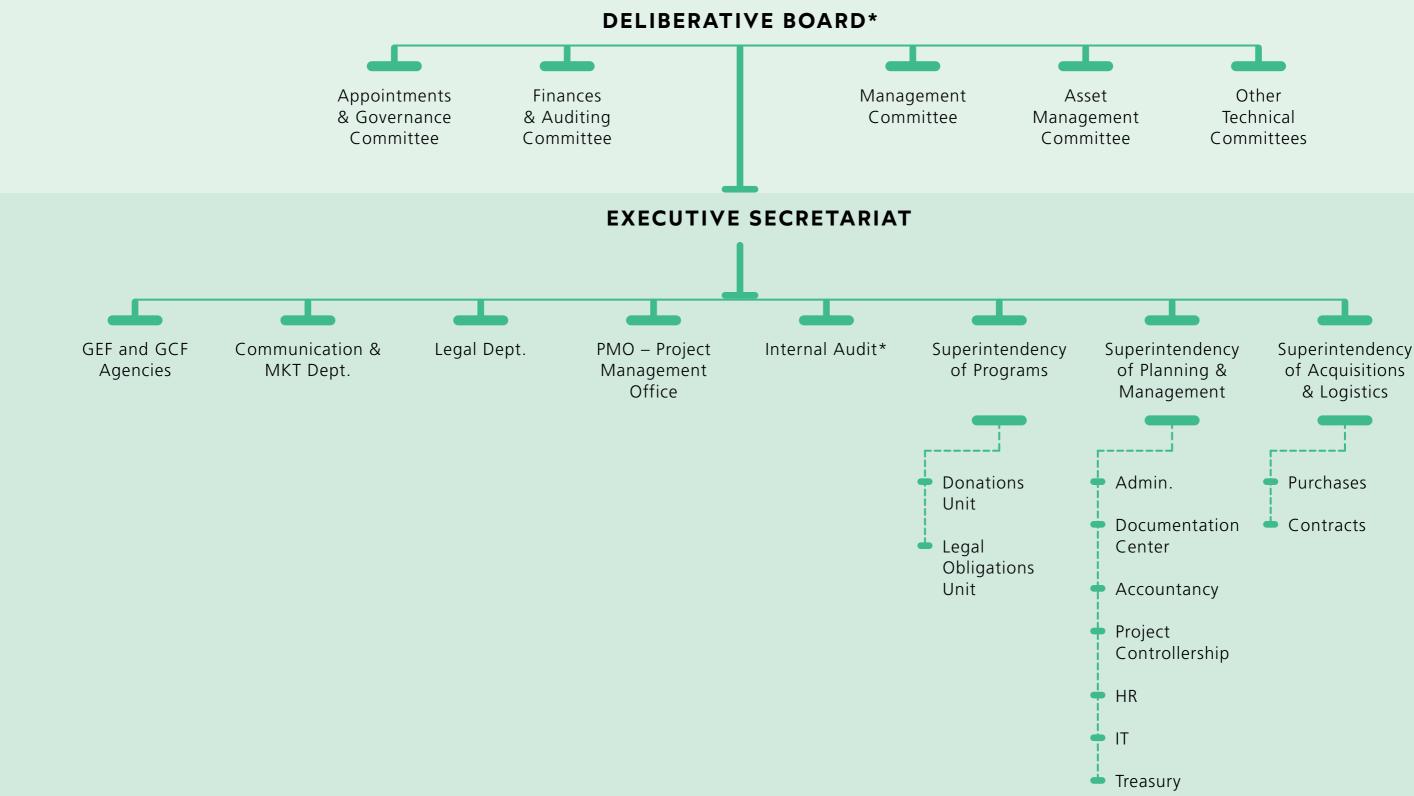
### **LIST OF FUNDING SOURCES 2022**

- → ANGLO AMERICAN MINÉRIO DE FERRO BRASIL S.A.
- → BAHIA MINERAÇÃO S.A.
- → BANCO INTERAMERICANO DE DESENVOLVIMENTO BID
- → BANCO NACIONAL DE DESENVOLVIMENTO ECONÔMICO E SOCIAL BNDES
- → BP BRASIL LTDA.
- → BUNDESMINISTERIUM FÜR UMWELT BMU
- → COMPANHIA SIDERÚRGICA NACIONAL CSN
- → CONSERVAÇÃO INTERNACIONAL CI-BRASIL
- → CONSERVATION INTERNATIONAL FOUNDATION
- → ENEVA S.A.
- → EXXONMOBIL QUÍMICA LTDA.
- → EXXONMOBIL EXPLORAÇÃO BRASIL LTDA.
- → FUNDAÇÃO RENOVA
- → GLOBAL CONSERVATION FUND
- → GLOBAL ENVIRONMENT FACILITY GEF
- → GLOBAL FUND FOR CORAL REEFS
- → GORDON & BETTY MOORE FOUNDATION
- → GREEN CLIMATE FUND GCF
- → IMERYS RIO CAPIM CAULIM S.A.

- → INSTITUTO CLIMA E SOCIEDADE
- → INSTITUTO HUMANIZE
- → JBS S.A.
- → KFW BANKENGRUPPE
- → NATURA COSMÉTICOS S.A.
- → NORWEGIAN AGENCY FOR DEVELOPMENT COOPERATION
- → NORWEGIAN MINISTRY OF FOREIGN AFFAIRS
- → O BOTICÁRIO FRANCHISING LTDA.
- → PETRÓLEO BRASILEIRO S.A. PETROBRAS
- → PETRO RIO JAGUAR PETRÓLEO LTDA.
- → RE:WILD
- → ROCK WORLD S.A.
- → SECRETARIA DE NEGÓCIOS, ENERGIA E ESTRATÉGIA INDUSTRIAL DO REINO UNIDO BEIS
- → SERVIÇO DE COOPERAÇÃO E DE AÇÃO CULTURAL DA EMBAIXADA DA FRANÇA NO BRASIL
- → UNIÃO EUROPEIA EU
- → WORLD BANK BANCO MUNDIAL
- → WWF-BRASIL
- → WWF-US



### **ORGANIZATIONAL FLOW CHART**



Responds functionally to the Deliberative Board \*

Department composition

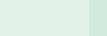


CONTENTS (=)

### GOVERNANCE

The Deliberative Board (DB) sits 16 members from the academic, environmental, business and governmental sectors. It is FUNBIO's chief governing body.





### **CHAIRMAN**

JOSÉ DE MENEZES **BERENGUER NETO** 

### **VICE-CHAIRWOMAN**

DANIELLE DE ANDRADE MOREIRA [until December 2022]

MARIANNE VON LACHMANN



### ACADEMIC SECTOR

ANA MARIA DE **OLIVEIRA NUSDEO** School of Law of the University of São Paulo (USP)

**BERNARDO BAETA NEVES STRASSBURG** International Institute for Sustainability (IIS)

DANIELLE DE ANDRADE MOREIRA Pontifical Catholic University of Rio de Janeiro (PUC-Rio)

**FABIO SCARANO** Brazilian Sustainable **Development Foundation** (FBDS) [until August 2022]



### **ENVIRONMENTAL** SECTOR

ADRIANA DE CARVALHO **BARBOSA RAMOS** Socio-environmental Institute (ISA) [until December 2022]

MARIA DE LOURDES SILVA NUNES

Boticário Group Foundation for Nature Protection

MARIA JOSÉ GONTIJO

International Education Institute of Brazil (IIEB)

VALMIR ORTEGA Conexsus

FLAVIO RIBEIRO DE CASTRO FSB Comunicação

MARIANNE VON LACHMANN Lachmann Group



### **BUSINESS** SECTOR

JOSÉ DE MENEZES **BERENGUER NETO** Banco XP

WALTER SCHALKA Suzano



### GOVERNMENTAL SECTOR

MARIA BEATRIZ PALATINUS MILLIET Ministry of the Environment

### MARCOS DE **CASTRO SIMANOVIC**

Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio)

**MARCELO MOISÉS** DE PAULA Ministry of Economy



# TRANSPARENCY

Our demonstration of accountability dated December 31, 2022, along with the independent auditor's report and explanatory notes are available for consultation at:

# **EXTERNAL AUDIT**

FUNBIO has contracted an independent external audit every year since its foundation. The external audit was carried out in 2022 by Ernst & Young.

Its statements of account, all passed with unqualified opinion, the independent auditor's reports and explanatory notes are all available for consultation on the FUNBIO website.

# INTERNAL AUDIT

Since 2013, FUNBIO has also conducted an internal audit to buttress aspects of control and the integrity of its accounting and financial data. The internal audit is an instrument that probes every level of the organization, ensures an adequate working relationship between the different areas, and supports and promotes ongoing process improvements. It is a reference for the implantation and engagement of best practices in organizational governance. The statements of account, independent auditor's reports and explanatory notes are all available for consultation on the FUNBIO website.









# **ETHICS COMMITTEE**

Created in 2013, the FUNBIO Ethics Committee is formed by four members of staff encumbered with developing the Code of Ethics, a document that sets forth the organization's norms of ethical conduct. The Code is approved by the Deliberative Board. The committee members, who serve two-year, oncerenewable mandates, are also responsible for annually training FUNBIO employees in the Code. Issues can be raised and complaints made through the appropriate channels on the institution's website.



### MEMBERS OF THE ETHICS COMMITTEE IN 2022

ALEXANDRA VIANA LEITÃO Coordinator [until February 2022, when she left for maternity leave, returning in September 2022]

> FLAVIA NEVIANI Coordinator [until September 2022]

HELOÍSA HELENA HENRIQUES

MANUELA MUANIS

RAFAELA GIONGO [as of March 2022]

# IN 2022, THE COMMITTEE

met regularly and carried out the activities below, all of which are detailed in its internal records and reported in its 2022 Annual Grievances Report, in addition to receiving the following Consultations:





INSTITUTIONAL

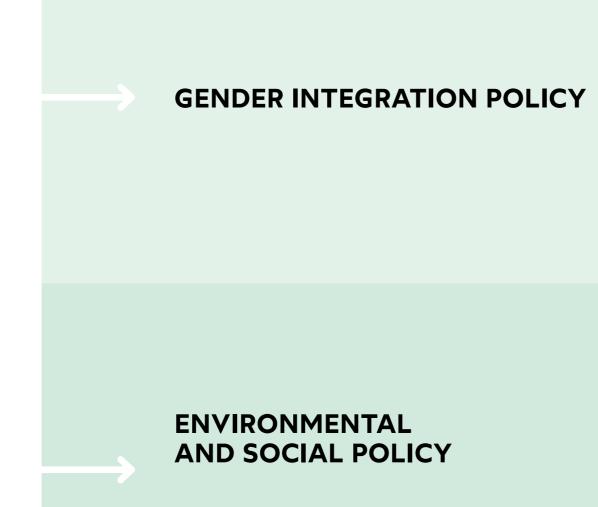
The annual ethics training took place in October 2022 and included all Funbio employees, being carried out in person on 10/17/2022 and 10/18/2022, plus an online interactive activity (via Teams) that took place on 12/7/2022. The training was focused on the concepts of ethics, morals, the Code of Ethics and Funbio's practices.

In February 2022, the composition of the Ethics Committee began to include Rafaela Giongo, replacing Alexandra Viana, who left on maternity leave. Flavia Neviani's mandate, scheduled to end in March 2022, was extended to September 2022. In September 2022, Alexandra returned and was elected Committee Coordinator. With the end of the extension of Flavia Neviani's mandate, Rafaela permanently became part of the Committee and not just as a substitute.

In 2022, there were 5 (five) cases evaluated by the Committee, of which 1 (one) was a statement, 3 (three) were consultations, and one was a grievance. The reporting channels remained operational throughout the period. Consultations and statements form part of a separate report and additional guidance must form part of the periodic training provided by Funbio's team.

# **POLICIES AND SAFEGUARDS**

In 2018, FUNBIO adopted the safeguards applied by the International Finance Corporation (IFC), part of the World Bank Group.



Performance Standards (PS):

and Social Risks and Impacts

**PS2** — Labor and Working Conditions

**PS4** — Community Health, Safety, and Security

**PS5** — Land Acquisition and Involuntary Resettlement

**PS6** — Biodiversity Conservation and Sustainable Management of Living Natural Resources

**PS7** — Indigenous People

**PS8** — Cultural Heritage



PS1 — Assessment and Management of Environmental

**PS3** — Resource Efficiency and Pollution Prevention

CONTENTS (=)



### NATIONAL AGENCIES FUNBIO

FUNBIO is the only civil society Organization in the Southern Hemisphere to hold both GEF agency and GCF entity accreditation.



### GEF

The Global Environment Facility was established at the Earth Summit in Rio de Janeiro in 1992 to help tackle some of the most pressing problems facing the environment. Since then, the GEF has channeled USD 21.1 billion into over 5 thousand conservation projects across 170 countries. Today, there are 18 GEF Agencies worldwide, working together to increase and diversify this portfolio. In 2015, after careful assessment, FUNBIO received national GEF agency accreditation. Its maiden voyage as a GEF Agency came in 2018, when work began on the National Strategic Project for the Conservation of Endangered Species (Pro-Species).



### **GREEN CLIMATE FUND**

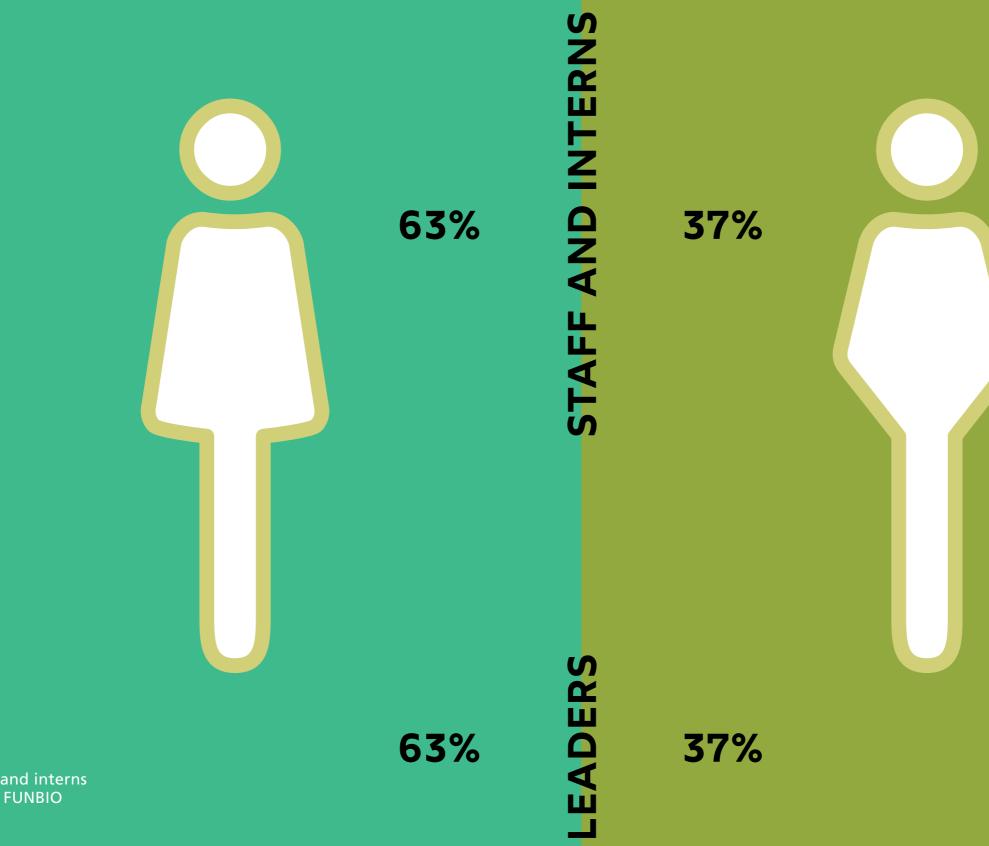
The Green Climate Fund (GCF) was set up in 2010 to support projects tackling climate change. Since then, it has supported over a hundred projects totaling USD 2 billion in funding. In 2018, FUNBIO, BNDES and the federal bank Caixa Econômica Federal became Brazil's first GCF accredited entities.







### WHO WE ARE\*



\*The list includes staff and interns who were part of the FUNBIO team in 2022.





# WHO WE ARE\*

### SECRETARY-GENERAL'S OFFICE

Rosa Maria Lemos de Sá CEO Bruna Luyane Souza Santos Ribeiro Assistent

### **GEF & GCF AGENCIES** Fábio Heuseler Ferreira Leite Manager

TEAM: Maria Vitória Elicher Alentejano Fernanda de Oliveira Lana

**COMMUNICATION &** MARKETING Helio Yutaka Hara Manager

TEAM: Ana Clara Dias Gualda Pereira Ana Gabriela Silva de Carvalho Nascimento Isabelle Pereira da Costa Luan Crispim de Andrade

LEGAL DEPARTAMENT Flavia de Souza Neviani Manager

TEAM: Paulo Miranda Gomes Rafaela Luiza Pontalti Giongo

**INTERNAL AUDIT** Alexandra Viana Leitão

**PROJECT MANAGEMENT** OFFICE (PMO) Mônica Aparecida Mesquita Ferreira Manager

TEAM: Julia Annarumma Rocha de Aguiar Coelho

### SUPERINTENDENCY **OF PROGRAMS**

Manoel Serrão Borges de Sampaio Superintendent

DOACÕES NACIONAIS E **INTERNACIONAIS 1** Fernanda Figueiredo Constant Margues Portfolio Manager Alexandre Ferrazoli Camargo Project Manager Fabio Ribeiro Silva Project Manager Paula Cavalcanti Ceotto Project Manager **Paula Vergne Fernandes** Project Manager Rodolfo Cabral Costa Gomes Marcal Project Manager

TEAM: Ana Claudia Francisco Salomão Andre de Freitas Pimentel dos Anjos Andre Luiz Ferreira Lemos Artur Nonato Vieira Cereto Conrado Von Brixen Rodrigo Octavio Fernanda Abduche Correa de Paiva Estrella Gustavo Menezes Cobelo Lima Maiara Duarte de Souza Soriano Michelle Tosetti Dantas Pedro Alberto Dantas da Silva Renato Tenan de Barros Almeida Tereza Cristina da Silva Trindade Thales Fernandes do Carmo Vivian Saddock da Silva

### DOACÕES NACIONAIS

**E INTERNACIONAIS 2 Clarissa Scofield Pimenta** Project Manager Dante Coppi Novaes Project Manager João Ferraz Fernandes de Mello Project Manager

### TEAM:

Amanda Camargo Heinrich Carrara Ana Beatriz de Lima Santana Bruna Valença Godinho Gabriella Furtado Lívia Antunes Mariana Melo Gogola Mary Elizabeth Lazzarini Teixeira

LEGAL OBLIGATIONS Manuela Mosse Muanis Gerente de Portfólio Ana Helena Varella Bevilacqua Project Manager Daniela Torres Ferreira Leite Project Manager Laura Pires de Souza Petroni Project Manager Mayne Assunção Moreira Project Manager

### TEAM:

Dante Coelho de Andrade Mariana Goncalves Tavares Renan Alves Conceição Renato Yoshimine Vieira Thiago da Fonseca Martins

SPECIAL PROJECTS Andréia de Mello Martins Project Manager

TEAM: Heliz Menezes da Costa

### SUPERINTENDENCY **OF PLANNING &** MANAGEMENT

Aylton Coelho Costa Neto Superintendent

ADMINISTRATION Flávia Mól Machado Coordinator

TEAM: Bruna Luyane Souza Santos Ribeiro Cláudio Augusto Silvino Fernanda Luiza Silva de Medeiros Marcio de Vasconcelos Maciel Matheus Duarte Ramos

DOCUMENTATION CENTER TEAM: Ana Maria Rodrigues Martins Bruno Miceli Parede Pinheiro Natália Corrêa Santos

ACCOUNTING Daniele Soares dos Santos Seixas Coordinator

### TEAM:

Ericka Cardozo Paulino Flavia Fontes de Souza Guilherme Brito da Silva Lucas Silva Costa Mariana Ribeiro de Amorim Cabral Mylena Costa Barbosa Milesi Nara Anne Brito do Nascimento Suellen Pereira de Freitas Thais dos Santos Lima

PROJECT CONTROLLERSHIP Marilene Viero Coordinator

TEAM: Ana Paula França Lopes Camila da Costa Golfetto Dalissa Granja Villa Nova Elizangela da Conceição Santos Felipe Augusto de Araujo Camello Felipe Dias Mendes Serra Fernando Mateus Cabral Igor Santos da Silva Juliana Sigueira da Silva Schuler Luciana Bernardes Natal Mayara do Valle Bernardes de Lima Natalia de Sousa Freire Nemesia Maria Santos Barbosa Lucena Priscila Ribeiro Larangeira Freitas Vanessa Guimarães Ribeiro de Barros Vanessa Ravaglia Cohen Vitor da Silva Vieira

HUMAN RESOURCES Andrea Pereira Goeb Manager

TEAM: Fernanda Monsores Lopes Heloisa Helena Henriques Leticia Cristina Ferreira

TREASURY **Roberta Alves Martins** Coordinator

TEAM: Amanda Pereira Costa Goncalves Thais de Oliveira Medeiros

INFORMATION TECHNOLOGY Vinicius de Souza Barbosa Coordinator

TEAM: Alessandro de Assis Denes Caroline Cavalcanti de Oliveira Jacobina Deywid Carvalho Dutra Igor de Veras Coutinho Soares

\*The list includes staff and interns who were part of the FUNBIO team in 2022.

### SUPERINTENDENCY **OF ACQUISITIONS & LOGISTICS**

Henrique Yokoyama Superintendent

PURCHASES Fernanda Alves Jacintho Rodrigues da Silva Coordinator

TEAM:

Alessandro Jonady Oliveira Allan da Silva Cabral Ana Lucia Oliveira dos Santos Aroldo Linares do Nascimento Denise Tavares Fernandes da Silva Flavia Avelar Teixeira Flavio do Sacramento Miguel Hugo Martins Gomes Jeanne Caroline Silva Alves José Mauro de Oliveira Lima Filho Julia Oliveira dos Santos Luiza de Andrade Lima Marcelo Moreira dos Santos Maria Eduarda dos Santos Domingues Renata da Luz Leandro Tatiane Tito Rodrigues Vinicius Chavão da Cunha de Souza Viviane dos Santos da Silva Viviane Ferreira da Costa Willian dos Santos Edgard

CONTRACTS Suzana Amora Ramos Coordinator

TEAM: Icaro Matheus Xavier dos Santos Thais Mariano da Silveira de Brito Thayane Martins Kury Ferreira

# DIVERSITY IN CONSERVATION

ackeline Rocha, manage it RESEX Tapajós-Arapiuns/ICMBio, Pará. Photo: Thomaz Pedro

Whether at the foot of the Museum of Contemporary Art (MAC, the acronym in Portuguese), in Niterói, Rio de Janeiro, among rivers, streams and thousands of hectares, in Santarém, Pará, or among seedlings and restored trees of the Atlantic Forest, in Miguel Pereira, also in Rio, three women (re)affirm their roles in biodiversity conservation. They are protagonists. With different life stories, but goals in common, they are bridges between ancestral knowledge and appreciation of their territories.

Iraci Conceição. Photo: Juliana Quintino

Rejane da Costa. Photo: ITPA

In this 2022 Annual Report, we present the stories of the shellfish gatherer, Iraci Cândido da Conceição, forestry engineer, Jackeline Rocha, and the nursery keeper, Rejane Duarte da Costa. They make up the majority of the Brazilian population. There are almost 5 million more women than men in Brazil. Yet, despite their struggles, immaterial riches, and the knowledge that they generously share with all of humanity, their presence in prominent places in nature conservation is suboptimal.



# **AMAZON FEMALE** MANAGER

### **JACKELINE ROCHA**



Being a woman and manager of a Protected Area (PA) in remote areas of the Amazon is a challenge that has accompanied the routine of forest engineer Jackeline Rocha since her days at the head of the Balata-Tufari National Forest, in southern Amazonas. There, virtually single-handedly, she cared for a million hectares of protected area. With low demographic density, it is located in municipalities with the worst poverty rates and social conditions in the region and needed to be prepared for its main purpose: forest management for economic exploitation.



The challenge is to reconcile the family's agenda with that of the PA, which is guite intense due to the complexities of the territory and the various meetings and institutional coordination required by the work."

