


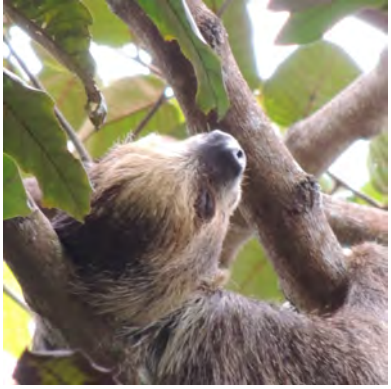

PARTNERSHIP FOR THE CONSERVATION OF AMAZON BIODIVERSITY

FINAL REPORT FOR PUBLIC USE AND MANAGEMENT PLANNING

BRAZIL PROGRAM

OCTOBER 2014 – JUNE 2020

United States Forest Service – International Programs

USAID
FROM THE AMERICAN PEOPLE




Final Report for Public Use and Management Planning

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Cover photo credit: Top four photos and center photo, Jennifer Watts, USFS. The lower 4 photos (left to right): Chris Mayer, Suelene Couto, Lorena Brewster, Ryan Finchum.

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ACKNOWLEDGEMENTS

We would like to recognize and thank the Partnership for the Conservation of Amazon Biodiversity (PCAB) public use and protected area management team for their expertise, personal and professional passion for the work, and deep commitment to collaboration.

The United States Forest Service

The United States Forest Service (USFS) has worked in partnership with the Brazilian Government and civil society for over 40 years. They have contributed their expertise and experience gained from managing multi-use public lands in the United States for 115 years. Both the United States and Brazil have benefited from collaborating on natural resource management initiatives. Through the PCAB program, USFS coordinates with USAID and Brazilian agencies, such as the Chico Mendes Institute for Biodiversity Conservation (ICMBio), to better connect society to public lands through improved protected area management and sustainable tourism development. We want to thank the many USFS domestic staff who contributed their time and lent their extraordinary expertise to the PCAB program over the past five years.

Chico Mendes Institute for Biodiversity Conservation

Chico Mendes Institute for Biodiversity Conservation (ICMBio) is the Brazilian Government agency responsible for protecting Brazil's natural heritage, bolstering biodiversity conservation through research and education, and developing ecologically sound management practices. It operates primarily in the management of federally protected areas, and is responsible for proposing, creating, protecting and monitoring these areas as part of the National System of Conservation Units. ICMBio staff have a central role in the management and monitoring of some of the most biologically important places in Brazil.

We want to acknowledge all of the ICMBio specialists who participated in the program to hone their skills and who then shared their expertise with their colleagues across the agency, helping to develop and institutionalize a strong public use program for all Brazilians. You inspire and motivate us!

U.S. and Brazilian University Partners

The partnership between academia, researchers and ICMBio staff strengthens and enhances the performance of protected area managers to apply contemporary planning and visitor management concepts and connect Brazilian citizens with the country's natural heritage. University partners provided leadership throughout the PCAB program and encouraged critical thinking on public use and

management concepts while providing leadership in research, capacity development, and technical assistance. We would like to thank university staff and dedicated students for extending their leadership and thoughtful approaches to PCAB capacity building events and projects.

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Thank you to the U.S. National Park Service (USNPS) for partnering with the USFS and ICMBio to design and implement a new planning framework for Brazilian protected areas. The NPS - Denver Service Center (DSC), provided technical assistance to develop a new planning framework that was recently adopted by the Brazilian government. DSC staff collaborated with ICMBio to test the framework with two pilot conservation unit management plans. The first was with Sao Joaquim National Park in southern Brazil and the second with the Soure Marine Extractive Reserve in the Amazon Basin. Both pilot efforts had strong community engagement components. Outcomes of the process were used to establish the underlying guidance for management decisions of these units. The refined methodology is now public policy and being replicated widely in Brazilian federal protected areas.

Parlare

Thank you to the professional language interpreters at Parlare who made so much of this partnership and collaboration possible through their simultaneous language interpretation. The caliber of interpretation enabled the partners of this program to communicate and collaborate effortlessly.

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A final thanks goes to the U.S. Agency for International Development (USAID) staff who provided both financial and leadership support to the USFS and PCAB program over the past five years. For more than 50 years, USAID has supported Brazil. Today, USAID works closely with the Brazilian government and civil society to build sustainable socio-economic development solutions and promote private sector engagement toward innovative solutions for biodiversity conservation in the Amazon.

ACRONYMS AND ABBREVIATIONS

ACADEBio	National Academy for Biodiversity
ANP	Anavilhanas National Park
COOMFLONA	Mixed Cooperative at Tapajós National Forest
CSU	Colorado State University
FUNAI	National Indian Foundation
IBAMA	Brazilian Institute of Environment and Renewable Natural Resources
ICMBio	Chico Mendes Institute for Biodiversity Conservation
INPA	National Institute for Amazon Research
IPAM	Amazon Environmental Research Institute
PCAB or Partnership	Partnership for the Conservation of Amazon Biodiversity
ROS	Recreation Opportunity Spectrum
ROVUC	Range of Visitor Opportunities for Protected Areas (Conservation Units)
SIGEO	Geospatial Data Management System
SNUC	National System of Conservation Units
TNF	Tapajós National Forest
UM	University of Montana
USAID	U.S. Agency for International Development
USFS	U.S. Forest Service
USFS/IP	U.S. Forest Service International Programs
USG	U.S. Government
USNPS	U.S. National Park Service

Photo credits: Steve McCool

PCAB PROTECTED AREA MANAGEMENT AND PUBLIC USE PARTNER NETWORK

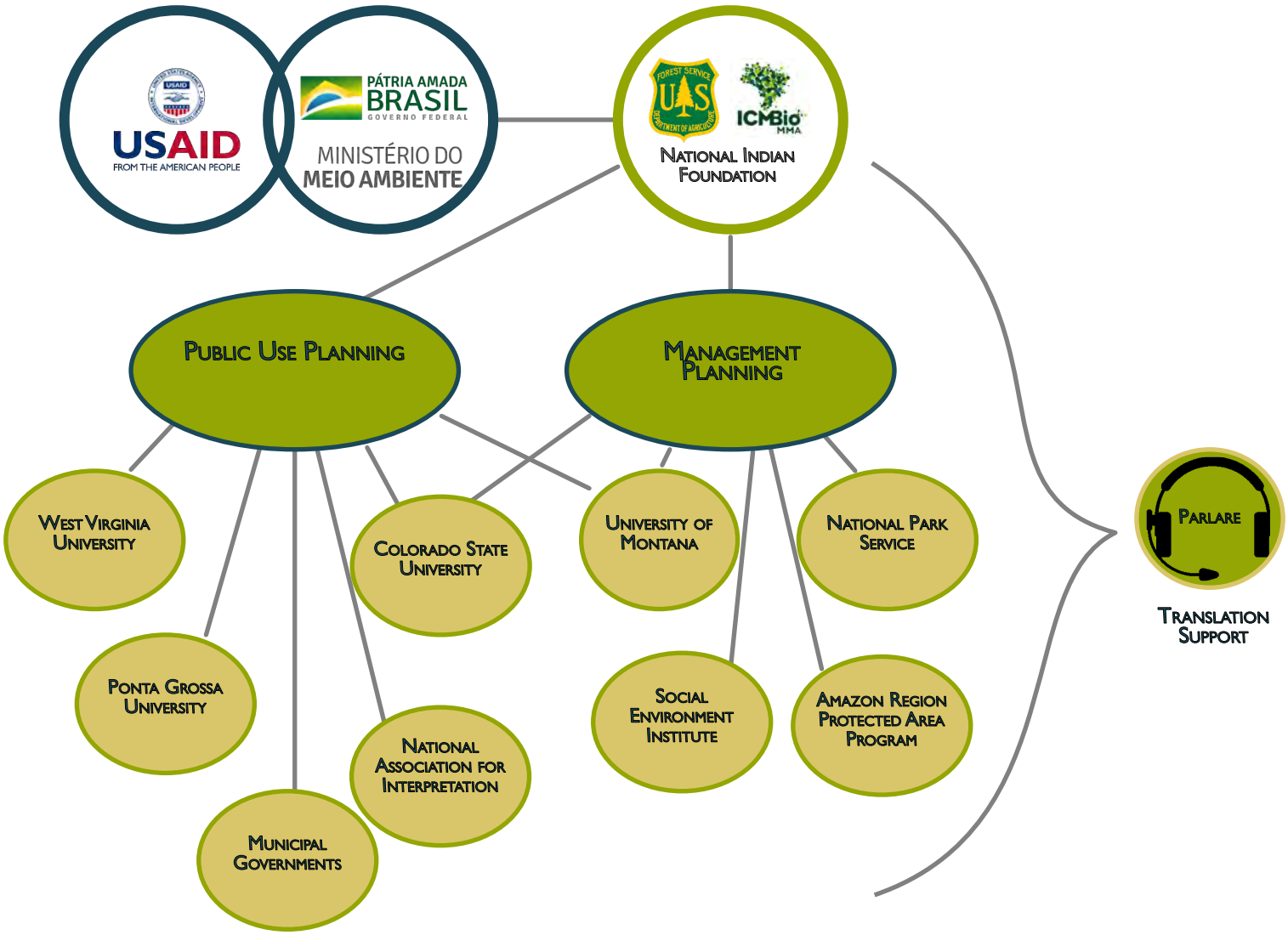


Photo credit: Steve McCool

1.0 PROGRAM OVERVIEW

In 2014, the U.S. Agency for International Development (USAID) entered into a comprehensive partnership agreement – the Partnership for the Conservation of Amazon Biodiversity (PCAB or "the Partnership") – with the Government of Brazil to support protected area conservation and biodiversity in the Amazon. One of the focus areas of the Partnership was to conserve Brazil's protected areas by connecting Brazilians to their public lands and to expand opportunities for economic growth through well-managed sustainable tourism (other areas of the Partnership included Sustainable Livelihoods and Fire). USAID needed an implementing partner with extensive public-use management experience. The U.S. Forest Service (USFS), which manages 155 multi-use national forests and 20 grasslands and has partnered with Brazil for 40 years on natural resource management, was an obvious choice. To implement the program, USFS partnered with several U.S.-based universities and the U.S. National Park Service to provide additional expertise on protected area management.

The Government of Brazil's implementing partner for the project was Chico Mendes Institute for Biodiversity Conservation (ICMBio), an agency of the Ministry of Environment. ICMBio was formed in 2007 to manage the enormous range of Brazil's federal protected areas, from extractive reserves to strict preservation conservation units such as national parks and ecological reserves. ICMBio manages 334 protected areas comprising 1,714,242 sq. km (661,873 sq. miles), an area the size of the U.S. States of California, Texas, Montana, and Colorado (or the countries of France, Germany, Spain, and the United Kingdom) combined. Many of the largest conservation units are located in northern Brazil, with a total of 641,436 sq. km (37.4% of the federal protected area system) located within the Amazon biome.

Through the Partnership, USFS and university partners enhanced the institutional capacity of ICMBio to use innovative tools, critical thinking approaches, public engagement, and global best practices to better manage protected areas and plan for public use. ICMBio tested its learning at demonstration sites and incorporated new concepts and adapted U.S. practices into its own public use and management practices and policies. ICMBio also used its learning to better engage the Brazilian public and incorporate communities in the stewardship of the protected areas that surround them. Those communities benefited from the increased visitation that better management brought in the form of job opportunities and economic gain.

