

**10 YEARS** 

**ACTIVITY REPORT 2018** 

# MESSAGE FROM THE PRESIDENT

In 2018, the Amazon Fund completed ten years of existence. During this decade, it surpassed the mark of 100 approved projects, with more than R\$ 1 billion in financial support to projects that reconcile environmental conservation with the sustainable development of the Amazon region.

The Amazon Fund's track record has been positive not only in quantitative aspects, with the growth of donations received, projects approved and disbursements of resources; but also in qualitative aspects of its performance, such as wide territorial distribution, the variety of supported activities and implementing institutions, the capillarity reached in the support to the Amazon Fund's priority public and the periodic review of the focuses of support with the purpose of ensuring effectiveness in the destination of the resources.

The Amazon Fund is a mechanism of climate financing based on the concept of payment for results obtained in the reduction of emissions of greenhouse gases caused by deforestation. By valuing the ecosystem services provided by the Amazon to Brazil and to the world, it raises contributions from the world and from Brazil to protect the forest, in a process in which all benefit.

The importance of the Amazon is intrinsically linked to the competitiveness of the Brazilian agribusiness in the global market, as well as to the electricity generation capacity of hydroelectric plants in the rest of the country, since forests are a key element in the rain cycle of the continent. Thus, forest conservation is based on a comprehensive set of actions of national interest, including a new climate economy and the valorization of social, environmental, cultural and demographic assets of the country.

As we celebrate the 10<sup>th</sup> anniversary of the Amazon Fund, we express our appreciation to the donors for their support to the fund over time, which has translated into actions for the sustainable development of Brazil. We also thank all present and past members of Amazon Fund's Steering Committee, as well as those responsible for implementing the supported projects and those who are somehow part of the fund's history.

We reiterate our commitment to continually improve the management of the Amazon Fund, always seeking to increase its positive impacts, in harmony with the guidelines issued by its Steering Committee.

#### Thank you and good reading!

May 2019

Joaquim Vieira Ferreira Levy PRESIDENT OF BNDES

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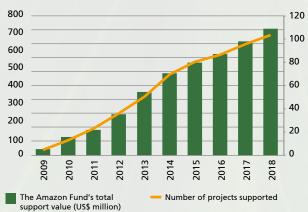
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# **EXECUTIVE SUMMARY**

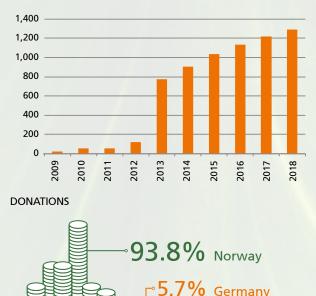
The Amazon Fund applies nonreimbursable resources to support actions to prevent, monitor and combat deforestation, as well as promotes the sustainable use of resources in the Brazilian Amazon region.

Up to 20% of the fund's resources may be allocated to support the development of systems for monitoring and controlling deforestation in other Brazilian biomes and in other countries with tropical forests.

EVOLUTION OF THE AMAZON FUND'S SUPPORT (CUMULATIVE VALUES)



EVOLUTION OF DONATIONS RECEIVED (US\$ MILLIONS, CUMULATIVE)



0.5% Petrobras

# 10 years of activity

Created on August 1, 2008 (Decree N°. 6,527), the fund started its operations in 2009.

In 2018, it reached a total of:

# 103 supported projects

uss 720.6 million

total amount of support

uss 458.7 million disbursed

uss **1.3** billion donations received

#### **RESULTS ACHIEVED BY THE** SUPPORTED PROJECTS:



#### 746,000 rural properties registered in the Rural Environmental Registry (CAR)



162,000 people benefited from sustainable productive activities

### 687

environmental inspection missions carried out

#### 65% of the Amazonian indigenous lands' area supported









scientific or informative publications produced

protected areas supported

### 338

190

465

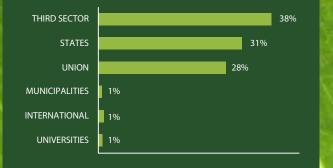
institutions supported directly and through partners



### NUMBER OF SUPPORTED PROJECTS BY LOCATION



## NATURE OF THE INSTITUTIONS SUPPORTED (% OF THE VALUE)



### MANAGEMENT AND GOVERNANCE

The fund is managed by BNDES, which is responsible for:

- » raising donations;
- » contracting and monitoring the supported projects; and
- » disclosing activities, outcomes and impacts.

