2018 Annual Report

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Partnership for the Conservation of Amazon Biodiversity

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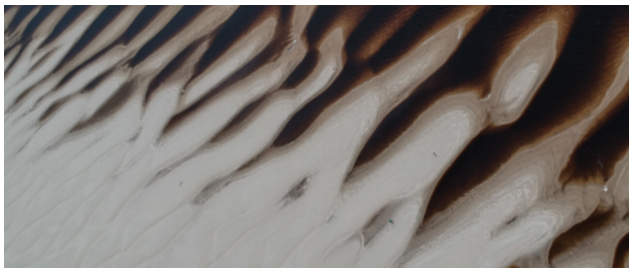


FOREWORD
TED GEHR

Photo: Juliana Nogueira

Brasilia, Brazil

Ted Gehr
Mission Representative

Partnership for the Conservation of Amazon Biodiversity (PCAB)

"USAID is proud to play a role as convener and facilitator between government, civil society and the private sector to achieve transformative results."

What we do?

The Partnership for the Conservation of Amazon Biodiversity (PCAB) represents a broad commitment between the peoples and governments of the United States and Brazil to work with communities and stakeholders in the Amazon with the aim of conserving its biodiversity for generations to come. The PCAB ended a productive 2018 on a high note hosting the historic first Amazon Biodiversity Impact Investment Forum (FIINSA, in the Portuguese acronym) late November in Manaus via the Partnership Platform for the Amazon (PPA). FIINSA was living proof of the power of partnerships, as hundreds of Amazon small businesses, dynamic start-ups, Brazilian and multinational corporations, impact investors, think tanks, NGOs and others came together with one shared goal: investing in a sustainable economic model for the Amazon and one that values the forest and its biodiversity. The event facilitated historic first-impact investments for innovative and biodiversity-supportive enterprises such as *Encauchados de Vegetais da Amazônia, Manioca, Peabiru Produtos da Floresta and Ração+*.

USAID is proud to play a role as convener and facilitator between government, civil society and the private sector to achieve transformative results. The PCAB Annual Implementing Partners Meeting, held in September, brought together the Brazilian Cooperation Agency (ABC), the Ministry of Environment (MMA), the Chico Mendes Institute for Biodiversity Conservation (ICMBio), the National Indigenous Foundation (FUNAI), along with numerous private sector and implementing partners. The event included a strategic planning

workshop to review results, identify lessons learned and best practices, build partner and local community capacities, and identify points of action.

The PCAB has much to be proud of. In 2018, it strengthened 32 protected area management plans covering 37.2 million hectares in 66 protected areas (35% on indigenous lands, and 60% on Conservation Units that support the use of sustainable resources). Sustainable livelihoods of forest-dependent communities were fortified on 22.6 million hectares, 6.5 million of which showed improved biophysical conditions. The PCAB trained 2,473 people, and at least 48% of them applied their new knowledge, technologies, methods, and processes to biodiversity conservation. A total of 348 cooperatives, associations and non-profit institutions had access to capacity building programs, and 35,545 community members saw improvements in their socioeconomic benefits from PCAB-related activities. Demonstrating long-term impact, the PCAB helped advance 20 Brazilian conservation policies and regulations and leveraged an additional US$ 4.7 million from the private sector through co-financed development for the Amazon.

Please enjoy our 2018 Annual Report and thank you for supporting conservation of the Amazon and its social, cultural, and biological diversity.

Ted Gehr
Director USAID/Brazil

Community Tiririca in the outskirts of Anavilhanas National Park

> “Collaborative implementation of PCAB’s key strategic approaches is leading to impressive results in strengthening protected area management, including within indigenous territories; developing Amazon value chains; and testing new models for private sector engagement to support sustainable economic development in the Amazon.”
>
> **Michael Eddy, Outgoing Mission Representative**

INTRODUCTION

USAID's contribution toward Brazilian biodiversity conservation goals

For five decades the United States Agency for International Development (USAID) has been an active partner in the cooperation between the United States and Brazil. In 2014, parting from its traditional assistance role, USAID/Brazil became the first Strategic Partnership Mission and has been supporting the Brazilian government in its work to conserve the Amazon's mega biodiversity under the framework of a bilateral agreement.

The Brazil - United States PCAB cooperation agreement was expanded until 2024 with a total planned commitment of US$ 80 million, due to the success of our effective and growing partnership.

With funds earmarked by the US Congress for biodiversity conservation, the PCAB supports projects and programs that stand to generate innovative models and best practices creating transformative and positive biodiversity impacts at scale, or that can be scaled and replicated in the region or even globally.

Among our success stories in 2018, we feature that of forest champion Maria Margarida da Silva, recipient of the prestigious Wangari Maathai Award. She took us on a canoe ride to her home in the northern state of Pará where, in her own words, "*the rivers are our roads*". We had a chance to see how community-led selective timber harvesting at the *Verde para Sempre* Extractive Reserve is being carried out. The timber value chain, already a reality for six communities and families, has raised selective and sustainable logging to a new level. For the first time ever, carefully managed timber harvesting processes have the potential to push out illegal logging. As a result, income levels have increased in six communities that rely on this conservation area for their livelihoods, and who serve as protectors of the land and the forest. In addition, the new model is promoting a more equitable income and benefit distribution.

On the Marajó Island, where the Amazon River meets the Atlantic Ocean and the Marine Reserve of Soure protects mangroves reaching up to 40 meters in height, a pilot management plan adapted from the US Park Service methodology has been embraced with enthusiasm by local communities. In order to spread the feeling of ownership and pride in the best practices and innovative approaches they have been implementing, local councilors involved in the initiative are studying ways to share its successes more widely with hotels, schools and libraries.

And in Anavilhanas, one of the largest freshwater archipelagos in the world, environmental interpretation has become a common expression among local sailors and boat owners, who guide tourists and offer them a glimpse of their daily lives by the Rio Negro's huge seasonal tides.

Hands-on American and Brazilian experts discuss the benefits derived from the exchange of knowledge and mutual improvement of processes and methodologies. A small entrepreneur, whose business is being incubated by the PPA, highlights the huge opportunities she has found in this partnership.

We also feature the journey of a group of ICMBio environmental analysts that have adapted a US Forest Service methodology to measure the economic contributions of tourism to Brazil's vast protected areas system. Brazilian parks are now better prepared to receive tourists attracted to its natural beauties. Parks and forests have met and exceeded ambitious targets related to public use and visitation and are thus helping to connect people and nature.

We hope that, through these field stories, it will be possible to grasp the wealth of the work developed by the wide network of PCAB partners. Their collaboration has been achieving increasingly significant results in strategic areas such as forest governance, sustainable environmental management, implementation and consolidation of protected areas, as well as the expansion of sustainable value chains and private sector partnerships.

Among existing priorities, this year gained a new focus on innovation and engagement with the private sector for sustainable socioeconomic activities with very positive results. This is now at the core of the Partnership for the Conservation of Amazon Biodiversity.

Approximately 50% of the Brazilian Amazon is under some type of conservation status. Most of these areas

Pesqueiro Beach is a fishing village of 100 families who are now investing in community based tourism.

legally support communities within or near them that rely on forest and natural resources for their livelihoods, thus enabling their sustainable use, management and production. The Brazilian Forest Code stresses and supports the maintenance of conservation areas on private land. In spite of the strong policies, deforestation is still a concern, and illegal and unsustainable activities thrive. Increasingly, new solutions are needed. The conservation of standing forests and the recovery of degraded areas require legal sustainable alternatives that rely on forests and forest resources. These must outcompete and "crowd out" illegal and unsustainable business-as-usual practices. Such economic drivers must be addressed, and the development of sustainable value chains in partnership with local communities and the private sector is a key aspect of this process.

Many companies rely on both human and natural resources in the Amazon, sourcing products and materials from the region, and increasingly recognize that their future is directly tied to the sustainability and capacity of the Amazon region, both in terms of forest, water and natural resources, as well as its people. Entrepreneurship – reflected in the growth of start-ups, small- and medium-sized businesses – is a requisite for the development of healthy, inclusive and sustainable social and economic systems. USAID/Brazil, together with its PCAB partners, supports new economic models for demand-driven sustainability where the conservation of the Amazon Forest and its biodiversity is critical to private sector supply chains, human capital and innovation opportunities.

Through the Partnership Platform of the Amazon (PPA), USAID/Brazil has been acting as a catalyst for companies willing to join forces and lead in the implementation of alternative sustainable development models in the Brazilian Legal Amazon. While it represents 61% of the country and accounts for only 8.2% of Brazil's GDP (2016)[1], eight of the nine states in the Legal Amazon have been experiencing the fastest population and economic growth in the country[2]. Initially, the PPA grew largely out of businesses based in the state of Amazonas. It attracted more than 20 members in its first year, led by 13 companies promoting the growth of start-ups aligned with conservation. It has since grown very fast with the entry of companies based in Pará.

USAID/Brazil's Private Sector Engagement Strategy includes learning from scalable and replicable models through Public-Private Partnerships (PPPs), which are also disseminated through the PPA. Coca-Cola, ABInbev, Natura (the top Brazilian cosmetics company) and Google Earth Outreach are some of the businesses engaged in those PPPs.

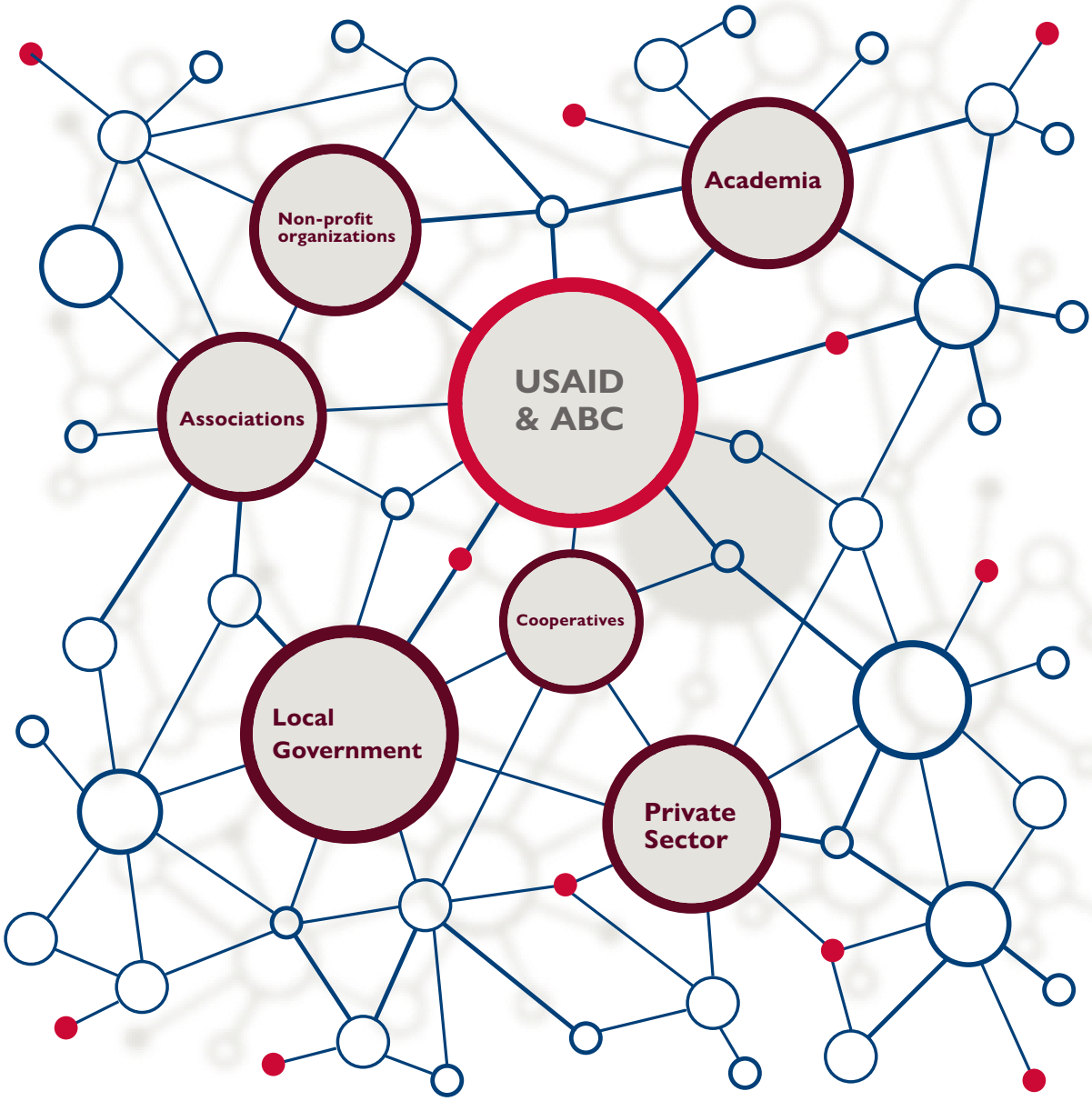
1 https://bit.ly/2TE6jum

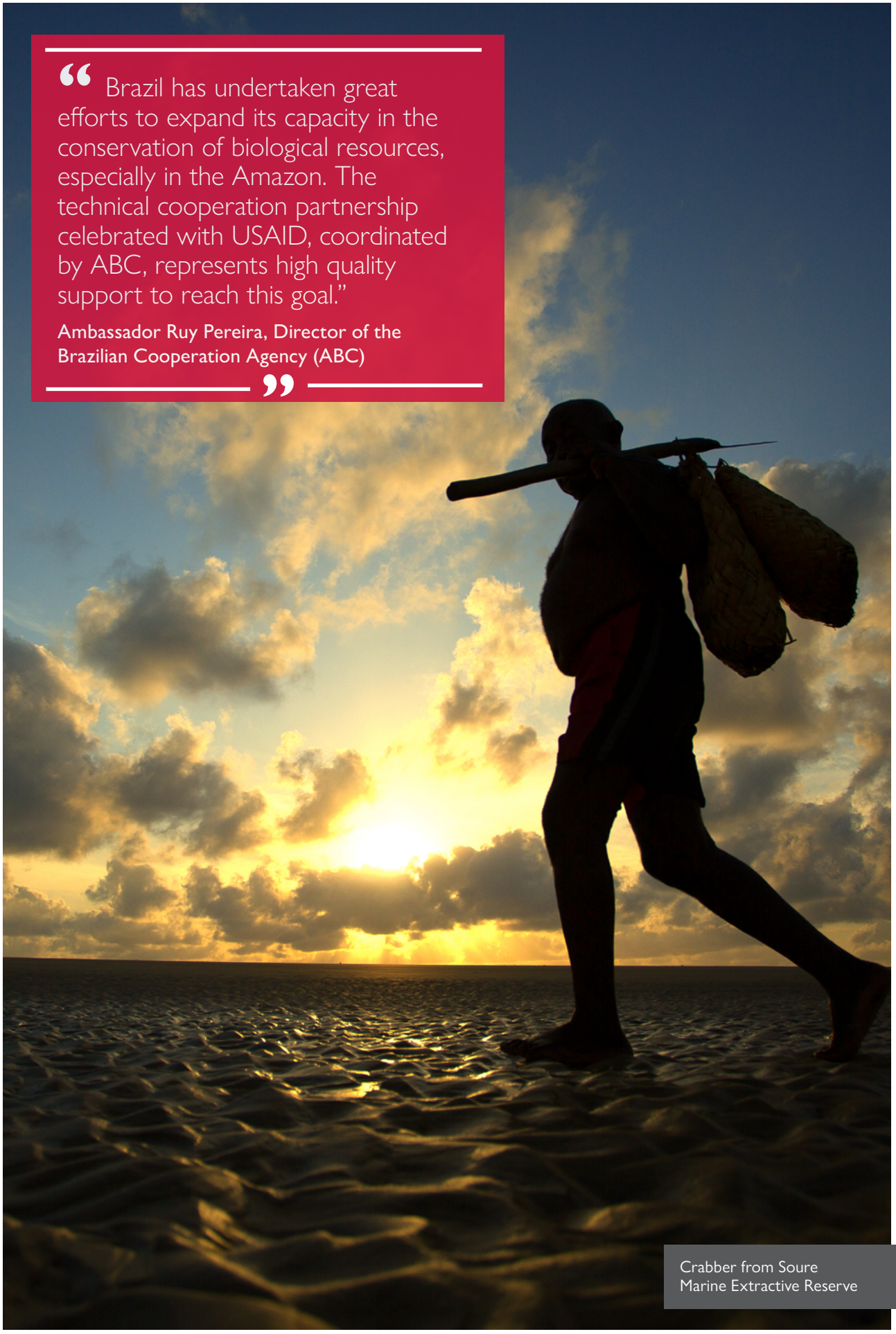
2 https://bit.ly/2VC8X4I

THE PCBA FRAMEWORK

Our complex partnership network operates in full alignment with USAID's policy. It supports Brazil's self-reliance and sustainable biodiversity conservation solutions for the Brazilian Amazon. It is coordinated by the Brazilian Cooperation Agency (ABC) and implemented by USAID/Brazil, the Brazilian Ministry of Environment (MMA), the Chico Mendes Institute for Biodiversity Conservation (ICMBio) and the National Indigenous Foundation (FUNAI). Implementing partners also include leading civil society organizations focused on conservation initiatives and the U.S. Forest Service, which provides technical assistance with the support of the National Park Service and distinguished academic institutions such as Colorado State University, the University of Montana and West Virginia University. The PCAB also relies on the private sector to lead on innovation and technology.

Several priority areas have been identified by the Brazilian government through stakeholder consultations with local communities, civil society and the private sector. PCAB activities also align with Brazil's Amazon Region Protected Areas (ARPA) conservation program (see partners on page **67**).