FIGURE 1: THE PARTNERSHIP'S GEOGRAPHIC AREAS OF FOCUS

FIGURE 1 highlights the five areas in the Brazilian Amazon where the Partnership had the greatest level of direct investment: Jaú National Park, Anavilhanas National Park, Amazonia National Park, Tapajós National Forest, and Soure Marine Extractive Reserve. At these sites, USFS and partners conducted training sessions, supported management planning efforts, and implemented and monitored best practices in public use planning. The green shaded area shows the entire Amazon basin; the white line indicates the size of the Brazilian Amazon.

See Annex 1 for a complete map of conservation units that the Partnership impacted through direct investments in the Amazon and institutional capacity building at ICMBio.

Map credit: Caetano Franco

This report focuses on two components of the Partnership: public use and management planning. It provides an overview of the implementation strategy and highlights key accomplishments and lessons learned over five years. It also suggests opportunities that could augment the work already achieved in building sustainable public-use management systems for conservation and economic gains.

1.1 PROGRAM CONTEXT

When it was created in 2007, ICMBio absorbed a number of biologists, ecologists and environmental specialists from the Ministry of Environment and the Brazilian Natural Resource Protection Agency (IBAMA) who were interested in research and protection of Brazil's disappearing biodiversity, including close-to-extinct plant and animal species that could only be found in the Amazon. The

research and protection skill sets were certainly needed, but ICMBio also needed staff who had training and expertise in other important aspects of effective protected area management, including sustainable rural development, tourism and outdoor recreation, interpretation, and improving management planning and policies. The Brazilian government wanted ICMBio to assist in improving the livelihoods of communities that lived in protected areas and to connect Brazilians to their public lands and natural heritage.

The Partnership helped ICMBio address a major challenge: How does the agency manage protected areas while allowing visitor use that eventually leads to both conservation of Amazon biodiversity and provides for sustainable economic impact through effective public use management?

2.0 PROGRAM APPROACH AND TOP-LEVEL ACHIEVEMENTS

FIGURE 2: PCAB PRIORITY FOCUS AREAS

The Public Use Management Planning component of the Partnership had seven priority focus areas, 1. Management Planning, 2. Public Use Planning, 3. Interpretation, 4. Partnership, 5. Trails, 6. Visitation Monitoring, and 7, Demonstration Sites. See figure 2 to the right.

Management planning and public using planning are both overarching focus areas that guide the protection, development and use of protected areas. Interpretation, partnerships, trails, and visitation monitoring are more specific focus areas that enhance visitor experiences, bring in revenue, and support sustainable conservation. Demonstration sites allowed ICMBio to practice what they learned and prepare to run a public use management program year after year with proper staffing and budget.

2.1 MANAGEMENT PLANNING

A protected area's general management plan is the legal document that guides all actions taken to protect, develop, and manage the area's significant natural and cultural resources for the benefit of present and future generations. More focused implementation plans may be developed to address specific resources or program components, but they all tie to and must be consistent with the general management plan.

- Partners developed a shared and deeper understanding of the existing ICMBio planning norms and how those norms informed ongoing management plan revisions at Tapajós National Forest (TNF) and Anavilhanas National Park (ANP). This analysis helped ICMBio create a new planning

framework that allowed it to better address the needs and opportunities within its enormous range of protected areas.

- With the help of the U.S. National Park Service (USNPS), the Partnership explored the USNPS "Foundation Document" planning approach, and ICMBio adapted it for their conservation units. The revised ICMBio regulations on management planning unified and simplified the methodology, leading to significant gains across all management categories. (See Table 1 on page 15). ICMBio, with USFS, USNPS and university support, **held 10 workshops for 252 trainees** to build capacity for using the new methodology.
- ICMBio has used their new planning rules, based on the Foundation Document approach, to complete **12 protected area management plans**, and they have an additional **46 plans in progress**.

Community participation in and ownership of management planning for protected areas are essential for sustainable conservation. Floriza Pinto (1st person, left to right), President of Kumirayoma Women's Association in the Yanomami Indigenous Territory, participated in the construction of Pico da Neblina National Park's first management plan in 2018. She and pictured Association members, along with representatives from other indigenous territories, FUNAI and ISA, helped ICMBio craft the park's future actions toward conservation and socio-economic development.

Photo: Lorena Brewster

"We, the Yanomami People, are guardians of the forest, taking only what nature can give us. Nothing more. I am here speaking as a leader, a woman, and a Yanomami. In the workshop discussions, our voices will help ensure that we get what we want, which is to keep our forests alive,"

- Floriza Pinto, President of Kumirayoma Women's Association in the Yanomami Indigenous Territory

TABLE 1. ICMBIO IMPROVEMENTS IN MANAGEMENT PLANNING UC = conservation units (protected areas)		
PRIOR APPROACH TO MANAGEMENT PLANNING	**NEW APPROACH TO MANAGEMENT PLANNING**	**PROCESS IMPROVEMENTS**
Diagnostics manual with an extensive description about the UC and without a clear connection to the planning manual.	Brief description of the UC focusing on the analysis of its resources and fundamental values.	Essential information in the document and clear direction of UC management toward original goals.
Detailed management programs.	Need for data and planning for that UC, with prioritization of details to be performed according to the team's management capacity and available resources.	Documents that are more strategic, dynamic, current and practical.
Inconsistent methods and planning focuses.	Standardized method, focusing on the conservation of the UC's resources and fundamental values.	Better communication about the importance of UCs and more clarity about their conservation objectives and how to achieve them.
Centralized planning at ICMBio's Coordinating Office for Development and Revision of Management Plans (COMAN).	COMAN performs systemic analysis of the UC and defines fundamental elements and priorities to be detailed by the pertinent technical coordinators and field staff within ICMBio.	Documents are more integrated with institutional directives and priorities.
"Fixed" maps that quickly became outdated, requiring knowledge of complex software development tools.	Development of SIGEO - Geographic information available online, in a user-friendly platform.	Dynamic use of geographic information, with the possibility of continuous updating by ICMBio and society in general.
Planning document little-used by the protected areas.	Clear guidelines and rules on protected areas management.	Document to guide and improve management for staff on protected areas.

2.2 PUBLIC USE PLANNING

A public-use plan ties to the general management plan and further defines the appropriate zones, recreational experiences, facilities, programs, and partnerships needed to effectively implement the protected area's public use program.

- ICMBio now has **a six-person public use planning team capable of guiding the development of public use plans and training others in the same**.
- Through the combination of technical courses, the Amazon Seminars, and field-based planning exercises, the Partnership helped participants develop critical thinking skills to apply science to public use planning. This led to the creation of an ongoing community of practice on public use management that involved Brazilian and U.S. academics, protected area managers, and community and private sector partners.

- ICMBio now has reference materials including the Range of Visitation Opportunities for Protected Areas (ROVUC), manuals on planning and visitor use monitoring, and the book "Tourism and Public Use in Brazil: Challenges and Perspectives" to support effective public use planning and implementation of existing plans.

Range of Visitation Opportunities for Protected Areas is an ICMBio planning tool adapted from the USFS Recreation Opportunity Spectrum.

ICMBio uses ROVUC to identify recreation opportunities that promote the diversification of visitor experiences in their federally protected areas. ROVUC also serves as a tool to frame long-term monitoring of potential biophysical and visitor experience impacts in protected areas.

2.3 INTERPRETATION

Interpretation refers to the informational and educational facilities, products, and services that help forge intellectual and emotional connections between the public and protected areas. Interpretation shares the protected area's most significant stories and is a critical tool for engaging visitors and local residents. Interpretation can change attitudes and behaviors toward conservation and make visits more enjoyable. Interpretation also generates revenue and contributes to visitor loyalty.

- ICMBio now has **a 14-person interpretation team capable of developing and delivering community-driven, agency-wide interpretation programs**. The team demonstrated their capability by developing interpretive signs, exhibits, videos, and guided tours for the demonstration sites. The result was **enhanced experiences for visitors and increased income for guides**.
- The Partnership captured and condensed interpretive product design and development processes into the book "Guide for Developing Non-Personal Interpretive Products in Protected Areas."

Interpretive exhibits (left) and trained guides (right) enhance the experience of local and international visitors, leading to more visitors through positive reviews and more revenue for conservation.

Photo clips taken from: Interpretive Video https://vimeo.com/247545142

The Partnership incorporated community and regional engagement into all interpretive planning and product development projects. The approach directly benefitted residents and local partners and provided them with guide training, bilingual products to help communicate their stories, and interpretive signs, exhibits, and videos to improve customer service and visitor experiences.

Photo: Suelene Couto

2.4 PARTNERSHIPS

Most protected area managers do not have the staff and resources necessary to perform critical work and so rely on a collection of sister government agencies, private sector businesses, non-governmental organizations, community organizations, and even individual volunteers who share in the stewardship of public lands. Depending on the nature of the partnership, the work may be governed through concession contracts, permits, and authorizations or through a variety of partnership agreements.

- ICMBio specialists **updated agency rules on concessions** (public-private partnerships for visitor services) and expanded the number of concessions contracts under study. They gained capacity to do so through participation in two Partnership technical courses, U.S.-based study tours, and U.S.-based international seminars led by the USFS, USNPS, Colorado State University (CSU) and the University of Montana (UM).
- COOMFLONA, the local community cooperative that holds the timber harvesting contract for the TNF, teamed up with the Santarem Municipal Government to provide construction materials and labor to complete repairs on the storm-damaged Alter do Chao Community Tourism Center and to help install **new interpretive exhibits and a small, community-based sales area**

featuring information about products from the Tapajós National Forest and the Tapajós-Arapiuns Extractive Reserve.

- The "Trails Together" 1 and 2 field workshops, both held in the U.S., highlighted ICMBio's opportunities to incorporate volunteer trail projects into the management of the agency's trail system. Training included volunteers and business partners, the latter of whom provided labor and sometimes food and materials. The ICMBio volunteer effort **resulted in the volunteer construction of a 44 km trail system in Brasilia National Park and a 52 km trail in the Planalto Central Environmental Protection Area**. Volunteers continue to help maintain the trail systems in Chapada da Diamantina National Park and Canela National Forest.

Before and after photos of the Alter do Chao Commnity Tourism Center. The partnership between the local community cooperative, COOMFLONA, and the Santarem Municipal Government upgraded a storm damaged building, to a welcoming tourism center offering local products and interpretive exhibits.

Photo: Lorena Brewster

2.5 TRAILS

Trails are gateways to protected areas. They allow visitors to experience, explore, and connect with the landscape. Trails come in all shapes and sizes and are traversed using both non-motorized and motorized modes of transportation.