Its GOVERNANCE structure consists of two committees:

#### GUIDANCE COMMITTEE OF THE AMAZON FUND (COFA)

Composed of representatives of the Federal Government, state governments and civil society, COFA determines the guidelines and monitors the results obtained by the fund.

#### TECHNICAL COMMITTEE OF THE AMAZON FUND (CTFA)

Composed of independent specialists, CTFA certifies the reductions in greenhouse gas emissions resulted from deforestation.

# 2018 HIGHLIGHTS



new projects approved



### TRANSPARENCY

Modernization of the website with new features, including search tools and interactive map for localization of projects:

WWW.FUNDOAMAZONIA.GOV.BR

### INSTITUTIONAL RELATIONS

- The Amazon Fund's 10-year celebration in Oslo (Norway), with the participation of the environmental ministers of Brazil and Norway; and
- Hosting of a forum in São Paulo (SP) about businesses with socio-environmental impacts in the Amazon region.

# INTRODUCTION

# Context

The Amazon Fund is a pioneering initiative to finance actions to Reduce Emissions from Deforestation and Forest Degradation (REDD+).<sup>1</sup> It was presented by Brazil in 2007 at the Conference of the Parties (COP 13) of the United Nations Framework Convention on Climate Change (UNFCCC), and BNDES had its creation authorized in 2008, by Decree N°. 6,527 of the Presidency of the Federative Republic of Brazil.

The fund receives voluntary donations for nonrefundable investment in actions to prevent, monitor and combat deforestation, besides promoting the conservation and sustainable use of the Brazilian Amazon. In addition, up to 20% of the fund's resources may be allocated to support the development of deforestation monitoring and control systems throughout Brazil and in other countries with tropical rainforests.

The Amazon Fund relies on a solid participatory governance system led by the Amazon Fund Steering Committee (COFA). Among other attributions, COFA is in charge of setting its guidelines and monitoring its results. It is chaired by the Brazilian Ministry of the Environment (MMA), with 23 members drawn from three groups: Federal Government, state governments and civil society. The Amazon Fund also has a Technical Committee (CTFA) comprising renowned experts responsible for attesting the amount of reduction of carbon emissions from deforestation calculated by the MMA.

With the establishment, in 2015, of the Brazilian National Strategy for REED+ (ENREDD+), and the National REDD+ Commission (CONAREDD+),<sup>2</sup> the Amazon Fund became eligible to receive payments for REDD+ results achieved by Brazil and recognized by the UNFCCC.

Management of the Amazon Fund was entrusted to BNDES, which is responsible for raising and investing funds, monitoring and supervising supported projects. The Bank is also responsible for submitting accountability reports, and communicating results in a continuous and transparent manner.

By the end of 2018, the Amazon Fund had received R\$ 3.4 billion in donations, of which 93.3% came from the government of Norway, 5.7% from the government of Germany – through KfW Entwicklungsbank –, and 0.5% from Petróleo Brasileiro S.A. (Petrobras).

<sup>&</sup>lt;sup>1</sup> REDD+ is an instrument developed under the United Nations Framework Convention on Climate Change (UNFCCC) to financially reward developing countries for their results related to: (i) reduction of emissions from deforestation; (ii) reduction of emissions from forest degradation; (iii) conservation of forest carbon stocks; (iv) sustainable management of forests; and (v) increase in forest carbon stocks.