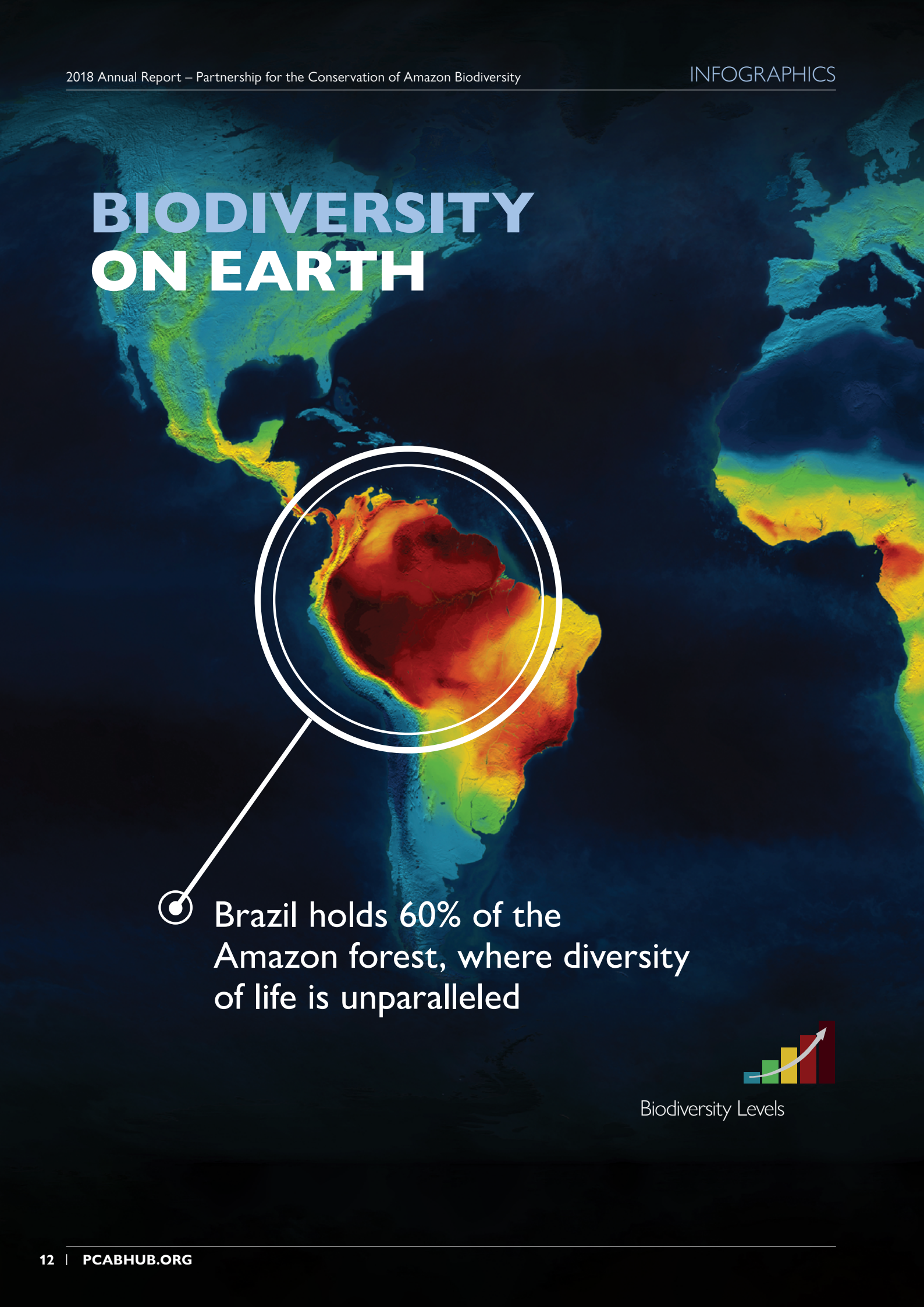




> “Brazil has undertaken great efforts to expand its capacity in the conservation of biological resources, especially in the Amazon. The technical cooperation partnership celebrated with USAID, coordinated by ABC, represents high quality support to reach this goal.”
>
> **Ambassador Ruy Pereira, Director of the Brazilian Cooperation Agency (ABC)**

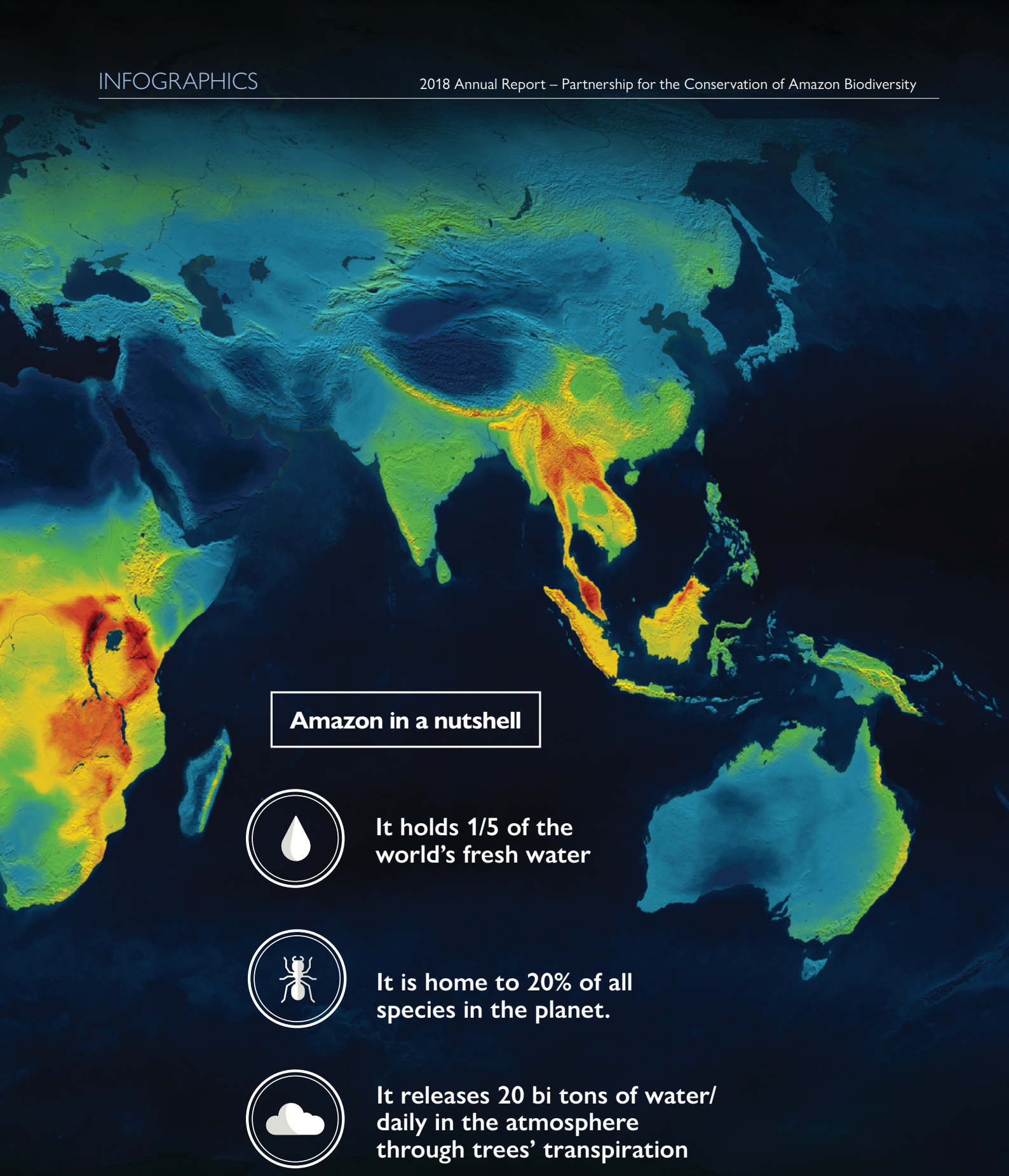
Crabber from Soure Marine Extractive Reserve

BIODIVERSITY ON EARTH



Brazil holds 60% of the Amazon forest, where diversity of life is unparalleled

Biodiversity Levels



Map Source: Globaïa, Saving Species and IUCN

OVERVIEW

Building the basis for PCAB's impacts

The PCAB aims to ensure the integrity and conservation of Brazilian Amazon ecosystems over the next 20 years and, at the same time, to improve Amazon communities' well-being and standards of living. Its four main objectives are:

Consolidation of Protected Areas: Full consolidation of Protected Areas (PAs) including Conservation Units, Indigenous Lands and *Quilombola* Territories[3] with their management, implementation, monitoring and conservation roles met;

Sustainable Value Chains and Economic Activities: Expansion of forest-based value chains and businesses that support biodiversity conservation and decrease deforestation drivers;

Private Sector Engagement (PSE): Working with private sector leaders and consortium to increase their direct engagement and investments in local communities, jointly fostering a sustainable-based economy in the Amazon;

Innovation, Science and Technology: Advancing the use of cross-cutting technology, innovations and science-based decision-making in all PCAB activities;

3 Lands bought or traditionally occupied by descendants of former slaves organized in communities called quilombos.

Goals of PCAB by 2024

20 million hectares of terrestrial and aquatic ecosystems in the Amazon demonstrating improved management and/or biophysical conditions;

50 million hectares million hectares of terrestrial and aquatic ecosystems in the Amazon reached with improved management;

10% increase of improvement in well-being of targeted communities.

PCAB's simplified Theory of Change

The PCAB's Theory of Change has been developed and improved with the active engagement and input from its partners. In order to achieve its goals, the partnership focuses on strengthening public and private institutions engaged in managing protected areas; energizing community engagement and governance with and over these areas; expanding the economic value of sustainably-managed forests and biodiversity for local communities; and building a public constituency by connecting people with natural beauty attractions within National Parks and other Protected Areas.

Promoting sustainable development inhibits illegal activities often linked to transnational criminal networks, thus contributing to regional security. Those range from illegal deforestation and mining, trafficking of wildlife and drugs.

An important aspect of this partnership is its robust monitoring, evaluation and learning components. The PCAB has standardized monitoring and reporting indicators that partners report on annually, thus ensuring sound progress assessment, accountability and performance management processes. In 2018, the PCAB offered capacity-building programs to 16 implementing partners to improve their data collection, analysis and reporting actions, as well as their use of indicators in project implementation. In addition, long term portfolio-wide evaluation and learning methodologies are being designed and implemented to capture impacts over time, as well as analyze how those impacts are being achieved.

RESULTS FRAMEWORK FOR PCAB

Purpose: To ensure the integrity and conservation of the Brazilian Amazon ecosystem over the next 20 years, with an associated high-level development objective to improve the well-being and socioeconomic status of rural communities based on sustainable economic activities in the Amazon.

Cross-cutting Result:

The use of technology, innovation, and science-based decision-making in land and PA management, public use, and sustainable economic activities is increased

Intermediate result 1

Protected Areas (PAs) are fully consolidated, meeting their management, implementation, monitoring and conservation adn development roles.

Intermediate result 2

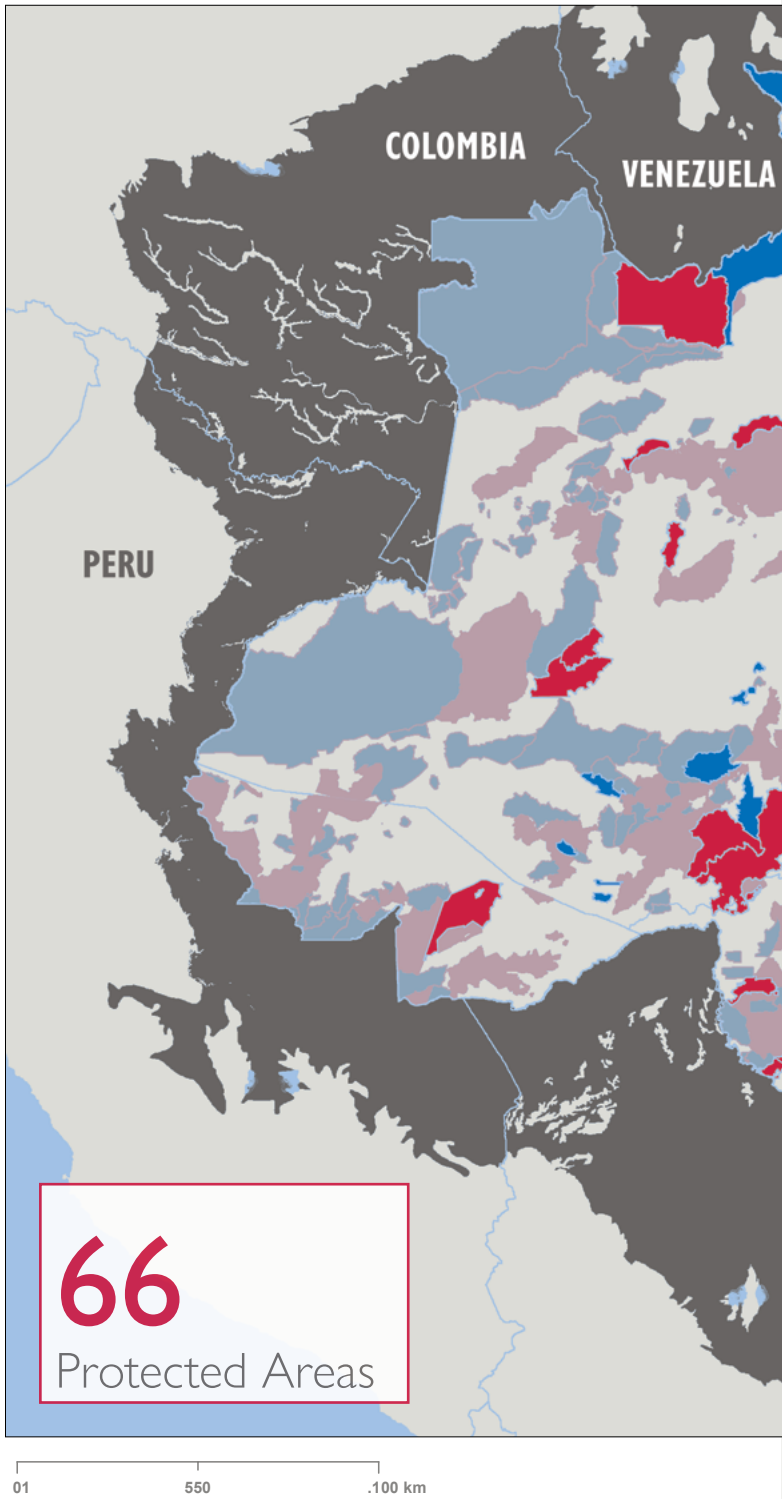
Sustainable forest- and biodiversity-based and biodiversity-friendly value chains and businesses are expanded.

Intermediate result 3

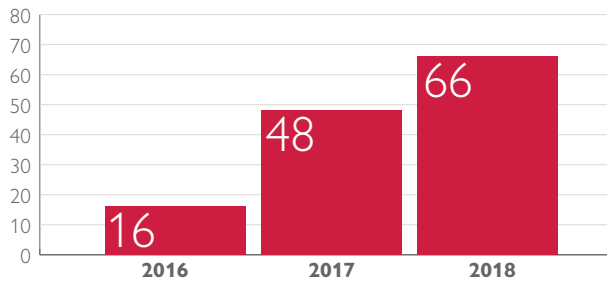
Private sector engagement that actively fosters and invests in a sustainable-based economy in the Amazon is strengthened.

Conservation Portfolio 2018

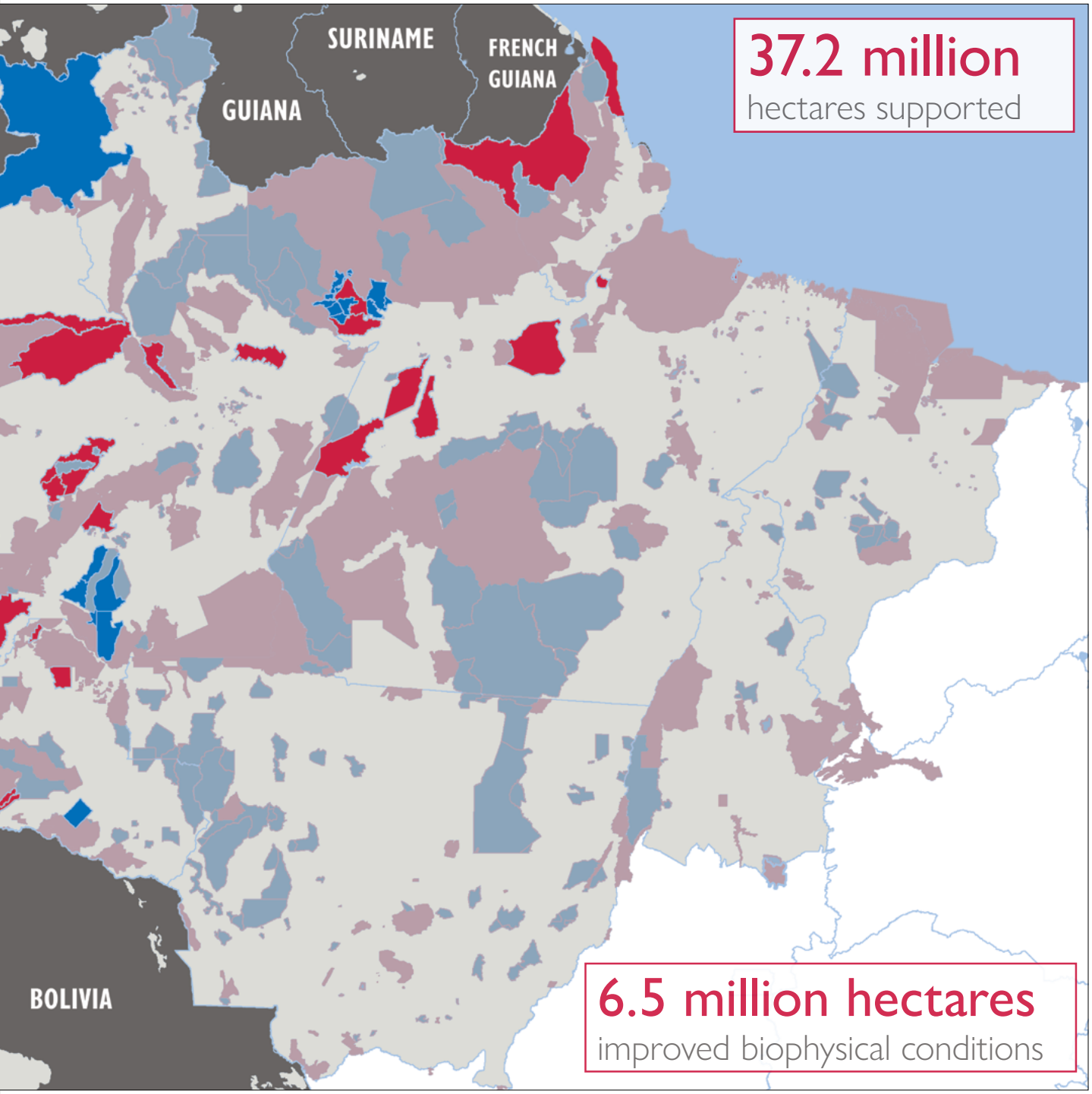
- USAID Programming in Protected Areas (Federal Conservation Units)
- USAID Programming in Indigenous Lands and Quilombola Territories
- Protected Areas (Conservation Units)
- Indigenous Lands and Quilombola Territories
- Amazon Ecoregion
- Brazilian Amazon