- ICMBio now has **an expert 17-person trails core team** capable of developing and delivering all of the key components of an agency-wide trails program including policy and curriculum development.
- Because of the Partnership's strong emphasis on strengthening trails management, ICMBio specialists and partners are well-positioned to respond to a growing national trails movement and

provide training and support for numerous new long-distance trail initiatives across Brazil, including the Chico Mendes Trail in Acre State, the Travessia Sete Quedas and the Caminho de Cora in Goiás State, and the Transcarioca Trail in Rio de Janeiro State. In partnership with the Ministry of Tourism, ICMBio signed a national ordinance **officially establishing the National Network of Long-Distance Trails (RedeTrilhas) to recognize and protect trails of natural and cultural interest** and to sensitize society to the importance of the National System of Conservation Units (SNUC). **This network now encompasses 59 trails, which are maintained by more than 3,000 volunteers.**

The Partnership incorporated community and regional engagement into all trail planning and route development projects, directly benefitting residents and local partners and providing them with hands-on learning in all stages of the design, construction, and maintenance of a variety of trails.
Photo: Lorena Brewster

2.6 VISITOR USE MONITORING

Effective public-use planning relies on understanding current and potential visitors – who they are, where they are visiting from, the experiences they are seeking, the degree to which their expectations are met, and the level of customer service they receive. The Partnership also evaluated the biological, social, and economic impacts of visitor use. **See figure 3 below to understand ICMBio's enhanced efforts in visitor engagement and the value it brought.**

- The Partnership employed local residents to assist in data and survey collection. The exercise built local capacity and increased ICMBio understanding of visitor interests and needs.
- ICMBio now has a program and protocol for collecting visitor information. The protocol is based on a U.S. model that was adapted to fit Brazil and then tested at one of the demonstration sites.
- The Partnership completed targeted visitor use monitoring and feedback surveys to help local managers respond to specific resource challenges at a popular river recreation site in TNF and at the river-dolphin viewing center in ANP.

VISITOR ENGAGEMENT IMPACT SNAPSHOT FROM 2017 - 2018

ICMBIO EXPANDS VISITOR ENGAGEMENT

15%

INCREASE IN PROTECTED AREAS OFFERING VISITOR INFORMATION

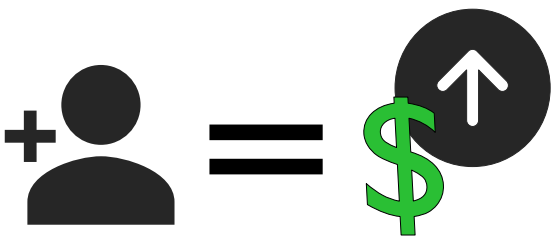
ICMBio expands activities offered at protected areas with existing visitor engagement programs.

30%

INCREASE IN ACTIVITIES OFFERED

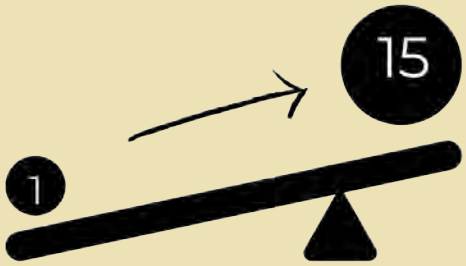
Trails | Activities | Services to Society

RESULT



More Visitors | Economic Gain

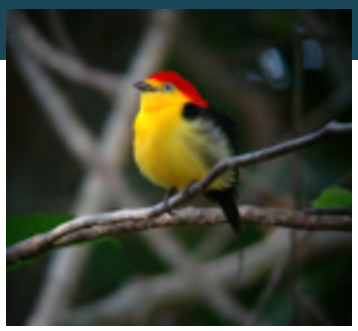
EACH R$1 INVESTED IN ICMBIO GENERATED R$ 15 IN ECONOMIC BENEFITS FOR BRAZIL



Visitors spent R$ 2.4 billion in the municipalities that access the conservation units. The total contribution of these expenses to the national economy was approximately 90,000 jobs, R$ 2.7 billion in income, R$ 3.8 billion in value added to GDP and R$ 10.4 billion in sales. The hospitality sector recorded the largest direct contribution, with R$ 740 million in direct sales, followed by the food sector with R$ 531 million. The study also presented the generation of taxes resulting only from the effects on direct sales and remuneration. A total of R $ 174 million was generated at the municipal level; in state, R$ 594 million and in federal, R$ 323 million; totaling R$ 1.1 billion in taxes.

1 USD = approx. 5 Brazilian Reals

Source: Souza, T.V. S. B.; Simões, H. B.; (2019). Contribuições do Turismo em Unidades de Conservação Federais para a Economia Brasileira - Efeitos dos Gastos dos Visitantes em 2018: Sumário Executivo., ICMBio. Brasília



2.7 PUBLIC USE DEMONSTRATION SITES

Demonstration sites allowed ICMBio employees and partners to practice, step by step, how to plan, develop and design products, programs, and facilities, and to monitor and understand the outcomes of their initiatives. ICMBio designated two protected areas as its demonstration sites, Tapajós National Forest (TNF) and Anavilhanas National Park (ANP). It maintained smaller demonstration projects throughout ICMBio protected areas.

- ICMBio tested U.S. methodologies and decided, where appropriate, how to adapt the concepts into **agency-wide practices and policy**. For example, after testing a USFS protocol for visitor monitoring at TNF and ANP, **ICMBio adapted it for Brazilian settings and is now using a formal, statistically valid visitor monitoring protocol in its higher-use protected areas.**

- ICMBio staff applied and practiced technical skills in trail construction and interpretive product development, obtained and analyzed visitor-use data, and evaluated the use of volunteers.

- **Trained ICMBio staff became instructors for agency-led training sessions**.

    - At ANP, ICMBio's new interpretative core team created its first interpretive plan with the guidance of USFS staff. The ICMBio team then adapted and used a similar process to create several more interpretive plans in Brazil's protected areas and to teach others to do so. Similarly, the ICMBio trails team developed their trail skills at TNF and Chapada dos Veadeiros by adapting U.S. training materials to create ICMBio's "Fundamentals for Trail Planning." They also participated in a U.S. study tour for trail development. The trained team then went back to the demonstration sites to teach local community members and partner organizations.

The demonstration sites enabled ICMBio staff to practice and model best practices for a comprehensive public use program.

Photos (left to right): 1: Chris Mayer; 2 and 3: Lorena Brewster

Photo (top right): Wire-tailed Manakin commonly found at Anavilhanas National Park

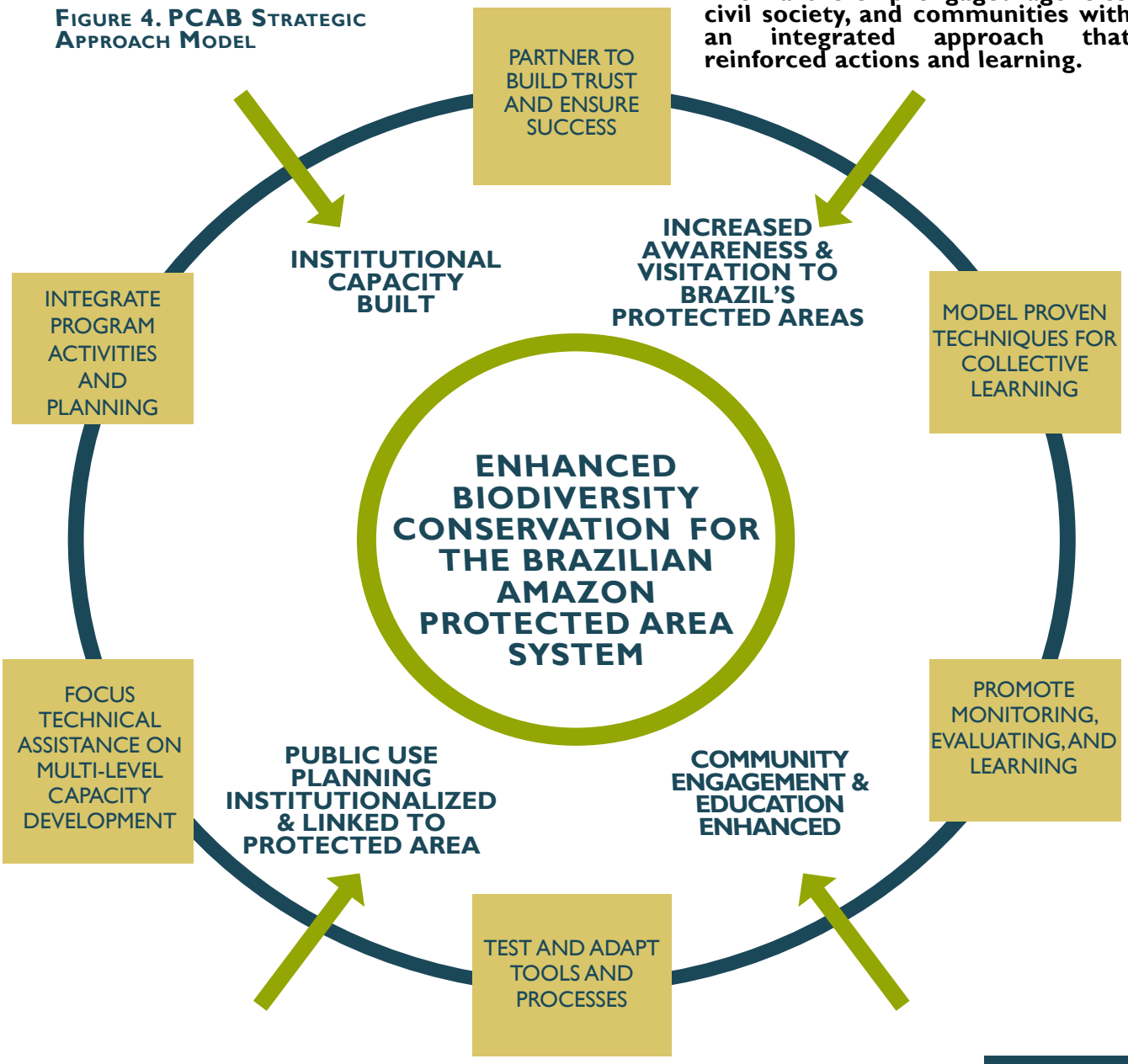
3.0 STRATEGIC APPROACHES

The Partnership built the institutional capacity of ICMBio and contributed to protected area conservation in the Amazon through six strategic approaches. Those approaches were determined based on the following theory of change:

When protected areas encourage and host the public in appropriate settings and under well-planned conditions, visitors (regional, national, and international) have the opportunity to form intellectual, emotional, and spiritual connections to these special areas, leading to increased visitation rates with lower or well-managed physical impacts and higher economic or in-kind inputs to local and national economies. Both the emotional attachment and the contribution to local economic development provide motivations to local peoples, visitors, and government agencies to better conserve the protected areas and the recreational and aesthetic services they provide. Protection of these recreational and aesthetic services contributes to the protection of biodiversity and ecosystem function.

The Partnership engaged agencies, civil society, and communities with an integrated approach that reinforced actions and learning.

FIGURE 4. PCAB STRATEGIC APPROACH MODEL



This photo was taken at the inauguration of the Terra Rica Interpretive Trail, at the Tapajós demonstration site. The little girl, Helen, is spellbound by the sign. Creating effective education tools for children is an important part of raising conservation awareness and securing biodiversity for the future.

Photo: Lorena Brewster

3.1 APPROACH #1: PARTNER TO BUILD TRUST AND ENSURE SUCCESS

Leverage the resources and expertise of partners, including government, public-land management agencies, and universities to maximize development outcomes.

The Public Use and Management Planning component of the Partnership for the Conservation of Amazon Biodiversity was the result of a five-year comprehensive agreement between USAID and the Government of Brazil. Both partners were committed to the goal of the Partnership and invested resources to make it successful.