<sup>&</sup>lt;sup>2</sup> The rules and criteria for raising and using funds from payments for REDD+ results are defined by CONAREDD+, responsible for coordinating, monitoring and supervising the implementation of ENREDD+. The full text of Decree N°. 8,576/2015, which created CONAREDD+, can be accessed at http://www.planalto.gov.br/ccivil\_03/\_ Ato2015-2018/2015/Decreto/D8576.htm.

The Amazon Fund finishes 2018 with a portfolio of 103 supported projects, 21 of which have been concluded. Funds assigned to these projects total around R\$ 1.9 billion, of which 57% have been already disbursed.

# Amazon Fund objectives

To achieve its objectives, the Amazon Fund supports projects related to preventing, monitoring and combating deforestation and promoting the conservation and sustainable use of the Brazilian Amazon in the following areas specified in Decree N°. 6,527/2008:

- management of public forests and protected areas;
- II. environmental control, monitoring and inspection;
- III. sustainable forest management;
- IV. economic activities developed from the sustainable use of vegetation;
- Ecological and Economic Zoning (ZEE), land-use planning and landholding regularization;
- VI. conservation and sustainable use of biodiversity; and
- VII. recovery of deforested areas.

The decree also provides for the use of up to 20% of the fund's resources to support the development of deforestation monitoring and control systems in other Brazilian biomes and in tropical rainforests in other countries.

Initiatives eligible for support from the Amazon Fund must comply with the Action Plan for Prevention and Control of Deforestation in the Brazilian Amazon (PPCDAm), ENREDD+, state plans to prevent and combat deforestation, COFA's guidelines and criteria, and BNDES's operational policies.

## The Amazon Fund at BNDES

BNDES, a federal state-owned company founded in 1952, participates in the financing of several segments of the Brazilian economy, such as infrastructure, industry, micro and small-sized companies, among others, encouraging innovation, regional development, and good socioenvironmental practices.

BNDES's mission is to foster sustainable and competitive development in the Brazilian economy, generating employment as well as reducing social and regional inequalities. The Bank has a track record of significant results for Brazilian economic and social development. The performance of its various activities requires permanent training of staff, hired through nationwide public examinations. Decision making at BNDES is collective and transparent, based on technical parameters submitted to auditing and control by external bodies set up exclusively for this purpose.

For BNDES, social and environmental responsibility means to value the integration of the social and environmental dimensions into its strategy, policies and practices, procedures, activities, and into the relationship with its diverse audience. This definition, as well as the guidelines and principles for the Bank's socially and environmentally responsible performance, are set forth in its Corporate Social Responsibility Policy (PRSA), whose most recent version was approved in 2014 by its Advisory Board.

BNDES has a broad portfolio of financial instruments to promote sustainable development, offering more attractive conditions to support sectors with positive externalities, such as renewable energy, sanitation, urban mobility and forest restoration. The Bank's support value for the green economy in 2018 was R\$ 11.9 billion, accounting for about 17% of total disbursements.

In addition, due to the risks and opportunities related to the socio-environmental agenda, BNDES has action plans aimed at promoting progressive advances in its operations, in line with the PRSA. These plans are approved by the Advisory Board and submitted to the Central Bank of Brazil and are monitored by the company, which accompanies the publication of periodic BNDES's reports on achievements and difficulties in implementing the planned actions.

For the triennium 2018-2020, the plan aims to strengthen the Bank's efforts to implement the Sustainable Development Objectives (ODS) and the Nationally Determined Contribution (NDC) to achieve the goals of the Paris Agreement, improve the socio-environmental risk management system and increase transparency and dialogue with society about its performance in sustainability.