"When I found I was pregnant and [reflected on] the difficulties I would have to take care of my child in such an isolated place, I had to make a change", says the Manaus-native, also an accounting technician who previously worked at the agency for the promotion of productive activities of the government of the state of Amazonas.

The plan was to be transferred to the administrative sector of ICMBio, the body responsible for managing the federal PAs — and, thus, in 2013, her destination was the Extractive Reserve (RESEX) Tapajós-Arapiuns, in Pará. Initially, her work would be in the offices in Santarém, but participating in field activities in a highly populated area, with basically [exclusively] river access, was inevitable.

When summoned by her superior to coordinate the registration of residents so they could receive the Bolsa Verde incentive, a federal income transfer program for extractivists operating at the time, Jackeline had no doubts: on the 15-day expeditions along the rivers and riverside communities, she took her eight-monthold baby along, with cradle and nanny on board.

Today, at the age of 10, Otávia is integrated into her mother's routine with the communities.

More than that, the presence of mother and daughter contributed to a relationship of empathy and mutual trust with community members and local leaders, essential to the work of the forest engineer, after assuming the leadership of the RESEX in 2021.

"The challenge is to reconcile the family's agenda with that of the PA, which is guite intense due to the complexities of the territory and the various meetings and institutional coordination required by the work", explains Jackeline, today at the head of a team of ten people responsible for helping the area fulfill its role in environmental conservation.

In addition to ICMBio's presence, the region concentrates relevant socioenvironmental projects by civil society organizations, in a scenario that receives support from resources managed by FUN-BIO through the Amazon Region Protected Areas (ARPA) Program. The Brazilian Ministry of the Environment's initiative is the largest for the conservation of tropical forests in the world [page 37].

With 647,000 hectares, the **RESEX** Tapajós-Arapiuns is the most populous in the country, bringing together around 4,800 families and approximately 23,000 inhabitants, in 72 communities and indigenous villages.

### **DIVERSITY IN CONSERVATION**

In a scenario of great biological importance and with conflicts over the sustainable economic use of the area, dealing with the sexism is no longer such a big barrier for the RESEX manager:

"Before, when we arrived in a community, they would immediately ask for the 'man boss' [who was no longer in charge], but now the relationship is very different".

The example adds on to the growing number of references for riverside women to follow different paths, respecting their rights and autonomy. "Today, community meetings are also conducted by women, and not only by men", illustrates Jackeline, now dedicated to a challenging project in the field of education.

The work involves activities with about 100 male and female teachers, in 30 schools in the RESEX, for training in themes left out of the school curricula such as environmental legislation, climate change, the indigenous movement, and fire management, for example. After training workshops, educators develop pedagogical projects with riverside students and, at the end of the year, a competition rewards the best schools with a cultural trip to Santarém.

# THE LIFE **OF WOMEN SHELLFISH GATHERER\***

\*Text originally published in the October 2022 issue of the *Linhas do Mar* Newsletter

### IRACI CÂNDIDO DA CONCEIÇÃO



When the famous Museum of Modern Art (MAC, the acronym in Portuguese) rose pompously at the end of Praia de Boa Viagem, in Niterói (Rio de Janeiro), it had been some time since Iraci Cândido da Conceição walked those sands on a daily basis. At the age of 68, it has been over 40 years since she has been working as a shellfish gatherer. And it is with her hands on the mussels that she and her companions silently preserve their traditions, while resisting historical marginalization in a territory that has become a major tourist spot in the city.

CLICK HERE **TO LEARN MORE** 

ABOUT IRACI

I am already retired, but I really like working. I put the mussel tray on my head, open it, cook it, package it, sell it... I feel happy this way. And it's funny that I don't feel tired. At this age, doing what I do, I think it's beautiful."

"I came to work here when I was 23. I'm worried that I won't be able to continue, because they want to transform this place even more", she says, referring to the proposals of the local government to 'revitalize' the area. "But, God willing, it will work!", she prophesies.

Part of that hope is deposited in the Pesca Solidária initiative, which supports the shellfish gatherers of Boa Viagem in structuring and consolidating a cooperative. Through legal support, cooperativism and associativism workshops, the project intends to institutionally strengthen the group, so that the shellfish gatherers achieve autonomy in the production and commercialization process. In addition to regularizing the collective aspect, the idea is that they also have a physical space where they can meet and organize themselves more easily.

"There were a lot of people who were out of work here. So, I see the project as a good thing, a way to help people make a little

money to live on", says Dona Iraci — or rather, Dona Jura, as she is known in Morro do Palácio, where she has lived for decades, overlooking the beach that has always sustained her.

"If you visit where I live, you wouldn't believe it. Just ask about me: everyone knows me", she says. After all, Dona Jura is pure movement. With the disposition of a young girl, her body doesn't stay still for a single day: she wakes up before sunrise, gets up and, between one 'good morning' and another for the neighbors, she collects the firewood that will cook the shellfish later. Before lunch, she already has her feet in the sand to gather her livelihood off the rocks.

"I am already retired, but I really like working. I put the mussel tray on my head, open it, cook it, package it, sell it... I feel happy this way. And it's funny that I don't feel tired", she says. Which does not mean at all that the work is easy: after so many years of scraping the

### **DIVERSITY IN CONSERVATION**

shells on her callused hands, she has already lost part of her fingerprints. But none of the many challenges she's gone through seems to discourage her in her craft.

It is with her work, after all, that Dona Jura was able to build her house and pay her bills. Today, she even has a 'small savings' and whenever she can she helps her grandchildren with the income she brings from the sea. "I go to the market and buy rice, beans, pasta. Who gave me this? Seafood money. The beach gave me this. So, I have to be thankful", she says, proud of her trajectory.

Just last week, she says, she threw nine bags full of mussels that she brought off the rocks onto her back. If she intends to stop? "I can't stand being indoors. I need to go out, move around", she warns, while getting ready for another journey on Boa Viagem. "At this age, doing what I do, I think it's beautiful," she says.

# **A ROLL THAT GENERATES** TREES

### **REJANE DUARTE DA COSTA**



After the parents, small-scale farmers in Paty do Alferes (RJ), had to sell the farm due to the downfall of tomatoes and peppers, the family migrated to the city and began to produce seedlings in bags at home, to sell on the side of the road. From there, participating in large forest restoration projects was a natural leap for nursery specialist Rejane Duarte da Costa, who started out in 2011 as a field assistant in the hard work hitherto restricted to the male universe

A roll that generates trees After the parents, small-scale farmers in Paty do Alferes (RJ), had to sell the farm due to the downfall of tomatoes and peppers, the family migrated to the city and began to produce seedlings in bags at home, to sell on the side of the road. From there, participating in large forest restoration projects was a natural leap for nursery specialist Rejane Duarte da Costa, who started out in 2011 as a field assistant in the hard work hitherto restricted to the male universe.

Collecting seeds or controlling fire as a fire crew member, as well as long trails in the woods or the risk of snakes and spiders were part of her routine, until the opportunity to work at the Instituto Terra de Proteção Ambiental (ITPA) nursery, which supplies tree planting initiatives in the Atlantic Forest of Rio de Janeiro, came up.

Currently, the nursery keeper leads a team of ten women in

the production of seedlings, in which words from the kitchen world are transplanted into the universe of techniques that make future trees succeed. "Rocambole" [a typical cake roll in Brazil], for example, is a mix of 40 seedlings of various species wrapped in special plastic to improve yield, reduce costs, and speed up planting. The method is used in reforestation projects led by ITPA — an organization that takes care of 30 million trees, part of them supported by FUNBIO through the Atlantic Forest project [page 50].

"We joined to make seedlings and learned that there are many needs behind them, such as care with fertilization, irrigation and propagation, and then monitoring the planting", points out Rejane, proud of her work in environmental education campaigns with schools. The nursery keeper's trajectory illustrates the growing role of women in the restoration of

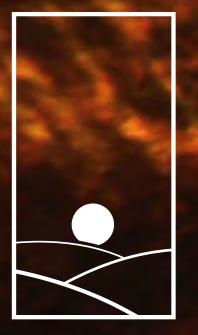
### **DIVERSITY IN CONSERVATION**



Everything I know comes from conservation. We joined to make seedlings and learned that there are many needs behind them, such as care with fertilization, irrigation and propagation, and then monitoring the planting."

> ecosystems, with expansion of investments in the world and in Brazil. One of the highlights of this work is the forest restoration of the former Fazenda Rocha Negra, where the landfill in the municipality of Miguel Pereira (RJ) was located, today transformed into a leisure area — the Dinosaur Park.

> "Everything I know comes from conservation", observes Rejane, for whom the work of restoring forests is very rewarding, given the reality in the countryside: "Telling rural landowners not to clear the forest and plant trees is always a great challenge". Among current activities is the work of reforesting 15 hectares in the Palmares Environmental Protection Area (APA, the acronym in Portuguese), responsible for 70% of the water supply in Paty do Alferes. And new projects will follow the strong demand for restoration, such as the ongoing preparations for planting 300,000 trees at Fazenda das Antas, also in this municipality.

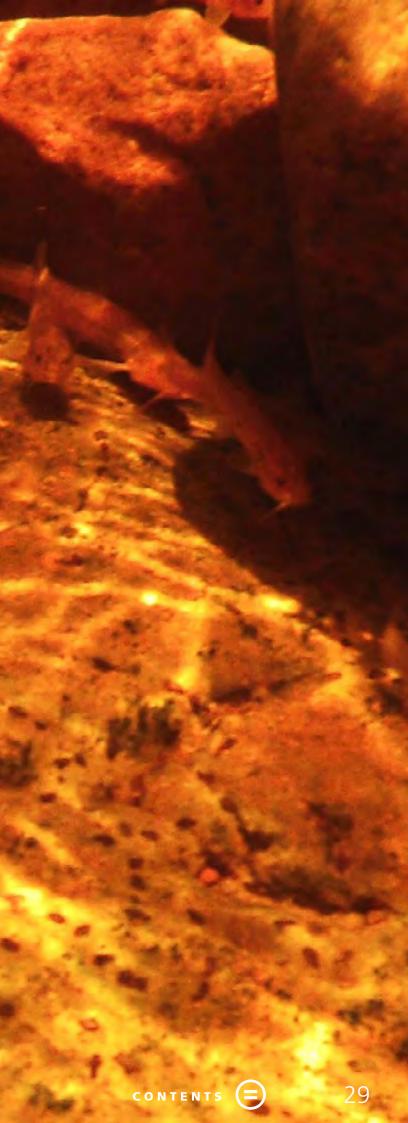


# **FUNBIO GRANTS** CONSERVING THE FUTURE

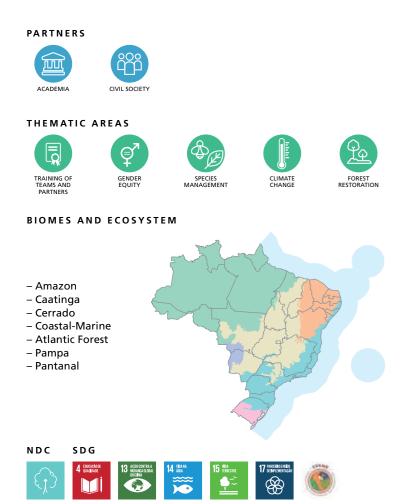
Humanize



ANNUAL REPORT FUNBIO - 2022



# FUNBIO GRANTS – CONSERVING THE FUTURE



The life of a Brazilian researcher is marked by resilience. Nature, likewise, renews and transforms itself and is reborn even amid adversity. To pursue its mission of providing strategic resources for the conservation of biodiversity, FUNBIO annually launches the FUNBIO Grant Program -Conserving the Future. The date is symbolic: June 5th, World Environment Day and the anniversary of the organization. Focused on field research by master's and doctoral students, in 2022 it reached its fifth edition.

Since 2018, a total of 164 fellows were selected, including 96 women and 68 men. Support the work of 134 doctoral students and 30 master's students. Like that of biologist Flávia Weber de Souza, who follows the trail of coatis (*Nasua nasua*), a carnivorous species that needs large forest areas to survive. In her doctoral study, Flávia follows the movement of these animals in the cacao agroforests in southern Bahia. The project is a pioneer in the use of animal movement as an indicator of the connection between forest landscapes with different degrees of impact.

Researchers Felipe Nóbrega and Gustavo Guedes, on the other hand, are looking closely at the waters. The first studies the genetic mix between different lineages and species of peacock bass (aka *tucunaré*), which could lead to the extinction of this fish initially found in Amazonian waters. The second focuses on the life cycles of seasonal or annual fish, present in swamps and marshes that dry up during the dry season. But before they die due to lack of rain, they reproduce and lay eggs that survive for months, and sometimes years, even without water, in the soil. In the following rains, they hatch, giving rise to a new population of fish, where parents never meet their offspring. Like seasonal fish, Brazilian scientific research reinvents itself.

Check the list of selected projects in the 2022 edition here.



PROJECTS SELECTED IN 2022

# 164 GRANTEES





# 134 PHD STUDENTS

# **30** MASTER'S STUDENTS

# **49** INSTITUTIONS

# 22 STATES + FEDERAL DISTRICT



### **GUSTAVO GUEDES**

is a PhD student in Animal Biology at the Rural Federal University of Rio de Janeiro (UFRRJ)

Seasonal or annual fish, present in marshes and swamps that dry up during the dry season, are true symbols of resilience. Before dying from lack of rain, they reproduce and lay eggs that survive for months, and sometimes years, even without water, in the soil. In the following rains, they hatch, giving rise to a new population, in which parents never meet the children. What do these species have to teach science? What is the role of protected areas in their conservation?

### **FUNBIO GRANTS – CONSERVING THE FUTURE**

The search for answers around this intriguing life cycle inspires biologist Gustavo Guedes, a FUNBIO scholarship holder, in his doctoral research at the Federal Rural University of Rio de Janeiro (UFRRJ).

"Due to the peculiar condition in nature, these species became known in the popular imagination as cloud fish, as it was believed that they fall from the sky with the rains", says the researcher, for whom the best classification would actually be "invisible fish".

He explains: "the fish are small, most do not exceed 7 cm. And the eggs remain buried in the soil for months, undetected, in inhospitable environments, historically neglected by researchers, development agencies and policies in the sector".

The Rivulidae family, which represents annual fish, has the

highest number of endangered species among all vertebrates that occur in Brazil, according to the biologist. In national territory, there are 120 species of these "invisible" fish, about half existing in the world. Most are under threat, starting with the hostile conditions of the environment where they live, with low dispersion.

And there are scientific knowledge gaps for conservation: in other words, these animals can be lost before they are even understood. "We also have the pressure of human activities in marshes and swamps, with habitat loss, mainly due to real estate and agricultural expansion", points out Guedes, with the objective of evaluating these impacts in the different biomes.

In addition to analyzing the academic literature, the work will include the collection of



# **A SPOTLIGHT ON** THE "INVISIBLES"

comparative data inside and outside Protected Areas (PA). With the support of the program, drones, cameras, and other equipment will be purchased for field research on rivulids, with the possible discovery of new species or new areas of occurrence. The objective of working with these fish that survive without water like no other is to map patterns of richness, endemism, and threatened species.

"We want to evaluate the effectiveness of conservation and protection policies as a first step towards new strategies, in connection with environmental agencies", emphasizes the biologist, who is also a member of the group of specialists that subsidize the revision of the National List of Endangered Species, together with to the Chico Mendes Institute for Biodiversity Conservation (ICMBio).



### FLÁVIA WEBER DE SOUZA

is a PhD student in the Graduate Program in Ecology and Biodiversity Conservation at Santa Cruz State University (UESC)

The complex task of restoring connections between fragments of the Atlantic Forest now has a new ally: the South American coati (*Nasua* nasua), a carnivorous species that needs large forest areas to survive. Tracking the movement of these animals in the cacao agroforests in southern Bahia is the objective of biologist Flávia Weber de Souza, in her doctoral study, in hopes to identify the most effective strategy to benefit biodiversity for each landscape in the region.

### **FUNBIO GRANTS – CONSERVING THE FUTURE**

"Most of the Atlantic Forest was deforested and replaced by different land uses, but some allow animal crossing between stretches of remaining forest, although in most cases this is still unknown", explains the researcher. Supported by the FUNBIO Grants program in the acquisition of materials and field logistics, the work will investigate how cacao agroforests allow this flow of fauna in different landscapes, with more or less forest. The data will support decision makers in using this new knowledge in forest restoration projects and planning of biological corridors.

Six coatis will receive GPScollars and will be remotely

monitored by receivers, with coordinates collected every thirty minutes, for four months. As a result, the work is expected to demonstrate the existence of connection in large areas under different land uses. Cacao regions of different realities will be researched for comparison — in the municipality of Una (Bahia), with more conserved forest near a biological reserve; and in Belmonte (Bahia), with predominance of pastures.

"We hope that cacao agroforests are more relevant for animal movement the less forest there is in the region's landscapes", reveals the biologist. She is carrying out her doctoral work at the State



# **ON THE TRAIL OF THE COATIS**

University of Santa Cruz, in Bahia, under the umbrella of the "Cabruca Economy" project cabruca being the cacao systems shaded by trees in the Atlantic Forest, in southern Bahia.

Monitoring the coming and going of coatis in areas of different coverage helps validate connectivity strategies. "The data is important in raising farmers' awareness", adds the researcher, remembering that the project is a pioneer in the use of animal movement as an indicator of the connection between forest landscapes with different degrees of impact. The steps of anteaters and sloths have been monitored by scientists in the past, but with other research objectives.





### FELIPE NÓBREGA

on Neotropical Biodiversity by the Federal University of the State of Rio de Janeiro (PPGBIO-UNIRIO)

# **PEACOCK BASS ON THE BRINK**

Appreciated in sport fishing and in the diet of many Brazilians, the tucunaré (aka peacock bass) ceased to be an exclusively Amazonian fish decades ago and today populates lakes and dams in all regions of the country with worrying characteristics. One of them is hybridization and its threats, i.e., the genetic mix between different lineages and species of tucunaré, with the aim of inducing different colorations and enhancing fishing, which can aggravate impacts. One risk lies in its high ability to annihilate native fish and cause ecological imbalances as a voracious predator.

### **FUNBIO GRANTS – CONSERVING THE FUTURE**

"This crossing between lineages causes biological changes in behavior that can lead to the loss of the species", emphasizes researcher Felipe Nóbrega, a FUNBIO scholarship holder with a doctoral work on the subject at the Federal University of the State of Rio de Janeiro (UNIRIO).

With support for the logistics of collecting fish and genetic analysis in the laboratory, the research evaluates the effects of hybridization between tucunarés in native environments in the Amazon and reservoirs in southeastern Brazil. In addition to DNA sequencing, comparative studies are carried out on color patterns, individual sizes, and other biological parameters, with the aim of discovering in which environments there is a higher frequency of hybridization and with what impacts.

"We hope to contribute to the understanding of what happens in these populations and issue



a warning signal to subsidize management, monitoring, and conservation efforts for the species", reveals Nóbrega. Introduced in lakes with an economic purpose, the hybrid tucunaré can represent damage to sport fishing itself and aquarists in the long term. "The maintenance of the species interests everyone", emphasizes the researcher, a member of UNIRIO's Laboratory of Biodiversity and Molecular Evolution.





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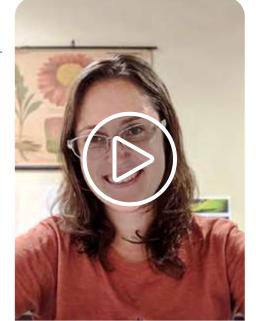
RESEARCH

TO LEARN MORE ABOUT FELIPE'S

# **FUNBIO GRANTS – CONSERVING THE FUTURE**

### ANA FLÁVIA AUGUSTIN

PhD student of the Graduate Program in Biology of Fungi, Algae and Plants at the Federal University of Santa Catarina (UFSC)



### Study of new plants from the Atlantic Forest to conserve the biome

Recently, the Myrtaceae plant family included new members. Myrceugenia basicordata F.C.S. Vieira, Molz & Sobral and Myrceugenia joinvillensis F.C.S. Vieira, discovered in 2019 and 2020, are two tree species that live in areas of the Atlantic Forest, close to large urban areas in the state of Santa Catarina. With no time to waste, Ana Flávia Augustin is developing a project with the aim of analyzing the genetic diversity of populations of these species and proposing effective conservation measures for them. This study can help decision makers and public managers in the creation of new areas of environmental protection and also help in the preservation of other species that live in the same space as them.

### **ANDERSON MENDONÇA** CONCEICÃO

PhD student of the Graduate Program in Ecology and Conservation at the Federal University of Sergipe (PPEC-UFS)



### An endangered rodent in the Caatinga

With an extensive biodiversity, the Caatinga has several groups of animals that have not been studied yet. Based on this gap, in his doctoral research project, Anderson Conceição studied the species of rodent known as rock cavy, Kerodon rupestris (Wied-Neuwied, 1820). This small herbivorous animal (with adults weighing up to 1 kg) is a specialist in the use of rocky outcrops. With an endemic occurrence in Brazil, this animal is found in the semi-arid region from Piauí to the north of Minas Gerais and is threatened with extinction by hunting and destruction of its habitats. Anderson will investigate the factors influencing the occupation and detection of the rock cavy, and also on its activity and diet in different locations in the Caatinga of Sergipe.

### **ANTÔNIO NETO**

Master's student in Ecology and Biodiversity Conservation, at the State University of Santa Cruz

### **GUILHERME GAMA DE OLIVEIRA**

Master's student in Ecology at the Federal University of Rio de Janeiro (UFRJ)

### **RAYSSA SILVA DO CARMO**

Master's student in Ecology at the Federal University of Pará



### Jussara heart of palm and strategies to prevent its extinction

In the meanders of the Atlantic Forest, a native and famous palm tree is vulnerable to extinction. Guilherme Gama is dedicated to the influences of environmental stress on the reproduction and demography of the jussara palm heart (Euterpe edulis), a palm tree found in the Protected Areas of Serra dos Órgãos National Park (PARNASO), Itatiaia National Park (PNI), Serra dos Órgãos National Park (PNI), Restinga de Jurubatiba (PARNARJ) and Poço das Antas Biological Reserve (REBIO Poço das Antas), places where the study is being developed.

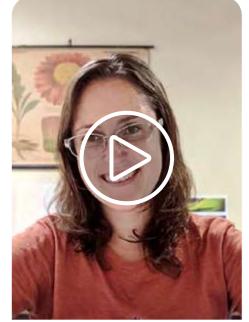
With the study, it will be possible to develop conservation strategies for vulnerable populations, in addition to identifying alternative reproductive strategies in limiting environments, to reduce the risk of local extinction.

### Aquatic plants that indicate pollution in the Amazon

Mining activities generate several environmental disturbances with increasing ecological degradation, especially aluminum extraction. In order to prove and understand the consequences of these activities in Amazonian waters, Rayssa do Carmo researches the biochemical responses of Montrichardia linifera to aluminum concentrations in Amazonian streams. The researcher intends to show how this aquatic plant, a native macrophyte, responds physiologically to environments with different aluminum concentrations. The use of this plant can become a viable and economical option for the multiple effects within environments altered by ores, since the macrophyte has the potential to be considered as a bioindicator of contaminated environments.

### Information to combat bird trafficking in Bahia

The Bahia of many charms and beauties is also the home of the green-winged saltator (Saltator similis). But the trafficking of wild animals is a stumbling block for this bird, which can be seen in the state. With a special interest in combating this illicit trade, biologist Antonio Neto researches the advancement of techniques related to tracking wild fauna. One of them, the analysis of stable isotopes, can pinpoint the place of origin of animals seized based on the atomic composition of their biological tissues. The idea is to apply this technique to determine the origin of the Saltator similis seized in Bahia. The expected results can serve as a basis for more precise and effective enforcement efforts and reintroduction of the apprehended fauna.