- ICMBio leadership participated in the initial needs assessment conducted by the USFS and the University of Montana. This led to an ongoing process for prioritizing actions and an annual work plan between the USFS and ICMBio involving members of the broader Partnership.
- The Partnership invited additional local, regional, national, and international partners such as the USNPS, COOMFLONA, FUNAI, and INPA to assist in specific priority focus areas and projects.
- Many of the activities surrounding management and public-use planning, especially for the demonstration sites, included engaging local communities and participatory protected area management councils in listening sessions and the stakeholder workshops held during the development of the Tapajós and Anavilhanas interpretive plans.
- In a number of cases, the Partnership attracted additional financial and in-kind contributions for specific projects, such as covering salaries for participants in external workshops and Amazon Seminars as well as event and participant sponsorship provided for the National Association for Interpretation (NAI) International Conference on Interpretation in Rio de Janeiro in May 2019.
- A fundamental component of the Partnership's work was providing simultaneous translation to foster seamless communication and ensure a high level of professional technical exchange.

3.2 APPROACH #2: FOCUS TECHNICAL ASSISTANCE ON MULTI-LEVEL CAPACITY DEVELOPMENT

Use the 5-year duration of the PCAB to identify, focus on, and invest in long-term, multi-level capacity development that ICMBio can institutionalize and sustain.

- The Partnership identified desired 5-year outcomes and planned accordingly, establishing benchmarks and timelines in the annual programs of work.
- The Partnership prioritized program continuity and assembled standing teams of ICMBio, USFS, and university partner members that helped guide the work over the duration of the agreement.
- Capacity development was layered and focused at individual, institutional, and systems levels to deepen the breadth and impact of the work.

3.3 APPROACH #3: INTEGRATE PROGRAM ACTIVITIES AND PLANNING

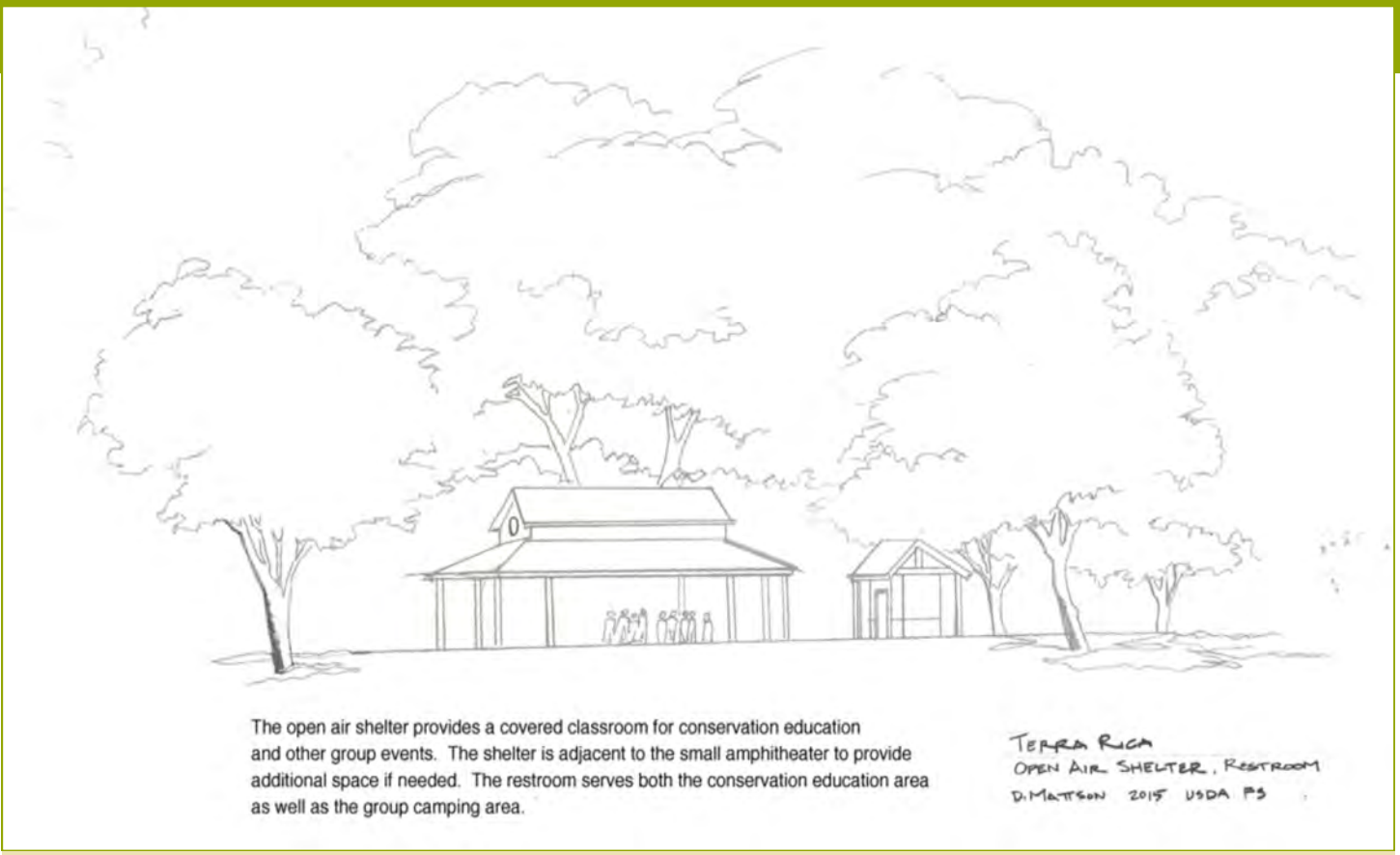
Respond to the complexity of comprehensive public-use planning and management by integrating program activities and planning.

Partnership integrated activities across priority focus areas to best leverage complementary work, timetables, and opportunities by:

- Incorporating public use planning into overall protected area management plans.
- Developing public use planning templates and guidelines.
- Building overall program management capacity to plan for, develop, implement, operate, and monitor facilities and services in each of the four priority public use focus areas: Interpretation, Trails, Visitor Use Monitoring, and Partnerships.
- Highlighting the importance of working beyond protected area boundaries and across broader land management mosaics for more seamless, complementary, and coordinated public use programs.
- Five Amazon Seminars, each five to seven day long capacity building events on ecotourism in protected areas, showcased this approach by bringing together a variety of participants to travel through regions such the Lower Rio Negro Mosaic, sharing perspectives and identifying common opportunities and challenges.

Right, ICMBio staff learns how to design and implement a trail system for their protected areas.

Photo: Lorena Brewster



USFS Landscape Architect Donna Mattson helped ICMBio create a site plan and facility concepts for future development of the Terra Rica Day Use Area. The plans were appropriate for the desired uses and sensitive to the landscape setting. They included an open-sided shelter for outdoor classes and a small amphitheater, both located near an existing restroom for ease of visitor access and effective use of space. Through activities like these, USFS demonstrated the importance of developing public use planning templates, concepts, and guidelines for an effective multi-dimensional public use program.

3.4 APPROACH #4: MODEL PROVEN TECHNIQUES FOR COLLECTIVE LEARNING

Deploy and model a wide variety of technical assistance and capacity development techniques that both serve the needs of the current participants and can also be evaluated and adapted for future use by ICMbio and other Brazilian partners.

- Modeling different teaching approaches facilitated the important sharing of technical knowledge and skills and built the ability and confidence of the participants to experience, learn, and adapt these techniques for ICMBio. Partnership tools were selected to achieve the following:
- Move beyond knowledge transfer and technical skill development to foster critical thinking and build individual and institutional experience and confidence.
- Provide a mix of classroom-based courses, conferences, train-the-trainer events and certifications with experiential opportunities such as field seminars and study tours, followed by mentoring activities that allow for a supportive environment to apply, deliver, and practice skills.

- Provide expanded learning opportunities through U.S.-based study tours, participation in the NAI Certified Interpretive Host and Train-the Trainer Courses, participation in the International Protected Area and Tourism Seminars, as well as attendance at the World Parks Congress in Sydney, Australia.
- Establish a "community of practice" between ICMBio and Brazilian universities to foster joint research and collaboratively educate students who will eventually be protected area managers.

3.5 APPROACH #5: TEST AND ADAPT TOOLS AND PROCESSES

Demonstration sites allowed ICMBio to develop practical experience in applying knowledge and skills obtained in training workshops; field-test emerging methodologies and technologies; adapt existing technologies to new situations or contexts; and allow small-scale testing prior to significant large-scale investments.

The concept of "demonstration" was both a strategic approach and an overarching priority focus area, the latter through the designation of several demonstration sites that served as test sites and where all facets of the Partnership's work were collectively implemented.

- The Partnership selected demonstration sites based on the following criteria: they were already experiencing public use, were in the process of revising management plans, represented different sets of challenges, had different land management categories, were core units in a broader mosaic of protected areas, and had key ICMBio staff identified to become part of the agency's expert core teams.
- The primary demonstration sites were Tapajós National Forest and Anavilhanas National Park. Work at these units included management plan revision reviews; overall public-use planning; the development and implementation of interpretive plans; the planning, construction, and maintenance of trails; ongoing visitor use monitoring; and work with local community guides and permitted tour operators and companies.
- Secondary, specific demonstration projects occurred at Brasilia National Park, Chapada dos Veadeiros National Park, and São Joaquim National Park.
- In-depth documentation of the activities, accomplishments, and lessons learned at the demonstration sites provided the foundation for the development of many ICMBio-wide policies and processes that followed.
- An overarching goal of demonstration sites was to allow ICMBio to integrate and implement all Partnership focus areas, see quote below.

"For example, at Tapajós, this included a deep dive into their existing management plan and discussing what kinds of amendments would better address the public use they already had and wanted in the future. We looked at co-management and partnership agreements, first focusing on whether COOMFLONA could take on that public use management role or if they needed to instead work with the guide association or INPA. Then we looked at the mechanics of fee collection and how they might improve the efficiency and effectiveness of that work. We discussed how to provide for visitor, staff, and volunteer safety, including the relationships with the security contractors, emergency communications for guides, and also for special events such as the Jungle Marathon. This conversation led to an ICMBio policy-level discussion on what should be the agency's standard for first aid training and response for staff and volunteers. We discussed the current tour concessions and what might be needed in the future and how to ensure that they weren't bypassing the communities. We looked at recreation site design and created site and facility concept designs for some of the main entrance stations. (See Terra Rica results below.) We discussed the need to build public facilities to an established safety standard rather than simply turning local construction crews loose on building things the way they had always done it. Of course, we also spent a lot of time talking about the need to address sanitation for visitors and communities as visitation would increase. And, we did trails, interpretation, and visitor-use monitoring. The list goes on…"

- Bonnie Lippitt, USFS, Pacific Northwest Region, Tourism and Interpretation Program Manager

The partnership supported the improvement of the Terra Rica Corridor with an entrance orientation kiosk, two interpretive waysides, a day-use area, and the Terra Rica Interpretive Trail.

Above, an interpretive sign along the trail (left), the entrance to Terra Rica Interpretive Trail (middle), and the ICMBio Base Station at the entrance to the forest and Terra Rica Corridor (right).

Photo credit from left to right: Bonnie Lippitt, Lorena Brewster, and Ryan Finchum

3.6 APPROACH #6: PROMOTE MONITORING, EVALUATING, AND LEARNING

Incorporate ongoing evaluation, reflection, and adaptation into the overall program and its components.

Evaluation and documentation were cornerstones of the Partnership's work, facilitating learning and sharing not only between participants but by staff and partners agency wide.

All project and annual reports identified challenges, lessons learned, and recommendations in addition to documenting accomplishments.