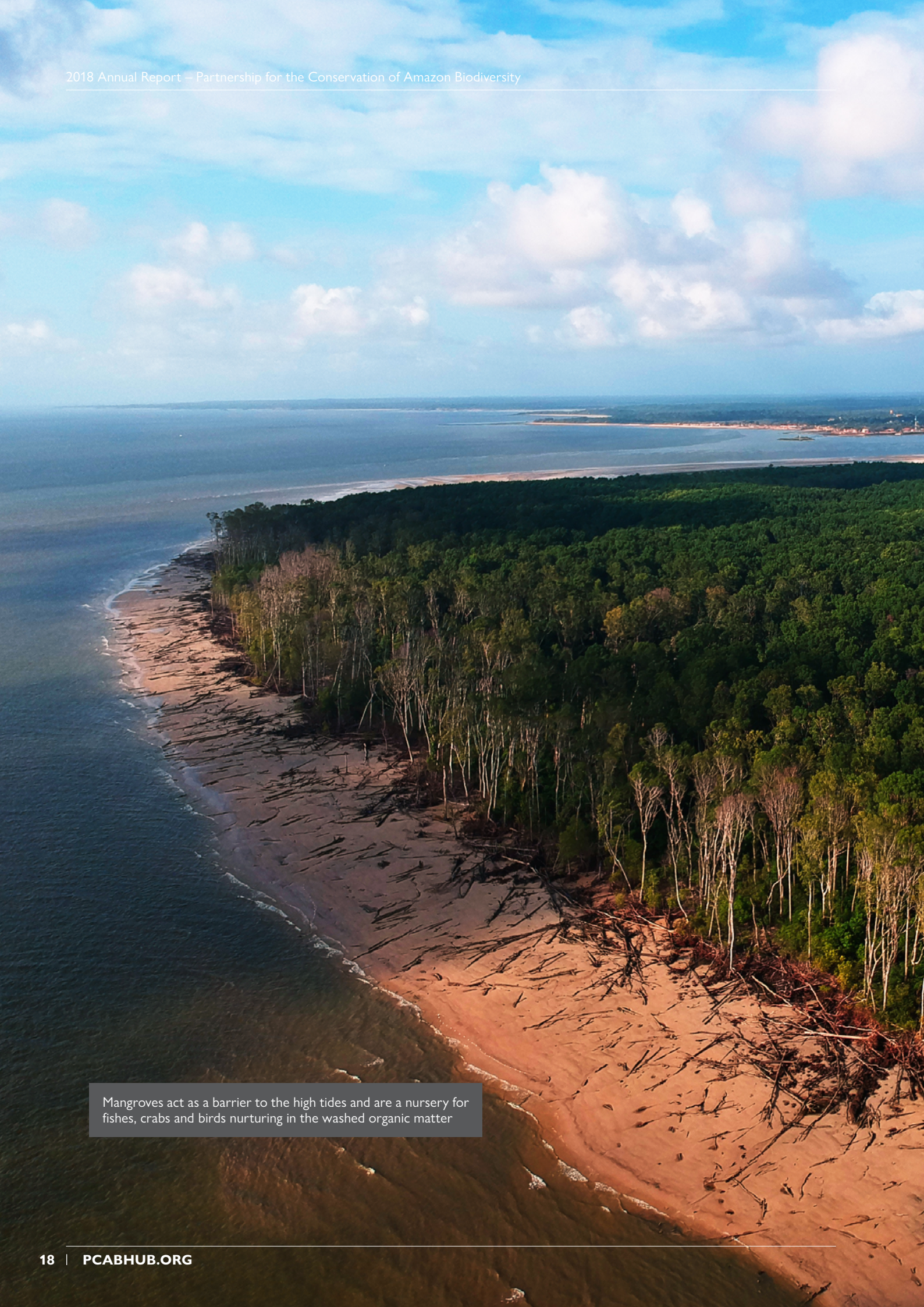
Number of PAs supported by PCAB



WHERE WE WORK



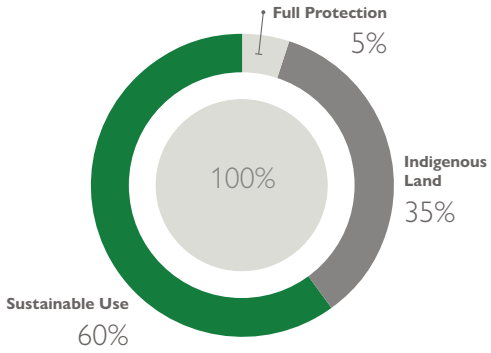
Source: Amazon Research Institute (IPAM)



Mangroves act as a barrier to the high tides and are a nursery for fishes, crabs and birds nurturing in the washed organic matter

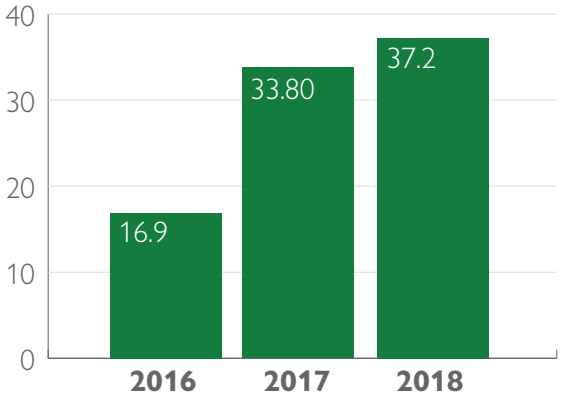
STRENGTHENING PROTECTED AREA CONSERVATION

66 Protected Areas Strengthened

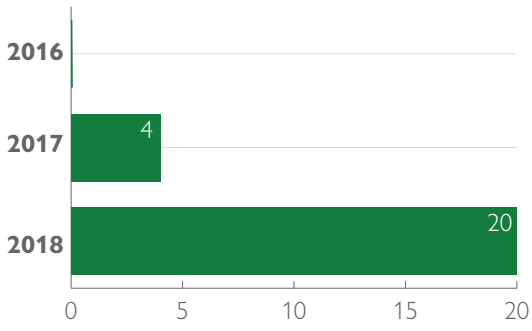


Brazil has a National System of Conservation Units (protected areas) divided in two categories: Full Protection (National Parks, Natural Monuments, Ecological Stations, Wildlife Refuge) and Sustainable Use (National Forests, Extractive Reserves, Wildlife Reserves, Sustainable Development Reserves, Environmental Protection Areas, Areas of Relevant Ecological Interest and Private Natural Heritage Reserve).

Hectares of PAs strengthened by PCAB (in million hectares)



Laws, policies, and/or regulations supported by PCAB that strengthen conservation under analysis, adopted or implemented



Brazil created 75% of all Protected Areas (PAs) in the world between 2003 and 2010. However, effectively managing such areas remains a costly challenge. Almost half of all these PAs (49%) are in the Amazon, but knowledge about their mega biodiversity remains scant[4]. Better understanding PA's resources through research and monitoring can raise awareness of the vital role they play in providing ecosystem services to society and the importance of their conservation. As an example, some 80% of the country's hydroelectric power uses water from rivers whose sources and springs are within Protected Areas; Brazil's economy relies on Amazon watersheds.

The Technical Cooperation Program signed between Brazil and the US in 2018 expanding PCAB's budget and timespan states: "In recognizing the existence of different models and experiences conducted by partner countries, the Brazilian government has identified that management of Protected Areas in the United States of America has been successful for over 200 years. The US has one of the most consolidated national conservation systems, producing economic and social benefits for their people, while conserving biodiversity, forests and ecosystems. This expertise can bring great benefits to the Brazilian government, allowing optimization of national efforts and resources, as the challenges faced by the country are very similar to those faced by the US government throughout its long system development."

During the last year, the PCAB has worked to strengthen the adoption or implementation of 20 laws, policies and/or regulations that facilitate conservation, ranging from local procurement rules for communities and smallholders to the use of royalties and environmental compensation, or to helping institutionalize biodiversity monitoring protocols and national public use and management planning policies. Methodologies developed in the US have been adapted by ICMBio to improve and promote the consolidation of social and environmental protection in Amazon PAs and rolled out nationally across Brazil's park system.

Adaptation of the Foundation Document

Back in 2016, the US Forest Service, together with Colorado State University and the National Park Service, hosted a PCAB Workshop for ICMBio staff. Several planning methodologies were presented at the time, including the *Foundation Document*, a tool used in the US to plan and manage decisions within the National Parks System describing each park's objective, significance, resources and fundamental values.

Brazilians saw the Foundation's approach as a potential solution to a problem that ICMBio had been facing and discussing for over a decade. "We did not know it, but the Foundation was exactly what we had been

"Methodologies developed in the US have been adapted by ICMBio to improve and promote the consolidation of social and environmental protection in Amazon PAs and rolled out nationally across Brazil's park system."

4 Biodiversity conservation gaps in the Brazilian protected areas (Ubirajara Oliveira and others), Nature Magazine, August 2017. https://www.nature.com/articles/s41598-017-08707-2

"In December 2017, the Ministry of Environment officially changed the Brazilian methodology. The new management planning methodology has already been applied in 10 PAs"

looking for," says Erica Coutinho, ICMBio`s Deputy Coordinator for the Design and Review of Management Plans.

Following a successful pilot in four PAs, ICMBio officially institutionalized it in 2018 as its official management plan methodology, after adjusting it to the Brazilian reality. Aimed to simplify and speed up the design of management plans, the methodology is now the standard methodology for drafting new plans and reviewing existing ones in Brazilian federal Conservation Units.

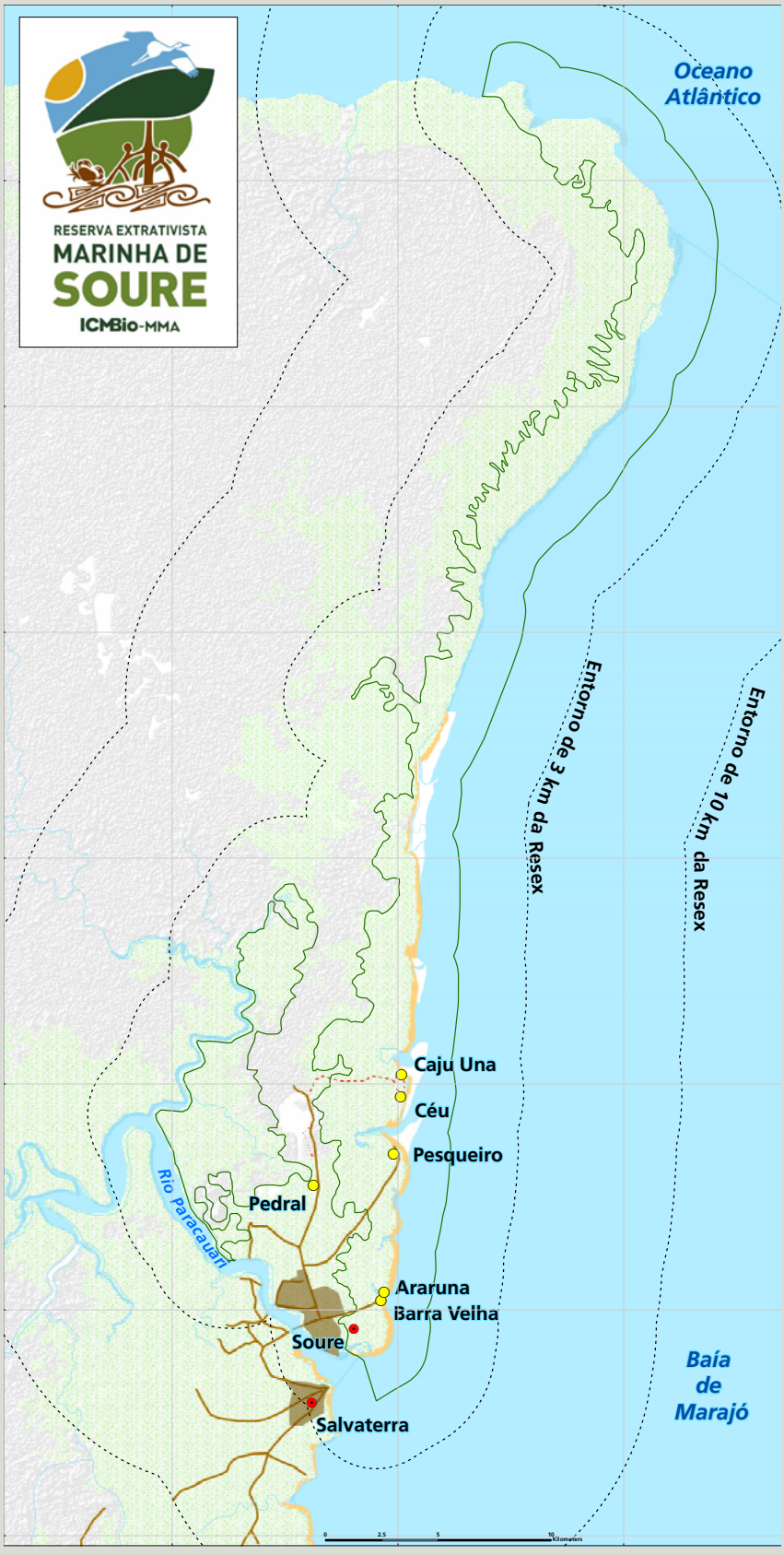
Created in 2007 to manage and monitor federal Conservation Units, ICMBio's management plans' methodology was long and complex. It included primary data collection, and extensive literature reviews, resulting in extensive documents that covered everything about a specific Conservation Units, whether needed or not. Also, for PAs that incorporate sustainable use, participatory meetings with a wide range of stakeholders was required. Designing all of these plans using the old methodology was very time-consuming, and therefore the task was often assigned to external consultants, not including local staff. The whole process could take from three to eight years and cost up to US$ 60,000.

Due to their extensive and descriptive nature, those management plans served much more as reference documents than as day-to-day working plans with priorities to be met: "Our management plans provided little connection between diagnosis and planning. They were not management guides that included actions that park managers had to implement to meet the goals set when their Conservation Units were created", adds Coutinho. As they took such a long time to be developed, the plans added pressure to Coutinho's and her team's legal obligation to review management plans every five years to be approved by the Federal Audit Office.

In December 2017, the Ministry of Environment officially changed the Brazilian methodology. The new management planning methodology has already been applied in 10 PAs. The design of management plans now take 1.5 to 2 years on average, is significantly shorter, and cost a fifth of the previous methodology. The new process has also eased the pressure on Coutinho`s team. The new management plans are working documents and establish a clear link between primary research. requirements and the availability of resources. Instead of being replaced when they age, they are now seen as guidance tools that set priorities and use real time information that is relevant to the needs of the plan itself.

Previous Management Plans	New approach based on Foundation	Advantages
Extensive descriptive diagnosis with no clear connection to actual planning.	Brief description of Conservation Unit with a focus on the analysis of its resources and values.	Prioritizes essential information in the final document, with the clear aim of planning activities and setting clear objectives.
Detailed management plan.	List of data and planning needs for the Conservation Unit, with priorities detailed according to team capacity and available resources, and comprehensive data gathering based on needs.	More strategic, dynamic and realistic plans.
Use of different methodologies and planning.	Standard methodology focused on conservation and primary values.	Improved communication about the importance of Conservation Units and more clarity about conservation objectives and how to achieve them.
Planning centralized at ICMBio's Development and Reviews of Management Plans Coordination (COMAN).	Priorities set by ICMBio`s Development and Reviews of Management Plans Coordination, and details set by other Coordinations.	More integration with institutional guidelines and priorities, and greater local participation.
Static maps	Online maps (SIG)	Geographic information that is more dynamic and continuously updated.

Source: COMAN/ICMBio



Impact in the field - Marine Extractive Reserve of Soure

Marajó is the largest fluvial island in the world. Located on the delta of the Amazon River, its name means"barrier" in the Tupi indigenous language. On the north and northeast of the Pará State island, where Marajó faces the Atlantic Ocean, sandy beaches are shaded by the tallest and richest mangrove in the Amazon, which is nourished by sediments brought in by the largest river in the world. The island and its mangroves serve as a protection from the high tides that dramatically change the landscape and can rise up to six meters.

Sea waters are fresh and muddy in the first half of the year, as the river already massive volume rises with the rains and advances out 30 km into the Atlantic Ocean, further reducing the salinity on the island's shore. From July onwards, as the dry season begins, the seawater becomes brackish, and marine fish populate the coast replacing freshwater species, which retreat into the estuary's many arms. Towards the end of the year, flocks of migrant birds arrive to spend the summer in the tropics.

Created in 2001, the Soure Marine Extractive Reserve (Resex) was the first extractive reserve to develop a management plan using the new methodology approved in August 2018.

With tall trees reaching up to 40 meters, the mangroves of Marajó Island are preserved by the Marine Extractive Reserve of Soure - the first Marine Reserve in the country.

Due to its location on the Amazon delta, this Resex is home to both river and sea species, such as the endangered and elusive manatee. Last year, a female manatee was found to have characteristics of marine and freshwater species. Giant and rare leatherback turtles – also vulnerable – lay eggs in Soure, as well as other five turtle species

Locally known as Catita, Álvaro Leal is a fisherman from the Pesqueiro beach area who volunteered to monitor endangered species sightings, including dolphins and manatees. "Manatees have a fine ear and can sense us from afar. We only catch a glimpse of them when they come up to breathe. I write down the location and the species every time I see one", he explains.