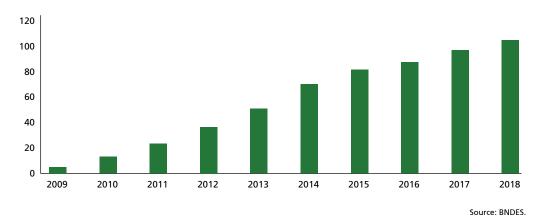
#### TO LEARN MORE ABOUT BNDES'S PRSA:

Social and Environmental Responsibility Policy: BNDES Portal > Menu > Social and Environmental Responsibility

# Recent development, challenges and perspectives

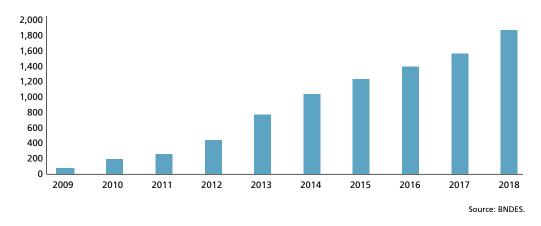
In 2018, the Amazon Fund completed a decade of existence and consolidated itself as a world reference in payment for results achieved in the reduction of carbon emissions associated with deforestation. This positive trajectory of the Amazon Fund should be a source of pride for all Brazilians, who are the most benefited regarding the sustainable development of the Amazon.

After the initial months of pre-operational arrangements, the first projects began to be revised and approved in 2009. After completing ten years of operations, the Amazon Fund reached 103 projects supported, totaling approximately R\$ 1.9 billion in financial support (see graphs 1 and 2).



GRAPH 1: AMAZON FUND – PROJECTS SUPPORTED (CUMULATIVE)

GRAPH 2: AMAZON FUND - TOTAL AMOUNT OF SUPPORT (R\$ MILLION - CUMULATIVE)

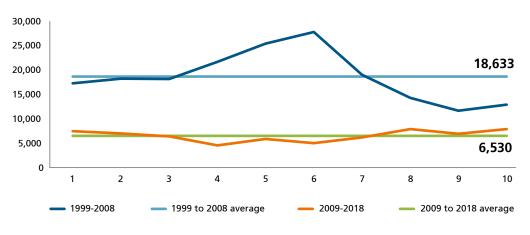


Regarding the scope of resources available, the Amazon Fund supports projects in all states of the Brazilian Amazon and in five Brazilian states outside the

Brazilian Amazon for the implementation of the Rural Environmental Registry (CAR). It also has an international project that covers eight countries of the regional Amazon for monitoring forest via satellite.

These are projects that operate at the regional level with federal agencies such as the National Institute for Space Research (Inpe), the Brazilian Forest Service (SFB) and the Brazilian Institute for the Environment and Renewable Natural Resources (Ibama); at the state level, with the fire brigades and state environmental agencies (Oema); and at the local level with cooperatives, associations and third sector organizations.

Although deforestation rate in the Amazon is still significant and has grown by 14% in the 2018 forest year, the results achieved by Brazil in reducing deforestation since 2004 continue to be a worldwide reference as a mitigating action on climate change. When comparing the deforestation average of the last ten years with the average of the previous ten years, a reduction of 65% is observed, that is, practically one third of what was observed in the previous period (see Graph 3). More than the millions of tonnes of carbon dioxide ( $CO_2$ ) that have not been released into the atmosphere and have a global impact, this is an achievement of the Brazilian society that means the search for a balanced development of the region, combating illegality and protecting the country's rainfall regime.



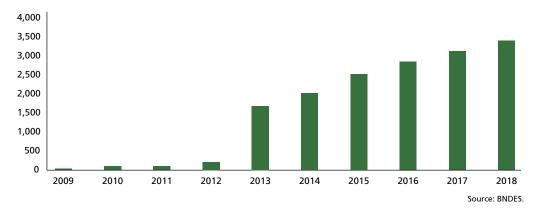
GRAPH 3: ANNUAL DEFORESTATION RATES IN THE BRAZILIAN AMAZON (KM<sup>2</sup>/YEAR)

Source: Elaborated by the authors, based on Prodes/Inpe.