- An annual partners meeting was convened each December to review work accomplished, learn from each other, discuss adaptations and course corrections, and plan upcoming work.
- USFS and partners conducted in-depth mid-term reviews in Ft. Collins and Portland.
- The Partnership participated in a 2-day "pause and reflect" gathering in December 2018 to evaluate overall PCAB impacts and begin planning for a new 5-year agreement. This review helped confirm approaches that were working, identify areas to strengthen, and highlight opportunities to integrate the many facets of the program more fully going forward.

4.0 OUTCOMES AND IMPACTS

The work of the Partnership, both within protected areas and in communities adjacent to them, supported the conservation of protected areas and biodiversity in the Amazon.

4.1 PUBLIC-USE PLANNING INSTITUTIONALIZED AND LINKED TO PROTECTED AREA MANAGEMENT PLANNING

The Partnership supported improved public use management plans that will help safeguard biodiversity and ecosystems while encouraging responsible visitation. The Partnership also identified potential policies, procedures and processes to extend biodiversity safeguards nationwide.

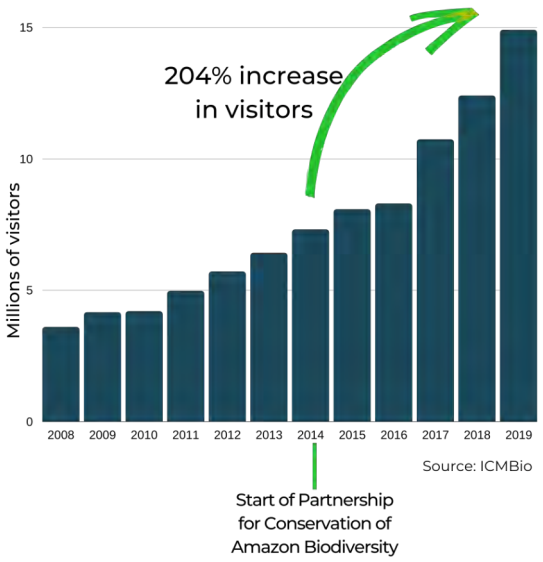
- ICMBio now has public use plans that outline the future conditions they would like to see, and they have experience using ROVUC to frame long-term monitoring of potential biophysical and visitor experience impacts in protected areas.
- During the project, ICMBio designed, developed, and maintained public use sites and facilities such as trails, restrooms, and information portals that facilitated use while minimizing impacts. Examples include:

- ICMBio developed interpretive plans that resulted in products to educate and encourage visitors to protect resources and visit responsibly. One such product is the video for the river dolphin floating station adjacent to Anavilhanas National Park.
- Projects in the Tapajós National Forest to improve the São Domingos (which includes the Granny Sumauma trail (see right), Maguari, and Jamaraqua community trails and site development concepts for the Terra Rica Corridor's Base Station and Interpretive Site.

4.2 INCREASED AWARENESS & VISITATION TO BRAZIL'S PROTECTED AREAS

As a result of public use planning efforts visitors from throughout Brazil and the world have more to experience and enjoy in protected areas.

Figure 5. Life of Project Visitor Increase



- The Partnership planned and developed appropriate public use settings, facilities, and services, including a robust menu of both in-person and self-guided interpretation and education products and programs. Examples include:
  - Interpretive exhibits about the Tapajós National Forest and partner sales outlets at the nearby Alter do Chao (highly visited river resort town) Community Tourism Center.
  - Bilingual interpretive tour materials for the Anavilhanas tour operators to use when guiding visitors through the popular Aquatic Trail.
  - A 44km hiking and mountain bike trail system in Brasilia National Park that includes an overnight station with a primitive bathroom. The trail system and facilities were built almost entirely by groups of volunteers and mountain-biking clubs. They were organized and trained by ICMBio trails staff.
  - Terra Rica Corridor improvement with an entrance orientation kiosk, two interpretive waysides, a day-use area, and the Terra Rica Interpretive Trail.

Above, artisans from Tapajós National Forest (TNF) sell their crafts at the Jamaraqua community-run craft store. The artisans use sustainable forest products like seeds and latex to create nature-inspired jewelry. To assess the impact of tourism and public use at ICMBio's demonstration site, the Partnership interviewed four focus groups -- residents of the protected areas or surrounding areas, tourism providers, ICMBio staff and visitors. Sixty eight percent (68.2%) of local guides interviewed from TNF said their income had increased. The remaining local guides said it had not changed, 27.3% or could not answer, 4.5%.

Photo credit: Leonardo Milano

4.3 COMMUNITY ENGAGEMENT & CONSERVATION EDUCATION ENHANCED

Rural communities that border protected areas have increased engagement in the management and stewardship of the National System of Conservation Units. Civic engagement through the Partnership helped develop and enhance mutually beneficial facilities, services, and products that support local livelihoods and Amazon conservation.

68%

Of local guides interviewed from TNF said their income had increased

- Community members and management councils participated in planning efforts for trails development projects such as aquatic trail development at Anavilhanas NP and the long-distance Chico Mendes Trail in Acre State.
- The Kalunga community near Chapada dos Veadeiros National Park partnered with the USFS to create innovative models for community-based tourism involving private sector tour operators, guides, lodging, dining, and transportation.

Above, local guide using the bilingual "backpack interpretive tour" to connect with visitors at the Tapajós National Forest

Photo credit: Micah Gregory

- Communities surrounding protected areas received training as tour guides and operators and support to develop products for revenue generation.
  - Community guides in TNF and tour boat operators in ANP participated in interpretation training with the ICMBio Interpretation Core Team.
  - Community members, guides, and partners participated in field-based trails construction and maintenance workshops at TNF and Chapada dos Veadeiros National Park.
  - The Tapajós communities of São Domingos, Maguari, and Jamaraqua developed interpretive signs for each community.
  - Community guides and tour operators in TNF and ANP created a bilingual "backpack interpretive tour" and "aquatic interpretive tour" for the protected areas. This allowed guides to consistently share ICMBio's key conservation messages and better serve non-Portuguese speaking clients, attracting more business and larger tips (see examples below).
  - Students in the schools surrounding protected areas now have interpretive materials that teach them about the importance of where they live. The Partnership also created templates that can be adapted to specific conservation units and/or mosaics.

4.4 INSTITUTIONAL CAPACITY BUILT

ICMBio and its partners now have greater multi-level institutional capacity for the stronger management of Amazonian conservation units, and they have the training to extend their know-how to others.

(See Figure 6 for the Ripple Effect graphic on capacity development for interpretation,)

"I often tell people that my recent career is a product of the collaboration...The results went far beyond tangible ones; it impacted our institutional culture and the way Brazilian managers "see" the relationship between protected area management, society and the economy. Like me, everyone directly involved in this project are proud to now understand this, as well as of all the positive outcomes our partnership has brought to Brazil's management of protected areas."

Paulo Faria, Environmental Analyst, ICMBio

- ICMBio now has core teams of experts in key functional areas who are able to lead agency-wide development and management of programs and training.
  - Expert core teams include management planning, public-use planning, trails, interpretation, and visitor use monitoring.
- The Partnership helped ICMBio develop policies and procedures, agency-wide norms, terms of references, and templates. Examples include:
  - Adapting the USNPS Foundation Documents approach to provide for consistent yet flexible, cost effective general management planning.
    - Completed plans for several protected areas, including Soure Marine Reserve and São Joaquim National Park.
  - Introducing contemporary, science-based public-use planning concepts and frameworks that led to the development of a formalized, ICMBio-approved public-use planning process documented in the "Methodological Guidelines for Developing Public Use Plans in Protected Areas." (see photo on right)
  - Helping build a "Strategy for Social Participation" into the management planning process.
  - Helping develop the "Fundamentals for Visitor Use Monitoring".

- The Partnership developed a multitude of tools and products to support protected area public use planning and management. Examples include:
  - The SIGEO, a GIS-based tool created by ICMBio and the Amazon Environmental Research Institute (Instituto de Pesquisa Ambiental da Amazonia) and adapted from the USNPS

Foundation Document Park Atlas, provides better integration and availability of geospatial data to ICMBio's protected area planning process.

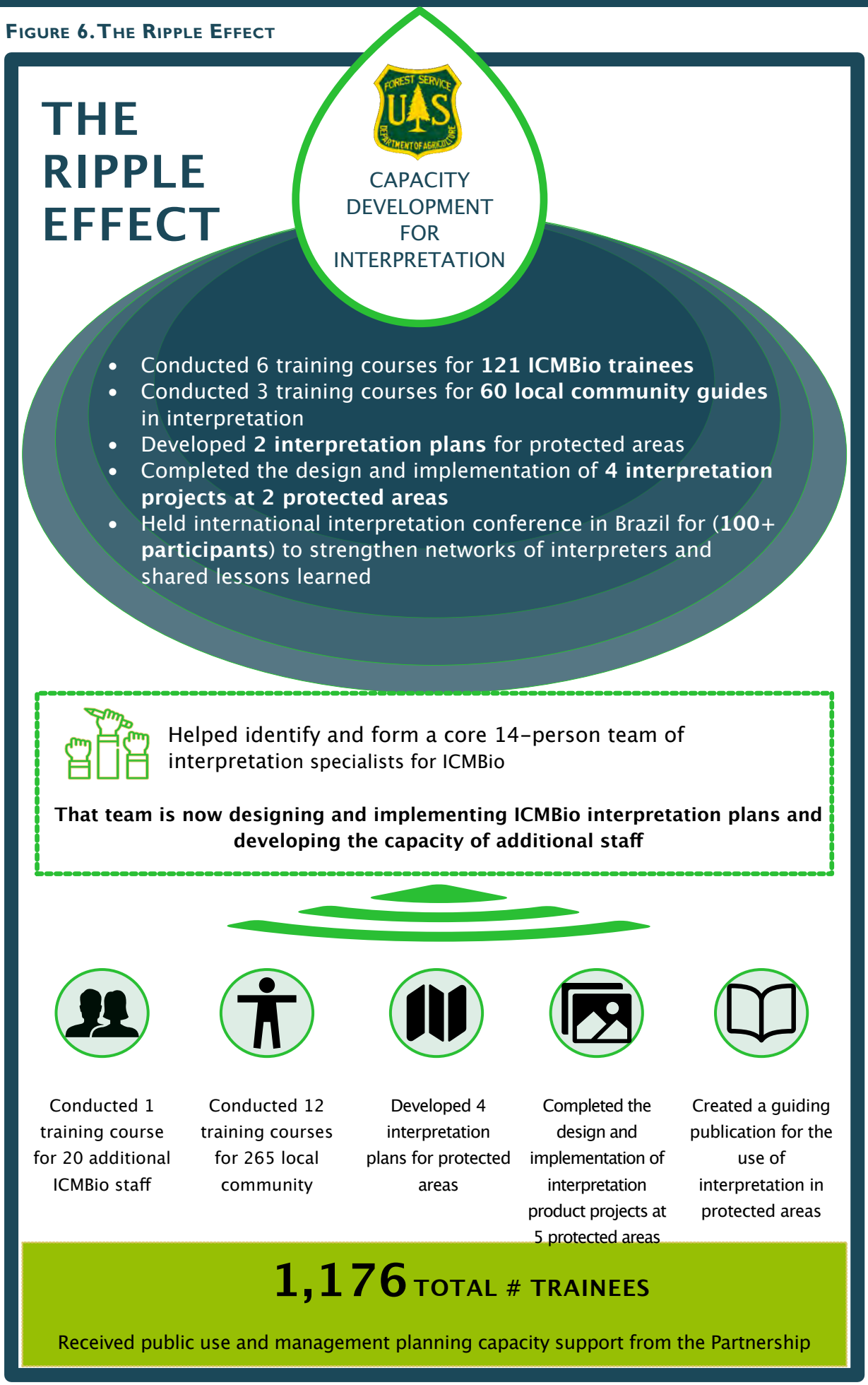
- ROVUC (photo above), a public use planning tool adapted from the USFS Recreation Opportunity Spectrum.
- The "Guidebook for Developing Non-Personal Interpretive Products in Protected Areas," a publication for planning and developing interpretive products and programs.
- Interpretive plans for six conservation units, including Tapajós National Forest, Anavilhanas National Park, Marinho dos Abrolhos National Park, Brasilia National Forest, Jaú National Park, and Costa dos Corais Environmental Protection Area.
- Numerous interpretive products such as signs, waysides, exhibits, displays, brochures, and videos.
- The "Fundamentals for Trail Planning" (adapted by ICMBio trails specialists from the USFS "Trail Fundamentals and Trail Management Objectives.")