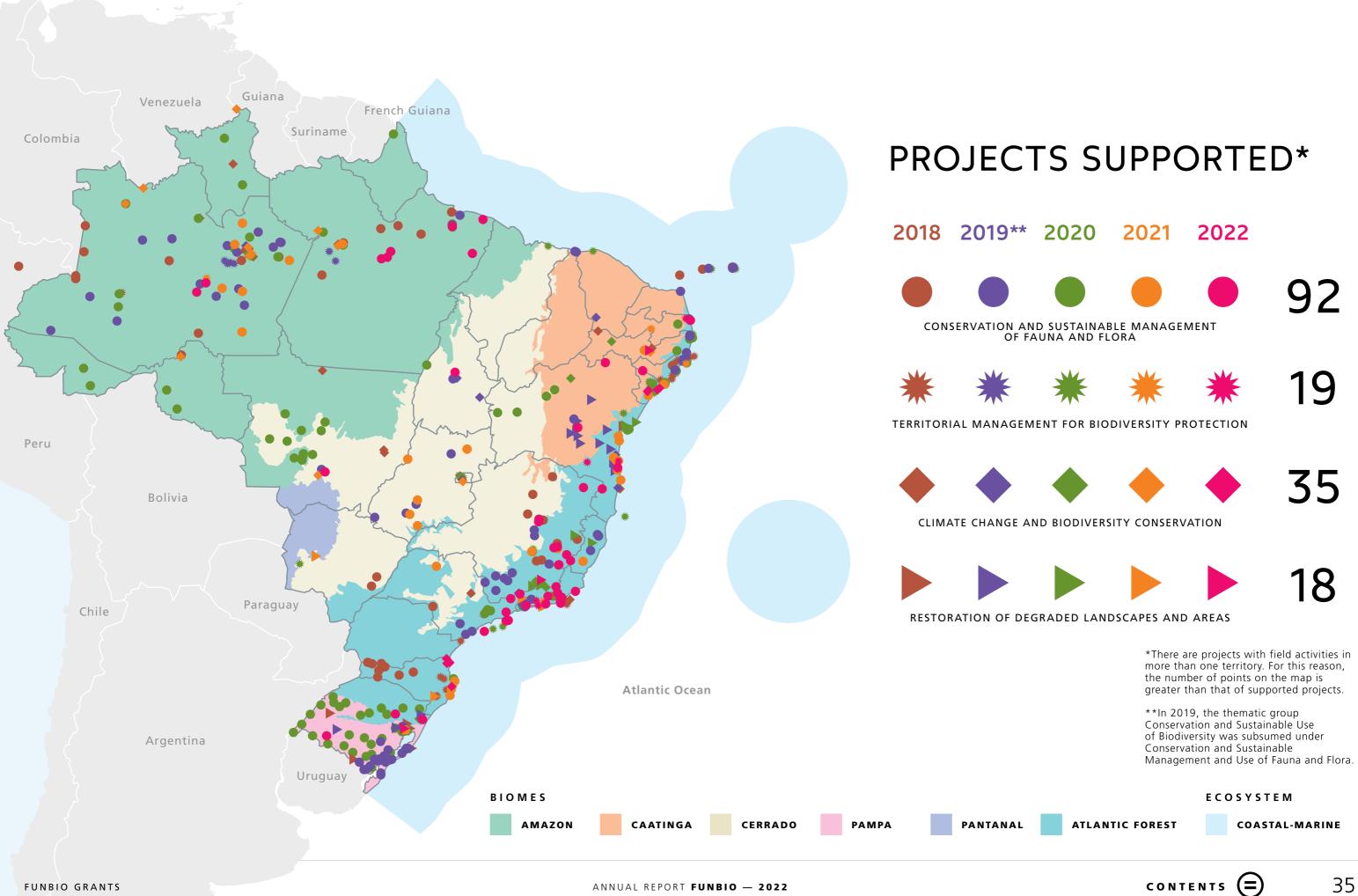




Instituto humanize is proud to be part of the history of FUNBIO Grants – Conserving the Future, a program that thrives because it manages to reach people and spaces that can truly be the drivers of some of the costliest changes in Brazil. The initiative supports master's and doctoral students who are outstanding leaders in collaborating with the present and future of conservation work in the country. It is a group that has been showing, with each edition, the result of promoting research and the significant advantage of contributing to training that supports researchers going into the field and that makes it possible for scientific research to go further."

**GEORGIA PESSOA**, Instituto humanize executive director in 2022

# **FUNBIO GRANTS – CONSERVING THE FUTURE**



more than one territory. For this reason,

Management and Use of Fauna and Flora.

# **PROJECTS WITH**

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RESCUE

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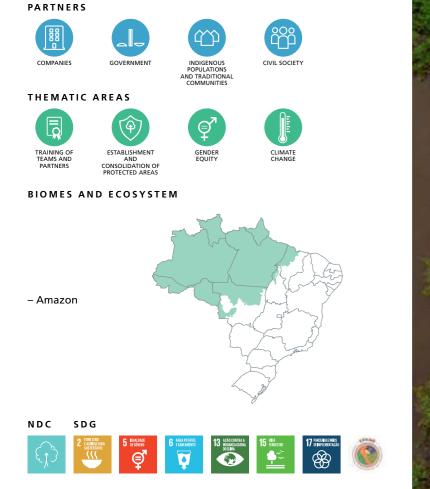
70 GOLDEN LION TAMARIN (PHASE III)

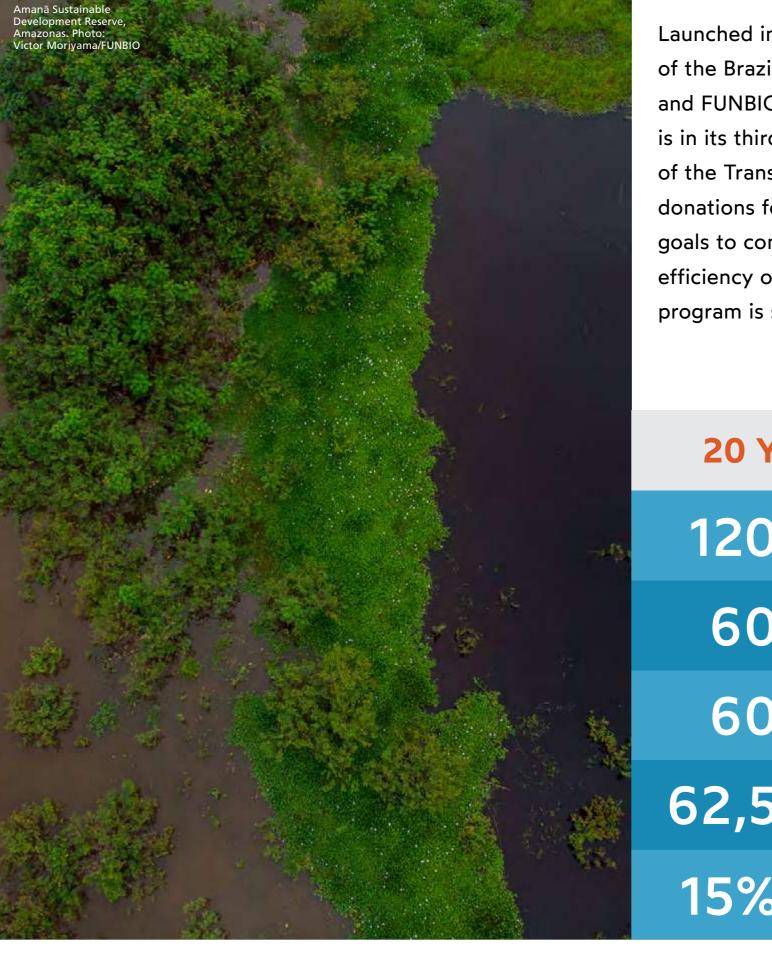
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### **ARPA**

Amazon Region Protected Areas Program





PROJECTS WITH GRANT FUNDING

WWF KFW Barco Barc

gef

MOORE

AngloAmerican

**FUNBIO** 

Launched in 2014 under the coordination of the Brazilian Ministry of the Environment and FUNBIO's financial management, ARPA is in its third phase, marked by the operation of the Transition Fund with the execution of donations for activities aimed at achieving goals to consolidate and improve management efficiency of the PAs until 2039, when the program is scheduled to end.



The efforts are funded with resources from international and national donors — the German Development Bank (KfW), the Global Environment Facility (GEF) through the World Bank, the Gordon and Betty Moore Foundation, WWF, and AngloAmerican. The Transition Fund also relies on resources from the Amazon Sustainable Landscapes (ASL) program.

ARPA is an integral part of ASL, which has promoted interactions between Amazonian countries, generating exchange of knowledge and initiatives. In 2022, through Webinars, ASL promoted exchanges on conservation corridors not only with other countries in South America, but also with others in Africa and with India. It also promoted a working group on monitoring projects with the participation of the countries in which the biome is present.

With the purpose of promoting the conservation and permanent protection of 60 million hectares or 15% of the Brazilian Amazon in this period, the initiative reached the end of 2022 with support for 62.5 million hectares among areas that have already been consolidated or seek achieve the consolidation targets, with management efficiency. Currently, 46 are consolidated and 35 are in the so-called potential (prior) stage of consolidation. It is estimated that all 120 program areas will be consolidated by 2026.

In a total of 14 goals according to the degree of complexity of the PA, the set of guidelines covers key points such as management plans in execution and formed and active management boards. In 2022, moving towards the main objective of 2026, five planning workshops were held virtually for the first time on the investment cycle for the next two years for all supported areas in the Amazon. In view of the good results in terms of efficiency and lower logistics costs for the workshops, the unprecedented methodology will be continued in the plans for the following bienniums.

Last year was marked by the resumption of activities in the field, with a record in the execution of ARPA resources, after the pause imposed by the Covid-19 pandemic. It was also a year of reflections in a working group on the future of the program in view of the growing demand for investments and the need to maintain the successful strategy until 2039, with updated costs.

Also in 2022, for the first time, FUNBIO held training on program procedures on the ground, with 80 participants and 50 PAs. The training was very well evaluated by the participants and provides newcomers to the Program with the conditions for them to operate the Program via FUNBIO.

Celebrating 20 years of effective results, the Brazilian initiative — which inspires countries such as Peru and Colombia — organized the second 2022 meeting of Transition Fund Committee donors in Santarém, Pará, followed by a visit to RESEX Tapajós-Arapiuns. The area represents an example of success among the program's units for the efficient management of resources with a focus on the quality of living in the communities.

In an emblematic year, in addition to intensifying measures to consolidate the areas already established, the creation of a new PA supported by ARPA was carried out: the Xeriuini Sustainable Development Reserve, in Roraima, according to Law 1,704 of July 15, 2022. In addition, the Baixo Rio Branco **Environmental Protection** Area was recategorized into Nascentes State Park, Itapará-Boiacu Sustainable Development Reserve, and Campina Sustainable Development Reserve. The assessments and public consultations that resulted in the law were carried out with the support from the program.





### ARPA REDUCES CO2 EMISSIONS

A study coordinated by researcher Britaldo Soares, from the Federal University of Minas Gerais (UFMG), with contributions from FUNBIO, WWF-Brazil, FUNBIO, and the University of Bonn, provides data on the impact of ARPA in reducing deforestation and CO<sub>2</sub> emissions from 2008 to 2020. It is estimated that, in the period, the protected areas (which include, in addition to the PAs, indigenous lands) reduced deforestation in the biome by 21%: around 264,000 hectares correspond to PAs supported by ARPA. With this, approximately 104 million tons of CO<sub>2</sub> were longer emitted, a volume corresponding to the total emissions by American domestic aviation in 2020, which accounts for approximately 17% of emissions by the global domestic aviation sector.

"The study translates into data the results of more than two decades of a Brazilian initiative that is today a model for similar programs in other countries, such as Colombia and Peru. The results show how, by conserving the forest, ARPA starts a chain reaction, benefiting the climate, biodiversity, and the more than 20 million inhabitants of the region, also generating a positive impact beyond the limits of the biome", says Fernanda Marques, coauthor of the study and portfolio manager at FUNBIO.

#### IN 20 YEARS, ARPA CREATES A CONSERVATION LEGACY IN THE AMAZON





We have the privilege of allocating the funding to FUNBIO, which runs the program together with ICMBio, the ARPA Program. Our focus is on renewable energies and the conservation of natural resources, the forests, providing support through sustainable economy models."

MARTIN SCHRÖDER, KfW Brazil Director

We have already made successive financial contributions to fund this project, which is the largest tropical forest conservation program in the world and in which we are very proud to have participated over time and, now, to be here celebrating two decades of the program. We're also planning for the future, because it's not over. It will still last for several decades."

**GUSTAVO FONSECA**, GEF (in memoriam)







Two decades after its establishment, the Amazon Region Protected Areas Program (ARPA) inspires similar arrangements in Colombia, Peru, and Bolivia and, between 2008 and 2020 alone, reduced deforestation in the Brazilian Amazon by 264,000 hectares. In July, for the first time, the meeting of the ARPA Transition Fund Committee took place in the Amazon (Santarém), followed by a visit to RESEX Tapajós-Arapiuns, with support from ICMBio.

In the communities of Anã and São Marcos, local leaders highlighted the importance of being part of ARPA, which helped curb predatory logging and give greater institutional strength to communities. Representatives from KfW, the Gordon and Betty Moore Foundation, GEF, Anglo American, and WWF, among others, participated.

CONTENTS (=)

#### ARPA

### IN 20 YEARS, ARPA CREATES A CONSERVATION LEGACY IN THE AMAZON





ARPA is an example to bring sustainability to protected areas. It was a model for Peru, which has a program called Peru Heritage, similar to ARPA, with a very large scope and ambition."

**AVECITA CHICCHÓN**, Program Director, Gordon and Betty Moore Foundation







This is a flagship project, we are working to replicate it in other countries in the Amazon."

**MEG SYMINGTON**, Managing Director, Amazon, WWF-US



### **FLORESTA VIVA**

São João da Ponta Extractivist Reserve, Pará. Photo: Victor Moriyama/ FUNBIO





Investing in Floresta Viva expresses our commitment to mitigating climate change, conserving biodiversity, and human development. The projects approved in Manguezais do Brasil [Brazil Mangroves] — the first public call for proposals of this partnership between Petrobras, BNDES, and FUNBIO — will boost our activities in blue carbon, recovering important transition areas between sea and land while we walk the path of generating highquality and integrity carbon credits. In mangroves we store carbon, conserve species, prevent soil erosion, generate income. Together, we transform realities."

**GREGÓRIO ARAÚJO**, manager of Reforestation and Environmental Projects in Social Responsibility at Petrobras

Innovation is a key word in the challenge of ecological restoration, not only in terms of the techniques and methodologies used, but also financial models and the potential of the carbon market, in the context of mitigating climate change.





In the Floresta Viva initiative, launched by the BNDES in 2021, with FUNBIO as a managing partner since April 2022, the overall goal is to attract and catalyze investments at unprecedented levels for the sector in the country. The strategy combines resources from the bank and from companies and other organizations in order to unblock bottlenecks and increase the scale of restoration in the various Brazilian regions.

After the announcement, the innovative arrangement received significant buy-in from supporters with investment intentions 50% higher than the initial estimates, a sign of a positive response to the mechanism.

The expectation is to restore 20,000 to 30,000 hectares, with the removal of 7 million to 10 million tons of carbon dioxide from the atmosphere, considering a vegetation growth cycle of 25 years. By the end of 2022, an estimated BRL 700 million had been raised.

The effort is in line with the Decade on Ecosystem Restoration, launched by the United Nations (UN) with the aim of preventing, interrupting, and reversing the degradation of natural environments on all continents by 2030. Because it is home to the largest tropical forest on the planet under the impact of deforestation and encompassing large extensions of degraded areas subject to recovery, Brazil has significant potential opportunities on the agenda.

Floresta Viva has the unique feature of building bridges between government, companies, and civil society for fundraising, financial management, and activities in the field with monitoring of results. The mechanism foresees public calls for proposals for the selection of projects with agendas and territories defined with the corroboration of FUNBIO, BNDES, and the supporting institu-

### Floresta Viva

FOR UP TO 9 ECOLOGICAL RESTORATION PROJECTS

tions. There is also the structured support modality, through which projects that buy into the objectives and purposes of Floresta Viva are supported but which, due to their complexity or uniqueness, require prior structuring together with FUNBIO, BNDES, and the supporting institutions.

The first contract was formalized in 2022 with Petrobras and resulted in the launch of the Mangroves of Brazil public call for proposals, which will provide BRL 44.4 million to support the restoration of mangroves and *restingas* [a type of coastal forest] in Brazil, including their contributing basins. Through the public call for proposals, up to nine projects are expected to receive support, each with an area of at least 200 hectares to be restored over 48 months.

At the same time, plans for a call for proposals with investments from Eneva began, aimed at restoration in and around Protected Areas in the state of Amazonas.

In addition to greater coverage, Floresta Viva encourages the monitoring of actions to identify gaps and solutions, within a learning process in ecological restoration. The contribution of a greater volume of financial resources, with an increase in the scale and productive capacity of the supply chain of seedlings, seeds, and other inputs, can reduce costs and increase the engagement of rural producers.

The initiative enables financial return via Agroforestry Systems (SAF, the acronym in Portuguese) models, which can make a difference in the financial equation to cover restoration costs. In addition, with these larger contributions, it is possible to add new forest projects in the same landscape in order to make larger areas viable for possible gains in carbon credits with the participation of the bank and partner institutions.

## **GEF TERRESTRE**

Conservation, Restoration and Management Strategy for Biodiversity in the Caatinga, Pampa and Pantanal Biomes

ESTABLISHMENT AND CONSOLIDATION OF PROTECTED AREAS

PARTNERS

স্যি

– Caatinga

NDC SDG

– Pampa - Pantanal

THEMATIC AREAS

**BIOMES AND ECOSYSTEM** 

Landscape on Pampa Trails, in the APA of Ibirapuitã, Rio Grande do Sul. Photo: Pró-APA Sustentável



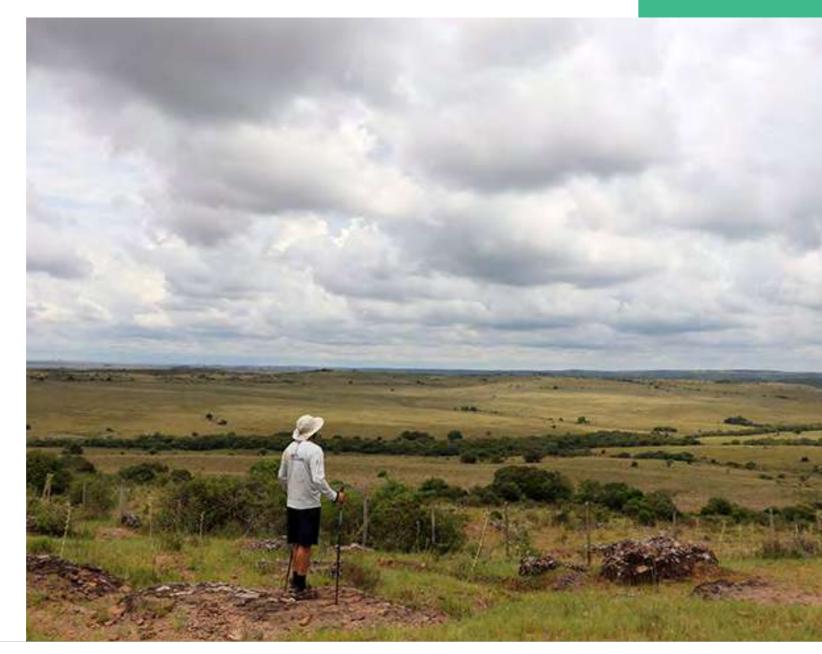
We need long-term structuring efforts, in addition to planting and restoration techniques, with the empowerment of local communities in the Caatinga."

JOAQUIM NETO, SOS Sertão coordinator

# **PROJECTS SUPPORTED**

CALLS FOR PROPOSALS

**BIOMES** 





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Launched in 2019 with a focus on the Caatinga, Pampa, and Pantanal [ecosystems], GEF Terrestre supports the creation, financial sustainability, and strengthening of Protected Areas (PA), in addition to ecological restoration, conservation of endangered species, and communication and engagement. Since the beginning of the project, in 2018, until now, activities have been focused on the recovery of degraded areas, through seven public calls for proposals that selected 25 initiatives. In total, the initiatives aim to restore 6,500 hectares in these biomes, exceeding the initial target of 5,000 hectares.

#### GEF TERRESTRE



Team on the way to the planting area at RPPN (Private Reserve) Sesc Pantanal, Photo: Aline Lira

More than 4,000 people were trained in 400 workshops or courses, from planting seedlings and seeds to integrated fire management, which made it possible to evolve in field initiatives in a mature and technically based way, throughout the project. Priority restoration areas were mapped in the three biomes, in addition to the WebAmbiente platform, developed by Embrapa to assist decision-making in the environmental adaptation process. The system includes the largest database ever produced in Brazil on native plant species and strategies for recomposing the rural landscape.

Last year, the creation and strengthening of federal PAs began. In June, a public call for proposals was launched to select projects for the creation of nine Private Natural Heritage Reserves (RPPN, the acronym in Portuguese) in the Caatinga and Pantanal.

As of September, 14 PAs received support for infrastructure, preparing or updating management plans, monitoring fauna, fighting and preventing fire, and developing production chains.

In terms of ecological restoration, the strategy is to contemplate the biomes

that have historically been less favored by investments in this sector. This is the case of the environmental recovery of Sesc Pantanal areas, with emphasis on fire management and recovery of riparian forests on the banks of rivers.

In the Caatinga, both the Spix's Macaw Environmental Protection Area (APA) and the Wildlife Refuge, in the municipality of Curaçá (Bahia), are the scene of initiatives aimed at rebuilding the environment that protects individuals of this bird reintroduced in the area with the aim of conserving the species in nature. Efforts throughout the 200 hectares are coordinated by the Center for Ecology and Environmental Monitoring of the Federal University of Vale do São Francisco (Univasf). The species, first described in the 19th century, is considered extinct in the wild as of 2020, and the first specimens bred in captivity were reintroduced in 2022.

In the Furna Feia National Park and surroundings, created in 2012 with 8,500 hectares in the municipalities of Baraúna and Mossoró (Rio Grande do Norte), GEF Terrestre supports the planting of native seedlings in approximately 100 hectares of degraded areas with innovative

techniques of restoration and empowering communities. Conducted by SOS Sertão, the work started with a socioenvironmental assessment on the availability of water, existence of communities, sources of income, soil conditions, and cultural habits, such as hunting practiced for subsistence. The area adjacent to the PA and its caves are included in a perimeter of irrigated fruit growing that competes for labor and water resources with the challenge of recovering native vegetation.

In 2022, the planting of a total of 100,000 native seedlings was completed, in addition to the preparation of a recovery plan to serve as the foundation for future efforts. In a region marked by water stress, the work applied 12 different restoration methods in an effort to test alternatives to replace vegetation in hostile terrain and climate. The seedling success rate was 70%, against 15% in the region's average, and now the plan is to expand monitoring to validate the techniques, with the participation of local producers. The recovered area with new vegetation cover contributes to the infiltration of water that supplies artesian wells used in irrigating crops and raising animals.



Men work in the Caatinga. Photo: Nema/ Univasf

Women plants in the Pantanal. Photo: Jeferson Prado

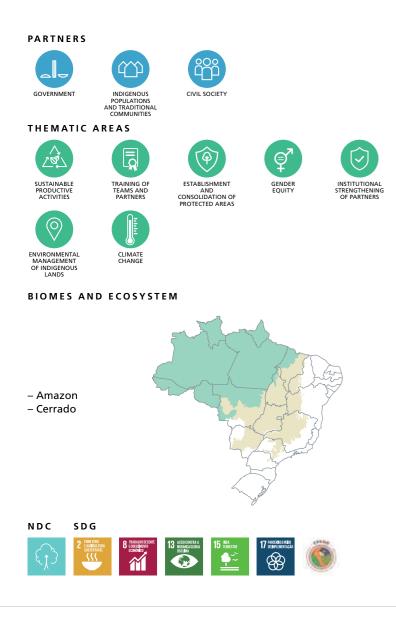
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# COPAÍBAS

Community, Protected Areas and Indigenous Peoples Project in the Brazilian Amazon and Cerrado Savannah



Focused on conserving the Cerrado and the Amazon, with an effective reduction in deforestation, in 2022 the COPAÍBAS program launched the first four calls to support the creation and preparation of management plans for Private Natural Heritage Reserves (RPPN, the acronym in Portuguese), environmental and territorial management of indigenous land, and socio-productive training, supporting the generation of income using socio-biodiversity.

In this specific component, 17 initiatives, in the initial phase of activities, were selected such as the project Jovens cuidando do Cerrado e resgatando a Vida ('Young people caring for the Cerrado and rescuing Life'), focused on valuing extractive products and traditional knowledge associated with the collection and processing of Cerrado plants. The Project, being implemented by Grupo Semente, will benefit the Jovens Vivendo no Campo collective, which brings together 27 people, including youth, women, and men from a traditional rural community.