Consistent with the good results achieved in reducing deforestation and implementing the Amazon Fund, there was an increase in funds for Brazil to intensify efforts in favor of the region's sustainable development (see Graph 4). Donors have increased support for the Amazon Fund in recognition of the quality of governance, transparency and management models proposed by Brazil, supported by the strengthening of the concept and implementation of the REDD+ mechanism in the United Nations Climate Convention.

#### Introduction

In ten years of existence, the Amazon Fund raised donations in the amount of R\$ 3.4 billion, corresponding to US\$ 1.3 billion, coming from Norway (93.8%), Germany (5.7%), and Petrobras (0.5%).



GRAPH 4: EVOLUTION IN THE DONATIONS RECEIVED BY AMAZON FUND (R\$ MILLION - CUMULATIVE)

Participatory governance has proved itself to be effective, ensuring the alignment of the fund with relevant public policies. Comprising representatives of the Federal Government, Brazilian Amazon's state governments and civil society, with the leadership of the MMA, COFA met twice in 2018, totaling 25 meetings of this committee. Among COFA's deliberations for this year, it is worth highlighting the definition of guiding criteria for: (i) supporting projects in land reform settlements; (ii) supporting projects of the Military Fire Brigade of the states of the Brazilian Amazon for preventing and combating forest fires and unauthorized fires; and (iii) supporting projects for elaborating, revising, detailing and implementing the ZEE. As a guideline, support was also provided for the development of an impact business ecosystem in the Brazilian Amazon, as well as economic instruments that allow the Amazon Fund's resources to be merged with private resources or other funding.

Regarding the implementation of the REDD+ system in Brazil, since the establishment of the Warsaw Framework in 2013, the country has been advancing in meeting the requirements for full recognition of its results of emission reduction from deforestation. Under the decree that established CONAREDD+ in 2015, the Amazon Fund was formally designated as an eligible instrument for fundraising through payment for results within UNFCCC's scope. In 2018, the Amazon Fund participated in the work carried out by MMA on this theme, as in the relevant process of development of the Safeguards Information System (SISREDD+).

One of the 2018 highlights was the launch of the new Amazon Fund website with a modern and friendly layout expanding and making the vast amount of available information more accessible. Among other improvements, there was the implementation of the project search multicriteria system, the interactive map, and the new library, which allows the availability of videos and publications produced by the projects. Since the beginning of the Amazon Fund's operations, transparency has been one of the pillars of its activities, enabling all interested parties to follow the activities developed and, mainly, the allocation of resources, with a large roll of information on the projects supported.

With respect to the project portfolio, in 2018 there were 11 projects approved in an Amazon Fund's total support amount of R\$ 378.5 million, the largest volume of approvals in one year since the beginning of its operations. There are projects of inspection; land and environmental regularization; management of protected areas; and sustainable production.

Furthermore, the processing of the two public calls launched in 2017 continued. The public call for Consolidation and Strengthening of Sustainable and Inclusive Value Chains received eighty proposals, of which 36 qualified in the first phase. These projects were analyzed by the classification committee in July 2018, which resulted in six proposals selected. In November 2018, COFA decided to increase the budget allocation for this public call. Another five proposals were included, totaling 11 proposals to be analyzed by BNDES. In relation to the public call for Plant Cover Recovery, the proposals will still be evaluated by the classification committee. Thirty proposals have been received, which are in phase of documentary qualification and preliminary registry evaluation.

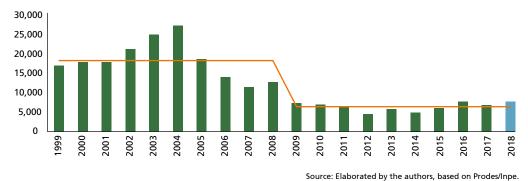
In 2018, six other projects were concluded by the fund, totaling 21 projects. For these projects, the Amazon Fund's website published detailed information on results and impact indicators, institutional and administrative aspects, lessons learned and sustainability of results.