- The Partnership implemented, adapted, and helped develop good management practices. Examples include:
  - ICMBio is now capturing more statistically valid user data to inform public use and management planning. Its visitor use monitoring program was strengthened by adapting well-established USFS and USNPS methods for a Brazilian context to estimate visitor expenditure and economic impact, undertaking more detailed studies of visitor perceptions, preferences and expenditure at demonstration sites, training dozens of staff in visitation counting and monitoring techniques, and more than doubling the number of protected areas where visitation statistics are monitored.
  - Facilitating two-way sharing, exchange, and mutual benefits between countries, institutions, and individuals involved in the Partnership.
    - 38 USFS employees made trips to Brazil to provide technical assistance in public use and protected area management. The result was learning between counterparts and the formation of professional bonds that allowed for later outreach on approaches to challenges.

"Working with my Brazilian counterparts has helped me to better understand the importance of our roles as managers of public lands. Even though we have cultural differences and different laws, a lot of the themes in public-land management resonate across both our countries. Understanding these differences helps me translate back here in the US, to the National Forests and our programs, where we can focus our efforts to reach the most people".

Garrett Villanueva, USFS Pacific SW Regional Trails and Travel Program Manager. Pictured on right with USFS badge.

FIGURE 6. THE RIPPLE EFFECT



5.0 LESSONS LEARNED

A critical component of the Partnerships' efforts focused on learning – learning together and documenting lessons learned to share broadly with others. U.S. specialists brought with them experience from decades of managing public lands using contemporary concepts and Brazilian specialists brought deep knowledge of the Amazon and the Brazilian context. Such learning is useful not only for Brazilian protected area managers, but for American land managers, academics, and NGOs. The following lessons learned supported the capacity development of ICMBio and its ability to manage a sustainable public use program in Brazil's protected areas.

LESSON 1: PARTNERSHIPS ARE FUNDAMENTAL

The work of the last five years strongly reinforced the necessity and importance of partnerships to the collective work of capacity development, management planning, and public use planning and implementation. It also deepened our understanding of how to engage in and sustain effective partnerships of all kinds.

- **Partnerships contribute to all facets of a project or ongoing program.** While the specific partners may vary depending on the phase, it is critical to involve partners in planning, development, implementation, and monitoring. At ANP, community councils participated in the review of the new management plan. Local stakeholders, environmental organizations, and tourism businesses helped develop the protected area's interpretive plan. The local boat operators' association worked with ICMBio staff to create the specific products designed for their use with visitors as called for in the interpretive plan.
- **Along with time, resources, and skills, partners bring crucial varying perspectives that support successful outcomes.** While we often focus on the tangible resources, partners help expand and explore the range of ideas, questions, concerns, and potential solutions involved in any joint effort. For example, what interpretative themes to explore at a site, or different ways to manage visitors, or how local communities can successfully attract tourists. Through different perspectives we end up with a better product than if one person designed a trail or came up with a way to manage visitors.
- **The level, duration, and formality of partnerships may vary, but all partnerships should be based on shared responsibilities, two-way communication, and benefits to all collaborators.** There are no one-size-fits-all partnerships. They occur at every organizational, national, regional, and local level. Some are intended to be long-term while others function most

effectively around a specific project or issue for a short period. We often think of partnerships in the formal sense, requiring a signed agreement to document roles and responsibilities, but remaining open to and working in informal partnership is also beneficial. For example, two managers agree to work together to plan, design and build a trail. They may recruit volunteers to build a trail and a community to maintain it. These are partnerships, even if they do not have a formal agreement. But they all have shared responsibilities: two managers taking different parts of trail design for example, or volunteers agreeing to build different sections of the trail.

- **It is important to invest in the training, time, and resources necessary to develop and sustain partnerships as part of an effective public use program.** Building the skills and confidence to work with partners is just as important as developing the technical skills in how to build a trail, develop an interpretive sign, or monitor visitor use. The "Trails Together 1" and "Trails Together 2" workshops were designed on an approach of doing both at the same time.

LESSON 2: AGENCY AND PARTNER CAPACITY DETERMINE WHAT CONSTITUTES A SUSTAINABLE PUBLIC USE PROGRAM

A sustainable public use program is one that enables an agency to fulfill its mission within the collective capacity of its partners and its staff while adding value to dependent communities commensurate to their social and economic investments as well as improving the protected area visitors' experience.

- **Public and private partnerships are essential to address a concept as complex as sustainable public use in a changing and large setting.** The Partnership was able to call upon the expertise of numerous U.S. and Brazilian agencies, universities, and non-governmental organizations to assist in building capacity for public-use planning.
- **It is important to understand the costs and staff requirements to plan, build, maintain, and operate facilities and programs over the long-term.** Additional considerations include how to monitor the effectiveness of its program to see that it is offering opportunities that the public values, and how to examine the mechanics and politics of its approaches.
    - For example, the cost of building, maintaining, and staffing a dock and small visitor center in Sao Domingos at the TNF to more effectively collect user fees may have exceeded the revenues to be collected and would have been difficult to enforce given the extensive shoreline access to communities along the corridor used by both commercial and private boats. The project was not sustainable as planned and could have become a liability if built and then not maintained.

LESSON 3: THE SCOPE AND SCALE OF CAPACITY DEVELOPMENT MUST REFLECT THE SCOPE AND SCALE OF THE PROBLEM BEING ADDRESSED

The Partnership approached all of its efforts with a broad sense of scope and scale, with the understanding that it was building agency-wide capacity.

- **Focus on both individual development and institutional strengthening simultaneously.** ICMBio staff learned to plan for a range of opportunities to increase the quality of the visitor experience at their protected areas. They also put institutional planning manuals and ROVUC into place.
- **Encourage the development of adaptable policies and procedures that can support sustained change over time.** A program remains sustainable, even though its context is highly variable, when policies and procedures accommodate new techniques and strategies adapted to changing needs.
- **Public use planning and operational programs must incorporate components such as interpretation, trails, volunteer opportunities, and partnerships that help connect Brazilians with their public lands.** These opportunities can be identified in the public-use planning document which can also highlight opportunities for connecting with the private sector and expanding economic gains.

LESSON 4: EFFECTIVE CAPACITY DEVELOPMENT FOR PUBLIC USE MANAGEMENT REQUIRES CONTINUITY OF RELATIONSHIPS, SIGNIFICANT RESOURCES, AND AN INTEGRATED APPROACH

The PCAB's 5-year emphasis on continuity and integration combined with a substantial investment of resources and USFS technical mentoring allowed the Partnership to build sustainable capacity at ICMBio.

- **USFS specialists were carefully chosen** for their wealth of knowledge and for their management perspectives. Visiting technical experts were/are recreation program managers in the U.S. who worked daily in multiple sectors to deliver an integrated program.
- **Capacity development is built upon relationships and understanding of context.** The continuous nature of core technical team membership helped build relationships and trust and made the train-the-trainer goal much easier to attain. Regular meetings with the same committed

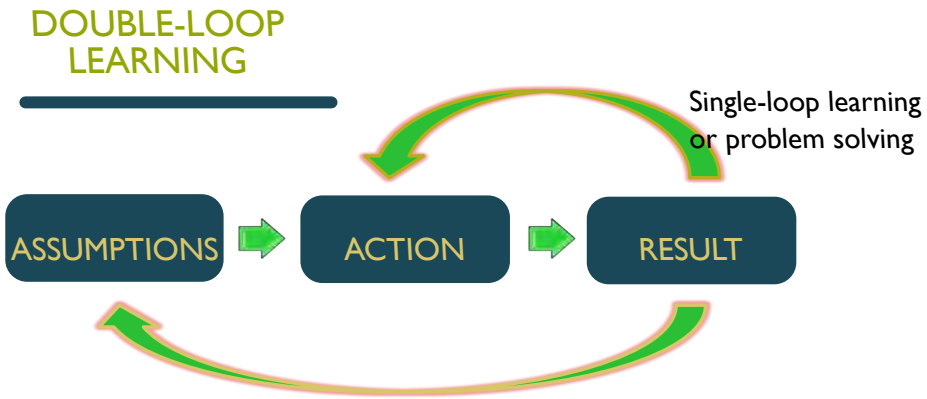
individuals from the U.S. and Brazil fostered a collective working knowledge of the Brazilian and Amazonian context and ensured program continuity.

- **Integrating across the "silos" of disciplines, directorates, and geographies as well as priority focus areas enhances overall efficiency and effectiveness.** The sum of the whole is greater than the parts when integration and synergy are strengthened.

LESSON 5: MANAGING ADAPTIVELY FOR GREATER IMPACT REQUIRES LEARNING

All dimensions of the program emphasized learning in some way or another. Learning is necessary in planning, development, operations, monitoring, and managing adaptively.

- **A "learning by doing" approach helps participants acquire concepts, skills, and techniques and to build confidence.** Real-time experiences in planning, designing, fabricating, and installing products and facilities occurred as part of train-the-trainers courses, product development team assignments, and ICMBio-led/USFS-mentored projects.
- **Use adult education principles in the design and application of courses and workshops and create an environment where participants can discuss the why, what and how of a subject.** For example, planners discussed why it is important to proactively plan for improved public use and they learned techniques for developing normative guidelines for visitor use monitoring.
- **Double-loop learning is essential to planning and management in a changing world.** Such learning involves both focusing on immediate cause-effect relationships (single loop learning) as well as understanding the factors that influence the immediate causes (double-loop learning) to enhance critical thinking skills. For example, demand for a particular protected area in the Amazon is largely a function of nearby population interest (single-loop learning) but changes in that demand are affected by large-scale societal interest in public lands as places to recreate (double-loop learning). Incorporating double-loop learning was a key to success and led to managing the Partnership adaptively.



Double-loop learning – Can help with complex situations to help us examine the underlying reasons for doing what we do. We may discover that our assumptions were wrong or inappropriate.

- **Encourage the integration of different forms of knowledge (experiential, local, scientific, indigenous) into planning and management decisions.** Partnership staff respected the legitimacy of all forms of knowledge when facilitating courses, workshops and technical assistance.