The project's activities intend to contribute to an assessment of extractive

NICE NORWAY'S

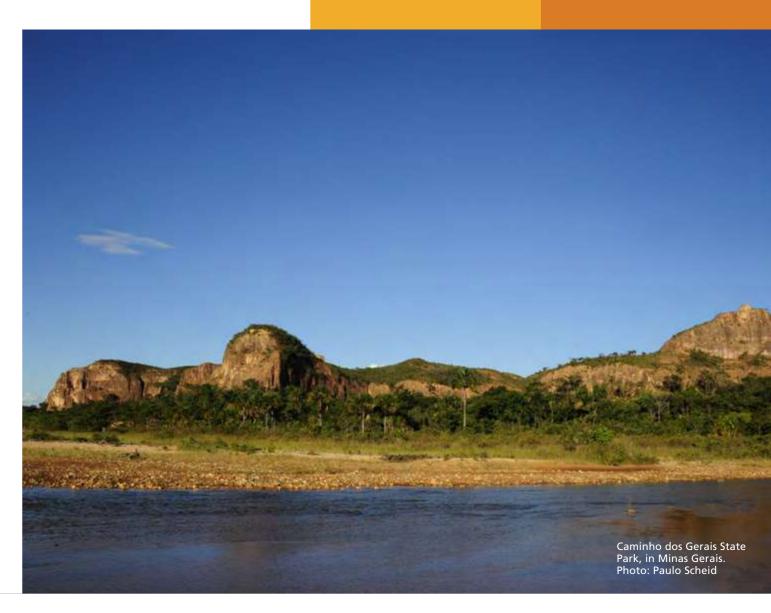
activities with a main focus on cumaru and jatobá [plant species], conducting economic feasibility studies, and building action plans to enhance the extractive activity and commercialize products. In another initiative, COPAÍBAS supports Nova Guarita, a mixed family farming and extractivist cooperative that operates in the Amazon biome. With a duration of 18 months, the strategy is to strengthen the management and technical assistance offered by the organization, to ensure quality in the coordination processes and the productive stages with the seed groups involved in forest restoration activities in the Território Portal da Amazônia, in northern Mato Grosso state.



07/06/22 – FOLHA DE SP (MÔNICA BERGAMO'S COLUMN) President of the association of public prosecutors participates in the debate on climate goals

13/06/22 – *VEJA* COPAÍBAS opens a cycle of debates on climate change this week

14/06/22 – O ECO 'Climate Dialogues' discusses efforts to face climate change





FUNBIO

Golás, Mar

21 PAS SUPPORTED

**4** PARTNER STATES

1.5 MILLION HECTARES SUPPORTED



30 projects hired, of which 10 are in progress

### COPAÍBAS



14/06/22 – FOLHA DE SP Society's lack of awareness is at the origin of conflicts in the Amazon, says prosecutor

11/07/22 – CONEXÃO BOA VISTA Indigenous Council of Roraima draws up a plan to combat climate change in the Raposa Serra do Sol IL

15/08/22 – JOTA Public Prosecutor's Office defends Protected Areas

16/08/2022 – CORREIO 24 HORAS Climate Dialogues discusses conservation of Bahia biomes

13/09/2022 – JOTA Climate damage: remarks on the duty to indemnify

04/10/2022 – NETZERO "Clearing the forest is cheaper than replanting: this cost for companies needs to be increased", defends the attorney

#### INDIGENOUS STRENGTHENING

Among the first 13 indigenous projects supported by COPAÍBAS is the Ipa'wã initiative, carried out by the Indigenous Association of the Xipaya People (AIPHX, the acronym in Portuguese) to map copaiba trees in the Xipaya Indigenous Land, in Altamira, Pará. The initial activity is the cleaning of the Cupinaré and Jaboti creeks, to allow access by small boats from the communities to areas of interest for extracting copaiba oil.

Implemented by FUNBIO, the COPAÍBAS Program is funded by Norway's International Climate and Forests Initiative – NICFI, through the Norwegian Ministry of Foreign Affairs. In May, the program went into the field for its first monitoring mission in the state parks of Caldas Novas (Goiás) and Biribiri (Minas Gerais), two of the 21 Protected Areas (PAs) already supported in four states. One of the objectives of COPAÍBAS is to strengthen PAs in the Cerrado — the most biodiverse savannah on the planet — by supporting infrastructure, public use plans, and fire management, for example. The program stands out for the bridges it builds between representatives of public prosecutor's offices, judges, and civil society in the debate on issues involving climate justice. In this sense, the Climate Dialogues (Diálogos pelo Clima, in Portuguese) initiative, which is part of the program, held six virtual meetings from June to November 2022. The initiative also promoted a face-to-face meeting on October 25th, in São Luís (Maranhão), as a result of the agreement between the FUNBIO and the local state Public Prosecutor's Office.

In the field of strategic communication, COPAÍBAS is now investing in the innovative challenge of integrating Artificial Intelligence (AI) tools to bioeconomy and socio-biodiversity with the collection and analysis of data from social media, in order to subsidize engagement efforts on the theme on a larger scale, helping bring actors together and significantly increasing income in the productive chains of the Amazon and Cerrado.



Biribiri State Park, in Minas Gerais. Photo: Thales do Carmo/FUNBIO



### CLIMATE DIALOGUES PROMOTES EXCHANGE OF EXPERIENCES

Between June and November, the COPAÍBAS program promoted the online cycle Climate Dialogues (*Diálogos pelo Clima*, in Portuguese), with monthly meetings to discuss with different professionals in the Brazilian Justice System and in the area of the environment the theme of climate change and the fight against deforestation in the Amazon and Cerrado. With varied subjects and the participation of prosecutors, judges, district attorneys, and civil society representatives, the events mobilized around 258 people. In November, São Luís, in Maranhão, hosted the first face-to-face event.

The agenda included topics such as the pursuit of economic and financial instruments as a way of supporting the climate goals assumed by Brazil; measuring environmental damage in the context of climate change; carbon stock; economic alternatives for traditional, indigenous, and quilombola populations and protection strategies for Protected Areas to achieve the Paris Agreement goals. Eighteen guests spoke from different perspectives and presented success stories, always with the mediation of Andréia Mello, coordinator of the cycle.

Among the successful cases presented throughout the cycle, it is worth highlighting the initiative of prosecutor Fernando Merloto Soave, coordinator of the Traditional Food Commission of the Peoples of Amazonas (Catrapoa, the acronym in Portuguese). Winner of the Innovare award in the Public Prosecutor's Office category, the commission built a solution to two problems: the challenge of getting food to indigenous schools, due to issues of access and distance, and the lack of an economic alternative for selling local food production. Convention 169 of the ILO, enacted in Brazil in 2004, allowed the Federal Public Prosecutor's Office to issue a technical note allowing the indigenous peoples of the Amazon to sell their production for local school lunches. "With this, we managed to move forward in three aspects: adequate food, saving public resources, and generating income — which also reduces co-option for deforestation activities, such as illegal logging", explained Merloto.

CONTENTS (=)

### COPAÍBAS

MAP KEY

STRENGTHENING OF STATE PAS IN THE CERRADO

PAS BEING CONSOLIDATED

MUNICIPALITIES WITH RPPNs (PRIVATE RESERVES) BEING SUPPORTED

STRENGTHENING OF TERRITORIAL AND ENVIRONMENTAL MANAGEMENT OF ILS IN THE CERRADO AND AMAZON



STRENGTHENING OF SOCIOBIOECONOMY COOPERATIVES AND ASSOCIATIONS IN THE CERRADO AND AMAZON

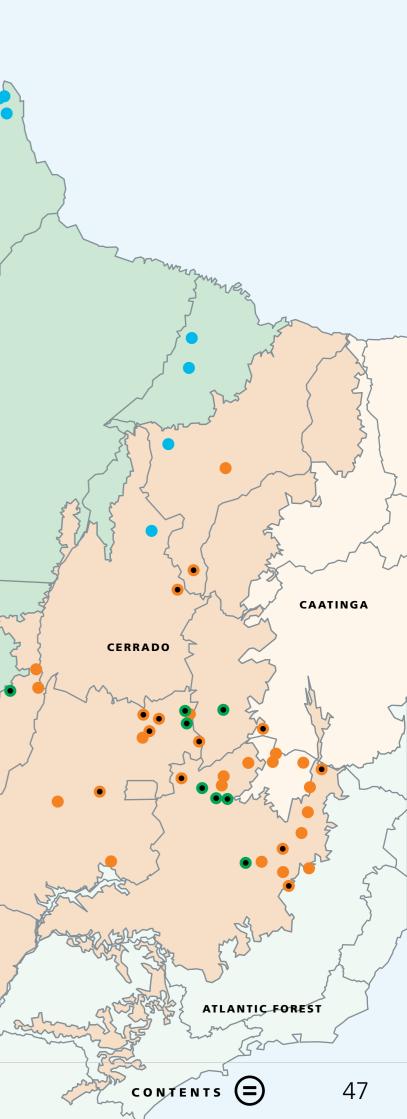


ILS WHERE THERE ARE ACTIVITIES BEING SUPPORTED

MUNICIPALITIES WHERE THERE ARE ACTIVITIES BEING SUPPORTED

AMAZON

PANTANAL

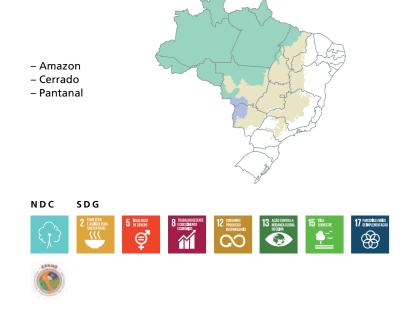


### **REM MT**

**REDD Early Movers (REM)** Global Program – Mato Grosso

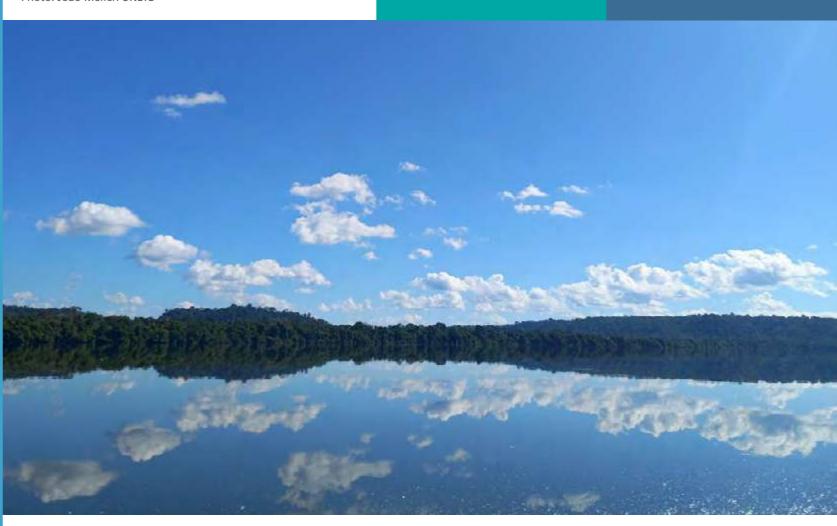


**BIOMES AND ECOSYSTEM** 



The State of Mato Grosso, the largest national producer of commodities, reconciles the strategy of sustainable production and keeping the forest standing, with the reduction of carbon emissions through avoided deforestation. The REDD Early Movers Program (REM), sustained with funding from the German and British governments, under the management of FUNBIO, is intended to compensate environmental services based on results achieved.

The Teles Pires River is a watercourse that flows through the states of Mato Grosso and Pará, in Brazil. Photo: João Mello/FUNBIO



Financial resources are allocated to efforts provided for in the Benefit Sharing Strategy focused on family farming and traditional peoples and communities in the Amazon, Cerrado, and Pantanal; indigenous territories and sustainable production, innovation and market, in addition to institutional

strengthening and pivotal public policies. REM MT was signed in November 2017.

In 2022, two calls for projects were launched, one for initiatives led by indigenous institutions in their territories and one for efforts in family farming and structuring their main value chains,

such as the Cutiando project, which aims to build a processing plant for Brazil nuts in Juruena (Mato Grosso) to increase production, add value, and access markets. At the Mutuca-Acorquirim Association of the Rural Black Quilombola Community, in the municipality of Nossa Senhora do Livramento

















(Mato Grosso), the objective of the selected project is the production of honey with a local brand and seal of quality assurance.

Last year, contracts were signed under the call launched in 2022, which selected 16 indigenous projects, 22 family agriculture

#### **REM MT**



Caité Agroforest, in Agrovila das Palmeiras. Photo: João Mello/FUNBIO

Food produced in the Olga Benário Settlement. Photo: João Mello/FUNBIO





Indigenous people in a manioc flour mill and fishing in the Kururuzinho Village. Photos: João Mello/FUNBIO

> projects focused on the main production chains, such as *açai*, rubber, coffee, and forest seeds; and seven structuring initiatives for institutional support and local governments with an emphasis on social participation and the inclusion of youth and women in decision-making.

\*TN. A fiscal module is a unit of measurement, in hectares, whose value is determined by Brazil's National Institute for Colonization and Agrarian Reform (INCRA). The size of a fiscal module varies according to the municipality where the property is located and ranges from 5 to 110 hectares. Source: https:// www.embrapa.br/codigoflorestal/area-de-reservalegal-arl/modulo-fiscal So far, the actions cover 387,000 hectares already supported for low carbon in all the thematic components of the Family Agriculture and TCP subprogram. In the case of support for small and medium-sized producers of local commodities such as cattle, soy, and timber, 1,500 properties with up to 15 fiscal modules\* were reached. The State's goal is to reach 10,500, with 82,000 hectares under low-carbon management by 2030. Specifically in family farming, 14,000 families were benefited by the end of 2022, with a goal of reaching 26,900 at the end of decade.

The State of Mato Grosso has already reached results, being compensated for avoiding the emission of 11 million tons of carbon from deforestation until December 2022. However, due to the weakening of environmental institutions, the targets for reducing deforestation were not achieved in the period. Based on the reference years from 2015 to 2019, the commitment was to reduce deforestation by 3% over the four years of the program, but the percentage increased by 26% in the annual average until 2022.

Guaricia (*Vochysia bifalcata*), in Paraná, in the area covered by the SPVS project. Photo: Rodolfo Marçal/ FUNBIO

### ATLANTIC FOREST

PARTNERS

Biodiversity and Climate Change in the Atlantic Forest





26/05/22 – O ECO The plan to restore 900 soccer fields in the Atlantic Forest in two years

28/05/22 – *só NOTÍCIA BOA* Indigenous people help restore forest in the National Park in Paraná





Ministério Federal do Meio Ambiente, Proteção da Natureza Construção e Segurança Nuclear MINISTÉRIO DO MEIO AMBIENTE E MUDANÇA DO CLIMA

Due to its history of degradation, great biological diversity, and high degree of endemism, the Atlantic Forest is considered a global priority for ecosystem restoration. With the support of resources from the German Development Bank (KfW), through FUNBIO, the most populous Brazilian biome is the target of ten projects that started activities in 2022, after approval in the public call for proposals in December of the previous year. There are three in Rio de Janeiro, one in São Paulo, three in Paraná, and three in Bahia.

#### **ATLANTIC** FOREST

The investments we are making in the Protected Areas Mosaic in southern Bahia, through the **Biodiversity and Climate Change** Project in the Atlantic Forest, will be strategic for the development and strengthening of the forest restoration production chain in the heart of the Central Atlantic Forest Corridor, considered by scientists as one of the most relevant areas for the protection and recovery of the biome. In addition to the almost 200 hectares of areas being recovered, in partnership with a cooperative and two Pataxó indigenous associations, the implementation of a training and regularization program for agents in the production chain and the formation of a learning community will have positive impacts to accelerate and expand the scale of restoration in the region. For CICLOS, this project has been an excellent opportunity to improve our management processes, in addition to building our skills for new and greater challenges."

BETO MESQUITA, president of Instituto CICLOS de Sustentabilidade e Cidadania, one of the institutions supported by the Atltantic Forest Project

The Atlantic Forest Project promotes initiatives aimed at forest restoration, primarily in Protected Areas, including Private Natural Heritage Reserves (RPPN, the acronym in Portuguese), located in three strategic regions: the Mosaic of the Extreme South of Bahia, the Mosaic of Lagamar (São Paulo and Paraná), and the Central Fluminense Mosaic.

In Rio de Janeiro, where landscape recovery has a high environmental and economic potential, the objective is to restore 750 hectares by connecting RPPNs, strengthening the forest production chain and sustainable tourism.

In Bahia, three institutions came together to jointly plan efforts that encompass the Pau-Brasil, Monte Pascoal, and Descobrimento National Parks, overlapping Indigenous Lands, RPPNs, and other private properties. In June, the group, including indigenous associations, met to define the strategy that includes the creation of Agroforestry Systems (SAF, the acronym in Portuguese) and seedling nurseries to increase the scale of restoration and connection of forest fragments.

The capacity-building activities and the planting of native trees, developed by several institutions in partnership with the International Institute for Sustainability (IIS), take place along the Atlantic Forest Trail: a 4,270 km trail that runs through the entire Serra do Mar and part of Serra Geral,

between Rio de Janeiro and Rio Grande do Sul, planned by a group of organizations in order to promote contact with nature and income for local communities.

At the Lagamar Mosaic, which includes 52 Protected Areas with different purposes and objectives, the Atlantic Forest Project concentrates initiatives for the ecological recovery of 1,300 hectares. In June 2022, the FUNBIO team carried out monitoring visits to projects with a forecast of planting 15,000 seedlings, in addition to building nurseries with a production capacity of 250,000 seedlings per year.

In addition to these actions undertaken in Lagamar by the Institute for Research in Wildlife and Environmental Education (SPVS), the region is home to the work of the Institute of Technology for Development (LACTEC) to restore the forest cover of an old logging farm within the Guaricana National Park (Paraná), in an area of interest to the PA and the Tupã Nhe'é Kretã indigenous community.

Among other projects that started activities in 2022, is the work of the Green Initiative aimed at recovering the native vegetation in 200 hectares in the Rio Turvo State Park, in São Paulo and promoting agroforestry systems in areas of the Jacupiranga Mosaic of Protected Areas, in the same state, with incentives for seed production by ten groups receiving support in the region.



lings native to the ntic Forest, seed essing. Photo: Gabriel

, Rio de Janeiro



**PAs SUPPORTED BY THE MOSAIC OF PROTECTED AREAS IN SOUTHERNMOST BAHIA** 

Photo: Gabriel Marchi/

#### **PAs SUPPORTED BY THE CENTRAL FLUMINENSE** MOSAIC (RJ)



**PAs SUPPORTED BY** THE LAGAMAR MOSAIC (SP, PR)



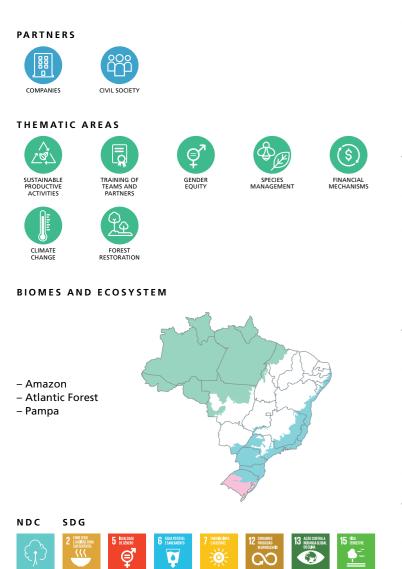






# **PROBIO II**

**Opportunities Fund of the** National Public/Private Integrated Actions for Biodiversity Project



Formalized in November 2022, with funding from Probio II, counterpart funding from the paper and pulp company Suzano, and implementation by local NGO Agência de Desenvolvimento Extensão Amazônia (Amazon Extension Development Agency), the initiative From extractivism to social entrepreneurship: strengthening the bioeconomy in the traditional communities of Maranhão invests in social and environmental efforts in natural forests surrounding eucalyptus plantations in southwest Maranhão, in the Legal Amazon.

STATES

**INITIATIVES SUPPORTED** 



It is an example of private sector

plan is to benefit 12 communities, of income in the processing and commercialization of regional products a fruit that is the target of traditional knowledge of extractive women,

The tradition of "Babassu Coconut extractive families who extract oils concentrations of the palm tree, thousand families.

a scenario that also created barriers for women extractivists to access the conflicts. The women need to go further and further to collect the



Babassu coconut (in Maranhão). Photo: André Pessoa



Projects like this one, which focus on sustainable extractivism, strengthen the vocation of the local community, encourage environmental conservation, and contribute to the mitigation of social vulnerabilities. With this initiative, we want to reinforce our commitment to lift people out of poverty through the establishment of structuring partnerships in our operating regions."

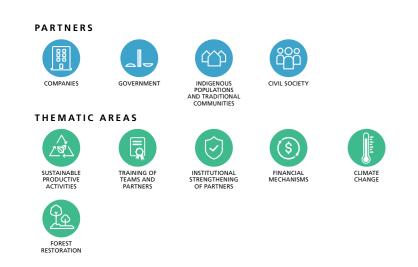
FABIAN BRUZON, Suzano Forest **Operations director** 

that has inspired solutions to keep tradition alive.

work in two specific areas: the native forest kept conserved on the Eldorado eucalyptus for pulp production; of Imperatriz, and Ciriaco,

### LEGAL AMAZON CONSORTIUM

Interstate Consortium for the Sustainable Development of the Legal Amazon Region



**BIOMES AND ECOSYSTEM** 



Created in 2019 by the nine governors of the Legal Amazon, in an unprecedented initiative for the Amazon, the Legal Amazon Consortium is focused on different interconnected and complementary subjects. In terms of the environment, 2022 stood out for its commitment to develop and strengthen regional strategies to combat deforestation, with synergy beyond the borders of state territories. For this, the Legal Amazon Consortium shares intelligence, technologies, and other efforts in strategic areas of shared challenges.



Legal Amazon Hub promotes connections at COP27. Photo: Helio Hara/ FUNRIO

> 9 **STATES**

Δ MAIN LINES **OF ACTION** 

**INITIATIVES** SUPPORTED

### AT COP27, A **SPACE FOR CON-VERGENCE AND COOPERATION**

In November, in just under two weeks, the Legal Amazon Hub, a 120 square meter space at COP27 on Climate, in Egypt, was the stage for 40 thematic panels and a point of convergence for state governments, major donors, companies, and civil society. At the hub, organized by the Legal Amazon Consortium, there were more than 70 bilateral meetings and documents aimed at cooperation in socioenvironmental projects in the biome were signed. Among them, the donation of more than USD 3 million from the Gordon and Betty Moore Foundation to a quilombola project in Pará [page 89]. FUNBIO hosted a debate on environmental funding that brought together some of the most significant global donors at the hub.





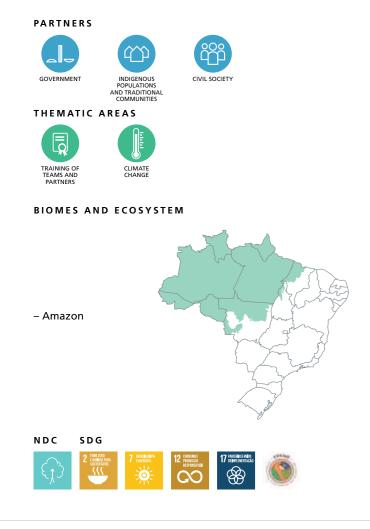
Joint efforts resulted in the Regional Program for the Prevention and Control of Deforestation and Fires in the Legal Amazon, which had the support of the French Embassy [in Brazil] for the preparation of preliminary studies. FUNBIO is the financial-operational manager of the Consortium's environmental efforts.

Another highlight of the year was the support provided by Instituto Clima e Sociedade (ICs), Instituto Arapyaú and Instituto Humanize, with implementation carried out by Fundação Dom Cabral, for the institutional strengthening of the Consortium. An organizational synchronism was carried out to support the structuring of processes and procedures, with the first step being to identify the challenges of the activities carried out and facilitate the work process between the various environmental management bodies in the region. The objective: to achieve speed and responsiveness compatible with demands in areas such as the green economy, regional integration, territorial governance, and the management of priority public services.

The initiative's vision is to become a global reference in coordination, strategy, and governance to transform the Legal Amazon into a competitive, integrated, and sustainable region, by 2030. For this, FUNBIO supports the activities developed, which has the Green Recovery Plan (GRP) as the baseline document to support the Consortium's work and foresees changes capable of combating illegal deforestation and reducing CO<sub>2</sub> emissions, using the potential of the standing forest to generate employment and income, with the incorporation of technologies and sustainable solutions.