Another unique feature of the Soure Reserve is that the very crabbers who advocated for the creation of the Resex do not live within its limits. Their houses are scattered throughout nine poor neighborhoods within the town of Soure. The same happens with local artisans, who make traditional marajoara pottery from mud and resins they collect from the mangrove. Only six fishing communities live totally or partially within the reserve, including those that catch shrimp and *turu* (a popular local mollusk found on mangroves' wood). In total, 1,300 registered traditional, natural-resource dependent '*extractivista*' families live in Soure. In order to be registered, these individuals need to provide evidence of having lived in Soure for at least three years.

Besides protecting the coast against macro tides and serving as a nursery for juvenile marine life, mangroves are important due to their carbon storage and sequestration capacity. Recent studies show that mangroves can store even more carbon than rainforests.

In the 1990s, local crabbers founded an association and started campaigning against the invasion of crabbers from the mainland who used traps, as opposed to their artisanal manual crabbing methods. The reduction in crustacean populations and the evident invasion of commercial fishing on the island helped local crabbers to attract the support of universities and of the technical arm of the Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA, in the Portuguese acronym) responsible for socio-biodiversity conservation, which later became ICMBio. ▶

"There was a massive invasion of people coming from the other side of the Marajó Bay," explained Raimundo Leal, whose sons are also crabbers, and who is a former treasurer of the Soure Crabbers Association. "We look for a crab hole, bury a stick to find it inside, and bring it to the surface with our own hands." With this technique, a skilled crabber can catch from 50 to 70 crabs a day. On the other hand, "invaders would come, set hundreds of traps near the holes and then go camping, or rest all day. When a crab tried to leave its hole, it would be caught in a knot and usually get hurt. Using traps or nets, the invading crabbers could leave the mangrove with over a thousand crabs per day", said Leal. This sort of trap is forbidden in Brazil, as it does not differentiate youngsters and females.

Local crabbers do not take female crabs and have a self-imposed rule (now under the management plan) to release males measuring less than seven centimeters. Their prices are higher because of the quality and the size of their crabs. At the same time, they give smaller crabs a chance to grow.

Once the reserve was created, crabbers themselves started monitoring the area. Outsiders still prey on the northern part of the reserve, where access is more difficult. In spite of that, locals and crabbers have already noticed an increase in the number of crabs, which migrate to the beaches during their mating season. "We have divided the mangrove into four areas. We have two of more intensive use, one that is less intensive, and one that is left alone, for total preservation further north," explains Paulo Cesar Torres, president of the Crabbers Association.

Raimundo Leal at work. Venomous snakes, mosquitoes and wasps are some of the risks that crabbers are exposed to in mangrove swamps.

The 60-page management plan was drafted during a week-long workshop in Soure in 2016. The event included representatives from the Resex Deliberative Council, formed by the extractive communities, specialists and members of the municipal and state governments, as well as farmers with areas that overlap with the reserve. The workshop was mediated by staff from the National Park Service and ICMBio, and the draft was approved by ICMBio and reserve councilors.

The regulations governing different extractive activities are included in a Management Agreement negotiated a year earlier during 14 sectoral workshops with over 700 participants. The agreement is part of the Brazil Mangroves Project.

The norms provide detailed guidelines ranging from the mesh size for fishing nets to the minimum size of crabs that can be caught. It also includes rules for community-based tourism activities and

establishes exclusive areas for local residents' subsistence catch, which crabbers should avoid.

Before the reserve was established, Soure – which is in one of the richest fishing areas along the Brazilian coast – also suffered from overfishing, and some species had vanished as a result. Altino do Amaral, a retired fisherman and former councilor, feared for the end of the fishing village of Pesqueiro Beach. "In the late 1980s, it was difficult to catch enough fish even to feed our families. Many left for the cities, and only 25 families stayed".

According to Amaral, commercial fishing boats coming from other parts of Pará and even local fishermen contributed to that: "We would come back with many tons of fish, but found it difficult to sell them; we would then end up burying mountains of dead fish on the beach. Now, there is more awareness of the harm this can cause."

Catita laments that his sons will not have the chance to try some of the fish he used to catch regularly in the past. "Groupers have now disappeared, and others that used to be very common are now rare."

Even water buffaloes were added to the management plan under its tourism component. Known for their swimming skills, they were introduced on the island in the 19th century, and Marajó now holds the biggest buffalo herd in the country. Buffaloes are allowed inside the reserve as working animals. One can be seen (on a lead) at Barra Velha beach, where tourists can ride it and take photos. The same buffalo also pulls a garbage cart at Pesqueiro Beach.

"Of course, they cannot be used for milk and butter as if they were on a farm, nor are they allowed to graze in the mangroves," says Lisângela Cassiano, ICMBio's chief of the reserve. "But buffaloes are a well-known feature of Soure, and tourists come here expecting to see and ride them". In Soure, the mounted police rides buffaloes instead of horses. ICMBio is also regulating their well-being. The Barra Velha buffalo, for example, has a shaded area to rest on the beach with plenty of fresh water available.

At Barra Velha beach in the Soure Marine Reserve, it is possible to ride a buffalo. ICMBio makes sure the animal has shade, rest and plenty of fresh water.

Meeting of Soure's Extractive Reserve council

Spreading the news and the pride of being sustainable

During one of their regular gatherings at the ICMBio headquarters in Soure, councilors discuss the next steps for implementation in November 2018, less than four months after the official publication of the Soure Management Plan. Ideas abound.

Despite being so recent, the management plan is already a reality, and councilors proudly wear a T-shirt with the reserve logo that reads: "I am a councilor at the Marine Extractive Reserve of Soure".

Roberto Vasconcelos Junior, who is a pioneer for community-based tourism at Pesqueiro Beach, wants to shoot short videos and use the popular WhatsApp app to explain the basics of the management plan. Paulo Cesar Torres, president of the Crabbers Association, is looking for funding to print a banner to display at crabbers meetings. He points out that a graphic representation of crab catching regulations might be clearer than words. As crabbers usually have low levels of formal schooling, visual props might make it easier for them to refresh their knowledge and educate youngsters.

"Our Management Plan has just been published", says Cassiano, "but it has been a reality for a while. It results from an agreement among these people, and they want recognition. They want to share their sense of ownership with everyone in the municipality".

The strategy adopted by the reserve council is to publicize the management plan as widely as possible, and ensure that everyone, and not only those involved in extractive activities, abides by the regulations. "They want to take it to the Local Council, to schools, to church, to the Trade Association, to everyone that might have even a minor connection with the plan," says Cassiano. She points out that the plan's Significance Statement shows how special it is for those people.

Improving visitors' monitoring and their experience

The current head of the Soure Marine Reserve took advantage of having volunteers last year to start counting and monitoring the presence of visitors. For 10 days in July, they counted arrivals at Pesqueiro and Barra Velha beaches, which are considered the reserve's main attractions. July is high season on the island and coincides with one of its biggest events: a series of beauty contests held on both beaches and in Soure.

On the first pageant, they counted 8,000 people flocking to the beach – most of them locals. Lisângela Cassiano also noticed that, despite the large crowd, there were no garbage collection arrangements in place. She discussed this issue with the mayor and he took immediate action, providing garbage cans and deploying traffic and security personnel for the following pageant, a week later.

"I am positive that having reliable and simple evidence on which to base my arguments helped," says Lisângela Cassiano. "For me, it is a very special event, as I was raised here and have been attending the pageants with my family since I was a child."

In July, according to the data collected, Soure attracted approximately 100,000 visitors. As she had some money left in her budget, she decided to carry on with the survey. They had 15,000 visitors in August, and 17,000 in September. Previous estimates from the local police suggested annual visits attracted 150,000 people. "In one busy month we came close to the estimate for the entire year," she says. Soure ranks now as the 10th most visited Conservation Unit in the country, with 280,851 visitors in 2018. It is the only Amazon PA to make it to the top 10, possibly because it now has more accurate visitation figures.

Cassiano has also had positive feedback on the implementation of the management plan, particularly with regard to the organization and agreements with beach kiosks selling food and beverages. She noted that a simple sign placed at the entrance of one of the beaches calling for users to help with preservation helped to greatly reduce the number of fines issued the previous year.

"People from the town of Soure who visit the beach inside the reserve now tell me that they are much cleaner and better organized. It feels really good to hear that."

A sign at the entrance of Barra Velha beach asking users to help with conservation has brought down the number of fines issued.

Thiago Beraldo (left) at the National Tourism Award

Tourism as a force of change

Public use inside Conservation Units means changing attitudes, fostering respect for cultural diversity, improving livelihoods and bringing revenue to local economies.

The US-Brazil cooperation planted the seed for a publication that won the second prize in 2018's National Tourism Award under the Tourism Monitoring category: In its second edition, ICMBio' "Contributions of Tourism in Conservation Units to the Brazilian Economy", provides evidence demonstrating the positive impacts of tourism spending on the local economies.

Building on the US National Park Service's Visitor Spending Effects Model and Money Generation Model, ICMBio researchers were able to improve the methodology and estimate the tax revenues generated for municipalities and states as a consequence of the more than 10 million visits to 102 of the 335 Conservation Units under its management. This was the first publication of its kind, proving the economic value of public use.

The contribution of tourists to local economies was calculated only for non-local visitors, as the intention was to measure money spent for accommodation, food, shopping and other activities that would not otherwise be injected into local economies if the Protected Areas had not attracted those visitors.

In 2017, Brazilian National Parks hit a record 10 million visits, and overall impact at national level was calculated at R$ 8.6 billion (US$ 2.2 bi). This means R$ 3.1 billion (US$ 800,000) in gross value added to Brazil's GDP, as well as the creation or maintenance of 79,500 jobs. In addition, resulting taxes generated US$ 240 million in revenue for all three levels of government (local, state and national).

The study was led by Thiago Beraldo, ICMBio's Interim Coordinator for Business and Concessions. The award was the culmination of a long journey, as he explains:

"Back in 2009, our Head of Management told us that ICMBio was invited by the US Forest Service to an International Seminar on Protected Area Management (ISPAM). The invitation specifically required English proficiency, and I was the only candidate. I had just arrived from the Amazon, where I had been working at the Pacaás Novos National Park, in Rondônia. That park has a 100% overlap with an Indigenous Land, and I had a lot to share about my experience in the Amazon – but even more to learn from the American system.

That was prior to the PCAB; there was no cooperation program in place, a very limited relationship with the U. S. Forest Service, and no-one from the new ICMBio staff had ever attended international courses. At that time, ICMBio saw tourism from a very different perspective. There was little data monitoring, no internal capacity-building program on outdoor recreation, and virtually no-one had ever participated in exchange experiences with other countries. Back in 2008, our tourism program had only one staff based at headquarters. The following year, a coordination unit was created with five permanent members of staff. Now, we are over 20.

The logic was: we could only allow visitors to Conservation Units where plans had been fully implemented. On several occasions, local communities would support the creation of a park, but once it was created, locals would be forbidden to access waterfalls and other attractions that they used to enjoy.

Our promise was that we would acquire all the land, design a management plan, implement infrastructure and surveillance, and then open the park to visitors. However, in 2009, we had 50-year-old parks that were still closed to local people.

The ISPAM was intense and changed forever my understanding of protected area management. At the end, we were asked to develop an action plan for the following five years. I realized that ICMBio would need to invest in capacity building on outdoor recreation, since most of our staff were biologists and forest engineers. I also decided that I should return to the US to pursue a Master's degree.

I came back to Brazil with this goal, as our partnership with the Forest Service was strengthened. We decided to start from the basics. We had a very small trail system, and in 2010 Larry Lechman from Colorado University came to Brazil to run a course on trail management under the partnership. The feedback was so good that we realized it was time to start a capacity building program. Next, we ran a course on Public Use Planning and replicated both courses the following year.

"I have no doubt that the partnership represented here in the PCAB has caused a transformation in ICMBio's organizational culture and vision on tourism in protected areas." - Thiago Beraldo

It became clear that the mainstream vision at ICMBio at the time was that visitors were another exotic species that needed to be managed. Promoting tourism was seen as extra work and not always worth the effort. With a view to changing that mindset, we organized an introductory course on Tourism and Public Use, explaining basic concepts, such as destination attractions and tour packages. We were a small group, led by Ernesto Viveiros (who had managed the Serra dos Órgãos National Park), Sonia Kinker (who specialized in tourism planning), Benita Rocktaeschel and Ricardo Araújo. One of our missions was to build capacity and disseminate knowledge.

In 2012, I got the green light from ICMBio to take paid leave and pursue my studies. I was subsequently accepted for a Master's degree in Tourism, Recreation and Sports Management at the University of Florida. With a scholarship from the Brazilian government my Master's became a PhD in Ecology. When I returned in 2016, I was the first member of staff with a doctoral degree focused on tourism. That was important to internally demonstrate that tourism management is also a science, with dedicated literature, methods and tools, just like any other science applied to the management of protected areas. Now, we have another three colleagues that are pursuing Master's degrees in the area of tourism, and two who are pursuing PhDs.

In addition to the 'Contributions of PA Tourism to the Brazilian Economy', I have developed and adapted another tool for the Brazilian system, which has also been instrumental for the management and advocacy of protected areas. From the US Recreation Opportunity Spectrum (ROS), I developed a new methodology called Tourism Attractiveness Index that calculates parks' tourism potential and profiles.

In my absence, my colleagues continued to offer capacity building opportunities to a large number of staff. I believe that at least 50% of our staff have attended at least one training program under the PCAB – and some have done over 10 courses. That was key for the changes introduced in our organization. Without the cooperation, we would not have managed to carry out this work with visitation, as we would not have been able to afford bringing U.S. Forest Service, National Parks Service and academic staff to train us, nor send our staff on exchange programs and visits to the US. "I have no doubt that the partnership represented here in the PCAB has caused a transformation in ICMBio's organizational culture and vision on tourism in protected areas.

We had around one million visitors in 2002. In 2018, we reached 12 million in 119 monitored areas. The way I see it, what is happening here is similar to what happened in the US in terms of the rising number of visitors per hectare in Protected Areas. In 1920, the National Parks Service had one million visitors to PAs, and that number has increased gradually. Right now, we are where the NPS was in the 1940s. But thanks to the partnership, we are learning fast and making an incredibly positive impact on conservation, livelihoods and access to outdoor recreation."

Environmental Interpretation

"It is true that each preserved monument "speaks for itself." But unfortunately, it speaks in a language that average visitors cannot comprehend. Beauty and the majesty of natural forces need no interlocutor. They constitute a personal spiritual experience. But when the question is 'why?' or 'what?' or 'how did this come to be?' [interpreters] must have the answers. And this requires both patient research and the development of a program fitted to a great variety of needs." – Freeman Tilden/The Fifth Essence

Under the PCAB, the US Forest Service has been working alongside ICMBio to establish demonstrative sites for environmental interpretation. One of them is Anavilhanas National Park, in the state of Amazonas. Listed by Unesco as a World Heritage Site and a Biosphere Reserve, the Anavilhanas National Park became a Ramsar site (Wetland of World Importance) in 2018.

One of the Protected Areas with the greatest potential for tourist expansion in the Amazon, Anavilhanas is the second biggest river archipelago in the world: a labyrinth formed by 400 islands. The forest is flooded during part of the year, making it possible to sail among huge trees. Those waterways, known locally as *igapós*, are considered the park's main attraction. Through the year river level varies up to 12 meters. In the dry season, white sandy beaches provide a beautiful contrast with the dark and clear waters of the Negro River.

The huge changes in scenery dictate the pace of life in the forest and influence the way of life of more than 50 communities in the Lower Negro River Mosaic, as well as in Novo Airão – the town bordering the Anavilhanas Park on the banks of the river, linked by a paved road to Manaus, state capital of Amazonas. The closeness to Manaus – only 100 km away – also makes it easier to reach the park. On the whole, the mosaic formed by municipal, state and federal Conservation Units has an area of 7,5 million hectares, bigger than Denmark.