LESSON 6: DEVELOPING PUBLIC USE MANAGEMENT CAPACITY TAKES TIME AND A MULTI-FACETED APPROACH

- **Instructional messages must be repeated to be effective.** Reinforcing the same message through different channels increases the likelihood that lessons learned will be successfully applied in the field. This was done through presentations, then repeated through small group discussions and larger group debates, and then followed by on-the-ground implementation.
- **Developing capacity with multiple approaches helped us achieve greater success.** People equate capacity building with training courses. While the Partnership conducted numerous training courses, we also employed a wide range of approaches including study tours, international seminars, mentoring, training-of-trainers courses, the development of manuals and good practice documents, and demonstration sites to provide a variety of capacity development approaches.
- **Beyond the technical aspects of a topic, learning should also address interpersonal aspects, such as the leadership, communication, and social participation needed for successful implementation.** Technical knowledge alone is not sufficient for successfully implementing a sustainable program. Our approaches Included opportunities to provide leadership, fostering the confidence to make decisions, teach others, and help develop guidance policies.

LESSON 7: SOCIAL PARTICIPATION AND PARTICIPANT EQUITY ARE ESSENTIAL FOR LONG-TERM SUCCESS

The Partnership prioritized broad partner and public representation and engagement across all program focus areas, including ICMBio directorates and sister agencies, key stakeholders, regional and local civic councils, local business owners, community-based cooperatives, and members of traditional and indigenous communities.

Photo: Suelene Couto

- **Social participation built ownership and trust, particularly when community and partner representatives were part of the planning and implementation processes.**
- **Content design and delivery facilitates equity.** Equity started with the list of invitees and continued as facilitators ensured the content of the program was equitable, customized, and adapted to the specific needs and realities of each site, context, and programmatic component.
- **Consistent social participation and public engagement helps ICMBio achieve its mission**. Such a policy promotes equity, helps to avoid confusion among publics and staff, and facilitates more efficient and effective planning and decision making.

LESSON 8: CRITICAL THINKING AND LEADERSHIP ARE IMPORTANT

The focus on developing skills in critical thinking and leadership confidence, not just developing knowledge and technical skills, was fundamental to the positive outcomes and impact the Partnership was able to achieve.

- **Offer a range of perspectives and approaches**. Interdisciplinary and multi-organizational USFS/Partner teams helped bring appropriate knowledge and skills to apply to problem areas.
- **Share and discuss hard lessons learned.** Candidly discussing failures along with successes, as well as the strengths and weaknesses of selected approaches, helped both individuals and institutions learn from mistakes, build on what they are doing well, and identify alternative approaches. Reflecting on lessons learned throughout the five-year PCAB effort allowed all participants to learn and benefit.

6.0 A PROMISING WAY FORWARD

In the first five years, the Partnership focused on developing the public use component of protected area management and building the skills and experience necessary to plan and manage public use. The Partnership also used the time to build broader networks and relationships, and to connect more people to Brazil's public lands – as stewards and as visitors.

The Partnership has advanced ICMBio's and U.S. partners' institutional capacity for public use planning and management. Connections between Brazilians and their public lands are beginning to bear fruit, and communities are becoming more resilient as a result of increased visitation and the protection of ecosystem services. But, more work needs to be done to build sustainable tourism and greater

involvement by the private sector, which has been badly impacted by COVID-19. The below "A Possible Future" builds on the accomplishments of the past five years and suggests areas of the ecotourism value chain that could be addressed further to promote conservation and economic growth. The partners involved in the initial PCAB have indicated an interest in learning more about tourism value chains and how to connect with the private sector. In their vision plans, communities spoke about protecting their cultural heritage and building employment through tourism.

6.1 A POSSIBLE FUTURE

What is ecotourism? The International Ecotourism Society defines ecotourism as "responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education."

The Amazon is truly extraordinary. Twenty percent of the world's freshwater comes from the Amazon Basin. It is home to millions of plant and animal species, many found nowhere else. Millions of residents, including traditional river-based communities and isolated groups of indigenous people, live there and depend on the natural resources of the Basin for their livelihoods. The Amazon Basin's vast lands, forests and rivers protect large terrestrial and freshwater ecosystems that regulate climate on a global scale.

The Amazon's natural and cultural offerings draw visitors seeking a respite from the urban landscapes of both nearby cities and towns and countries around the world. The ecotourism industry that supports visitors from near and far is important to conservation because it is dependent upon the protection of biodiversity and effective management of parks and reserves. Amazonian wildlife and wildlands create nature-based job opportunities, improve livelihoods, and contribute to individual and collective health and well-being.

The sustainability of ecotourism in the Amazon has been threatened by the COVID-19 pandemic, stopping all travel to the region. Ecotourism will slowly return and contribute to the region's recovery. How the region uses ecotourism to rebuild is an important question, and one that we can start preparing for now.

The people of the Amazon region have an opportunity to re-think how ecotourism will develop and what will be the way forward. Will it rebuild the ecotourism sector piecemeal, the way it was originally built, or will ecotourism become a more integrated and strategic tool of community and regional development, focusing on increasing the resilience of the millions of people that call the Amazon home?

The U.S. Forest Service and partners believe in a strategic and integrated approach.

A Promising Way Forward. We envision a way forward that is *inclusive, integrated and adaptable,* characterized by **stronger local and regional leadership and ownership**; strengthened by partnerships across public and private institutions, and supported by government.

Enhancing Livelihoods through Ecotourism can Support Conservation of Amazon Biodiversity. Amazon residents are dependent on the biodiversity and ecosystem services that shape the region. By strengthening the linkages among ecotourism, livelihoods and biodiversity, conservation becomes a higher priority for communities and decision makers. Ecotourism can be integrated with existing development tools such as fisheries and production of timber and non-timber forest products, as a method to strengthen linkages among sustainable livelihoods.

The roadmap to "A Possible Future" begins with constructing a vision of conserving Amazon biodiversity with ecotourism and demonstrating how that vision can enhance community livelihoods and regional well-being. To support public, private, and local community sectors in the Amazon, an initial ecotourism value chain analysis would be helpful. The results of the analysis will help shape a shared vision and an action plan.

Based on USFS and partner experience with the region, local communities and public-private sector partnerships, re-envisioning ecotourism in the Amazon would likely include the following three actions:

1. Identify immediate and long-term markets for ecotourism in the Amazon region, current and possible private-public partnerships, and plans for destination management areas,
2. Strengthen and encourage current ecotourism business operations, building upon investments initiated in existing destinations, responding to local and national demand, and integrating with other types of sustainable livelihoods, and
3. Enhance community well-being through improved health and safety to strengthen the resilience, sustainability, and governance needed by communities, visitors and businesses.

Four Components of the Ecotourism Value Chain Worth Addressing:

1. **Market Analysis:** Conduct a market analysis in specific areas of the Amazon and solicit local and regional community review to determine what aspects of ecotourism interests them and to what scale.

2. **Ecotourism Opportunities and Obstacles:** Determine opportunities and obstacles for where ecotourism takes place, what activities and experiences occur and how much visitation occurs in protected areas, private reserves, indigenous territories and gateway communities. Note opportunities to integrate ecotourism with other sustainable activities in an area, such as production and processing of fish, açaí, Brazil nuts and local arts and crafts. This may include integrating ecotourism with other forms of tourism.
3. **Business Planning and Operations:** Identify how and when business relationships are conducted and the level and type of business investments that enhance ecotourism. This includes accounting, relationships with communities, working with customers and safety.
4. **Health and Well-being Strategy:** Determine what actions can be taken to maintain and enhance healthy lifestyles and community well-being. Strengthen visitor awareness of the physical and mental health benefits of outdoor recreation activities

The Result of Improving these Components of the Value Chain will Help Energize the Following Changes:

1. **Private Sector Involvement and Investment Built:** Government agencies expand collaboration with the private sector, including community-based, regional, national and international ecotourism entrepreneurs, to provide a wider range of ecotourism opportunities related to biodiversity on public lands, private reserves and in and near gateway communities.
2. **Market Niches and Ecotourism Segment Strengthened and Expanded:** The specific niches of the ecotourism market are strengthened, both by building on existing niches (such as birdwatching, sport fishing and recreation on seasonal beaches in the low season) and by segments (Amazonian, national and international ecotourism segments). Studying the experience of other regions of Brazil and other tropical nations, particularly in South America, offers opportunities to learn from the successes and challenges of others.
3. **Ecotourism Destinations Enhanced:** Begin at current ecotourism destinations with established infrastructure, products, and service providers, then expand recreational and business opportunities in and near existing destinations, major cities, and airports in the Amazon. Finally, strengthen distant destinations featuring unique attractions.
4. **New Business Products Developed:** Specific sustainable ecotourism activities, experiences and opportunities are developed. The range of sustainable ecotourism products is enlarged through integration with other non-timber products, such as acai, fish and community arts and crafts. Integration increases the average daily expenditure of visitors and thus increases the economic impact of ecotourism.

5. **Healthy Visitor Experiences and Communities Promoted:** Healthy Amazon cuisine and safe outdoor recreation is promoted. Communities located within or near protected areas are engaged, thus increasing the recognition of the importance of biodiversity and ecosystem services to economic development.

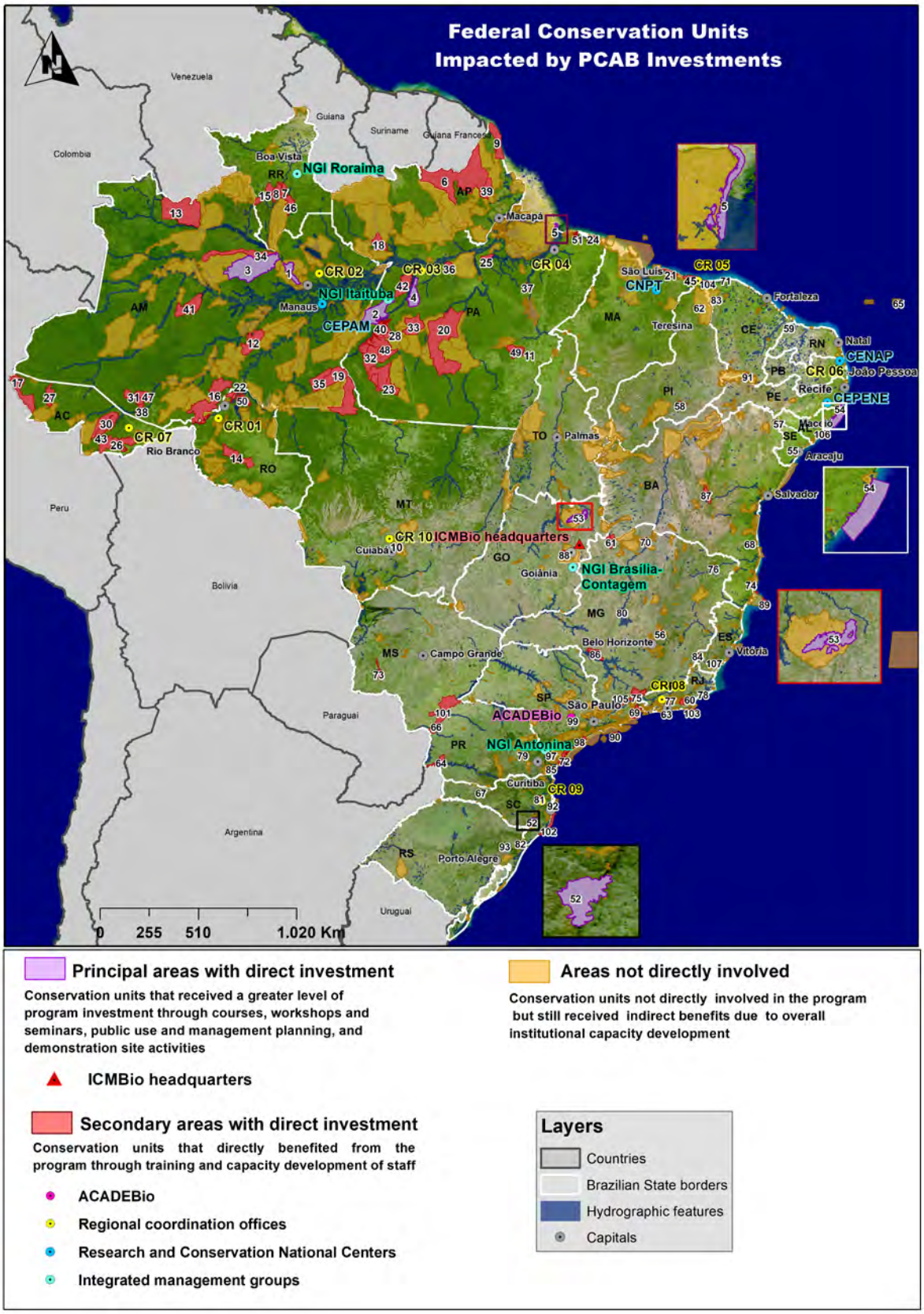
These Changes Will Lead to Three Major Outputs:

1. **Tour operator(s) and/or guides and attraction packages are available:** Public and private protected areas encourage, through policy and plans, expanded outdoor recreation and ecotourism. The private sector offers transportation, food service, lodging and guiding services that are required by visitors to enjoy and appreciate biological diversity in a safe and sustainable manner. Cooperation with non-forest products producers and processors is occurring.
2. **Needed infrastructure and programs are available:** The physical infrastructure needed by visitors (retail, food, lodging, transportation) as well as protected area infrastructure (such as research stations, visitor centers, trails, and signage) exists and diverse programs for visitor activities are ready.
3. **A Healthier Amazon for visitors and residents:** A healthy lifestyle is promoted involving cuisine, exercise, contemplation and learning to meet well-being goals. Local interest in sustainable utilization of protected areas, local or regional foods and gateway communities is supported and strengthened.

These Outputs lead to the Expected Outcome: Resilient, More Prosperous and Healthy Communities in the Brazilian Amazon Thrive while Biodiversity is Conserved

Protected areas and the species and ecosystems they contain are better protected; an expanded number of Amazonian protected areas and communities offer a more diverse and attractive array of ecotourism products and services to meet expanded demand by regional, national and international tourists; healthy life-styles, community well-being, and social welfare are enhanced as a result of ecotourism. A more resilient Amazon region is moving toward sustainable, inclusive, equitable growth. Biodiversity conservation and ecosystem protection are improved and sustained.

ANNEX 1: BRAZILIAN CONSERVATION UNITS IMPACTED BY PCAB INVESTMENTS IN PUBLIC USE AND MANAGEMENT PLANNING



Map credit: Amazon Environmental Research Institute

Brazil has 334 Federal Conservation Units managed by the Chico Mendes Institute for Biodiversity Conservation. The Units identified here had direct or indirect intervention by the Partnership for the Conservation of Amazon Biodiversity (PCAB). However, all 334 Units are in some way influenced by PCAB.

Principal areas with direct investment in Amazon Conservation Units

Strict protection

1, PARQUE NACIONAL DE ANAVILHANAS
2, PARQUE NACIONAL DA AMAZÔNIA
3, PARQUE NACIONAL DO JAÚ

Sustainable use

4, FLORESTA NACIONAL DE TAPAJÓS
5, RESERVA EXTRATIVISTA MARINHA DE SOURE

Secondary areas with direct investment in Amazon Conservation Units

Strict protection

6, PARQUE NACIONAL MONTANHAS DO TUMUCUMAQUE
7, PARQUE NACIONAL VIRUÁ
8, ESTAÇÃO ECOLÓGICA DE NIQUIÁ
9, PARQUE NACIONAL DO CABO ORANGE
10, PARQUE NACIONAL DA CHAPADA DOS GUIMARÃES
11, PARQUE NACIONAL DOS CAMPOS FERRUGINOSOS
12, PARQUE NACIONAL NASCENTES DO LAGO JARI
13, PARQUE NACIONAL DO PICO DA NEBLINA
14, PARQUE NACIONAL DE PACAÁS NOVOS
15, PARQUE NACIONAL SERRA DA MOCIDADE
16, PARQUE NACIONAL MAPINGUARI
17, PARQUE NACIONAL DA SERRA DO DIVISOR
18, RESERVA BIOLÓGICA DO RIO TROMBETAS
19, PARQUE NACIONAL DO JURUENA
20, ESTAÇÃO ECOLÓGICA DA TERRA DO MEIO
21, PARQUE NACIONAL DOS LENÇOIS MARANHENSES
22, ESTAÇÃO ECOLÓGICA DE CUNIÃ
23, PARQUE NACIONAL DO RIO NOVO

Sustainable use

24, RESERVA EXTRATIVISTA MARINHA CAETÉTAPERAÇU
25, FLORESTA NACIONAL DE CAXIUANÃ
26, RESERVA EXTRATIVISTA CHICO MENDES
27, RESERVA EXTRATIVISTA RIOZINHO DA LIBERDADE
28, FLORESTA NACIONAL DE ITAITUBA I
29, RESERVA EXTRATIVISTA MARACANÃ
30, RESERVA EXTRATIVISTA DO CAZUMBÁ-IRACEMA
31, FLORESTA NACIONAL DE MAPIÁ-INAUINÍ
32, FLORESTA NACIONAL DO CREPORI
33, RESERVA EXTRATIVISTA RIOZINHO DO ANFRÍSIO
34, RESERVA EXTRATIVISTA DO RIO UNINI
35, FLORESTA NACIONAL DE JATUARANA
36, RESERVA EXTRATIVISTA RENASCER
37, RESERVA EXTRATIVISTA IPAÚ-ANILZINHO
38, RESERVA EXTRATIVISTA ARAPIXI
39, FLORESTA NACIONAL DE AMAPÁ
40, FLORESTA NACIONAL DE ITAITUBA II
41, FLORESTA NACIONAL DE TEFÉ
42, RESERVA EXTRATIVISTA TAPAJÓS ARAPIUNS
43, FLORESTA NACIONAL DE MACAUÃ
44, RESERVA EXTRATIVISTA LAGO DO CUNIÃ
45, ÁREA DE PROTEÇÃO AMBIENTAL DELTA DO PARNAIBA
46, FLORESTA NACIONAL DE ANAUÁ
47, FLORESTA NACIONAL DE PURUS
48, ÁREA DE PROTEÇÃO AMBIENTAL DO TAPAJÓS
49, FLORESTA NACIONAL DE CARAJÁS
50, FLORESTA NACIONAL DE JACUNDÁ
51, RESERVA EXTRATIVISTA CHOCOARÉ-MATO GROSSO

Principal areas with direct investment

Strict protection

52, PARQUE NACIONAL DE SÃO JOAQUIM
53, PARQUE NACIONAL DA CHAPADA DOS VEADEIROS

Sustainable use

54, ÁREA DE PROTEÇÃO AMBIENTAL COSTA DOS CORAIS

Secondary areas with direct investment

Strict protection

55, PARQUE NACIONAL DA SERRA DE ITABAIANA
56, PARQUE NACIONAL DA SERRA DA CIPÓ
57, MONUMENTO NATURAL DO RIO SÃO FRANCISCO
58, PARQUE NACIONAL DA SERRA DA CAPIVARA
59, PARQUE NACIONAL DA FURNA FEIA
60, RESERVA BIOLÓGICA UNIÃO
61, PARQUE NACIONAL GRANDE SERTÃO VEREDAS
62, PARQUE NACIONAL DE SETE CIDADES
63, PARQUE NACIONAL DA TIJUCA
64, PARQUE NACIONAL DO IGUAÇU
65, PARQUE NACIONAL MAR. DE FERNANDO DE NORONHA
66, PARQUE NACIONAL DE ILHA GRANDE
67, PARQUE NACIONAL DAS ARAUCÁRIAS
68, PARQUE NACIONAL DA SERRA DAS LONTRAS
69, PARQUE NACIONAL DA SERRA DA BOCAINA
70, PARQUE NACIONAL CAVERNAS DO PERUAÇU
71, PARQUE NACIONAL DE JERICOACOARA
72, PARQUE NACIONAL DO SUPERAGUI
73, PARQUE NACIONAL DA SERRA DA BODOQUENA
74, PARQUE NACIONAL DO DESCOBRIMENTO
75, PARQUE NACIONAL DO ITATIAIA
76, RESERVA BIOLÓGICA DA MATA ESCURA
77, PARQUE NACIONAL DA SERRA DOS ORGÃOS
78, PARQUE NACIONAL RESTINGA DE JURUBATIBA
79, PARQUE NACIONAL DOS CAMPOS GERAIS
80, ESTAÇÃO ECOLÓGICA DE PIRAPITINGA
81, PARQUE NACIONAL DA SERRA DO ITAJAÍ
82, PARQUE NACIONAL DE APARADOS DA SERRA
83, PARQUE NACIONAL DE UBAJARA
84, PARQUE NACIONAL DE CAPARAO
85, PARQUE NACIONAL DE SAINT-HILAIRE/LANGE
86, PARQUE NACIONAL DA SERRA DA CANASTRA
87, PARQUE NACIONAL DA CHAPADA DIAMANTINA
88, PARQUE NACIONAL DE BRASÍLIA
89, PARQUE NACIONAL MARINHO DOS ABROLHOS
90, REFÚGIO DE VIDA SILVESTRE DO ARQUIPÉLAGO DE ALCATRAZES

Sustainable use

91, FLORESTA NACIONAL DO ARARIPE-APODI
92, ÁREA DE PROTEÇÃO AMBIENTAL ANHATOMIRIM
93, FLORESTA NACIONAL DE CANELA
94, ÁREA DE PROTEÇÃO AMBIENTAL DA BACIA DO RIO SÃO JOÃO - MICO LEÃO
95, ÁREA DE PROTEÇÃO AMBIENTAL DE GUAPI-MIRIM
95, ÁREA DE PROTEÇÃO AMBIENTAL DE CAIRUÇU
97, APA RIO PARDINHO E RIO VERMELHO
98, ÁREA DE PROTEÇÃO AMBIENTAL DE CANANÉIA-IGUAPÉ-PERUÍBE
99, FLORESTA NACIONAL DE IPANEMA
100, FLORESTA NACIONAL DE BRASÍLIA
101, ÁREA DE PROTEÇÃO AMBIENTAL ILHAS E VÁRZEAS DO RIO PARANÁ
102, ÁREA DE PROTEÇÃO AMBIENTAL DA BALEIA FRANCA
103, RESERVA EXTRATIVISTA MARINHA ARRAIAL DO CABO
104, ÁREA DE PROTEÇÃO AMBIENTAL DELTA DO PARNAIBA
105, ÁREA DE PROTEÇÃO AMBIENTAL SERRA DA MANTIQUEIRA
106, RESERVA EXTRATIVISTA MARINHA DA LAGOA DO JEQUIÁ
107, FLORESTA NACIONAL DE PACOTUBA

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