The Consortium was highlighted in December last year at the Climate COP27, in Egypt, where it organized a stand, a platform for meetings and exchanges of ideas, and actions between governments, donors, academia, and civil society.

## **GCF TASK FORCE**



With funding directed to face climate change and with a focus on subnational governments, the Governors for Climate and Forests Task Force (GCF Task Force) — created in the world in 2008 and since 2022 under the leadership of the University of California — covers 39 states in 10 countries, including Brazil, focusing on the Legal Amazon.



The main objective is to strengthen forums for debate aimed at the collective construction of solutions between state public authorities, enforcement agencies, traditional communities, and sectors of society related to Amazon's socioenvironmental challenges. Attracting investment to subnational jurisdictions and improving impact assessment capacity are high on the agenda.

In 2022, in addition to the participation of state secretaries or representatives at the climate COP27, in Egypt, the Forum of State Attorneys for the Environment of the Legal

Amazon (FOPEMA, acronym in Portuguese) was held, which created the opportunity to expand the dialogue on emerging issues in the region. One of the main points is the concern with the continued advance of organized crime in areas of environmental protection and its relationship with deforestation. FUNBIO is the financial manager of the GCF Task Force.

State governments are on the front lines in the fight against climate change and deforestation in tropical forests. Last year, the GCF Task Force launched the Manaus Action Plan for a New Forest Economy with



Debate during COP27. Photo: Publicity

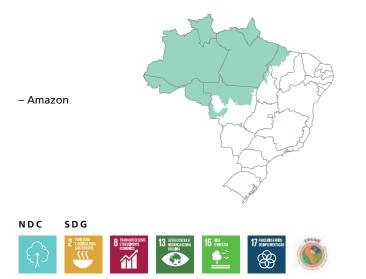
the resumption of the goal of reducing deforestation by at least 80% by 2030, compared to current levels, in line with the commitments already assumed by state governments.

The ambition was renewed after the goal that had been agreed in 2014 in the Rio Branco Declaration, for 2020, was not reached due to the Covid-19 pandemic and other factors. The current objective includes increasing forest restoration and climate resilience efforts via long-term, pay-for-performance funding for indigenous peoples and local communities in the states.

# **AMAPÁ FUND**

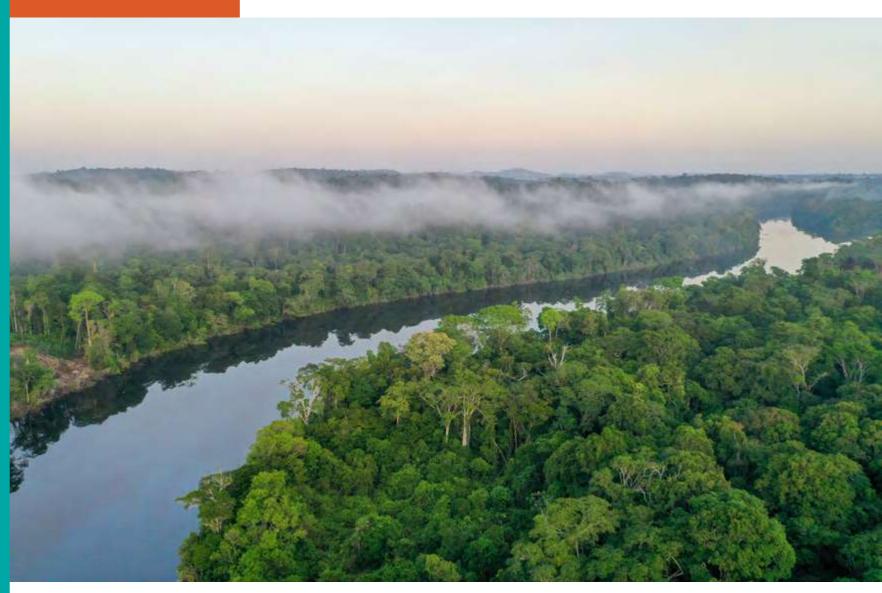


**BIOMES AND ECOSYSTEM** 



Amapá stands out for comprising one of the most important forest stocks in the Brazilian Amazon which should be integrated into the economic development. Tropical trees cover 80% of the state. Of the 142,815 km<sup>2</sup> corresponding to the total state territory, more than 70% are designated as Protected Areas (PAs) and Indigenous Lands (ILs), largely open to income activities through forest management and the extraction of açai, Brazil nut, and other biodiversity-based inputs.

**PROJECTS SUPPORTED** 



This is the case of two areas located in the heart of this vast green mosaic: the Amapá National Forest (Flona) and the Amapá State Forest (Flota), the latter established in 2006, with 2.3 million hectares, aiming to promote the sustainable use of forest resources. In the region, riverside communities were associated with illegal wildcat gold

mining and, with the process of removing the mines after the creation of the PA, support was needed to find new means of livelihood based on the standing forest.

This scenario motivated a set of initiatives for the development of sustainable exploitation of nontimber products with improvements



Amapá National Forest (Flona). Photo: Décio Yokota

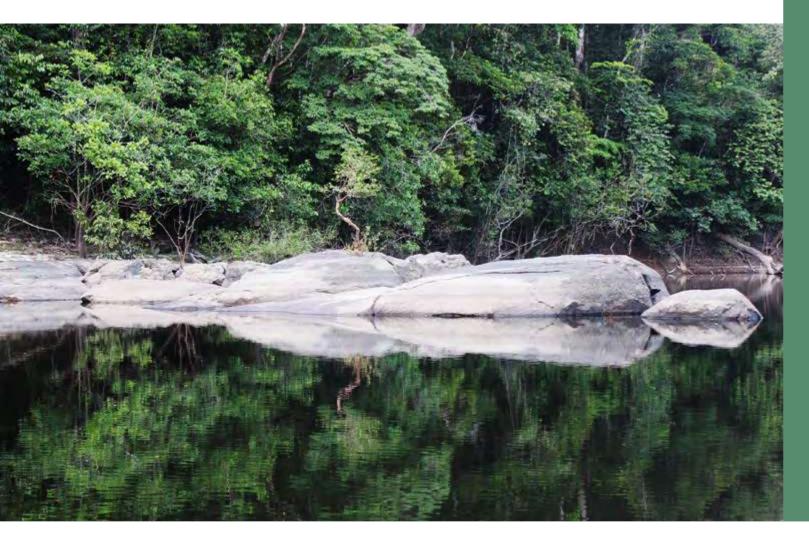
in infrastructure and mechanized techniques in the context of the Amapá Fund, managed by FUNBIO and maintained with funding from Conservation International. The purpose of the mechanism is to support the consolidation and maintenance of federal, state and municipal PAs and ILs in the State of Amapá.

#### AMAPÁ FUND



Women. Photo: Décio Yokota

Landscape. Photo: Andrew Schatz/ Conservação Internacional



The context required] leaving the reality of wildcat mining and developing economic activities compatible with Protected Areas. This can benefit local populations in the context of granting areas for forest management." DÉCIO YOKOTA, IEPÉ information management coordinator

The first two projects were approved by a technical board in 2022, based on calls for proposals launched in the previous year. Among the highlights is the improvement of the infrastructure of the Amazon nut oil processing and production factory, of the Mixed Cooperative of Producers and Extractivists of the Iratapuru River – COMARU, as well as the extraction and processing of copaíba, andiroba and pracaxi oil by riverside communities in Flona Amapá, in partnership with the Indigenous Research and Training Institute (IEPÉ) and supporting technical

In the region, the Sementes do Araguari Women Extractivists' Association, a producer of biocosmetics in the municipality of Porto Grande (Amapá), plays a leading role in the development of good practices, from tree mapping to oil collection workshops and seed processing with a solar dryer and cold pressing, under the technical supervision of Embrapa. The new press, aimed at extracting pracaxi and andiroba oils, guarantees better quality, preservation of bioactive compounds, and integrity of the raw material, in addition to being more sustainable.

The objective of enhancing technology is to increase the production scale of soaps, candles, and other items based on extracts from biodiversity, with quality control and sales support. As a result, in 2022, the biocosmetics of women extractivists from the Araguari River were recognized by the Amapá Seal – Product of the Middle of the World, which values the consumption of products of local origin to strengthen the economy.

Andiroba, copaíba, breu branco and fava beans: species known for generations for

their health benefits are a source of income that has transformed the lives of communities in the National Forest and State Forest of Amapá. These Protected Areas, which belong to the sustainable use category, are under a concession regime for companies to manage timber extraction and the expectation is that the mapping of the forest and the work carried out there with non-timber species may result in partnerships with the opening up of areas for use by

Among the possibilities, in addition to vegetable oils, the production of Amazonian orchids, which can be accessed by riverside dwellers in the forest after cutting trees for timber in management areas, stands out. The project receives support from the Institute of Scientific and Technological Research of the State of Amapá (IEPA).



### **GEF MAR**

Marine and Coastal Protected Areas Project







**115** grantees supported

**4** PROJECTS SUPPORTED

> **30** PAs SUPPORTED

93 MILLION HECTARES

12 STATES REACHED Eighty kilometers from the coast of Maranhão, Parcel de Manuel Luís — with its gigantic coral reefs very near the surface — is famous for housing the largest shipwreck cemetery in the country. In a total of 45 thousand hectares, the area gathers secular myths about the number of ships and galleons that succumbed there, to the point of being called the Brazilian "Bermuda Triangle".



Set of corals in the Parcel de Manuel Luís Marine State Park (MSP). Photo: Bio Teia Estudos Ambientais



#### The

acknowledgement of shipwrecks as cultural heritage could help in the conservation of the area against the pressure of illegal fishing and oil exploration platforms in the surroundings."

FRANCISCO CARVALHO JÚNIOR, Superintendence of Biodiversity and Protected Areas of the State Secretariat for the Environment and Natural Resources of Maranhão

#### **GEF MAR**

With the experiences supported by FUNBIO, communities are prepared for current and future challenges in coastal areas, knowledge that provides access to other projects and serves as a reference for other associations."

PAULA FERNANDES. GEF Mar/FUNBIO

A large part of the legends arises from the limitations for research in difficult-to-reach places that, in 2022, witnessed an unprecedented event: the official acknowledgement of three shipwrecks as archaeological sites, i.e., legally protected cultural heritage.

The title, conferred by the Brazilian Institute for Historical and Artistic Heritage (Iphan), is the result of a process that began in 2016 with the GEF Mar public call for proposals to support the management of the Parcel de Manuel Luís Marine State Park, previously limited by the lack of state funding. After the establishment of the management board, in 2018, the management plan was prepared with the acquisition of equipment, archaeological studies, and new data on the physical and biotic environment that later allowed the validation of the wrecks.

Based on a bibliographical survey, specialists in underwater archeology came up with a list of 13 shipwrecks of possible occurrence in the area. Of these, four were located and identified by diving expeditions: the Salinas boat (1904), the West Point (1946), the Ilha Grande (1962) and the Ana Cristina (1984), and Iphan recognized the first three as archaeological sites.

Maintained since 2014 with World Bank funding managed by FUNBIO, the GEF Mar program is already consolidated as an instrument aimed at the conservation of marine and coastal protected areas in the country. Of the total of 120 fellow researchers, 46 were awarded in 2022 in various areas such as environmental education, assistance to the advisory board of PAs, and monitoring. In 2022, a Non-Refundable Financial Contribution Agreement was signed with Petrobras, in the amount of BRL 40 million, which will be allocated to GFF Mar.

Last year, planning for the Ecopescatum initiative began, which seeks to subsidize sustainable tuna fishing, through a cooperation agreement with the federal government, with efforts planned in the archipelagos of Fernando de Noronha and São Pedro and São Paulo/Trindade and Martim Vaz as well as in Itajaí (Santa Catarina), with on-board monitoring by cameras, recording of bycatch, and training of fisherfolk.

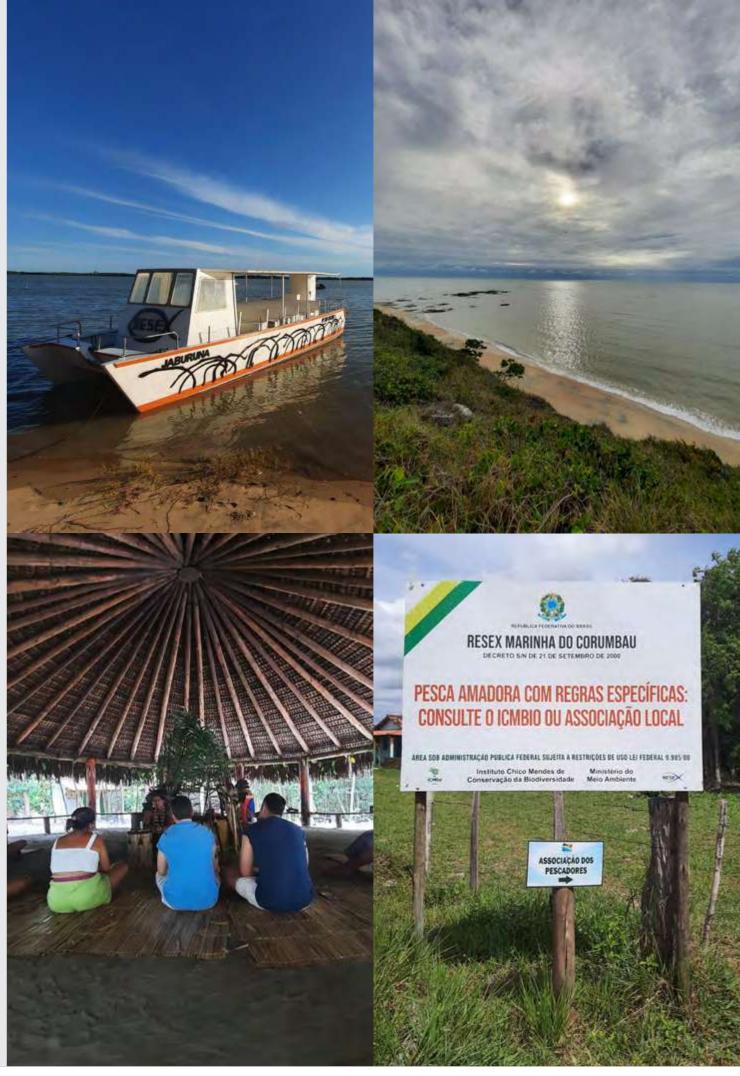
The year 2022 also marked the conclusion of the renovation of the Soloncy Moura Research Ship, belonging to the National Center for Research and Conservation of Marine Biodiversity of the Southeast and South (CEPSUL), under ICMBio, in Itajaí (Santa Catarina). The vessel develops studies in Biology, Oceanography, and Fishing Engineering, with research on stocks of marine species essential to the fishing industry, but had been inactive for three years due to lack of resources for maintenance. The ship's last major expedition was to assess the damage that the rupture of the Mariana dam (MG) caused to marine biodiversity, from Espírito Santo to Bahia.

### LOCAL PRODUCTION **CHAINS**

Since 2020, the south of Bahia has mobilized greater attention in dialogue with fishing communities in extractive reserves, due to the impacts of the Covid-19 pandemic, in addition to oil pollution and floods - support that continued in 2022, in view of the emergency situation that lasts until today. Among the achievements, more in-depth studies of local production chains were carried out, with the strengthening of leaders and social organizations against the impacts of real estate speculation.

Over the last few years, opportunities in the community-based tourism chain have been mapped, with the aim of generating positive socioenvironmental changes in the region of Cumuxuratiba (Bahia). In Caravelas (Bahia), FUNBIO's direct investment supported the collection of seeds for mangrove restoration and the construction of a fruit processing center, harvested in community backyards and directed to school lunches.

> Photos: Paula Fernandes/FUNBIO



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Diving in the waters of the Abrolhos Marine National Park. Photo: Fernando Repinaldo/

ICMBio



Established in 2020, the Global Fund for Coral Reefs (GFCR) is the first and only blended finance vehicle dedicated to coral reefs globally. The public-private coalition is driven by UN Agencies, governments, and foundations.



It focuses on promoting scalable financial solutions and the transition to the blue economy, in order to promote the resilience of reefs and the communities that depend on them against the impacts of climate change. When the seawater temperature increases for a long time, corals lose their zooxanthellae — photosynthetic microalgae that give color to their tissues and are their main source of energy, but which start to produce harmful compounds when the water temperature rises — and are forced to expel them. As a result, corals turn white and are unable to feed via photosynthesis during this period. It is as if the leaves of a tree lost their chloroplasts (structures in which chlorophyll is stored), with the exception that corals are animals and not plants. Depending on the intensity and length of time this bleaching lasts, the coral may return to normal or die.

The initiative, which has FUNBIO as the executing agency in Brazil, presents a unique blended finance approach, which combines resources from donations with financial return investments in businesses with a positive socioenvironmental impact capable of developing local economies and helping in the conservation of coral reefs. In the model, donations have the role of promoting the initial preparations of the areas for the arrival of partnerships and capital from private funds aimed at the sustainable use of natural resources.

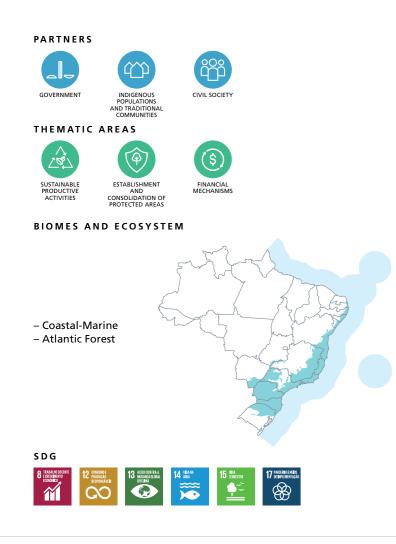
# GLOBAL FUND FOR

PROJECTS WITH GRANT FUNDING

As a result of greenhouse gas emissions, coral reefs are impacted by warmer waters in an increasingly acidic ocean, not to mention local threats from pollution and overfishing. According to reports from the Intergovernmental Panel on Climate Change (IPCC), some of these ecosystems could suffer irreversible damage if the planet warmed by more than 1.5°C compared to the pre-industrial period. At 2°C or more, according to science warnings, 99% of all coral species that build reefs could be lost, due to the severity of bleaching events, in addition to the imbalances caused in these marine environments by more intense storms that increase the flow of sediments from the continent, among other points of concern.

Extending for 8,000 km, the Brazilian coastline stands out on the map of risks and also of opportunities for a new approach to conservation. After the initial approval of the Global Fund for Coral Reefs for the development of the program in Brazil, the objective is to coordinate and train the different local actors, including NGOs, governments, researchers, and communities, to move forward with the zoning of uses and identification of potential business arrangements, such as low-impact tourism, sustainable fishing, and waste management technologies.

### ABROLHOS LAND AND SEA FUND



The Abrolhos Land and Sea Fund was created in 2016 and its main objective is to support the creation, consolidation, maintenance, and institutional strengthening of federal Protected Areas (PAs) located in the south of Bahia and in the north of Espírito Santo. The region contains the largest remnants of Atlantic Forest in northeastern Brazil and a total of 89 million hectares of marine and coastal ecosystems. In the territory there are 19 federal PAs, which add up to around 48 million hectares of protected areas, of which eight are beneficiaries of the project.



With a special focus on the Public Use of the PAs, the fund supports the initiative called Turismo + Sustentável, coordinated by **Conservation International** (CI-Brazil) in partnership with FUNBIO. In 2022, in addition to improvements in PA infrastructure, a network was created for institutions and people who work with tourism in the region to interact, encouraging sustainable practices related to low-impact visitation with increased income for local communities. Among the

products generated, we highlight the launch of the Manual of Good Sustainable Practices in Tourism and the website of Futuri – Alliance for a Regenerative Future, the name given to the network that was formed.

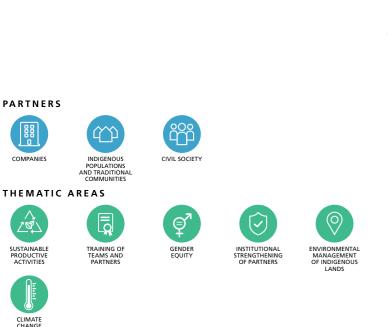
Considering the importance of these efforts for biodiversity conservation and for promoting the environmental, social, and economic aspects of the region, further support for the Turismo + Sustentável initiative was approved at the end of 2022



for another two years. New contributions are foreseen for 2023 to benefit the PAs and strengthen the Futuri alliance.

The project receives financial support from the Global Conservation Fund (GCF) led by Conservation International and constitutes a mechanism open to resources from other donors or sources (NGOs, bilateral and multilateral agencies, national and international organizations, and companies, as well as individuals).

### TRADITION AND FUTURE IN THE AMAZON



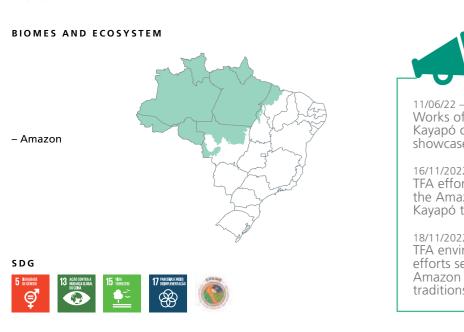
**99** 

With the support of TFA, Petrobras, and indigenous organizations, we think about the future we want to build, based on strengthening our culture and traditions."

DOTO TAKAK-IRE, Instituto Kabu

A study carried out in the five Kayapó Indigenous Territories (ITs) supported by the Tradition and Future in the Amazon (TFA) project in Pará and Mato Grosso estimates a stock of around 900,000 tons of carbon in the forest. Annually, emissions avoided by the protection of ITs add up to 3,500 tons of carbon, which opens up perspectives for future operations in the climate market with financial return for investments in productive activities and protection of the territory.







11/06/22 – *METRÓPOLES* Works of art from the Kayapó culture will be showcased in three cities

16/11/2022 – FATO AMAZÔNICO TFA efforts seek to conserve the Amazon by rescuing Kayapó traditions

18/11/2022 – JORNAL DIA A DIA TFA environmental education efforts seek to conserve the Amazon by rescuing Kayapó traditions

Tradição e Futuro na Amazônia

FUNDO BRASILEIRO PARA A BIODIVERSIDADE FUNBIO





PROJECTS WITH GRANT FUNDING

12 MILLION HECTARES

57 VILLAGES SUPPORTED

650 INDIGENOUS PEOPLE BENEFITED

#### **TRADITION AND FUTURE** IN THE AMAZON



Aerial photo. Photo: Instituto Kabu

Photo: Instituto Raoni

omen



Carried out in partnership with 3 territorial and environmental

Coletivo Beture.

### **TFA IN 2022**





#### INDIGENOUS EXCHANGE

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#### **TRADITION AND FUTURE** IN THE AMAZON

Photo: Spotify Reproduction

AJRA KAYAPÓ Ajrã, Kayapó Ajrā, Kayapo lodos os episódios Sobre

#### THE PODCAST AJRÃ, KAYAPÓ ("SPEAK UP, KAYAPÓ")

is the result of a partnership between the Tradition and Future in the Amazon project and Maial Paiakan, a Kayapó woman with a degree in Law. In it, Maial shares with her people the first translations ever made into the Kayapó language of three important legal milestones for the indigenous people. Access to laws and resolutions in their languages guarantees citizenship to native peoples and is provided for in the UN Declaration.



LISTEN TO PODCAST AJRÃ, ΚΑΥΑΡΟ

#### Photo: Instagram Reproduction



	49
tradicaoefuturonaamazonia	Q
"Uma câmera na mão e uma ideia na	$\overline{A}$
Curtido por helio.hara e outras 48 pessoas	

#### **RECORDING TO PRESERVE TRADITION**

The Kayapó use cameras to capture and document their traditions. The arrival of the project pleases elders, such as Baiu Kayapó, who recorded a testimonial on the importance of recording the culture and traditions of his people. "There are several projects that give us support to record testimonials and increasingly strengthen our culture."

CLICK HERE TO LEARN MORE ABOUT THE PROJECT	

Photo: Agência Febre



#### **EXHIBIT AT PETROBRAS**

From November to December 2022, the exhibition Mẽ tũm nhõ kukràdjà atũmã (Tradition and Future, in English) was on display at the Petrobras building, in downtown Rio de Janeiro. The exhibition was seen by employees and visitors to the building.