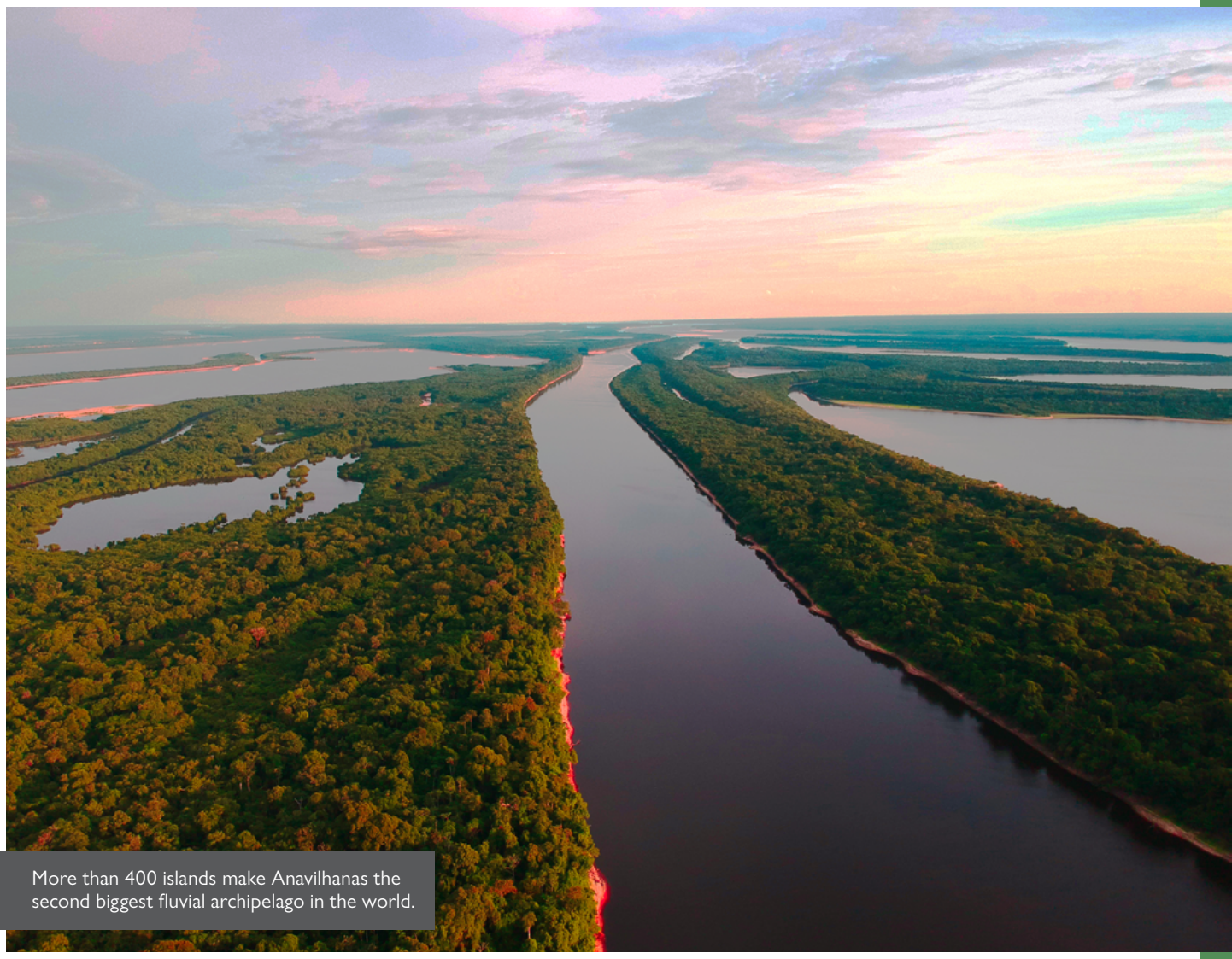
The Anavilhanas Management Plan was reviewed four years ago, prior to the introduction of the methodology designed under the PCAB, "but it is very modern from the point of view of public use planning", according to Paulo Faria, ICMBio's Coordinator for Visiting Structures and Ecotourism. ICMBio has used the US Forest Service's Recreation Opportunity Spectrum (ROS) and the Colorado State University's Recreation Opportunity Visitation in Protected Areas (ROVAP) as reference tools for its public use planning. ICMBio later adapted those methodologies and now has its own Recreation Opportunity for Visitation in Conservation Units (ROVUC) tool.

"The path that led us to our ROVUC was the public-use plan developed during that review", says Faria, adding that "it gave us a broader view of Anavilhanas ".

The review added an interpretative plan to the management plan, which was centered around activities that could be developed by the communities themselves.

The interpretative plan design involved the participation of motor boat pilots, guides, tour operators and park supporters in the region. Because of the history of how the park was created, it was fundamental to level communication with the local population about the importance and benefits of the mosaic. (see box)

Ryan Finchum, director of CSU's Center for Protected Area Management, explains that "environmental interpretation is a communication process; it is a way to build messages that can really connect us to people. It takes individuals into account, considering where they are in their lives, what matters to them, and what they understand and know. In addition, it uses techniques that help us connect with them both emotionally and intellectually, so that the information makes sense".



More than 400 islands make Anavilhanas the second biggest fluvial archipelago in the world.

Impact in the field - Anavilhanas National Park

Paula Pinheiro, an ICMBio environmental analyst based in Anavilhanas who works mainly with public use, mentions a historical conflict that caused concern since the inception of the park. "Through environmental interpretation we started to engage the local population in conservation initiatives."

A training module was offered to boat pilots and guides for two years. Suelene Couto, Manager of the U.S. Forest Service Program in Brazil, affirms that "we see the results in the way that they engage, as well as in the messages they pass on to tourists. This has changed as a result of the training we delivered".

"We need to improve communication and knowledge so that guides can convey this message of protection and the need of engaging in protection, not only to foreign visitors, but also to the local population that visit the park and its beaches", adds Pinheiro. "What we showed them was that, instead of quoting many figures or numerous names of animals and fish, if they explain that the river is a fish nursery or that the volume of the Negro River is bigger than all European rivers, visitors will understand and remember that as part of their experience here".

The PCAB is working with environmental interpretation and youth engagement more broadly in Anavilhanas. This includes working with ICMBio to develop a core team of environmental interpretation specialists: "People that are highly trained and skilled in this topic, so that we will also build sustainability into the program from the beginning.

Therefore, these 15 individuals that have been with us since the beginning of the partnership are now delivering the training on their own, and teaching us things that we did not know before, as they are putting all these ideas and information into practice", Finchum points out.

The partnership is also working with the core team and a wider group to develop interpretative plans at the level of Protected Areas to help define what Anavilhanas need to communicate, and what messages matter the most depending on the audience.

The PCAB has financed an educational video which is shown to visitors of the floating platform where they can see pink dolphins in the wild in Novo Airão; printed a folder with basic information on Anavilhanas to be distributed by boat pilots; and, in November 2018, it ran a workshop for teachers and institutions working with environmental education to develop environmental interpretation materials for youths in the surrounding communities.

"When we talk about environmental conservation, we are also talking about recognizing local culture and the socio-diversity we have here. Visitors come to see our nature, but they are also interested in our culture. They want to know how people live here. When our local people realize that visitors come from very far to find out about their home and their culture, their self-esteem rises and they become more willing to preserve what they have," says Priscila Santos, head of the Anavilhanas Park.

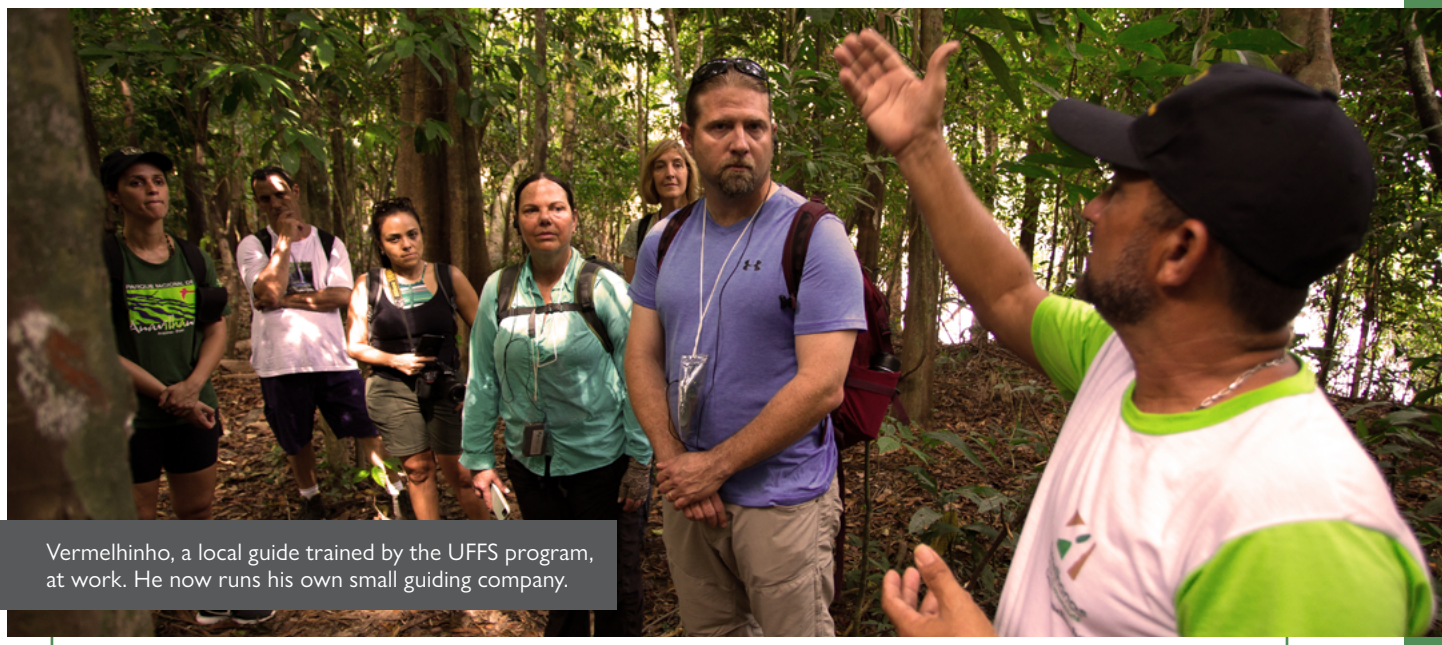
"The interpretative plan also made us look beyond what was already consolidated, such as the restructuring of the pink dolphins' floating platform and other floating platforms in Novo Airão, as well as the beaches," Farias points out.

In 2018, there was a 20% increase in the number of visitors to federal Conservation Units (12 in the Amazon). Figures for Anavilhanas are difficult to measure, as many tourists come directly from Manaus by boat, not necessarily checking in at Novo Airão. They do not expect to attract massive tourism in the future, but are starting to explore the area's true potential.

Waterway trails, canoeing, stand-up paddling and whitewater sports such as rafting are also on the radar as potential opportunities identified in the management plan that have not yet been fully implemented.

"The cooperation with USAID has helped us to realize what we need to do in order to organize some of the consolidated uses and to invest in private partnerships, even though the essence remains community-based tourism", concludes Faria.

The next steps include expanding the pilot capacity-building programs to the communities and designing teaching materials for children and youths.



Vermelhinho, a local guide trained by the UFFS program, at work. He now runs his own small guiding company.

Lessons from the past

In 1981, when the Anavilhanas National Park was created by a presidential decree, there was no previous consultation with the population. Since then, the town of Novo Airão, situated on the banks of the Negro River, has shared its beaches with the new Conservation Unit.

Up until the crisis that hit the region in the early 1990s, the local economy had revolved around timber. At the time, Novo Airão had 18,000 inhabitants and 22 boatyards producing up to 50 traditional wooden boats a year. Still, as noted in a news story published in 1993 by the now defunct *Jornal da Tarde*, although the best boatyards of the Amazon were a success story, they were unsustainable: "The main raw material and the reason for their success is *itaúba*, a tree that was once abundant in the region but has gradually become scarce. A 20-meter long boat requires 30 trees. Loggers now have to go further and further into the forest to find it." Very strong and resistant to water, *itaúba* was used by local indigenous groups to build their canoes.

The old town – known as Velho Airão – was highly dependent on latex. It was abandoned when Brazil lost the monopoly on natural rubber, and the remaining ruins are now a tourist attraction. The economy collapsed and the remaining people founded Novo Airão.

Valmir Borges Monteiro, a boat pilot, recalls that the same thing almost happened to the new town: "When boatyards started closing, their owners moved on with their lives. One has a gas station, others moved to commerce – they had capital to do so. The carpenters, the workers, those were left with nothing".

The town's population has halved to 10,000 people, and only one boatyard was still in operation in 2018.

For Monteiro, who is known as Vermelhinho, the worst of the crisis has passed: "With all the partnerships, our local economy is going back to normal. There are plenty of new restaurants, new guesthouses and hotels, jungle hotels. Tourism has become the way out."

Vermelhinho was a fisherman, became a boat pilot and now runs a small tour operator business that takes tourists to the Jaú National Park. He was considered one of the best students in the interpretation course for pilots and has plans to open his own lodge at Jaú, where he was born.

The last boatyard of Novo Airão is a reminder of the economic crisis created by unsustainable timber extraction in Anavilhanas

A logger turned tourism entrepreneur

Roberto Mendonça was a logger for over 20 years. Since 2012 he has been running a community-based guesthouse with his family in the Tumbira community at the Negro River Sustainable Development Reserve (RDS Rio Negro), which is part of the mosaic.

"I started logging when I was 12. I learned from my father, who had learned from his father." As time went by, timber became very scarce, commercial logging enterprises started imposing unfair competition, and monitoring of illegal logging escalated. "Environment protection officers made no distinction between commercial enterprises and subsistence logging," according to Mendonça. "And each year things got worse. We had our timber confiscated from our boats on the way to Manaus, sometimes even before we left the community."

At first, 10 riverine communities started to call for the creation of a sustainable reserve in order to legalize their timber trade. "I dreamed of logging legally," he admits, but the bureaucracy involved was a setback.

His first experience with tourism was when he accepted an invitation by the head of the Sustainable Amazon Foundation (FAS, in the Portuguese acronym) to take a group of visitors on a five-day tour. "For me it was a big challenge and I had to ask him what to do, and what I should say. He told me to do the exact same thing I did when I left home to log in the forest, just leaving my chainsaw behind." He took nine visitors on trails where he showed them the roots of some trees he himself had cut. He then accompanied them on a visit to neighboring communities.

Environmental education was key to shift his job from toppling to preserving trees.

Once they left, I paid the 10 helpers I had hired to assist me with various tasks and realized there was a good amount of money left. I could not believe it. In five days, I had earned more than double of what I would make logging for a month, cutting wood in the forest and carrying it – which is a heavy job," he recalls. "And I thought: Jesus! I just took a stroll through the forest, and made money with that."

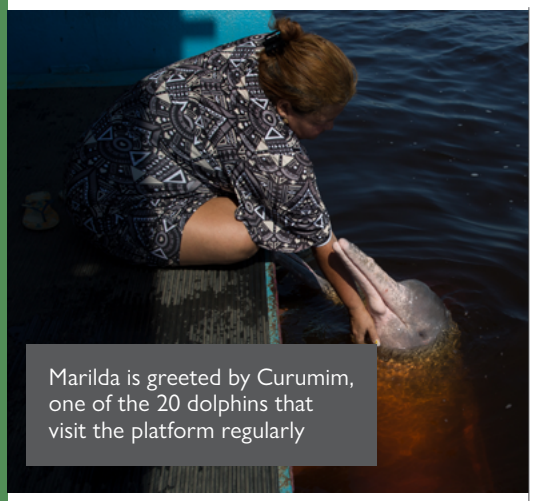
He was 34 when he retired his chainsaw and embarked on his father-in-law's project to open a guesthouse and guide tourists. "Change happens when we see results", he believes. "I could make money in a legal activity and not feel guilty about cutting the forest. I really enjoy it, as I still spend time in the forest". He also swears that once he heard an *itaúba* tree screaming when he was cutting it, and thought that it was a sign.

With a wide and friendly smile, he shows improvements in his community: now there is electricity, internet, running water, a school, and improved standards of living. He also credits these changes to the environmental education provided by government agents and non-profit institutions operating in the region. Now, if he hears a chainsaw when he is on the river, he reports it immediately to local authorities. He believes that if the park and other protected areas had not been created and logging had not been curbed, their way of life would have been compromised.

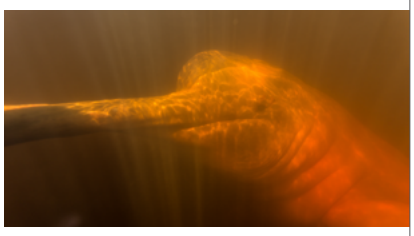
I have two young men at home: my son and my nephew Giovani. And my greatest pride is that they never had to cut a single tree to survive. Both have completed high school and have opportunities that my grandfather, my father or I never had."

Roberto Mendonça was a pionner of community based tourism in the region

"I could make money in a legal activity and not feel guilty about cutting the forest. I really enjoy it, as I still spend time in the forest", said Roberto.



Marilda is greeted by Curumim, one of the 20 dolphins that visit the platform regularly



"We need to learn how to make a living alongside nature, not killing it", said Marilda.

Pink dolphin charmer

Back in 1997, Marilda Medeiros' two daughters started feeding Amazon pink dolphins for fun from her floating restaurant in Novo Airão, docked on the shores of the Negro River. The Pink Dolphin Floating Platform soon became the main attraction of the Anavilhanas National Park, whose limits start on the left bank of the river and include the beach (and port) of Novo Airão.

Despite the number of Brazilian and foreign visitors flocking in to interact and swim with wild dolphins, her profits were meagre. Selling fish trays for clients and tourists to feed dolphins was neither easy nor lucrative. "One person would buy a tray and bring a group of 30 or 40 people", she recalls. "Sometimes there were more than a 100 people here, and we feared the platform might sink." More than once she had to call the police to manage the crowd.

Then, in 2010, Priscila Santos, head of the park, set up a community working group to plan and organize the dolphin tourism. Some of the local population resented the initiative, as they gained nothing from the popularity of the first wild dolphin attraction in the world.

Marilda's first reaction was very negative: "Holy mother! When Priscila arrived here and told me I had to change, I felt she was treating me as an outlaw, as others are feeling now. I thought: I am a born and bred Amazonian, I am Apurinã[1], and here she comes from Brasília telling me that I have to change?"

With patience and persuasion, the head of the park managed to gain her respect and even convince her that charging an entrance fee would improve her business. PCAB helped to produce an introduction film about Anavilhanas and the dolphins (sponsored by USAID and produced by ICMBio) to add an education element to the visits. It turned out that tickets were easier to sell than fish trays, and Marilda did change her business, building a new platform with guidance from park staff. To show her gratitude to Santos, Marilda even named one of the dolphins "Priscila". All of them have names and respond to her calls.

"I learned that to keep them independent and hunting for their own fish we have to limit the food provided. I also learned that they could get skin diseases from us. To be honest, we are still working to get fully compliant, but since we started changing, none of the dolphins who come to us has died".

Marilda is now in touch with entrepreneurs elsewhere in the sprawling business of "diving with Amazon dolphins". She is creating an association to share the knowledge she has gained and trying to convince others to abide by a Code of Conduct. **"For tourism to exist, we need to invest in conservation. And for that to happen, the *caboclos* (mixed-race indigenous) and white individuals, all of us need help. Because we are also part of the environment, we need to learn how to make a living alongside nature, not killing it,"** she says. This is the message she is sharing with others who also work with the endangered pink dolphin.

1 Indigenous ethnic group from the medium and lower Purus River

Dolphins floating platform framework

Before

- Visitors fed the dolphins;
- No control of food volume;
- Swimming with dolphins was allowed, risking animal abuse and accidents with people getting hurt;
- No educational information was provided;
- No limit on the number of visitors;
- No restrictions to boat traffic around the platform;

After

- Only trained staff feed the dolphins;
- Daily feed is limited to 2 kg/day per animal;
- Visitors are only allowed to sit on the platform and touch the animals on the chest if and when they jump above the water;
- Educational videos (including a short one for kids) are played to visitors before they proceed to the platform for interaction;
- Limited number of visitors;
- Boats are not allowed within 20 meters of the dolphins' floating platform.