Among the events promoted by the Amazon Fund in 2018, the following stand out: (i) the 10-year celebration of the Amazon Fund in Oslo, which was attended by the Environment Ministers of Brazil and Norway, and had two panels with experts and project beneficiaries to discuss the progress of this first decade and the challenges for the coming years; and (ii) the forum held in São Paulo to discuss bottlenecks and business opportunities for businesses with a socio-environmental impact on the Amazon, a promising initiative directed at integrating the private productive and financial sectors in the construction of a sustainable economy in the region.

The agenda for the next ten years remains quite challenging, as deforestation rates remain at significant levels, despite showing a slowdown. Therefore, it will be increasingly crucial to differentiate legal from illegal deforestation, in order to seek the appropriate incentives for each situation and achieve the goals set forth in the Brazilian NDC. Progress in the implementation of the Forest Code, as well as the creation of technical and economic conditions to promote forest recovery, will be two important instruments for this purpose. Combating illegality must also be strengthened, as environmental crimes end up feeding on the climate of insecurity generated by other illegal activities, such as illegal gold digging, drug trafficking, and others. The Amazon is the wealth and pride of all Brazilians. The effort to build a development model for the region that reconciles progress and conservation is the same that accompanies the history of all human societies in their evolution.

# Data on deforestation in the Brazilian Amazon

Preliminary data from Inpe indicate that deforestation in the Amazon during the period from August 1, 2017 to July 31, 2018 was 7,900 km<sup>2</sup>. As can be seen in Graph 5, since 2004, when the Federal Government established the PPCDAm, annual deforestation rates in the Amazon region fell significantly until 2009. Since then, they have oscillated around 6,500 km<sup>2</sup>, still significant, but considerably smaller than in previous periods.



GRAPH 5: DEFORESTATION IN THE BRAZILIAN AMAZON, BY SHALLOW CUTTING (KM<sup>2</sup>)

source. Elaborated by the authors, based on riodes/hipe

Table 1 presents 2018 deforestation rates in the states that comprise the Brazilian Amazon, compared to deforestation rates of the previous year.

States	2017 deforestation (km²)	2018 deforestation* (km²)	Deforestation variation 2018/2017 (%)
Acre	257	470	83
Amazonas	1,001	1,045	4
Amapá	24	0	(100)
Maranhão	265	281	6
Mato Grosso	1,561	1,749	12
Pará	2,433	2,840	17
Rondônia	1,243	1,314	6
Roraima	132	176	33
Tocantins	31	25	(19)
Brazilian Amazon	6,947	7,900	14

#### TABLE 1. DEFORESTATION PER STATE

Source: Prodes/Inpe. \* Provisional datum. There was an increase of 953 km<sup>2</sup> (14%) in the deforested area of the Brazilian Amazon in 2018 (still provisional datum<sup>3</sup>) compared to the previous year. There was an increase in deforestation in almost all states of the region, except for Amapá<sup>4</sup> and Tocantins, which are traditionally the states with the lowest rate of deforestation.

Historically, electoral years may have a negative impact<sup>5</sup> on deforestation rates, but it is not yet possible to assess the major causes of this rate increase to 7,900 km<sup>2</sup>, the highest in the last ten years.



<sup>&</sup>lt;sup>3</sup> The annual rates are estimated based on the deforestation increase identified in each satellite image that covers the Brazilian Amazon. The first presentation of data is performed for December of each year, as an estimate. The consolidated data are presented in the first half of the following year.

<sup>&</sup>lt;sup>4</sup> The monitoring of deforestation in the state of Amapá is hampered by the high incidence of clouds, which may lead to adjustments in the final data of deforestation in this state.

<sup>&</sup>lt;sup>5</sup> RODRIGUES-FILHO, S. *et al.* Election-driven weakening of deforestation control in the Brazilian Amazon. *In*: ROBINSON, Guy M. (org.). *Land use policy*, v. 43, *[S.L.]*: Elsevier, Feb. 2015, p. 111-118. Available at: https://www.sciencedirect.com/science/article/abs/pii/S0264837714002439. Accessed on: March 14, 2019.