The indigenous people travelled from the Kayapó and Menkragnoti Indigenous Lands (Pará) to visit the exhibition, which seeks to disseminate aspects of the culture and history of this people. Among them, Mydjere, a professor at the Kabu Institute (photo). They also sang a traditional warrior song on the opening day, recorded on the project's Instagram profile.

|--|

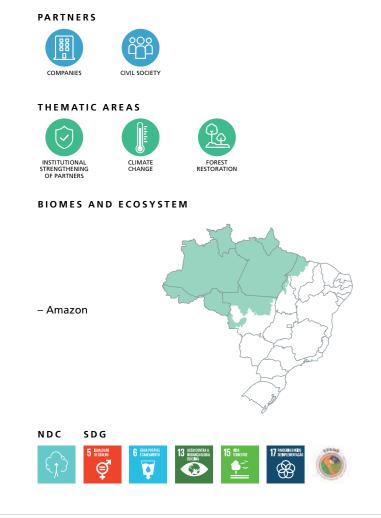
CLICK HERE TO LEARN MORE **ABOUT THE EXHIBIT** 



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### **A MILLION TREES** FOR THE XINGU



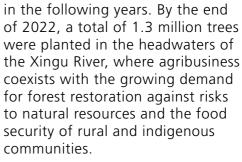
In Brazil, the word "muvuca" is a slang for a great concentration or the frenetic coming and going of many people, as in the great music festivals. In the field of forest restoration, the term represents something similar: a handful of different native seeds, mixed all together to bring the forest back in places that have been degraded and need restoration as a way to ensure water, healthy soil, and biodiversity, in addition to capturing carbon from the atmosphere.

The Rock in Rio initiative subsidized scientific knowledge in the restoration agenda. There is replication potential for new partners and other major events, with visibility to promote socio-productive transformations beyond trees and seeds."

**RODRIGO JUNQUEIRA**, ISA executive

A marriage between the two worlds — big events and environmental conservation — can have a multiplier effect, as in the project "A Million Trees for the Xingu", which allocates donations from the Rock in Rio festival, managed by FUNBIO, for the recovery of forests through direct sowing, a shower of seeds, in the Xingu region of Mato Grosso.

After the first phase, in 2017, aimed at planting 1 million trees in partnership with Instituto Socioambienal (ISA) and Rede de Sementes do Xingu, the project continued through additional campaigns that raised donations from the public during the event,



In addition to environmental gains, the event's donations promote income distribution and socio-productive inclusion, with the development of the forest restoration chain - from seed collection to planting and monitoring in the field, carried out by the Rede de Sementes do Xingu. The organization, created with





Seeds for forest restoration in Xingu. Photo: Rede Sementes do Xingu

support from ISA, is recognized as a reference in the *muvuca* technique and in the model of seed collectives that are disseminated in the country in response to the challenges of ecosystem restoration. With an additional advantage: the cost, lower than planting seedlings.

With the unique feature of promoting community empowerment and engaging rural producers, the Network sells 20 tons of seeds per year, from 150 plant species, which has already enabled the restoration of 8,000 hectares in the Cerrado and Amazon with an annual income of BRL 1 million for links along the production chain.

# **KAYAPÓ FUND**



**BIOMES AND ECOSYSTEM** 





Since 2011, when it was established, the Kayapó Fund has contributed significantly to the institutional maturation of indigenous organizations of the Kayapó ethnic group in Pará and Mato Grosso, through funding allocated via calls for proposals.

In recent years, demand has prioritized monitoring technologies, female protagonism, and youth engagement — including audiovisual activities, linked to the protected territory and promotion of traditional ways of life and knowledge.

In 2022, the fourth cycle of support maintained by Conservation International's Global Conservation Fund (GCF) and the Amazon Fund, through the BNDES, ended. FUNBIO is the financial manager and acts as the executive secretary of the Donors

The famous bracelets produced by the Kayapó people. Photo: Instituto . Kabu





PROJECTS WITH GRANT FUNDING

Commission and the Technical Commission.

Last year, the highlight was the project involving strategies to face growing pressure and invasions of Kayapó territory by illegal activities, implemented by the Associação Floresta Protegida (AFP). Environmental agents were trained and monitoring expeditions and improvements in the structure of surveillance hubs were carried out. In productive activities, the focus was on strengthening agroextractive chains, mainly cacao, and providing technical

> Video tells the story and importance of the Kayapó Fund



#### KAYAPÓ FUND



Installation of solar energy in a village of the Kayapó people. Photo: Instituto Kabu



and administrative support to the COOBÂ-Y cooperative. In the exchange with the Kaingang people, in Rio Grande do Sul, young Kayapó shared audiovisual production techniques with the strengthening of indigenous identity, in an Amazon region historically impacted by

The Arc of Deforestation, which extends from Pará to Acre, represents, according to the Brazilian Ministry of the Environment, around 70% of the degradation of the Legal Amazon The arrival of roads, hydroelectric plants, and mining and logging are the causes of pressure on the biodiversity of the Kayapó, with around 11 million hectares, in the south of Pará and north of Mato Grosso.

In 2022, with resources from the Kayapó Fund, the Kabu Institute launched efforts to defend the Menkragnoti territory against deforestation, in the southwest of Pará, in addition to the implementation of a model project of solar energy in indigenous communities, to substitute the current energy matrix.

At the request of the communities, monitoring of mercury contamination from mines on the Pixaxá River, in Pará, which is important for subsistence fishing, began. At the same time, young people were trained in the use of digital platforms, such as MapBiomas and Google Earth, in territorial monitoring, in addition to initiatives for collecting seeds, producing seedlings, and strengthening handicrafts. Through the Raoni Institute, the Më Anodjá project promotes environmental management activities and the structuring of production chains, providing agroforestry with -Brazil nuts and tonka beans. The initiative also includes training firefighters against forest fires and training female leaders.



### PROJECTS SUPPORTED



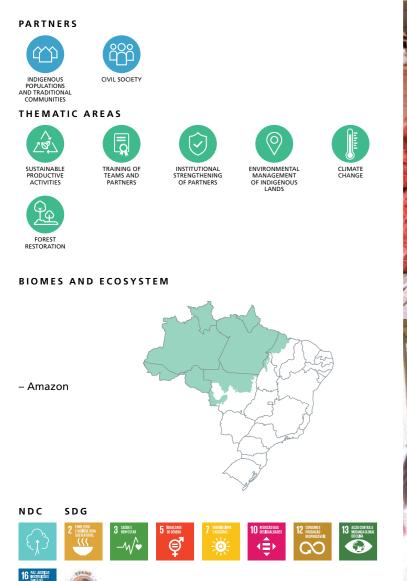
12 MILLION HECTARES BENEFITED

CONTENTS (=)



### RAPID RESCUE FUND

Articulated Strategy to Face Ethnoenvironmental Emergencies in the Brazilian Amazon





Launched in January 2022, the projects of the initiative supported by the Rapid Rescue Facility Program (RRF) through European Union funding and operated by the environmental organization Re:wild are aimed at emergency support to traditional communities, farmers, and indigenous peoples impacted by the covid-19 pandemic and by forest fires in the Brazilian Amazon.

In partnership with Instituto Centro de Vida (ICV), in Mato Grosso, and Projeto Saúde e Alegria (PSA), in Pará, the initiative is aimed at implementing strategies focused on development of efforts that generate income, strengthen food security and conserve biodiversity in the areas where it operates, through activities ranging from access to markets, ethnotourism, collection and processing of seeds, production of seedlings, training, among others.

Throughout 2022, Instituto Centro de Vida (ICV) focused its efforts on capacity-building activities for the farming families benefitted by the project: it supported training and the implementation of sustainable agroecosystems, provided ongoing technical assistance, and also facilitated the inclusion of farmers in microcredit systems and in routes for the flow of production for the consumer market interested in organic products.

Projeto Saúde e Alegria (PSA) developed different efforts aimed at strengthening sustainable productive activities in the Tapajós River basin



region, in Pará. As highlights, the institution, together with extractivist populations, riverside communities, and indigenous peoples, identified areas of interest for the collection and processing of andiroba, trained and supported 190 families in the production of honey from native stingless bees, implemented 6 nurseries to the production of seedlings, and advanced with the construction of 2 community centers focused on ethnotourism and sustainable production activities. Other efforts include crafts, production of vegetable oils, pulps, and by-products of Amazonian biodiversity.

Founded by a group of renowned conservation scientists together with actor Leonardo DiCaprio, Re:wild is a force multiplier that brings together Indigenous Peoples, local communities, influential leaders, non-governmental organizations, governments, companies and the public to protect and rewild at the scale and speed we need. Worldwide, the initiative has contributed to the conservation of 73 million hectares of natural environments to date.

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### CLEAN OCEAN NETWORK



#### THEMATIC AREAS



BIOMES AND ECOSYSTEM



Embaixada da Noruega

After a successful experience in the State of São Paulo, the Strategic Plan for Monitoring and Evaluation of Marine Litter was resumed in 2022 with a focus on Rio de Janeiro, Bahia, Amapá, and Paraná. Executed by the Oceanographic Institute of the University of São Paulo in partnership with FUNBIO, with funds provided by the Embassy of Norway in Brazil, the initiative will map key regional actors with the State Secretariats of the Environment in hopes to relate the efforts of the plan to public policies on solid waste.

5 states



Last year, a collaborative platform began to be developed, with research and bibliographic material, to concentrate indicators on marine litter within the scope of the São Paulo plan, carried out between 2019 and 2020. The result of the work represents the contribution of various sectors of society to respond to the need to understand the problem of marine litter in the state and then seek ways to tackle it.

In Brazil, there are no reference values or a

national database with information on marine litter. Assessing the main sources of waste that are carried from the continent to the ocean, on a given geographic scale, in addition to harmonizing different methodologies, is the



PROJECTS WITH GRANT FUNDING

unesco

Heaps of waste in Guanabara Bay, Rio de Janeiro. Photo: Isabelle Costa/FUNBIO

starting point for scientifically based tackling measures. Monitoring programs and evaluating the effectiveness of efforts in the field are essential to reduce the uncertainties associated with the problem.

### GOLDEN LION TAMARIN (PHASE II)

Partnership for the Implementation of the Golden Lion Tamarin Ecological Park



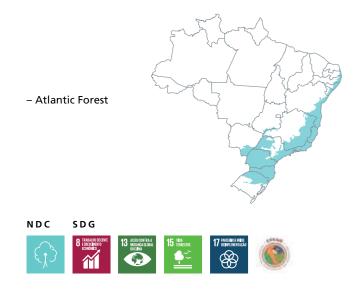
Tower of restoration and for the observation of fauna and flora and tamarin with offspring. Photos: Luiz Thiago de Jesus





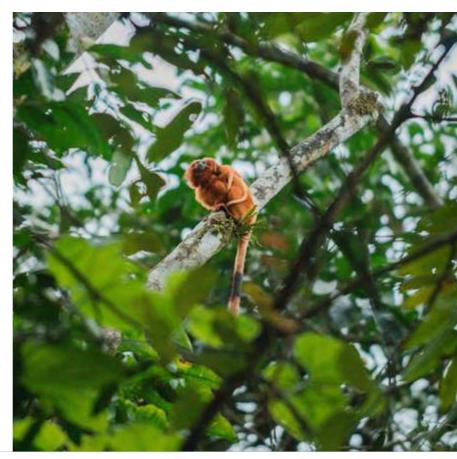


#### BIOMES AND ECOSYSTEM





13/05/22 – G1 REGIÃO DOS LAGOS Golden Lion Tamarin Ecological Park will be inaugurated this Saturday in Silva Jardim, in Rio de Janeiro



With 237 hectares, the Golden Lion Tamarin Ecological Park (PEMLD, the acronym in Portuguese), in the municipality of Silva Jardim (Rio de Janeiro), began to be structured in mid-2020, after a previous project aimed at restoring 14 hectares of degraded areas of the Atlantic Forest in an old horse farm.

These actions were made possible through the donation of financial resources by the company Exxon-Mobil, managed by Funbio. The beginning of the implementation of the PEMLD involved efforts to monitor and maintain the forest restoration that had been carried out in 2019, with the planting of approximately 20,000 seedlings of trees native to the Atlantic Forest. The purpose of this restoration was to connect fragments of native forest and create an ecological environment conducive to the survival of fauna and, specifically, the golden lion tamarin, with positive impacts also on the quality of the water that supplies the surrounding cities.

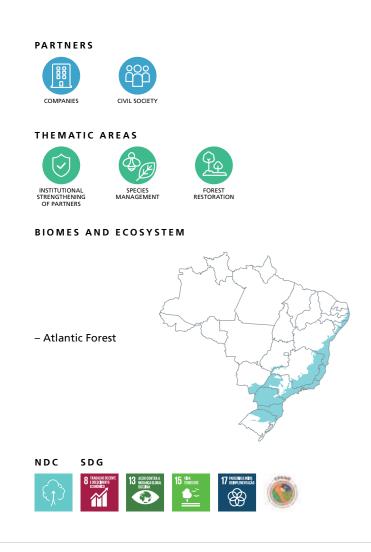
The golden lion tamarin is an endemic primate species in the region — in other words, it only exists in this area of the São João River watershed and nowhere else on the planet. Special care was planned to combine conservation, scientific research, and visitor access. The property, acquired by *Mico-Leão-Dourado* (Golden Lion Tamarin) Association (AMLD, the acronym in Portuguese) with the support of an international organization, is adjacent to the Poço das Antas Biological Reserve, where historically the work of conservation of the tamarin has been carried out in partnership with ICMBio, without the possibility of public visitation, due to the category of the Protected Area (PA).

In addition to monitoring the restoration, the construction of two decks for the observation of fauna and landscape and the acquisition of equipment to support future visitation by the public were planned in this first year of support.



### GOLDEN LION TAMARIN (PHASE III)

Partnership for the Implementation of the Golden Lion Tamarin Ecological Park



The golden lion tamarin, a flagship primate for fauna conservation in Brazil, receives a new structure that crowns three decades of research and efforts to save it from extinction: an ecological park, inaugurated in August 2022 with the main purpose of bringing the public closer to biodiversity and showing how it is possible to connect forest fragments and rebuild the natural habitat to keep the population of the species healthy.

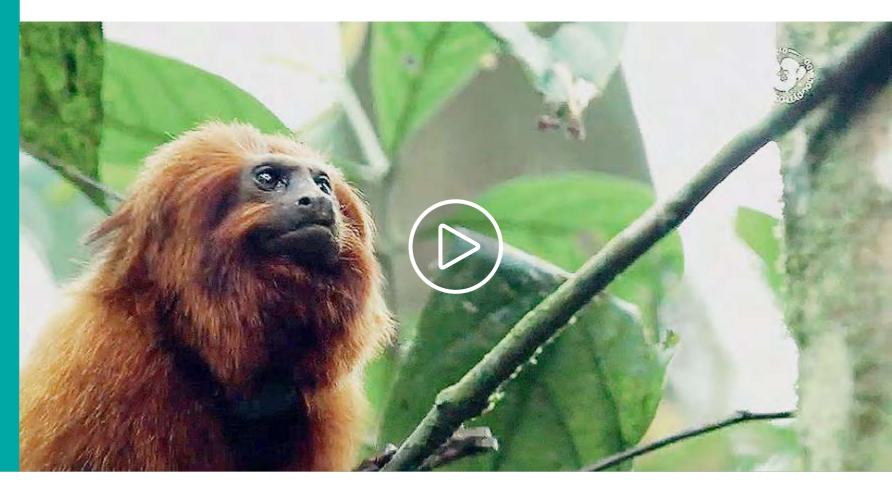
> Video presents the Golden Lion Tamarin Ecological Park



The golden lion tamarin, a flagship primate for fauna conservation in Brazil, receives a new structure that crowns three decades of research and efforts to save it from extinction: an ecological park, inaugurated in August 2022 with the main purpose of bringing the public closer to biodiversity and showing how it is possible to connect forest fragments and rebuild the natural habitat to keep the population of the species healthy.

In this second stage of support for the infrastructure and implementation of the area, lasting one year, between mid-2021 and 2022, a 15-meterhigh ecological observation

Photo: Vinicius Chavão





PROJECTS WITH GRANT FUNDING

tower was built, with a strategic view of the restored areas, which form ecological corridors up to the edges of the BR-101 highway, where a vegetated overpass was built to allow animals to travel between forest fragments and the Biological Reserve, a Protected Area with important groups of golden lion tamarins, separated by asphalt.

In preparation for the opening of the park with scheduled visitation, a video and cell phone application were produced to guide the public, in addition to training guides, purchasing equipment, and setting up a surveillance and security structure. At the same

#### **GOLDEN LION TAMARIN** (PHASE III)

time, until the end of last year, the project carried out the maintenance of existing trails and studies for opening a new one, specifically for birdwatching.

The main efforts in 2022 included the renovation of the horse stall of the old farm acquired for the implementation of the park. The site will house a cultural center, with parking, a shop, a cafeteria and rooms for events and exhibitions about the golden lion tamarin. Educational kits and children's books will also be a part of the library that will start operating in 2023. The challenge of environmental awareness and education marks the current moment of challenges surrounding the species and opens a special chapter of this success story in the Atlantic Forest.

Within the scope of the Atlantic Forest project [see page 50], carried out by the Brazilian Ministry of the Environment with funding from KFW (German Development Bank), through FUNBIO, a new restoration initiative directly tied to the golden lion tamarin was launched in 2022: forest enrichment with epiphytes. These include plants such as bromeliads and orchids where the golden lion tamarin finds water in the dry season and food such as fruits, small amphibians, insects, and spiders that live among its leaves.

The enrichment aims to increase abundance and biodiversity by introducing seedlings from four families (Araceae, Cactaceae, Bromeliaceae and *Orchidaceae*) that play an important role in the conservation and performance of the ecosystems. It is estimated that around 62,000 epiphyte seedlings will be reintroduced by nurseries that support forest restoration in the area inhabited by the primate.



Refurbishment of the old horse stall that will house the cultural center

Photos 1 and 2: Luiz Thiago de Jesus Photo 3: Duda Menegassi







Photo: Vinicius Chavão

### **A NEW PAGE** IN HISTORY

The opening event of the Golden Lion Tamarin Ecological Park to the public in 2022 marked the celebration of 30 years of work in primate conservation. In the 1980s, reduced to about 200 individuals in nature, the species reached the brink of extinction, which mobilized a program of zoos around the world for the reintroduction of tamarins bred in captivity. In 1992, the debates at Rio 92, the United Nations conference held in Rio de Janeiro, pointed to the need to create a national organization — the Mico-Leão-Dourado Association - to implement conservation efforts and remove the animal from the threatening scenario. As a result, the area of endemism in the São João Basin reached 3,700 individuals, but the yellow fever crisis in 2014 caused the number to decrease again. Today, 2,500 tamarins of this species populate 25,000 hectares of connected and protected forest fragments in the region.

### **PROJECTS WITH**

# LEGAL OBLIGATION FUNDING

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# ENVIRONMENTAL EDUCATION

Implementation of Environmental Education and Income-Generation Projects Geared Towards Promoting Environmental Quality in Fishing Communities in Rio De Janeiro State



Quality of life, mitigation of socioenvironmental impacts, institutional strengthening, and income generation in fishing communities are objectives of the Environmental Education project that gained momentum in 2022 through institutions that bring together non-formalized social organizations to train and implement initiatives locally, with greater capillarity.

Ranging from the constitution of community councils and mobilization to participate in social forums to the processing of fish, the efforts mobilized artisanal fishing organizations in different demands, on the coast of Rio de Janeiro.

After workshops for greater autonomy in drafting projects, 12 of them were contemplated with the first tranche of funding, in August 2022. The strategy of these training activities, among other aspects, is to provide capacity to improve control over the intended initiatives, enable greater understanding of how to render accounts, and greater ability to approve new resources for the continuity of projects in the long term.



12/05/22 – O GLOBO Fishing nets removed from the bottom of the sea become tote bags in Ilha Grande

Nine emergency projects for institutional strengthening and income generation in smallscale fishing communities, approved in 2021 in the context of the covid-19 pandemic, were renewed in 2022 and continued to develop efforts.

As a milestone of the Environmental Education project, a meeting brought together 150 people linked to the 24 local subprojects benefited by the initiative, to exchange synergies, challenges, and achievements, in addition to helping bring groups that fight for the same ideals closer together. As a result of the event, there was a demand

Photo: Publicity

At the seminar it became clear that this entire environmental education movement does not belong to one organization, but to many organizations. Resources are reaching those who need it, on the ground. Our project has been dreamed of for over 10 years, so this is a unique moment for our institution. We are really being heard: it is already a reality. And it's already changing our reality."

**MURILO MARINS**, Expenses coordinator of the Arraial do Cabo Multitrophic Mariculture project



Educação Ambienta

Rio de Janeiro

MPF





40 PROJECTS SUPPORTED





# **ENVIRONMENTAL EDUCATION**

for a new round of support for institutional strengthening, mainly in the thematic fields already contemplated by the funding.

In terms of community-based tourism, seven projects on the coast of Rio de Janeiro received funding in October

2022 for the development of itineraries, management training, and dissemination on social media, for example. In another line of action, focused on valuing traditional knowledge and generating income, the **Environmental Education project** will provide support for artisanal fishing yards starting in 2023.

The most remarkable moments in the seminar were those in which we were able to dialogue with each other: we identified ourselves in many projects, and we saw that despite the diversity that exists between communities, there are also many similarities that bring us closer."

GISELLA CARNOT, CASCA project coordinator

We met a lot of people, chatted, shared experiences, all of this in a horizontal environment. These connections between the projects are very important for us to understand that the environmental problem is not just something faced in Angra dos Reis, Búzios, Guanabara Bay: it is something systemic. It's no use for my project alone to have countless achievements because that will be a drop in the ocean. Building and strengthening this network is essential so that efforts are not carried out in a fragmented way: we need to act in an integrated manner!"

GIOVANE DO NASCIMENTO, coordinator of the Guardians of Fisheries Traditions project

# nunity of Saracuruna. 5: Andresa Barros Community of Itaipu. Photo: Hélia Espinoza

# **MUSSEL ASPIRATIONS**

One of the income generating activities is mariculture. In Arraial do Cabo, a municipality in the Região dos Lagos (Rio de Janeiro), biologist Paulo Henrique Cordeiro, born into a family of fisherfolk, carries out the old plan to apply innovations and have a marine farm for collective use by the community. Faced with the continuous reduction in the number of fish in fisheries, production in tanks and floating structures has been a way to generate income for traditional communities, in addition to tourism.

In the Lagos em Ação project, supported by the Environmental Education project, funds were raised to assemble and operate the structure with a production raft, diving material, and other equipment, which began operating in August 2022 With an initial focus on the

cultivation of mussels using matrices collected from natural banks, the long-term strategy is to work with a consortium of organisms that includes fish, oysters, scallops, and algae rich in nutrients for the cosmetics industry.

The initiative directly and indirectly benefits thirty families in the Marine Extractive Reserve (RESEX) of Arraial do Cabo within a new productive culture that overcomes barriers in logistics and social organization, avoiding waste and other negative environmental impacts. According to biologist Matheus Eugênio, a former student of Cordeiro and a member of the project, the goal is also to explore the educational aspect of the floating structure with activities at schools in the region, as well as train new mariculturists.

# **ENGAGEMENT OF WOMEN**

In Arraial do Cabo, the Cooperative of Native Women, a reference on the role of fisherwomen, shellfish gatherers, pickers, shellers, fillet makers, menders, and sellers in the national smallscale fisheries production chain, helps find solutions for fisheries challenges. The collective initiative, created to strengthen role of women in the activity, worked on fish processing, producing seafood kibbeh, meatballs, and nuggets sold to bars and restaurants. Later on, to increase income, the group began to provide ready-to-eat food for tourists in the summer.

The onset of the pandemic almost interrupted the dream, but the women did not give up and acquired emergency support from the Environmental Education project to guarantee their livelihood and expand the productive structure of



the cooperative under the essential sanitary conditions for the business. With 23 members, ten of whom are dedicated to fishing, the goal is to fish and process 60 kilos of fish per week, reaching an average of 18 kilos of marketable products.

With an eye on the market, the fisherwomen worked hard on a new recipe for fish croquettes, in addition to the squid and shrimp lasagna. Currently, the group is preparing to acquire the sanitary inspection seal and transmit traditional knowledge to other women through cooking workshops. It is one more step towards transforming the unfavorable reality through cooperation and collective engagement, with positive economic effects on the fishing production chain.