Learning to love and respect

Safe interactions with wild animals can increase knowledge about species and their habitats and raise consciousness about the importance of conservation.

"I have asked my father to bring me here because I knew this was going to be magical. It is and my father is the best father in the world" – Laura, Borges, 9 years old/São Paulo

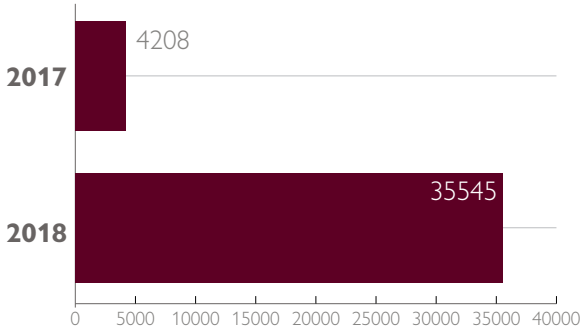
"Excellent opportunity to meet wild dolphins rather than those enclosed in so many captive pens around the world. Strict guidelines for the dolphins' safety are much appreciated." – Chris Evans (Canada)/Trip Advisor comment

"I knew it was going to be magical and it is." - Laura Borges

Fishermen of Soure Marine Reserve have agreed in the Management Plan to use nets that let small fish to escape. Compliance is monitored by their peers.

VALUE CHAIN

Number of people with socioeconomic benefits as a result of PCAB



22.6 million hectares were reached with activities that strengthen sustainable livelihoods

35,545 people saw improved socio-economic benefits from sustainable natural resource management and/or biodiversity conservation as a result of PCAB

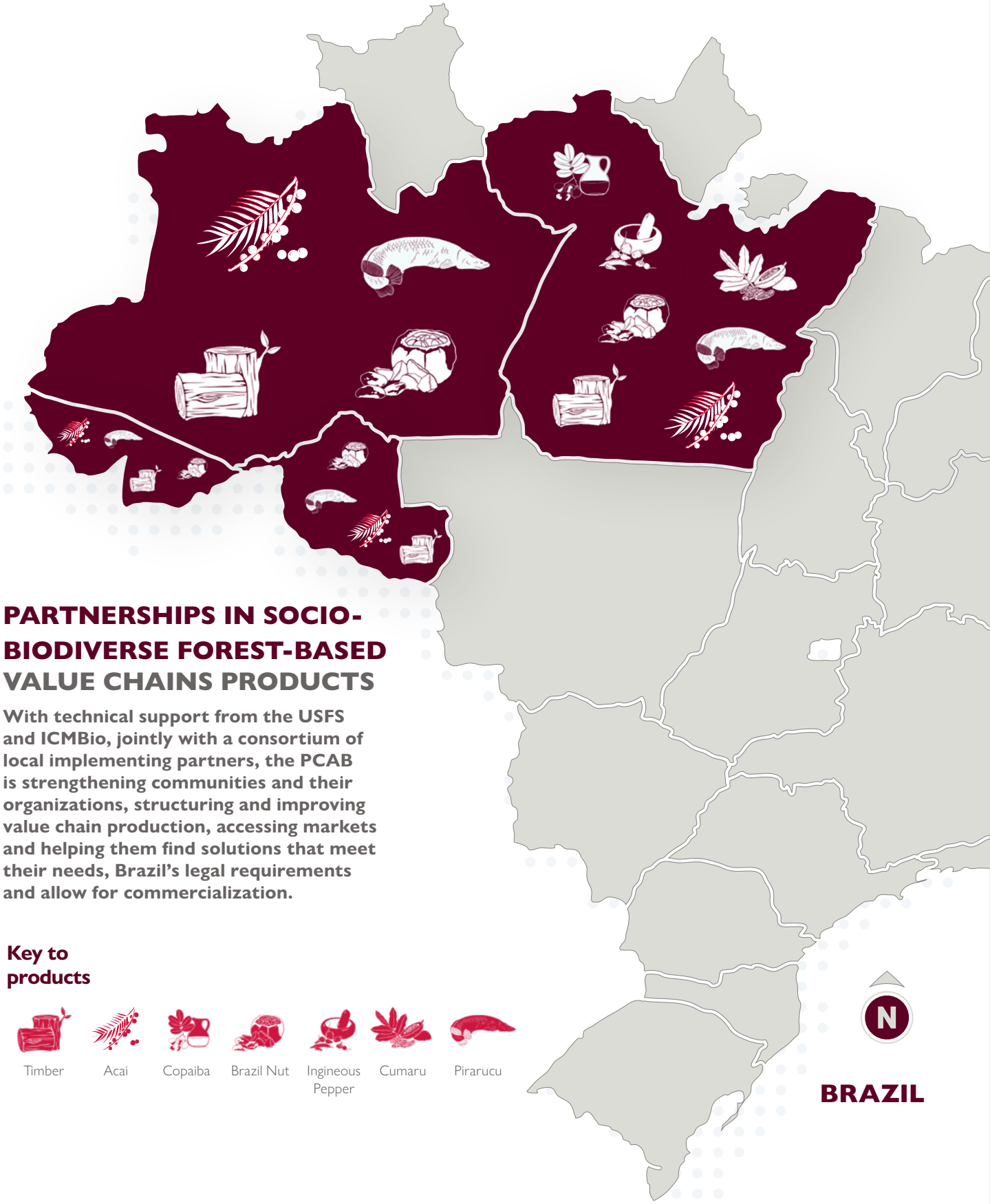
2,400 people were trained in sustainable natural resources management and/or biodiversity conservation

Conservation efforts too often fail to recognize the need to build up the economic value of the forest and to provide a viable future to the families that live and rely on the forest and its natural resources. Increasing the economic value of forest and non-forest products is key to ensuring that communities are not faced with the choice between conservation and their own well-being.

Strengthening sustainable value chains is a critical component of the PCAB. It provides training, technical assistance, tools, processes, and links to commercialization and markets, all with the aim of helping communities to become self-sustainable and ensuring that the value chains they depend upon are both economically successful and sustainable.

The PCAB intends to transform forest and non-forest products into profitable business models so as to provide legal and sustainable income to local communities that depend on these resources for their livelihoods, while at the same time, ensuring that the most biodiverse forest in the world keeps standing.

According to some estimates, the contribution of timber, cattle and traditional agricultural products to the Brazilian Amazon's economy stands around US$ 10 billion. The top non-timber products, such as *açaí*, Brazil nuts, *cupuaçu* and *guaraná*, already generate around US$ 2.5 billion in revenues. *Açaí* alone accounts for US$ 1 billion, while Brazil nuts provide another US$ 250 million, according to renowned Brazilian biologist Ismael Nobre, who has been championing the development of value chains in the forest.


PARTNERSHIPS IN SOCIO-BIODIVERSE FOREST-BASED VALUE CHAINS PRODUCTS
With technical support from the USFS and ICMBio, jointly with a consortium of local implementing partners, the PCAB is strengthening communities and their organizations, structuring and improving value chain production, accessing markets and helping them find solutions that meet their needs, Brazil's legal requirements and allow for commercialization.
Key to products
Timber
Acai
Copaiba
Brazil Nut
Ingineous Pepper
Cumaru
Pirarucu
N
BRAZIL

Maria Margarida (left) was inspired by her mother, the first activist in the family. Her niece (back) wants to follow her path as Forest Champion.

Impact in the field – Verde para Sempre Extractivista Reserve

Maria Margarida Ribeiro da Silva was the recipient of the 2017 Forest Champions Award – the most important environmental prize in the world – for leading a long struggle to secure local communities' rights to implement community and family sustainable timber projects in the Verde para Sempre Extractive Reserve, in the state of Pará. This project – supported by the PCAB – is the first experiment of a forest management plan led by a community in a Brazilian Conservation Unit.

Verde para Sempre means Forever Green in Portuguese and, as with most decisions taken in the area, the name was suggested and voted on by the riverine communities. In Arimum, where Margarida was born, despite the unfair prices practiced by illegal loggers, their cooperative had no difficulty finding a company ready to buy their production.

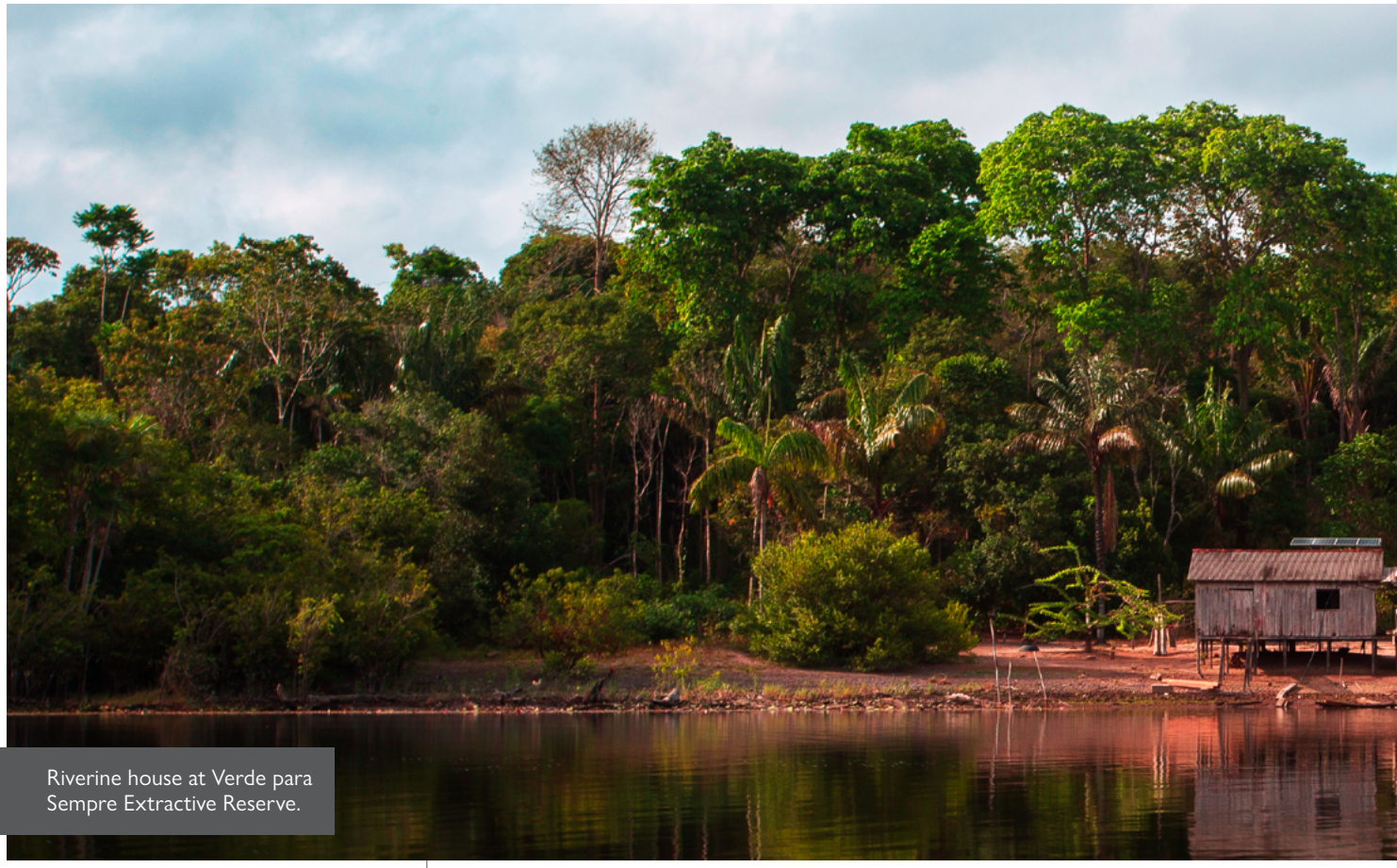
Late last year, she was happy to show us her new house – a traditional wooden stilt house by the river bank with a large porch where her extended family meet for meals and singing. The house was built with the US$ 20,000 prize of the Wangari Maathai Forest Champions Award and has a solar generator. Does she know who Wangari Maathai was? "Yes, when I was informed of the prize, I was told she was a Kenyan activist that led a movement to plant forests, and who won a Nobel Prize." She thought twice before traveling to attend the award ceremony in Germany. Although she has stood up against illegal loggers and local politicians who supported them, she is terrified of flying.

To get there from the reserve, she had to travel a few hours to Porto de Moz, the nearest town, from where she took a small plane to Belém, state capital of Pará. She then took a commercial flight to reach an international airport, and from there a long-haul flight.

She made it, and dedicated the award to her mother Luíza, a midwife who is now in her 80s, and who has assisted more than 200 child births and was herself a leader of the movement to create the sustainable use Reserve.

Verde para Sempre, in the lower Amazon with 1.3 million hectares is the biggest sustainable use Resex in the country, close to the confluence of the Xingu and the Amazon rivers. It is an area known for its low Human Development Index (HDI) and high levels of rural violence, where loggers and land grabbers are

▶



Riverine house at Verde para Sempre Extractive Reserve.

"We need to let others know that the forest is important and that communities living in the forest need incentives to get started towards sustainability, as we did. This is not only about generating income. Community businesses need to be ecologically correct and socially fair. Plus, the government can save money on monitoring if the communities monitor the forest instead. No one will allow illegal logging, as this would compromise the whole process. We are combating deforestation", said Margarida.

rife. She has been campaigning for sustainable use and community-certified logging management for over a decade. Under the PCAB, and through the USFS consortium, key local partners, such as the International Education Institute (IEB) and others have been working with six community associations in Verde para Sempre since the beginning of the cooperation.. In the last few years, they have supported to strengthen community certified timber production, helping to establish cooperatives focused on sustainable timber and the development of the *açaí* and Brazil nut value chains.

Three thousand riverine people live here. Traditionally, it is a timber area, rich in hardwoods such as *maçaranduba*, *jacarandá* and *angelim*. The harvest used to be done manually by locals and had low environmental impactsFamilies produced income from selling timber and manioc flour. Margarida´s father was a luthier, and she still treasures an old ukulele he made for her as a gift. "One day we will recuperate these skills we have lost", she believes.

Since the arrival of big loggers in the 1980s, which led to the expansion of buffalo pastures and agriculture, the pressure on them has increased. Deforestation rose in the region, and the only remaining primary forest is now the area where the reserve was created.

"The pressure was great, but I always had faith in God", says Luíza, who was one of the leaders in the protests that closed the Xingu River in Porto de Moz to call for the creation of the reserve in 2004. In that same year,

Margarida took up the task of trying to overcome the many barriers preventing the legalization of their community timber trade.

IEB project manager Katiuscia Miranda has been working for three years with these communities supporting the strengthening of their associations and cooperatives with business management and territorial management capacities. "These communities have a solid social organization model. They are used to working together, but there are a number of economic and environmental management aspects related to this production that they still need to develop, and which were not part of their previous day-to-day tasks," says Miranda. "They have always worked collectively for subsistence agriculture, but production was individual. Now, they are facing challenges to organize their collective production, reorganizing their processes and territorial management, and having to deal with environmental legislation".

According to Margarida, "since 1996 we have been working towards legal and sustainable forestry. The association was set up in the same year. Since the creation of the reserve in 2004, we have been struggling to implement public policies to make things happen. Our goals were to provide capacity building to community workers, hire a technical team and design a management plan. With the support of USAID and also of the German government, we have made it".

The main barrier was that the decree creating the reserve had not specified its use. Margarida, who chaired the association at the time, suggested submitting a proposal for community forest management to ICMBio. It was accepted on an experimental basis for two years, during which time they would assess whether it could work. "We went ahead and did it, meeting our targets for two consecutive years. I was then invited to deliver training to the heads of other Conservation

Units at the ICMBio Academy – at national level. During the course, we created ICMBio Norm 16, back in 2011[1]. It opened a legal precedent for other communities to follow in Extractive Reserves, National Forests and Sustainable Development Reserves", she explains.

She was then invited to discuss the reform of the Brazilian Forest Code in 2012 and was able to create the Pará Forest Institute (IdeFor). She also played a key role in the definition of national and state legislations for forest management, and in 2017 she helped to create the Forest Management Observatory.

She is constantly challenged to overcome her fear of flying to give lectures at universities and explain how rural communities in the heart of the Amazon are able to manage a process that, in the past, was exclusive for companies: from inventory to sale. "Things have improved here. We do not hide anymore. We do not live in fear. And we have a certified product, plus we have achieved national and international recognition", adds Margarida.

"We need to let others know that the forest is a big issue and that communities living in the forest need incentives to get started in the area of sustainability, as we did. This is not only about generating income. Community businesses need to be ecologically correct and socially fair. Plus, the government can save money on monitoring if the communities monitor the forest instead. No one will allow illegal logging, as this would compromise the whole process. We are also combating deforestation," she says.

With the assistance of PCAB partners, Verde para Sempre communities use the same safety standards of big forest management enterprises.

1 Normative Instruction 16 regulates community forest management in Conservation Units. http://www.icmbio.gov.br/portal/images/stories/o-que-somos/in162011.pdf

The community forest management of Verde para Sempre works in small patches that will be left to rest for decades after harvesting. All the timber is certified.

Communities selling timber to international markets

The Verde para Sempre Extractive Reserve currently produces from 25,000 to 30,000 cubic meters of legal timber. Approximately 30% of the wood is certified by the Forest Stewardship Council (FSC), ensuring it can be tracked to the source. Companies with which the cooperative and the IEB have been dealing are vetted to ensure they are committed to legal wood production.

As of 2018, 300 families benefited from sustainable forest management in six communities, and three other communities are starting the same process. The aim of the communities involved is to influence public policies in terms of licensing and marketing.

Miranda says that small-scale sustainable forestry is a challenge. Six other communities are in the pipeline, waiting to get their management plans approved. It is a reserve with great potential for legal and sustainable logging in the Amazon region. There is market and demand. What they have been doing is strengthening their social organization to allow them to meet the legal obligations that were set up only with large forestry sector businesses in mind.