# GOVERNANCE, FUNDRAISING AND COMMUNICATION

# Governance of the Amazon Fund

The governance model of the Amazon Fund enables the participation of the various players involved in the initiative, in order to contribute to the achievement of its goals.

The Amazon Fund relies on a governance structure comprising two committees with representatives from the Federal Government, the state governments of the Brazilian Amazon region, the civil society (nongovernmental organizations, indigenous peoples, and corporate sector), and the scientific community, in addition to independent auditing processes responsible for verifying the adequate investment of donated resources, as shown in Figure 1.

In 2015, the National REDD+ Commission (CONAREDD+) was created,<sup>6</sup> responsible for implementing the National Strategy for Reducing Emissions from Deforestation and Forest Degradation, Conservation of Forest Carbon Stocks, Sustainable Forest Management and Increase of Forest Carbon Stocks (ENREDD+), governance scope of the initiative. Within its framework, the Amazon Fund has already been considered eligible to receive payments for REDD+ results achieved by the country and recognized by the United Nations Framework Convention on Climate Change (UNFCCC).

The rules and criteria for raising and using funds from payments for REDD+ results shall be defined by CONAREDD+, which shall be responsible for coordinating, monitoring and supervising the implementation of ENREDD+.

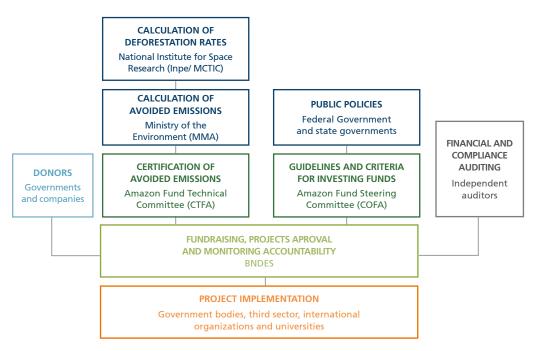


FIGURE 1: GOVERNANCE OF THE AMAZON FUND

<sup>6</sup> The full text of Decree N°. 8,576/2015, which created CONAREDD+, can be accessed at http://www.planalto.gov.br/ccivil\_03/\_Ato2015-2018/2015/Decreto/D8576.htm#art5.

## **Amazon Fund Technical Committee**

Established by MMA Ordinance 345, dated October 22, 2008, the Amazon Fund Technical Committee (CTFA) is in charge of certifying carbon emissions from deforestation calculated by the Ministry of the Environment (MMA). To this end, it assesses the methodology for calculating deforested area and the amount of carbon per hectare used in the calculation of emissions.

CTFA members meet ordinarily once a year. Renowned for their technical and scientific expertise, they are appointed by the MMA after consulting the Brazilian Forum on Climate Change. The members' term of office is three years, renewable once for an equal period.

Participation in CTFA is considered of public interest and entails no compensation.

### Meeting of the Amazon Fund Technical Committee

The 11<sup>th</sup> CTFA meeting was held on October 9, 2018, when the committee estimated the amount of reduced emissions for the 2017 forest year at 58 million tonnes of  $CO_2$ , and established the Amazon Fund's fundraising limit for this period at US\$ 289,604,700.00.

Since the Amazon Fund was created, CTFA has certified values for reduced emissions as shown in Table 2.

Meeting	Date	Year of reduction	Estimated total of reduced emissions (million tonnes of CO <sub>2</sub> )
1 st	2006		200.0
	11.10.2008	2007	303.0
2 <sup>nd</sup>	12.1.2009	2008	245.7
3 <sup>rd</sup>	12.13.2010	2009	445.9
4 <sup>th</sup>	10.20.2011	2010	462.9
5 <sup>th</sup>	11.14.2012	2011	490.2
6 <sup>th</sup>	11.26.2013	2012	580.2
7 <sup>th</sup>	9.10.2014	2013	516.1
8 <sup>th</sup>	11.5.2015	2014	558.8
9 <sup>th</sup>	11.8.2016	2015	500.8
10 <sup>th</sup>	10.4.2017	2016	12.0
11 <sup>th</sup>	10.9.2018	2017	58.0

TABLE 2: ANNUAL MEETINGS OF THE AMAZON FUND TECHNICAL COMMITTEE

Source: BNDES.