# MARINE **AND FISHERIES** RESEARCH

**Project to Support Marine and Fisheries** Research in the State of Rio de Janeiro



Exhibit at Cidade das Artes. Photo: Mariana Taverez

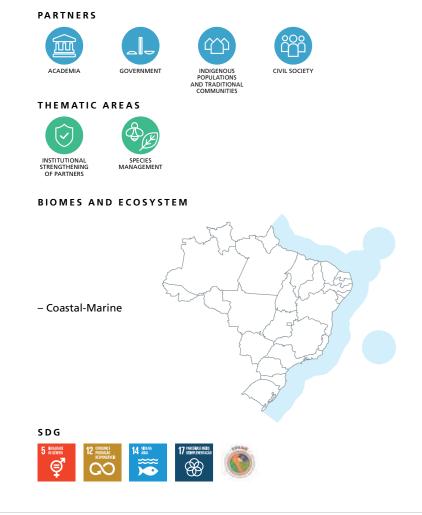
Guapirimim River that flows within the limits of the Environmental Protection Area (APA) of the same name. Photo: Projeto Guanamangue/Ricardo Farias

PROJECTS SUPPORTED

INSTITUTIONS **SUPPORTED** 



involving scientific







With support for the purchase of equipment and other items of research infrastructure at sea, financial contributions from CAA Frade were initially aimed at producing data on the main fishing resources in Rio de Janeiro, 17 regional initiatives.

After an additional transfer, new objectives were incorporated, which include the conservation and sustainable use of the mangrove ecosystem, in the state of Rio de Janeiro. The work brings together six scientific and socioenvironmental institutions, such as the National Commission for Strengthening Extractive Reserves and Coastal Marine Extractive Peoples (CONFREM, the acronym in Portuguese), focused on community-based organization of small-scale fisheries.

The partnership model establishes a bridge between science and ethnoecological knowledge in the mangrove regions, in order to support management plans for fauna species, such as the blue land crab (aka quaiamum), a species of crab, and management rules for this resource based on the expectations of fisherfolk.

In mariculture, the objective is to develop the production chain with technical assistance for the cultivation of oysters, mussels, and scallops. In October 2022, support for the Rio de Janeiro State Fisheries Institute Foundation (FIPERJ, the acronym in Portuguese) was initiated to monitor the sanitary quality needed to access markets. Small local mariculture enterprises will be selected

CONTENTS (=)

# MARINE AND FISHERIES RESEARCH

for the application of technological innovations in cultivation, in partnership with universities and research centers.

In addition to contributing to the National Museum in the reconstruction of the marine biodiversity collection, lost in the 2018 fire, the project supported the purchase of equipment to subsidize teaching and scientific research on the ship Ciência do Mar *III*, in activities carried out in the Southeast Region of Brazil for nine institutions, under the management of the Fluminense Federal University. Around 90% of the items acquired, such as probes, sonars, sensors, and an underwater robot for collecting data on the seabed, were delivered in 2022.





## SPOTLIGHT ON SEPETIBA

Resources from CAA Frade benefit the Socioenvironmental Observatory of Sepetiba Bay, which advanced in the participatory mapping and assessment of environmental conditions in real time, in the spirit of citizen-led science. With the strengthening of small-scale fisherfolk in the governance of the territory, the initiative promotes dialogue with schools and local communities via digital inclusion.

A cell phone app, developed by the project, allows the recording of photos, videos, and text messages for denunciations and geographic references, as part of a coordinated work that includes researchers and graduate students. Among the objectives is the production of an atlas on mangroves in 2023.

Faced with deforestation and water pollution as the main impact factors, the initiative coordinates a broad governance front with governments, Public Prosecutor's Offices, companies, universities, and fishing communities in an effort to reduce conflicts, resulting in the holding of the 3rd Socioenvironmental Evaluation of Sepetiba Bay Seminar in 2022. With greater visibility, the Observatory was invited to participate in the management committees of Protected Areas such as the Guaratiba Biological Reserve and the Boto Cinza Environmental Protection Area.

In November 2022, the Pesca Legal campaign was launched with ten communities, with the purpose of helping fishermen in the regularization of personal documentation and vessels, considering the existing laws and the rights of those who derive their livelihood from the sea, in the Sepetiba Bay.

Blue land crab captured for study and mussels captured in fishing activity.

Photo above: Victor Carvalho/FIPERJ

Photo below: Mexilhão Rio

## CONTAMINATED SHARKS

CAA Frade resources, within the scope of Marine and Fisheries Research, are also applied in the conservation of stingrays and sharks, exposed to threats in the coastal habitat under disturbance of human activities. In addition to being captured for food, these species are subject to contamination by chemical pollutants, with alterations and physiological damage — the subject of studies that, in 2022, generated new information on the biology of the animals and the levels of impact.

So far, more than 500 individuals of 20 species have been collected on the coast of Rio de Janeiro, with analyzes that have detected heavy metals and petroleum-derived contaminants beyond the limit for human consumption. Despite the legal prohibition, the Brazilian guitarfish, for example, is one of the most sold species and also one of the most contaminated, according to the survey. The objective of the data, which point to more contaminated species than those already known in 2021, is to support public bodies in strategies for environmental conservation and enforcement of industries and other sources of emission.

Conservation in Franciscana Management Area I

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**BIOMES AND ECOSYSTEM** 

SPECIES



The legacy of unprecedented knowledge generated by the Franciscana Conservation project is now on video, available on FunbioTube. In it, researchers who participated in the closing event, in 2022, in Curitiba, Paraná, talk about developments generated by the joint and simultaneous effort of researchers in all areas of occurrence of the species.

# IN THE PRESS

03/06/22 – MEIO DIA (TV GLOBO PR) Meeting in Curitiba discusses the conservation of an endangered dolphin species



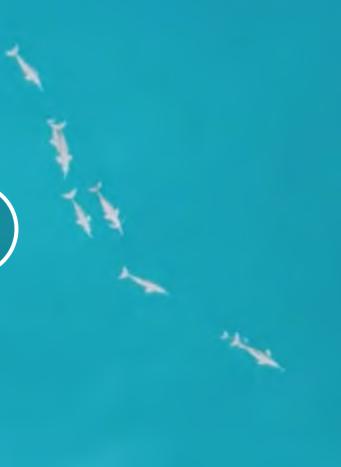
**99** 

This project allowed us to have up-to-date information about the situation of the species as a whole, in different locations, bringing information to places where we didn't have information before and also allowing us to update this data, which we had not had access to for a long time."

**PAULO OTT**, researcher at the Rio Grande do Sul Aquatic Mammals study group

Small, discreet, charming, rare — and critically endangered. The franciscana (aka La Plata dolphin), a marine mammal that only exists on the coast of Brazil, Uruguay, and Argentina, symbolizes the need to transform fisheries management towards a sustainable model. Knowing more precisely where they live and the impacts they suffer from fishing activities, with a dialogue between science, biodiversity conservation, and guaranteed income for fishing communities, is the legacy of an unprecedented research initiative — in terms of territorial size and financial resources — for the survival of the species in the country.







6 PROJECTS SUPPORTED

# THE DELICATE BEAUTY OF THE FRANCISCANA

One of the smallest cetaceans in the world, measuring approximately 1.60 m. And it has an unmistakable long and narrow "beak", more than 200 teeth and a brown color. It doesn't like jumping, like most dolphins, and it runs away from boats — that's why it's not common to see it in the sea showing off.

As a mammal, in the first months of life, the franciscana feeds on the mother's milk. Then, it learns to fish. In its adult life, its diet depends on the fishing resources of the place where it lives: shrimp, squid, and small fish. Its thin and long face, measuring almost 20% of the body, is a powerful gripper in capturing this smaller prey.

Completed in 2022, the Porpoise Conservation project integrated different actors and research carried out by the partnership between Associação Mar Brasil, the Federal University of Paraná (UFPR), and FUNBIO, with the participation of a total of 14 institutions in different areas of knowledge. The initiative is a compensatory measure established by the Conduct Adjustment Agreement under the responsibility of the company PetroRio, conducted by the Federal Public Prosecution Service – MPF/RJ.

The conclusion of activities, which began in 2015, was marked, in July 2022, by the holding of a faceto-face event to present the final results between scientific data, challenges, reflections and plans for future efforts, with the presence of about 40 researchers.

The great threat to porpoises is fishing nets and exploratory fishing activity, in addition to the systemic degradation of the marine environment. To map in more detail where they die trapped in nets, prototypes that simulate a porpoise were developed and launched into the sea to generate computational models. In this scenario, in addition to these data, the final report points out critical areas with an increase in the number of stranded porpoises due to exposure to human impacts.

Along with scientific production generating important information for the conservation of the species, the project brought proposals to strengthen fishing communities. Among the recommendations is the need for alternatives to deal with the socioenvironmental economic issue, the effectiveness of enforcement, and planning rules, in addition to the existence of government forums to build collaborative strategies.

In addition to the increase in research and dissemination efforts, we highlight, among others, new knowledge about the biological patterns of the franciscana, use of drones for analysis of the species' distribution, acoustic monitoring, and refinement of genetic analyzes and identification of contaminants as important milestones offered by the initiative.

Since its inception, the initiative has set out to bring multiple perspectives from those who live in the coastal zone and depend on these resources and sectors concerned with maintaining the biological conditions of the marine environment. In line with the challenge of communication and awareness raising, we highlight the Virtual Porpoise Museum, with real records of the species in the sea, 3D modeled images for greater interaction, and other elements that tell the history of the evolution of this animal.

In a situation of vulnerability because it inhabits marine areas very close to humans, the franciscana is on the list of endangered species in Brazilian waters — and, according to the researchers, changes in fisheries management in Brazil are a priority to reverse the situation. With the support of aerial monitoring, the surveys mapped the abundance and distribution of franciscanas in different areas of occurrence, as well as the types of fishing, gear used, fishing fleets, and other existing impacts. The work revealed unprecedented scientific data to subsidize proposals for conservation solutions. A novelty was the identification of the species in Ilha Grande Bay, in Rio de Janeiro, where there was no recorded presence.





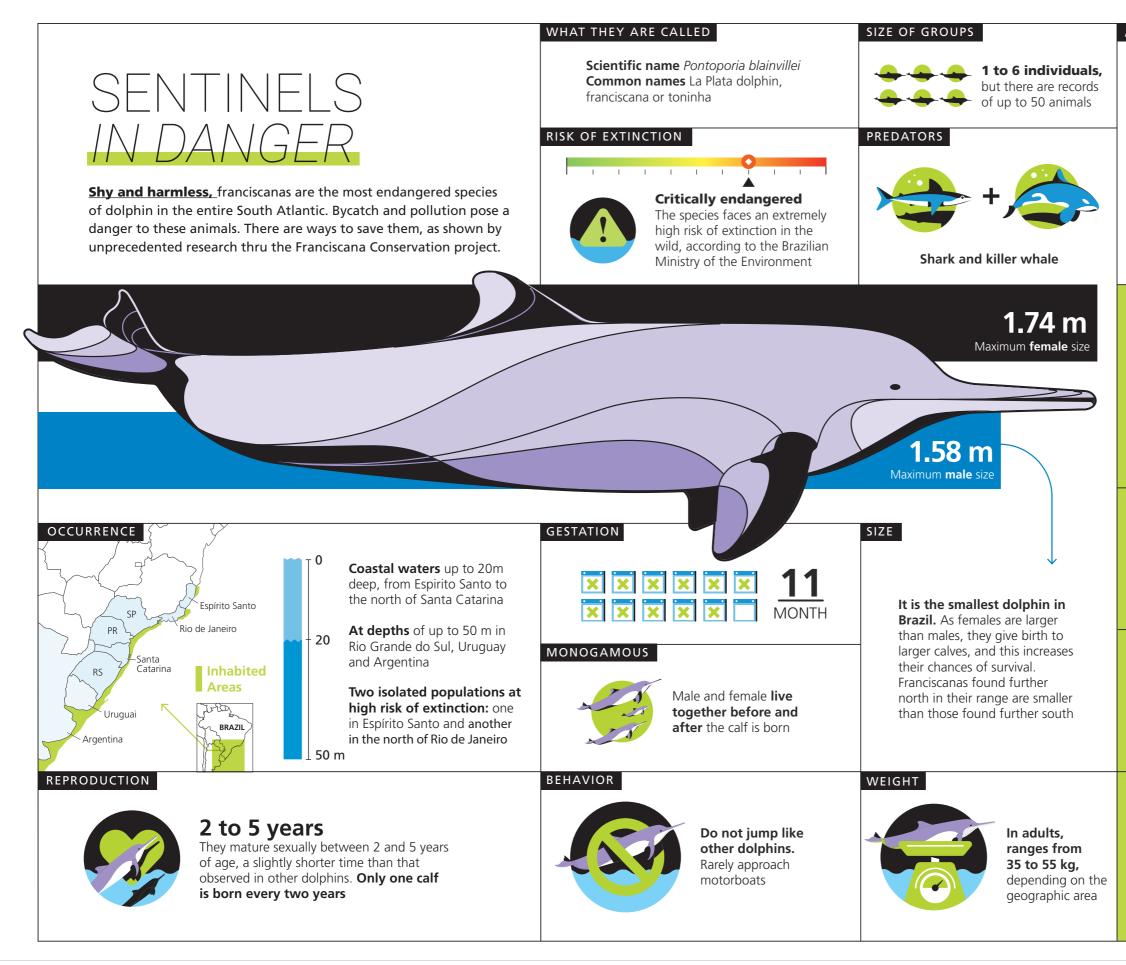






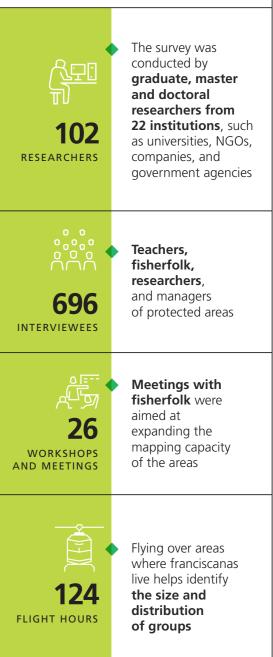
For the first time, we had projects developed throughout the porpoise distribution area in Brazil, almost simultaneously and generating important data, filling gaps in knowledge about the species."

MARTA CREMER, researcher and coordinator of the Laboratory of Ecology and Conservation of Marine and Coastal Tetrapods at Uneville and consultant at the Instituto Baleia Jubarte

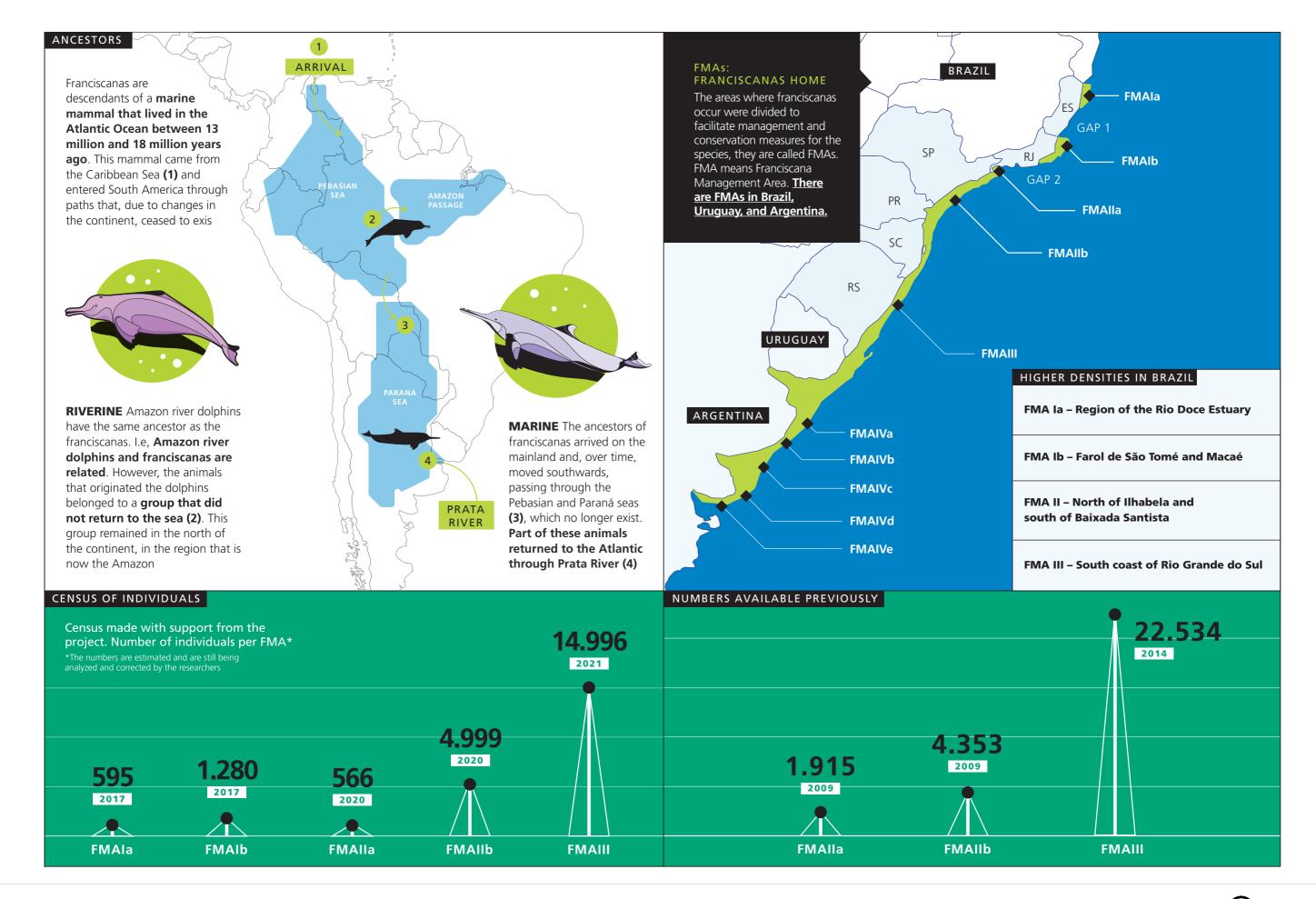


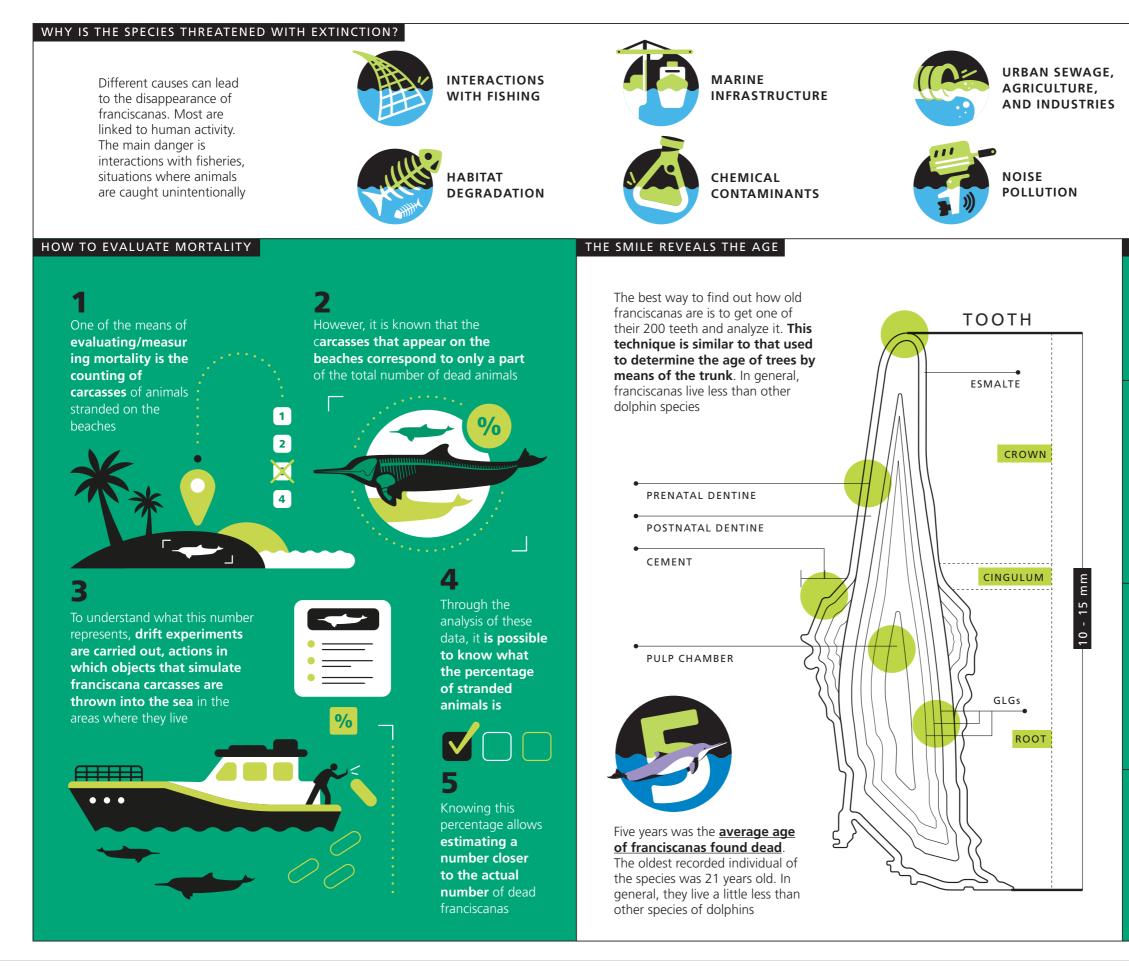
#### ABOUT THE PROJECT

For seven years, starting in 2015, the Franciscana Conservation project supported research on the life of the species and the dangers it faces. Initiatives were supported in all areas where franciscanas live in Brazil. **The project is part of the federal government's National Action Plan for Franciscanas**. Today, the population is estimated to be around 22,000 individuals













WASTE

MARINE



#### STEP BY STEP



Before being analyzed, the teeth **need to be cleaned and softened**. For this, acidic substances and formaldehyde are used



Once cleaned, **the teeth suffer tiny cuts**, made with a machine called a microtome. Each cut is between 1 and 10 micrometers. A micrometer equals a millimeter divided by a thousand. The teeth are then placed in other chemicals



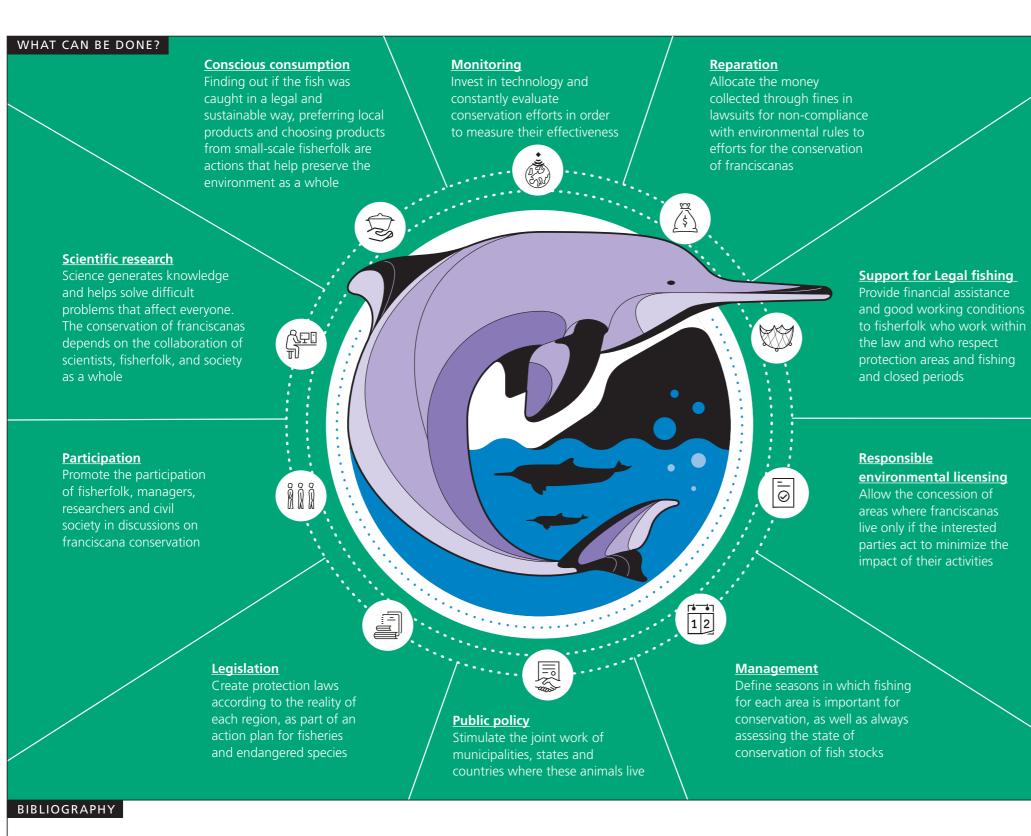
Teeth are placed under a microscope. This device allows you to observe details in tiny objects. Franciscana teeth have a series of lines. Each line equals one year of the animal's life



Data from the project revealed that most of the dead franciscanas were not of childbearing age, i.e., they were still calves or young. This makes the urgency of actions to prevent the death of these animals even greater







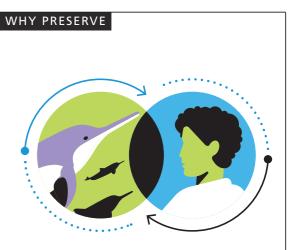
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#### Sea sentinels

Because franciscanas can live for many years, their behavior provides valuable knowledge about changes in ecosystems.