Margarida is a real champion, but she is not the only one. Other women – and men – have been at the forefront of the fight to repel the existing predatory model and to embrace a new sustainable one, which would keep the forest standing, the rivers abundant with fish, and would actively contribute to biodiversity conservation.

Maria Creuza, president of the Floresta Sempre Viva Três Rios Mixed Agro-Extractive Cooperative, is one of them:

"We went through a lot, we saw people losing their land to big companies, we saw murders taking place. But now these six communities are using the forest in a regular and correct manner. In the past, because of our lack of knowledge, this was not done. Now we have made a commitment, and we want to have our forest today and tomorrow. I have a son, he will have children, and they will still have the forest. We do not need Verde para Sempre only for us. The Verde para Sempre conservation efforts are for the world. The timber from our management plans is shipped to sawmills in national and international markets. It is necessary that these markets also look at standing forests as a positive outcome. Everyone needs clean air, and we are providing that – for free. On top of that, our work also generates income."

The improvement of value chains can protect resources and improve income for local fishermen in the Amazon.

ENGAGEMENT WITH THE PRIVATE SECTOR

Private Sector Engagement (PSE) is a strategic approach to international development through which USAID/Brazil co-designs, co-implements and co-evaluates initiatives with the private sector for greater scale, sustainability, and effectiveness on joint development priorities. Brazil's PSE Strategy was launched in 2017 and USAID's Global PSE in 2018, signaling our pivot towards enterprise-driven, innovative development models.

"Private enterprise is the single most powerful force for lifting lives, strengthening communities and accelerating self-reliance."
Mark Green, USAID Administrator

USAID/Brazil has a long history of working with the private sector since 2006, with the establishment of the Mais Unidos Partnership – a collaborative social investment platform that brought together American companies operating in Brazil. The group invests in impact initiatives focused on youth education, preparing them for a digital economy and English language market. In the last 10 years, it has reached almost 40,000 students and over 700 teachers. USAID has an advisory role only, and +Unidos is now a fully private-led platform, which involves companies such as Coca-Cola, Bank of America, PayPal, Microsoft and KPMG.

USAID has learned a lot from the *Mais Unidos* experience over the past decade. This expertise has been applied in the PCAB to catalyze national and multinational private businesses operating in the Amazon to develop the region's economy, to strengthen biodiversity conservation and to empower local communities. The engagement work began as early as 2016 through Public-Private Partnerships (PPPs), in 2017 the Partnership Platform for the Amazon was launched, and in 2018 the PPA as well as the PPPs below implemented activities under the PCAB umbrella, producing significant results and leveraging private resources:

- **Google Earth Outreach**, jointly with implementing partner the **Amazon Conservation Team (ECAM)** trained quilombolas to use mapping tools and technologies, how to use open-data-kit (ODK) on smart phones to manage their territories and track their value chain production, and worked with youth to teach them how to use YouTube and other social media to both and learn and share with the broader public, empowering them with skills and a voice.
- **Natura**, the largest cosmetics company in Brazil, has been partnering with **Embrapa** (government agricultural research enterprise) and the **World Agroforestry Center (ICRAF)** to demonstrate the effectiveness of using a sustainable agroforestry system approach to produce palm oil in the state of Para. The successful pilot (SAF Dendê) was extended in 2018 to 10 family smallholdings. Two major companies in the region were inspired to adopt the same approach. Planting palm oil in a production system with other species, such as oils, spices, native timber, and cacao, as opposed to usual monocultures, could have huge implications for expansion in Brazil as well as for Asian and African countries where palm oil production is a major driver for deforestation.
- **Coca-Cola**, **Natura** and **SITAWI Finance for Good** used an innovative data collection tool called the Social Progress Index (SPI) as a baseline in PAs and communities in the Médio Juruá River in Amazonas State and designed a four-year PPP based on the findings. The current program includes joint planning, reflecting on the results, with the participation of community organizations, public authorities, non-profit institutions and the private sector – to improve biodiversity conservation and foster economic, social and environmental development. The project has strengthened value chains and helped education and health well-being indicators in these communities.
- **Mineração Rio Norte** - the largest bauxite producer is part of the first-ever integrated, sustainable private sector led approach to make a difference in the region over a 15 year period. MRN is voluntarily investing $15 million into the Sustainable Territories Program (PTS in Portuguese) to ensure sustainability, conservation, economic diversification and well-being of the people who live there. USAID entered this alliance in 2018 and has worked on one of the pillars with the consortium to advance a fund mechanism whereby MRN can allocate royalties and environmental compensations into a "*Quilombola* Fund" that the communities themselves manage, with the appropriate accountability and participation guidelines. In 2018, a community-managed fund using MRN contributions of $1 million was rolled out as a pilot in 16 communities to test governance capacity – a game changer for the region, with great potential for replication. Results will be shared with authorities and if the model is approved, communities would be able to invest $3 million in royalties per year into territorial management.
- Under the ***Guaraná* de Maués Alliance** project, beverage company **Ambev** and the Institute for the **Conservation and Sustainable Development of the Amazon** (IDESAM) promoted the first ever direct sale of sustainable *guaraná* (grown by indigenous and riverine communities) to Ambev. The fruit was used for the production of Brazil's popular soft drink in the same municipality where indigenous peoples first introduced *guaraná* to the Portuguese.

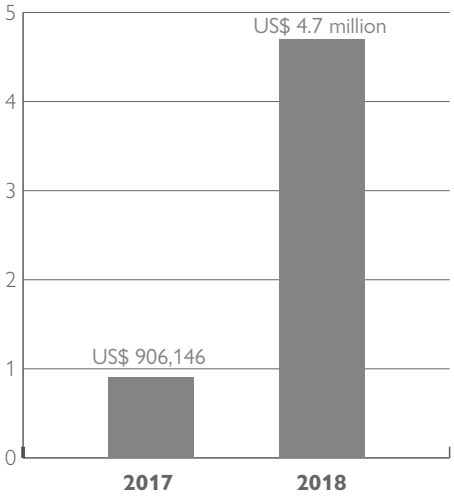
HOW WE WORK WITH THE PRIVATE SECTOR

We seek to catalyze an Amazon economy that fosters empowered, sustainable communities, and conserves biodiversity, forests and natural resources.

The PCAB, through the PPA and other partnerships, work with companies and mobilize private sector investments for innovative joint solutions

In 2018 PCAB leveraged **USD $4.7 mi** in private sector resources, a 470% increase over 2017.

45,760 people benefited from private sector PCAB partnership activities



Partnership Platform for the Amazon (PPA)

The PPA is a collective action platform with the mission of partnering with private sector companies to develop and identify solutions for the sustainable development and biodiversity conservation in the Amazon – engaging the private sector as a protagonist in creating new models of sustainable use of the forest. Its members are committed to be socially and environmentally responsible and to promote sustainable development in the region.

It has completed its first year of activities in 2018 with very tangible results. An important one was the "First Forum for Impact Investments and Sustainable Businesses in the Amazon", an event that culminated in investments of over US$ 250,000 toward the growth of four Amazon start-ups and sustainable businesses, and the selection of 15 enterprises for the PPA Acceleration Program. Initiated in Amazonas – the biggest state in the region – the PPA is now expanding membership across other states.

US$ 270,000 (R$ 1.1 million) invested in four start-ups

15 start-ups selected for acceleration in 2019

US$ 15,700 (R$ 60,000) awarded to four Amazon businesses through the PPA Entrepreneur Award

2 studies on opportunities and pathways to sustainable investment with impact on the Amazon

Participation of **252 people of the Impact Invesment Ecosystem** in the 1st Forum on Impact Investment and Sustainable Businesses in the Amazon (FIINSA)

Partnership Platform for the Amazon Network

PPA's Strategic Activities Pillars

Areas of Interest	Impact Investment / Startups	Incubation and Acceleration - entrepreneurs	Exploring investment opportunities	Partnerships between companies, communities and governments	Strategic communication and engagement
Priority Activities	Mapping cases, structuring projects, presenting pitches	Calling entrepreneurs, pre-acceleration, incubation plan and contact with investors	Preparation of studies and surveys (tax incentives, environmental compensation, use of royalties, social finances in the Amazon)	Structuring of production chains, project design, disclosure of good corporate practices	Engaging companies, expanding General Assembly, creating a Communication Plan, creating a website and a newsletter
Outcomes	4 startups supported	15 entrepreneurs and startups accelerated	2 studies conducted	4 public-private partnerships supported by USAID with PPA companies	Adherence by new member companies, attracting investments, publicizing PPA in the media, etc.
Impactful Outcomes	Sustainable businesses generating income, and preserving the Amazon forest and biodiversity	Entrepreneurs with sustainable businesses ready to receive investment, generating income and conservation of natural resources	PPA members and Amazon community informed innovative forms of investment in social and environmental improvement	PPA members in the private sector invest more in environmental and social welfare in the Amazon (more resources)	PPA members in the private sector see a return on their investments (more quality and impact)

PPA studies

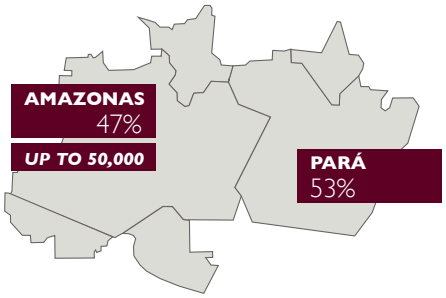
Two studies have been produced and published highlighting opportunities for sustainable investment impact in the Amazon

- IDESAM launched **Paths to Sustainable Investment in the Amazon: Opportunities for tax incentive investments** at the free-trade zone of Manaus. The study estimates that Research & Development investments in the region could have a 30% boost and reach US$ 100 million through investments made by companies operating at the Manaus free-trade zone. It analyses the new Technology Legislation approved in Brazil last June, which will help businesses based in the Manaus industrial hub to invest in Research & Innovation. It is a guide to assist those companies to invest their rebate resources in entrepreneurship and start-ups focused on bioeconomics and the sustainable use of resources in the Amazon region.
- SITAWI released a study entitled **Impact Investment in the Amazon: Pathways for Sustainable Development**, as a portrait of available investment mechanisms, value chains, types of enterprises, barriers and opportunities for impact investment in the region. The goal was to provide input to players interested in fostering sustainable development, serving as a basis for structured decision-making processes. As the publication is geared toward investors, conservation specialists and social action professionals, it presents basic investment concepts in a simple way.

Profile of start-ups taking part in the PPA Acceleration Program

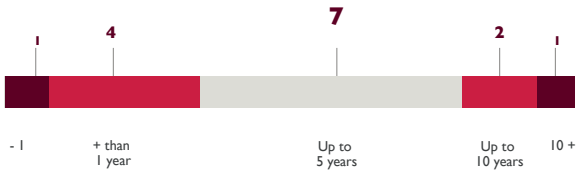
City/State

Brazil's Northern Region

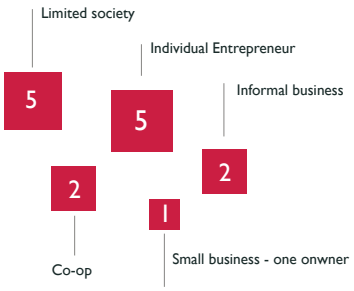


- Manaus — 5
- Belém — 4
- Breves — 1
- Boa Vista Ramos — 1
- Castanhal — 1
- Santa Bárbara do Pará — 1
- Santarém — 1
- Presidente Figueiredo — 1

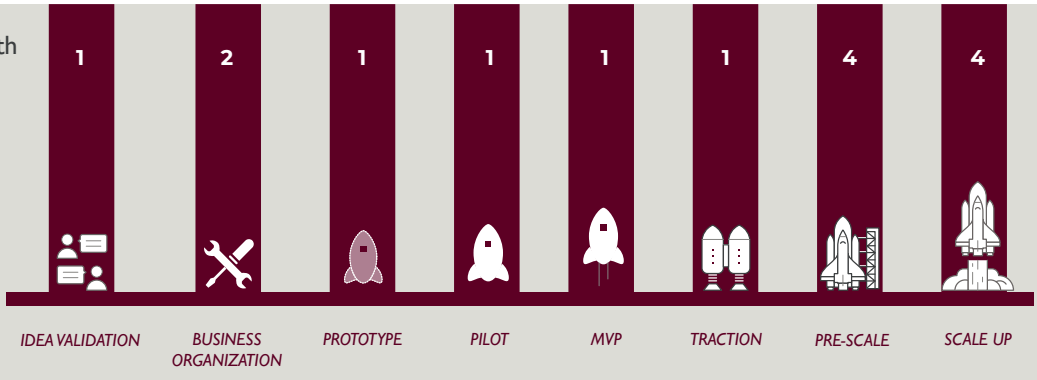
Companies age



Type of Business

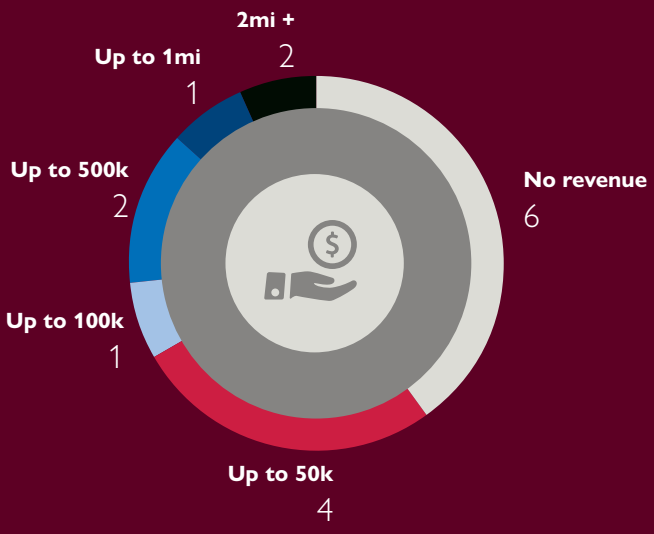


Development Path

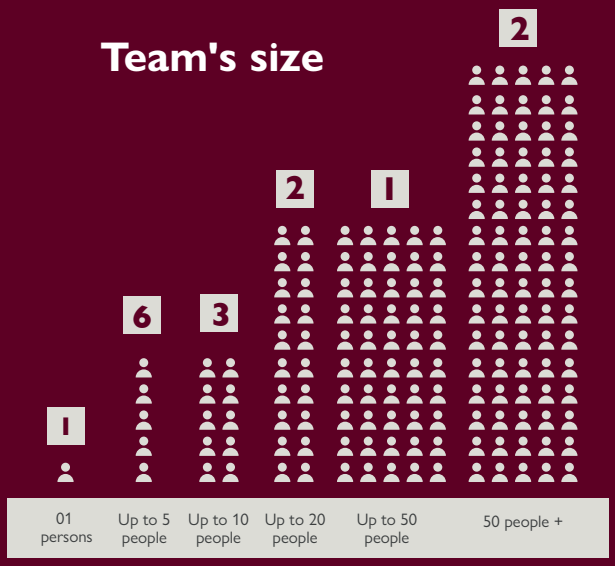


Profile of start-ups taking part in the PPA Acceleration Program

Revenue (in Brazil Reals)



Team's size



Gender among founders

Has a clear proposal for impact?

Measure impact

Has gone through incubation/acceleration?

Impact in the Field - Amazon impact business transforming sustainability, art, culture and innovation into a Business Plan for Growth

Tainah Fagundes was nervous during the business pitch she gave during FIINSA. She had to explain how the business her mother Katia started 10 years ago to help raise three kids as a single parent has grown into a viable small business worth investing in. Start-ups competing for an award at FIINSA needed to pitch investor in the same way promising business owners do in the popular television program *Shark Tank*.

She was representing *Da Tribu*, a women-led start-up that produces sustainable fashion accessories using natural rubber (latex) and forest technology to generate extra income for families living in rural areas of Pará.

Da Tribu has always worked with recycled paper. In 2014, they revived a traditional indigenous technique mixed with simplified industrial technology (vulcanization) called *encauchados*: natural rubber (latex) is mixed with water and vegetable fibers, such as cotton, as well as sawdust. The result is a textile with a high level of elasticity. During her pitch to get funding to expand her business, Tainah forgot to show the necklaces, rings, bracelets and belts she had brought to show the "sharks" evaluating her start-up.

"We have gained the trust of the communities we work with. Our suppliers live on a beach and this is not their main income. They usually cook or waitress for tourists. We are testing our products now with shoes and sandals and want to grow and include more local families in our business."

Da Tribu works with the Pedra Branca Extractive Community, where 15 families live in an

Tainah Fagundes, representing Da Tribu (left) receives the PPA enterpreneur prize from Anna Tonnes, USAID's Environment Team Leader.

"We have gained the trust of the communities we work with. Our suppliers live on a beach and this is not their main income. They usually cook or waitress for tourists. We are testing our products now with shoes and sandals and want to grow and include more local families in our business."

Environmental Protected Area on the island of Cotijuba. They buy paper from a cooperative, and they also produce *encauchados*.

She wears multiple hats, as the creative designer and communications officer of the company, as well as being in charge of administration.

In the last four years, *Da Tribu* manufactured over 60,000 meters of rubber thread, with a return of R$ 75,000 (US$ 20,000) for the community. *Da Tribu* has sold more than 5,000 pieces in the same period.

Da Tribu/Promotion photo

Promotion photos from Da Tribu rubber accessories

Tainah and Kátia Fagundes, founders/ co-owners of Da Tribu start-up

Challenges to survive

Tainah's small enterprise encountered a fair share of barriers. After winning another award in 2015 and having set up a physical shop in Belém, the community production came to a halt and other suppliers had to be found. The Brazilian financial crisis, considered the worst since the Great Depression, deepened in 2016, and they had to reinvent themselves in order to survive: "The business was created out of our intuition, without much planning. My mother is a craftswoman, while I studied communications and had some experience with strategic planning, but our growth was organic. Reorganizing a business like that was a major challenge", says Tainah.

Looking at the packed room and the investors in the front row, going through her rehearsed pitch, she was overwhelmed with the prospect of getting the funding she needed so badly to enable *Da Tribu* to start growing again.

At the end, she was reminded by one of the investors that she had not shown off any of her products. Trying to get a grip on her nerves, Tainah quickly distributed a few samples to be examined. Although investors had been briefed not to be too aggressive (the concept of the pitches was to provide start-ups with the practice needed to market themselves), she was very concerned with her performance.

In the end, *Da Tribu* was one the businesses chosen by the PPA to be incubated, alongside activities such as agriculture-applied technology and market development for native bees' honey. Tainah was relieved: "We will now have the opportunity to regroup. The forum was a great chance to meet not only potential investors, but also partners working with *encauchados* who can support and help us with advice when things get tough," she says.

Francisco Samonek, from *Encauchados de Vegetais da Amazônia*, was one of Da Tribu's first suppliers. His cooperative business is more advanced and receiving investment from the PPA to expand. After the meeting, *Da Tribu* will start buying 10,000 meters of latex thread from Samonek's co-op. She needs more raw material in order to meet the targets set in her new business plan. The company intends to produce 12,000 pieces of rubber jewelry in 2019.

Community is introduced to the Liter of Light lamp posts

Photo: Liter of Light

Impact on the field - *Médio Juruá* territory

The Médio Juruá territory, where Coca-Cola, Natura, USAID and SITAWI implement a partnership became a Ramsar site in October. Ramsar sites are wetlands designated to be of international importance under the Ramsar Convention – an intergovernmental environmental treaty established by UNESCO.

In 2018, electricity had not yet reached most of the communities of Carauari, a remote municipality on the banks of the Juruá River, in Amazonas State. For some of the region's riverine settlements, diesel-powered generators were the only energy option available, but these were only turned on for a few hours each evening due to the high costs involved.

"Living without electricity isn't a good thing," says Marcos Oliveira de Souza, son of a local leader at the Nova Esperança community in Carauari. He volunteered to participate in an expedition that visited a number of riverine communities in August to learn about a simple yet liberating technology: solar-based lamps made from plastic bottles, solar panels and PVC pipes. This technology was first created by Alfredo Moser, a Brazilian mechanic, and later adopted by a Philippine NGO back in 2012 and branded as a "Liter of Light". It was exported to other countries before making its way back to Brazil.

The program, implemented through the local Rural Producers Association (ASPROC), worked with the Liter of Light NGO and their volunteer network to provide lamps to 600 families in riverine communities.

Marcos recalled the boat trip and the way that each community gathered to take part in building their lamps when the group arrived. "Each of us had a task: painting lamps, looking after children, carrying boxes, etc. It was all very organized. I learned a lot and it was a dream-come-true, to be part of that fantastic team effort."

Although Nova Esperança is an exception and has had electricity 24 hours a day since last year, this portable low-cost source of light will be very useful. "Fishermen can now go fishing and return home in the evening without fear of stepping on a snake in the dark. In addition, it will be possible to work in the fields or to grind our manioc flour until late," explains Marcos.

The batteries of the 600 lamps produced and distributed among the communities can last for six hours when fully charged, and are already benefiting 3,000 families. For Lucinete Cunha, a member of SITAWI's field staff based in Carauari, "taking part in the Liter of Light activity was much more than just work. It was about being part of an event that is creating major changes for people living far from urban centers".

Sustainable Territories Program (PTS)

Mineração Rio Norte (MRN) partnered with ECAM, Agenda Pública and Imazon to improve development opportunities for the people in the Calha Norte region of Pará.

PTS's five axes of activity:

Public Management

Supporting public administration at municipal level through collaborative arrangements that can contribute to efficient public policies, increasing access to quality public services;

Social Capital

Supporting communities and their leaderships to improve the participation of the local population in meetings, councils and conferences, exercising their rights and fulfilling their duties, as well as strengthening their organization and governance;

Economic Development

Supporting the development of value chains including Brazil nuts, fishery, livestock, agriculture and tourism;

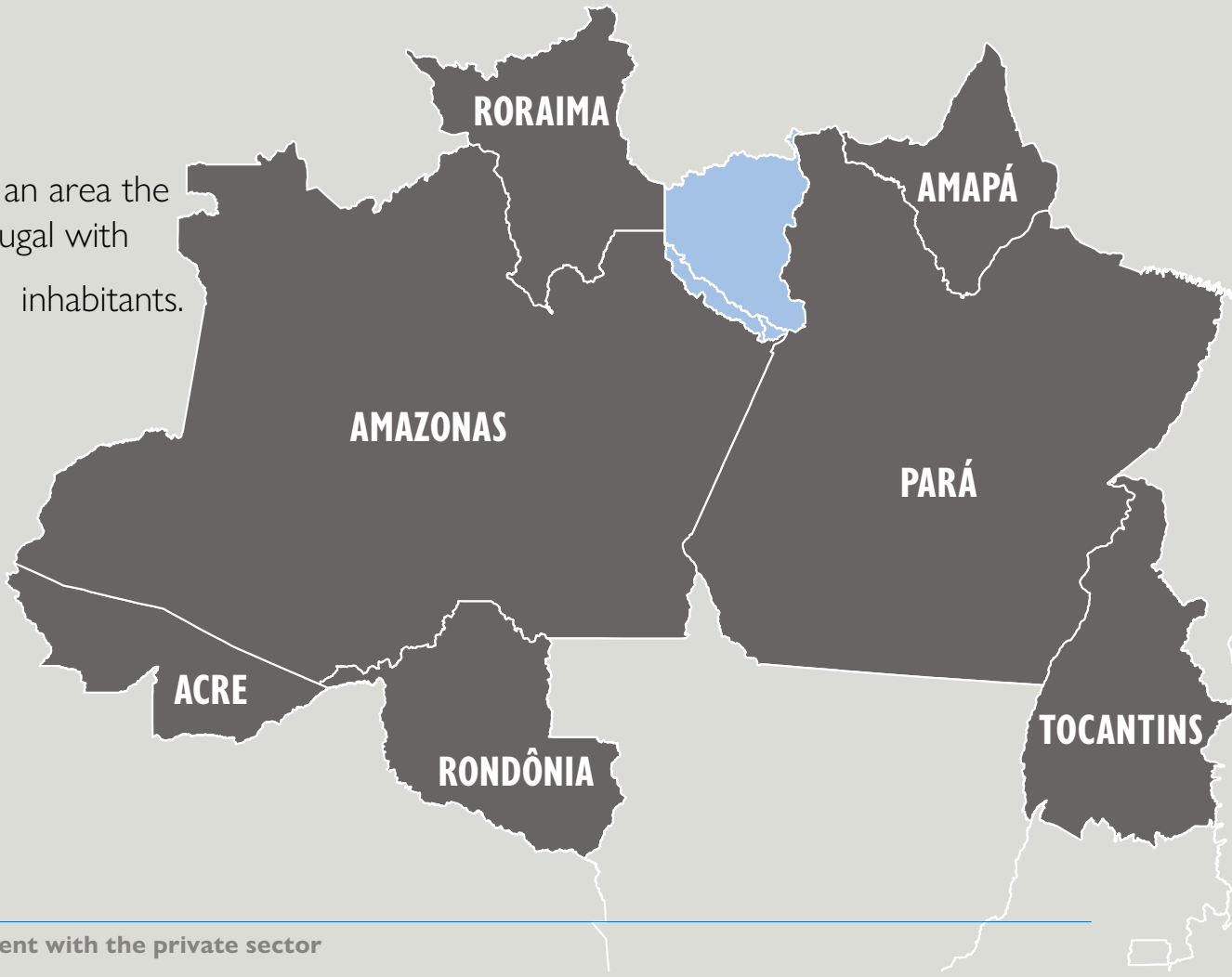
Environmental Management

Providing direct support to Municipal Environment Secretaries to promote conservation, licensing and a Rural Environmental Registry (CAR);

Quilombola

Supporting the organization and governance of *quilombola* communities, improving their relationship with other regional stakeholders and their planning.

PTS covers an area the size of Portugal with **96,344** inhabitants.



Quilombola Fund

The PTS launched a first-ever community-managed fund, the *Quilombola* Fund, designed to strengthen the autonomy of these communities and make them more self-reliant, so that they can use mining royalties and compensations to fund their territory plans, which are created through a series of participatory meetings and validated by each community. The pilot, with $1 million of financing from MRN started in 2018 and was rolled out to 14 communities, made up 5,000 people across seven territories. The PTS supported communities to build their own territorial management plans, called plans of life, six of which have already been completed. The funds have been used to meet the priorities established in their plans. The communities have used the first round of funding for reforming community kitchens, fixing their community motor boat, and other long-overdue and much needed community projects.

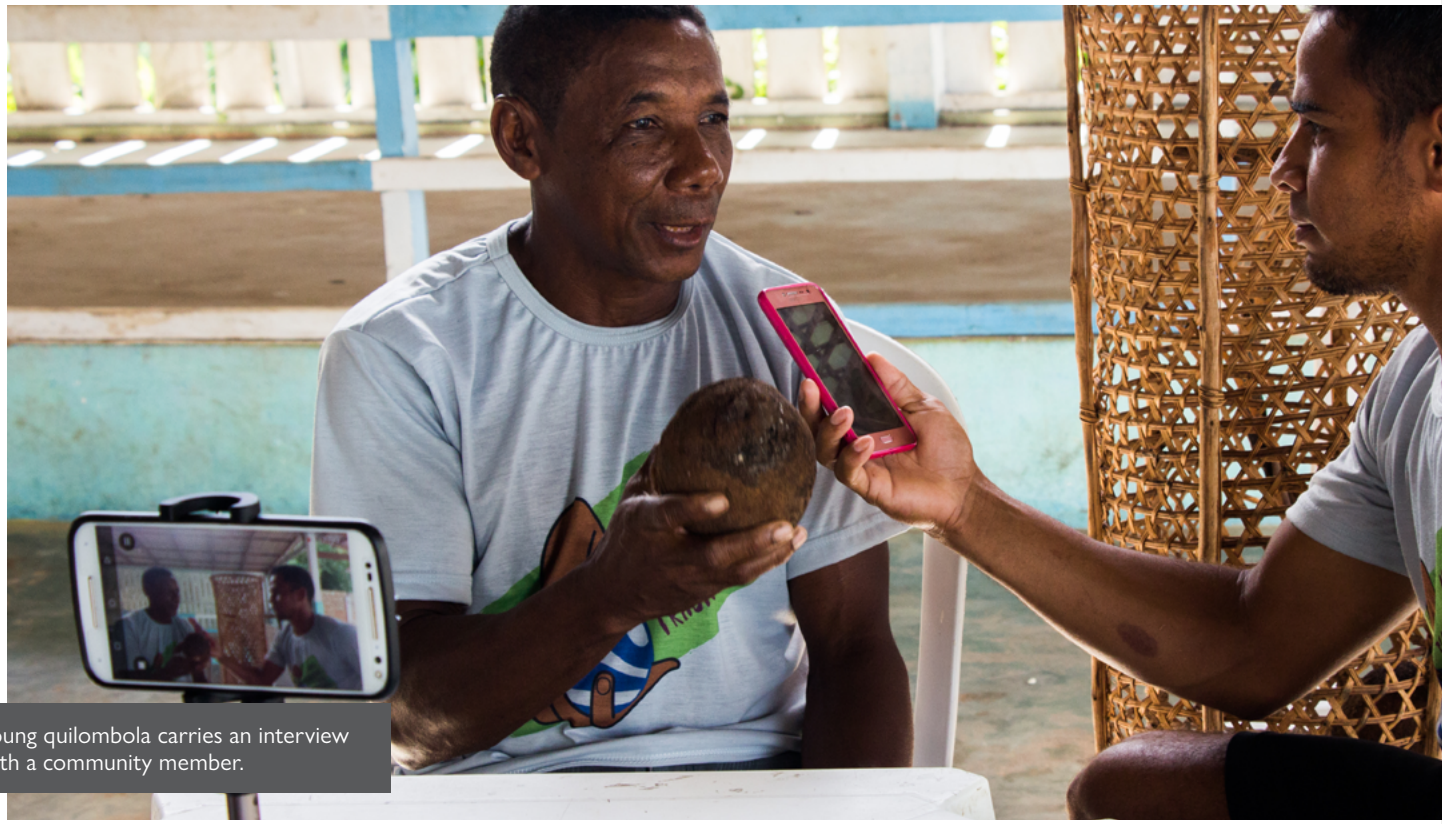
The management of the fund, while community driven, has institutional checks and balances, as the funds are kept by an independent company (FUNTEC), based in Brasília, and disburses based on closely managed, transparent, and accountable rules and processes.

PTS is working with the GOB with the hope of using the fund as a model for other areas. During 2019 it will continue to be adapted, but if approved to run permanently, communities will, within guidelines and a legal framework that also ensures conservation and environemtnal protections, be able to manage many of their own development goals, using an estimated $3 million of royaties per year. This new approach is designed to have a long-term effect and can become a model for private sector development investments across the Amazon.

Quilombola village in Oriximiná, in Pará State.

Photo: ECAM

Impact in the field
Using technology to nurture sustainability



Young quilombola carries an interview with a community member.

Back in 2015, Rogério de Oliveira Pereira exchanged a hoe for a notebook as his main working tool. A small farmer in a remote community in the north of the state of Pará, he had never used a computer when he first attended training courses to learn how to use Google Earth and ODK.

Last October, Pereira was in California to present the georeferencing map of an area larger than Portugal to an audience of Google employees, alongside Claudinete Colé, the president of the Association of Remaining Quilombo Communities of the Municipality of Oriximiná (ARQMO). The mapping included not only the territories, but also lakes formed when the Trombetas River and its tributaries retreat their courses in the dry season, after overflowing and inundating the mainland during the rainy season. Some of the lakes have shared fishing rights with other communities (mainly indigenous) under fishing agreements. Those were also mapped.

The coordinates of 18 traditional territories of 37 communities, including their main resources, such as lakes and Brazil nut tree areas, had to be transferred to Google Earth, which was a massive task. Many of these communities and areas were only accessible by riverways on trips that took several days. The work was carried out by a small group of young quilombolas under Pereira's and Colé's supervision, trained by the Amazon Conservation Team (ECAM), supported through collaborations with two private sector initiatives, the first with Google Earth and the second with Mineração Rio Norte (MRN) –located near the Trombetas River. As a result, communities formed by descendants of slaves who had managed to escape from cocoa and livestock farms and had been living in isolation since the 19th century in the municipalities of Oriximiná, Faro and Terra Santa were finally – and literally – included on the map.

Photo: ECAM

"We had nothing documented about ourselves. We felt as if we were taking classes about our own identity. We heard stories, we learned about our history". And that empowered our youth – who were involved in all stages of the project, including the data analysis – to keep working to protect and secure our rights and to transform our knowledge into concrete actions" - Colé.

In addition, the project gathered an enormous amount of socioeconomic data, as the *Quilombola* leaders worked to survey their 708 families as part of a baseline under the Sustainable Territories Program (PTS), a 15 year initiative to increase well-being and conservation in the region led by and alliance between MRN, three local Brazilian organizations and three municipalities.

When answering a question at a Google conference about his work, Colé mentioned that convincing elders that this was a worthwhile task and having youth to interview the families were both very important because "we had nothing documented about ourselves. We felt as if we were taking classes about our own identity. We heard stories, we learned about our history". And that empowered our youth – who were involved in all stages of the project, including the data analysis – to keep working to protect and secure our rights and to transform our knowledge into concrete actions."

The data collected is now being analyzed by the Brazilian Institute of Research and Data Analysis (IBPAD in the Portuguese acronym) using data sprints – a process that mines information and knowledge from big data. The analysis found that the majority of these *quilombola* communities drank untreated water directly from rivers and wells, and 95% used medicinal plants, thus maintaining their tradition and relying on the forest to treat diseases (also as a result of the huge distance between their homes and hospitals).

For Colé, the main challenge for the work was "mastering the new tools and applying them". And then balancing his farming activities with his responsibilities at the *quilombola* association, and those under the project.

NEXT STEPS

These alliances, PPPs and activities related to private sector led examples are providing lessons learned and new models to USAID and the PCAB consortium where the focus is on listening to and learning from the local stakeholders building trust among the different actors, and innovation, to create multi-win models that benefit the forests, communities, the economy, and the private sector. USAID/Brazil will keep strengthening of the Partnership Platform for the Amazon (PPA), whose legacy could be a self-sustained alliance made up of partnerships, with interests in the Amazon region and committed to investing in a new, sustainable economic models that are aligned with conservation and communities.

In addition, is the PPA is fostering impact businesses and new financing mechanisms in 2019. USAID, building on the foundation laid by the PPA, and working with MMA, CIAT, and Althelia Funds, intends to facilitate the first impact investment fund focused on Amazon biodiversity. The proposed 11-year investment fund would bring $100 of private capital that will invest in impact businesses that are financially viable and transformative for Amazon forests and biodiversity. The fund will be a scaled, market-led approach to long-standing sustainable development challenges in the Amazon.

Monitoring, Evaluation and Learning

As the PCAB's engagement with the private sector steps up, new monitoring, evaluation and learning tools are being developed to measure impacts and build a community of learning. Standard biodiversity and social indicators help to track project-level outcomes, as well as PCAB portfolio level impact. Private sector resources leveraged are being measured. Long-term robust monitoring tools are being rolled out across the portfolio: A social network analysis (SNA) will help us to understand the impact of the PPA. The SNA will annually assess the nature and strength of relationships, as well as how they evolve over time, and their impacts. It will enable the identification of network vulnerabilities and opportunities for better connecting producers of Amazon biodiversity products with their potential markets. The Social Progress Index (SPI) is a global framework that can be used to measure and compare well-being and does not rely only on income indicators. economic indicators. The PCAB has adopted the SPI for several initiatives, innovating the instrument to incorporate primary household-level data collection as well. Coca-Cola and Natura first used the SPI in Médio Juruá as a baseline and with regular collection thereafter. In 2019 it is being rolled out in the PTS. Lastly, evaluation models are being designed as "counterfactuals" to serve as references for comparing business as usual scenarios to interventions through the PCAB, on both forests and biodiversity.

USAID remains committed to smart and strategic use of public and private investments, combining these with catalytic partnerships and innovative models under the PCAB, and helping Brazil become a leader in joint solutions that increase prosperity in a long-challenged region of the country, while also ensuring this mega-diverse region of the world is conserved for generations to come.

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