#### <u>Right to live</u>

Like humans, these animals are intelligent and sensitive beings, and have the right to a free and pain-free life

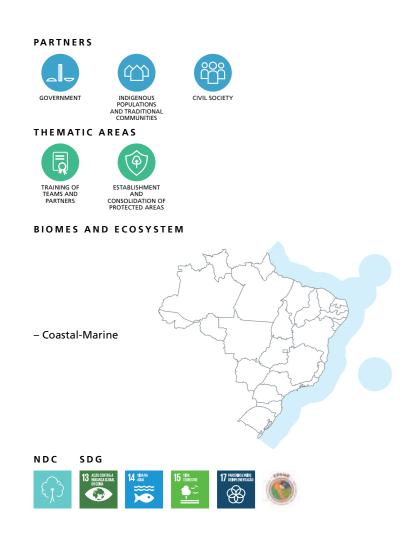


#### Diverse environment Franciscanas feed on a wide variety of animals. Their extinction would lead to an imbalance of marine life



# **SUPPORT TO PAs**

Conservation and Sustainable Use of Biodiversity at Federal Coastal and Estuarine Protected Areas in the States of Rio De Janeiro and São Paulo



Arraial do Cabo Marine Extractive Reserve. Photo: Paula Moraes/FUNBIO



**9** PAS SUPPORTED

**9** PROJECTS SUPPORTED

233 THOUSAND HECTARES

Nine Protected Areas (PAs) on the coast of Rio de Janeiro and the northern coast of São Paulo are aided by funding from the Support for PAs project for the procurement of goods and services such as consultancy, construction works, furniture, maintenance of equipment, vessels, fuel, and other essential items for field inspection logistics.



This was the case with the purchase of a 34-foot speedboat, with two 220 HP diesel engines, carried out in 2022 to support work at the Tamoios Ecological Station, in Ilha Grande Bay (Rio de Janeiro).

The vessel joins three others that operate in the PA, with the unique feature of offering comfort and safety, including for night operations, in addition to more adequate equipment for monitoring, surveillance, and support for scientific research under the geographic conditions of the region.

The strategy to support the PAs through the Conduct Adjustment Agreement (CAA) Frade also includes the purchase of property for the headquarters of RESEX Arraial do Cabo, a marine area with high tourism exploitation in coral reefs. The headquarters are needed due to conflicts of use that need constant monitoring. At the same time, the procurement of an executive project for the construction of the visitor center of the Serra da Bocaina National Park, in the region of Trindade, in Paraty (Rio de Janeiro), was initiated, in order to promote the use by tourism and improve the relationship with the local communities.

# **TAC ALSUB**

**Underwater Warehousing Conduct** Adjustment Agreement (CAA)



**BIOMES AND ECOSYSTEM** 



This project is carried out with funds from the Conduct Adjustment Agreement signed between the Federal Public Prosecutor's Office of Rio de Janeiro and Petrobras, with the intervention of FUNBIO, within the scope of Civil Investigation No. 1.30.001.000486/2019-08.

CALLS FOR PROPOSALS

**PROJECTS SUPPORTED** 

15 PAs COVERED:

**STATE (INEA)** 

FEDERAL (ICMBio)

Launched in March 2021, the Underwater Warehousing Conduct Adjustment Agreement (TAC ALSUB, the acronym in Portuguese) project is the result of a compensatory measure by Petrobras for storing disused offshore structures on the seabed in the 1990s, as determined by the Federal Public Prosecutor's Office.

With plans to continue up to 2025, the initiative has three main objectives: strengthen Protected Areas (PA) in the state of Rio de Janeiro, improve the quality of life of fishing communities and promote sustainable fishing, in addition to supporting scientific research focused on biodiversity conservation and marine pollution.

In 2022, 10 (ten) state PAs received support, which included the purchase of equipment such as drones, cameras, and speedboats for inspection and monitoring of areas. A partnership was also established to strengthen five federal PAs, which will begin receiving support in 2023.

For income generation and improving the quality of life, the project promoted workshops and mentoring for the development of initiatives proposed by grassroots institutions. In Pedra de Guaratiba, Mangaratiba, and Paraty-Mirim, efforts to encourage the digital inclusion of

Photo: Pedro Bugim

small-scale fisherfolk in the region are being carried out. In Ilha Grande, support is aimed at training the sons and daughters of fisherfolk in the practice of sailing sports. The activity incorporates notions about environmental conservation, meteorology, and other topics related to the place where they live.

Also in 2022, the project launched the Clean Ocean Network (Rede Oceano Limpo) and initiated the participatory construction of a state strategy to tackle marine litter, in partnership with the University of São Paulo. The network brings together representatives from academia, institutions with work related to the sea, and the state government, and is a participatory network in favor of the oceans.

In 2023, five universities will be selected to assess the impact of waste on endangered species, which will generate information on the challenge of marine pollution.





# **TAC CORAL-SOL**



THEMATIC AREAS

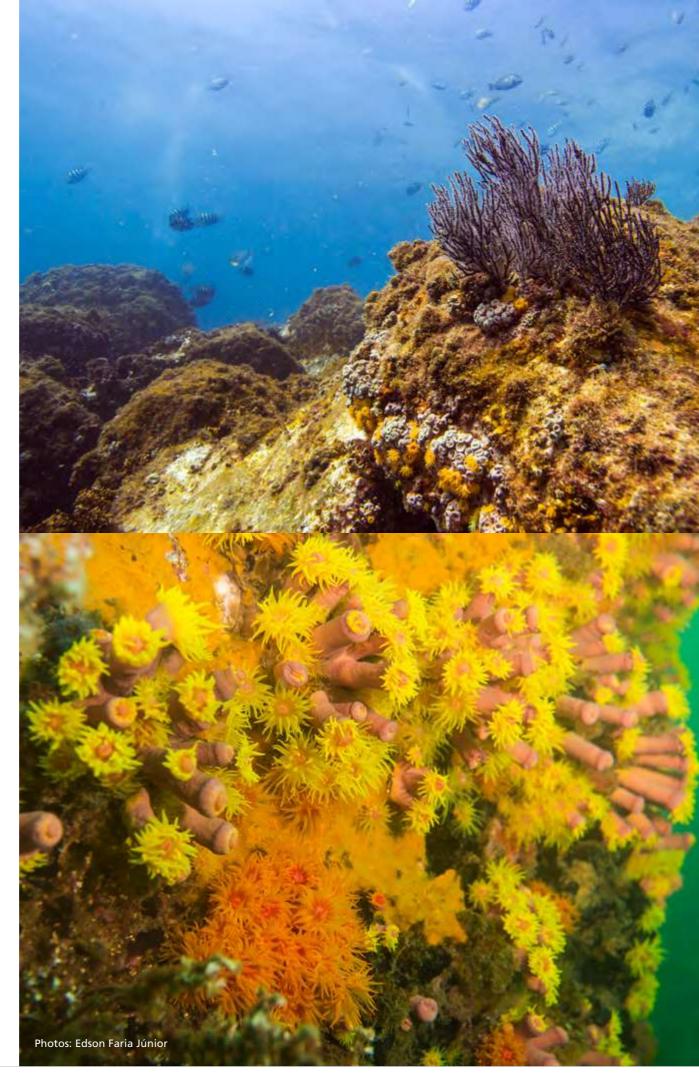


**BIOMES AND ECOSYSTEM** 



– Coastal-Marine





Coming from the Indo-Pacific Ocean region, the sun coral has two species that are found in Brazil: *Tubastraea coccinea* and *Tubastraea tagusensis*. Its first records here date back to the 1980s on an oil platform in the Campos Basin, Rio de Janeiro.

With a high capacity for reproduction and dispersion, they dominated other areas of the coast of Rio de Janeiro. Ilha Grande Bay was one of these and, in particular, areas protected by law, such as the Tamoios Ecological Station. The massive presence of the invader reduces the space available to native coral species and many end up dying, with risks to these essential ecosystems for fisheries production.

In view of the ecological and economic impacts on the coast of Rio de Janeiro, in order to assess and monitor the management dynamics of the species in the Ilha Grande region, the Sun Coral Conduct Adjustment Agreement (CAA) was signed in 2021 between the Federal Public Prosecutor's Office and five companies. It comprises two basic projects that guide all actions: the Project for the Assessment and Monitoring of the Dynamics and Management of the Sun Coral at the Tamoios Ecological Station (ESEC, the acronym in Portuguese) and the Supplementary Project for the Assessment and Monitoring of the Dynamics of the Sun Coral within the Ilha Grande Bay.

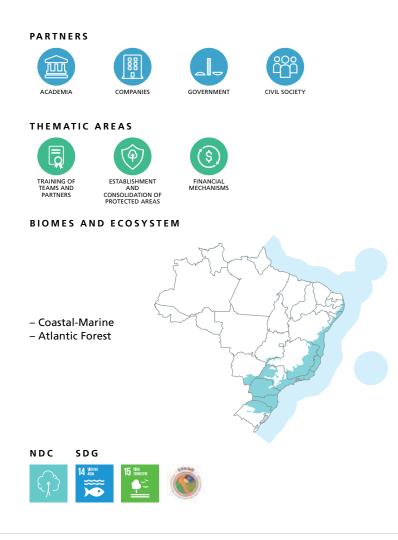
FUNBIO is the initiative's financial and operational manager. For the duration of five years, the CAA includes efforts to assess and monitor the species in question. The initiatives will contribute to understanding the behavior of the species in the region and subsidize decisionmaking in protected areas.

In 2022, the Technical-Scientific Committee was created, the highest-level technical coordination advisory and decisionmaking body for the implementation of the Sun Coral CAA. This space, with a multiplicity of specialist actors, enables the structuring of documents that are a reference in terms of quality and technical credibility to implement the planned activities.

The group's work also involves the evaluation of scientific initiatives that test the effectiveness of manual removal techniques for these undesired corals. This is the largest ongoing study in the country on these invasive species, with the aim of supporting new policies, helping with control efforts, and replicating practices in other Protected Areas along the Brazilian coast.

# TAJ PARANAGUÁ

The Biodiversity Conservation on the Paraná Coast Program





The coastal region of northern Paraná is connected to the largest continuous area of remnants of the Atlantic Forest in the country, in the vast green mosaic that includes the south of the state of São Paulo, in the region known as the "heart" of the biome, composing Ribeira Valley and Serra da Graciosa biosphere reserves. Birds fly over remnants of the Atlantic Forest. Photo: Rodrigo Torres

In Paraná territory, they are Protected Areas of various categories, such as the Guaraqueçaba Environmental Protection Area (APA, acronym in Portuguese), with its 282,000 hectares, and from Superagui National Park and its islands, totaling 21,400 hectares of forests surrounded by pressures such as urban expansion and port operations.

This is a territory of high environmental, social, and economic complexity, well known by researchers and nature lovers. The location is the scenario of conservation efforts within the Paraná Coast JAA (Judicial Adjustment Agreement), through support for the Biodiversity Conservation Program from the coast of Paraná, instituted due to an oil spill that occurred two decades ago. The main objective of the program is to structure the Paraná coastal Protected Areas, and, consequently, promote the sustainable development of local communities surrounding or within these protected areas.





Over the last 35 years, we have followed and contributed to efforts that enabled the creation of a wide range of federal Protected Areas in the Paraná State coastal region and Serra do Mar (central area of the Great Atlantic Forest Reserve). In that long period of time, we witnessed the massive challenges faced by institutions responsible for these protected natural areas to carry out management efforts consistent with their importance. The advent of Olapa JAA enables, for the first time, the contribution of substantial resources so that the required demands are duly met, within the priority parameters that have been established by a broad group of collaborators committed to the conservation of this region."

**CLOVIS BORGES**, Executive Director of the Society for Research in Wildlife and Environmental Education (SPVS), an institution represented within the Program's Deliberative Management Board

> After the elaboration of a strategic plan, made in a participatory manner and with the involvement of various local segments and actors, in 2023 the initiative will launch calls for proposals to support institutions and organizations directly involved with the theme of biodiversity conservation in the territory, seeking to strengthen joint efforts and maximize efforts to protect this important Brazilian natural heritage.

# **TCSA PORTO SUL**





South Coast of Bahia receives environmental compensation project. Photo: José Nazal Strengthening the preparation and monitoring of the territory is the main strategy to anticipate future impacts within the scope of the Socioenvironmental Consent Decree (SCD) related to the development of the Porto Sul terminal, in the region of Ilhéus (Bahia).





PROJECTS WITH LEGAL OBLIGATION FUNDING

GOVERNO

The scenario of perspectives includes the structuring of data and environmental monitoring systems for the Secretary of the Environment of the State of Bahia and the Institute for the Environment and Water Resources (Inema), with cartographic information on land use, technical notes, and other references.

In 2022, the actions initiated in 2021, such as the development and improvement of the environmental monitoring systems that subsidize the state's activities with data and infrastructure, as well as the continuous monitoring of the vegetation cover in the area of influence of the project, through monthly alerts, in Project Harpia, were strengthened. In parallel, the initiative seeks partnerships with institutions and local public agencies to support the enforcement infrastructure.

One of the measures will be the future contracting of management plans for State Protected Areas located in the region, such as the Environmental Protection Area of Lagoa Encantada and Rio Almada, which makes it possible to reconcile economic activities with environmental interests. The role of the PA, covering a total of 157,000 hectares on the southern coast of Bahia, is to protect the region's biological diversity, regulating the occupation process, and ensuring the sustainable use of natural resources, such as forests, springs, and waterfalls.

The Socioenvironmental Consent Decree Porto Sul (SCD Porto Sul) corresponds to a legal instrument resulting from the environmental licensing granted to the company Bahia Mineração S.A. (BAMIN) for the construction of the Porto Sul intermodal complex, located 14 km north of the city of Ilhéus/Bahia, in the Aritaguá Region. SCD Porto Sul, led by the Federal Public Prosecutor's Office and the State Public Prosecutor's Office of Bahia, ratified on October 17, 2019, was signed with the State of Bahia (represented by the State Secretariat for the Environment of Bahia (SEMA-BA) and the Chief of Staff Office), the mining company BAMIN, the State Institute for the Environment and Water Resources (Inema), and the Municipality of Ilhéus-Bahia. **PROJECTS WITH** 

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89 EASTERN AMAZON FUND

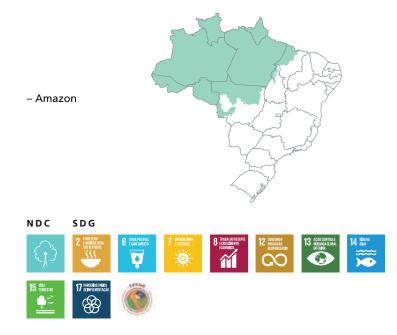


# EASTERN AMAZON FUND





#### BIOMES AND ECOSYSTEM



Rosa Lemos de Sá, Secretary General of FUNBIO, Mauro O' de Almeida, Secretary of Environment and Sustainability of Pará, and Avecita Chicchón, of the Gordon and Betty Moore, in an announcement of support for a quilombola project. Photo: Sergio Dutti/Legal Amazon Consortium

Seedling nursery in Terra Alta, Pará. Photo: Marco Santos/Agência Pará







The Eastern Amazon Fund (FAO, the Portuguese acronym), managed by FUNBIO with resources from international donations, legal obligations, and other sources, is an effective response by the State of Pará to the challenge of combating deforestation in the context of the transition to a carbon neutral economy starting in 2036.



In support of public policies in the sector, the mechanism is the conservation funding component within the scope of the Amazônia Agora (Amazon Now) State Plan, established in 2020. The platform of actions covers enforcement and licensing, territorial organization, and low-carbon socioeconomic development, with traceability of supply chains and emphasis on the recovery of degraded areas and bioeconomy. Communication and data transparency, participatory management, and information technology are transversal components that stimulate gains in scale and efficiency.

In 2022, the process of forming FAO was completed, through the creation of an operational manual, video production, and other visibility efforts for the subsequent launch of projects, made possible by the initial contribution of the Instituto Clima e Sociedade (iCS). In 2022, around BRL 30 million was raised from different sources.

One of the initial milestones was the contribution announced by the Gordon and Betty Moore Foundation at COP27 on climate, in Egypt, to support the creation of new areas, sustainable production, and the promotion of quilombola groups.

Among the actions planned is the recognition of new protected areas in the region of Portel (Pará), with the strengthening of production chains, primarily in quilombola communities and the implementation of the Sustainable Territories program, in partnership with the State Secretariat for the Environment and Sustainability (SEMAS) and the Pará Land Institute.

In addition, FAO had the support of funding from a Conduct Adjustment Agreement (CAA) signed between the Federal Public Prosecutor's Office and JBS, as well as resources from the Extrajudicial Settlement Agreement (ESA), signed between the State Attorney General's Office do Pará (PGE-PA) and SEMAS, with the company Imerys Rio Capim Caulim S/A ("ESA Imerys"). Both agreements recognize FUNBIO as the executor of FAO.

These resources allowed FAO to move forward, with plans for a mechanism to invest in solutions for the digital transformation of SEMAS, as a response to environmental demands, such as the adaptation of producers to the Rural Environmental Registry (CAR, acronym in Portuguese) — actions that should gain momentum in 2023 through new funding for the Fund.

# GEFAGENCY FUNBIO

91 PRÓ-ESPÉCIES

ANNUAL REPORT FUNBIO - 2022



# **PRÓ-ESPÉCIES**

National Strategic Project for the Conservation of Endangered Species





The area covered by the Pro-Species Project: All Against Extinction increased from nine million to 62 million hectares, in efforts aimed at minimizing risks regarding the loss of Brazilian fauna and flora, covering a total of 290 species classified as critically endangered.



















290 SPECIES CLASSIFIED AS CRITICALLY ENDANGERED

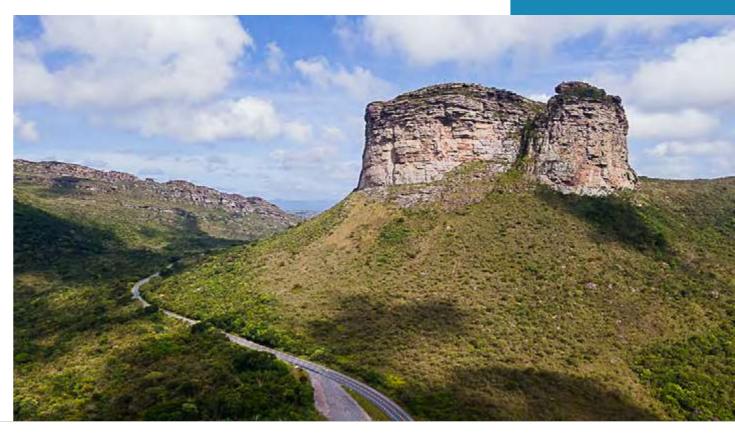


# **PRÓ-ESPÉCIES**

Species of fish of the Serrasalmidae family. Photo: Oscar Vitorino/Naturatins



Territory of Chapada Diamantina-Serra da Jiboia. Photo: Gustavo Arruda/Rastro



The increase in spatial coverage, which exceeds the initial projection by seven-fold, was possible after the conclusion of the 11 Territorial Action Plans for the Conservation of Endangered Species (TAPs), in 2022, in which the polygons and perimeters of each one of the 24 territories contemplated in the initiative, in 13 states, were detailed.

The work in the various regions, developed by the project partners, in particular the state environmental agencies, compliments the National Action Plans for the Conservation of Endangered Species (NAP) — public policy instruments that assess threats and pressures and prioritize measures against the decline of populations of certain species or their extinction. In the case of the TAPs, at the local level, implementation provides for different strategies according to the degree of risk, such as environmental education, fire management, dissemination, and other specific conservation efforts.

In 2022 the TAP Chapada Diamantina-Serra da Jiboia, for example, coordinated by the Environment and Water Resources Institute of Bahia (Inema), promoted the workshop "Sustainable Ethical Cuisine" with rural settlements in the municipality of Itaeté (Bahia). In the search for food security, the objective was to guide groups of women in new recipes based on what they find in their backyards — such as jackfruit "meat" and Brazil nut "milk" — in line with the vegan market.

The TAP Campanha Sul and Serra do Sudeste held a course in Caçapava do Sul (Rio Grande do Sul) on the cultivation of cacti as a way to raise awareness of the conservation of the species, whose collection in nature as a "souvenir" or source of income is a vector of threat to the remnants of native vegetation in the region.

In addition to evaluating fauna and flora species in terms of conservation conditions and risks of habitat loss, the Pro-Species project supports measures to combat trafficking and illegal extraction of biodiversity, as well as monitoring invasive exotic species. With resources from the Global Fund for the Environment (GEF), the initiative is coordinated by the Brazilian Ministry of the Environment and implemented by FUNBIO, with WWF-Brazil as the executing agency. The implementation of the Pro-Species project is an important tool in the challenge and reinforces Brazilian credentials in the international debate.

In 2022, the initiative carried out the training of teams aimed at drawing up the Red Lists of threatened species, in partnership with the International Union for Conservation of Nature (IUCN) and Conservation. org. Twenty-two civil servants and collaborators from state environmental agencies were trained in the IUCN methodology for assessing the risk of extinction of species, with scientifically proven standards. This is an essential effort because, in recent years, state governments have been drawing up lists of endangered species in their territories, in compliance with federal legislation.

In parallel, with the aim of integrating and facilitating the management of information on endangered species, last year the project finalized the data standard and publication mechanisms related to biodiversity. The idea is to allow synergy between the systems and greater promptness in the analysis.







# CREDITS

#### COMMUNICATION

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**COVER** Botumirim State Park, Minas Gerais. Photo: Paulo Fernandes Scheid

PAGE 12 JANUARY Photo: Edson Faria Júnior

FEBRUARY Pedra Branca State Park/INEA. Photo: José Caldas/FUNBIO

MARCH Amazônia National Park, Pará/ ICMBio. Photo: Marizilda Cruppe/FUNBIO Parcel de Manuel Luís Marine State Park. Photo: Bio Teia Estudos Ambientais

APRIL BNDES. Photo: FUNBIO Tamarin. Photo: FUNBIO

MAY Serra da Caldas Novas State Park, Goiás. Photo: Thales do Carmo/FUNBIO

JUNE Grants. Photo: Fabrício Jerônimo Climate Dialogues. Website reproduction

JULY ARPA program Donors at the RESEX Tapajós-Arapiuns. Photo: Ana Colla Seedlings. Photo: Rodolfo Marçal/FUNBIO Shark National Museum. Photo: Museu Nacional/Divulgação

AUGUST Tamarin. Photo: Vinicius Chavão Seedlings. Photo: Rodolfo Marçal/FUNBIO SEPTEMBER Photo: FUNBIO

OCTOBER Dialogues. Photo: José Zenildo Trajano Kayapó. Photo: Dante Novaes/ FUNBIO

NOVEMBER Announcement of support from the Gordon and Betty Moore Foundation to the Eastern Amazon Fund. Photo: Sergio Dutti/Legal Amazon Consortium Announcement of the first public call for proposals of the Floresta Viva initiative at the Climate COP27, in Egypt. Photo: Publicity Açai, RESEX Chico Mendes/ ICMBio. Photo: Victor Moriyama/FUNBIO

DECEMBER Doce river basin. Renova Foundation. Photo: Bruno Correa/Nitro Histórias Visuais Photo: Isabelle Costa/FUNBIO

PAGE 29 FUNBIO Grants – Conserving the Future. Photo: Fabiane Souza

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