## **Amazon Fund Steering Committee**

The Amazon Fund Steering Committee (COFA) is responsible for establishing guidelines and criteria for investing funds (see Annex 3) as well as approving information on such investments and the *Amazon Fund Activity Report*.

COFA is a tripartite committee made up of three groups of members: eight representatives from the Federal Government; nine representatives from the states of the Brazilian Amazon region; and six representatives from civil society.<sup>7</sup>

In 2018, COFA members met in two ordinary sessions. The meetings are registered in Records of Referrals and Themes (RET) which, once approved by members, are published on the Amazon Fund website. In addition to the themes suggested by committee members, BNDES presented, at all meetings, analysis of the fund's projects portfolio.

### 24th meeting of the Amazon Fund Steering Committee

The first meeting of the year was held on June 4, in Brasília, and was opened by the secretary for Climate Change and Forests of the Ministry of the Environment, Thiago Mendes, and the managing director of BNDES' Public and Socioenvironmental Management Division, Marcos Ferrari.

During the meeting, guidelines were approved to support projects in agrarian reform settlements, in order to: (i) reduce deforestation rates in settlements with incentives for productive models not dependent on the replacement of native vegetation; (ii) promote land management by inhibiting land grabbing and disorderly occupation of the forest; and (iii) promote economically viable, environmentally sustainable and socially fair agrarian development in the settlements.

It was also considered the possibility of including multilateral institutions in the list of entities that can propose structuring projects to the Amazon Fund, according to item I 5 of the document *Guidelines and criteria for application of Amazon Fund resources and focus of action for the 2017-2018 period*.

### 25<sup>th</sup> meeting of the Amazon Fund Steering Committee

The second meeting of the committee in 2018 was held at the MMA in Brasília in November 9, and it was opened by Thiago Mendes, MMA Secretary for Climate Change and Forests, who reported that reducing deforestation in 2017 has made it possible to anticipate the voluntary targets for reducing greenhouse gas emissions in the Amazon foreseen for 2020, in accordance with international voluntary commitments assumed by Brazil (Nationally Appropriate Mitigation Actions – Namas).

<sup>&</sup>lt;sup>7</sup> The full list of COFA members in 2018 is available in Annex 4.

The committee approved new guiding criteria to: (i) support the Military Fire Brigade of the States of the Amazon Region for preventing and combating forest fires and unauthorized fires; and (ii) support projects for elaborating, revising, detailing and implementing Ecological-Economic Zoning (EEZ).

It was also decided to increase the focus of support in the core theme "science, innovation and economic instruments" (item I 25) in order to support the development of an impact business ecosystem and other impact actions in the Amazon region, as well as economic instruments that allow the resources of the Amazon Fund to be merged with private resources or other sources' funding.

Finally, Pará's Secretary of the Environment, Thales Belo, presented the Technical Note of the Integrated Center for Environmental Monitoring (Ciman/ Semas), concerning the deforestation rates in the state compared to the data from the Deforestation Alert System (SAD), produced by Amazon Institute of People and the Environment (Imazon).

# Focus areas for Amazon Fund support in the 2017-2018 period

The focus areas are distributed within the core themes of "monitoring and control," "fostering sustainable productive activities," "land-use planning" and "science, innovation and economic instruments."

As mentioned above, in 2018, two changes occurred in the focus areas for the support of the Amazon Fund in the 2017-2018 period, related to items I 5 and I 25. Chart 1 shows the focus areas and the modalities of support in this period.



#### CHART 1: FOCUS AREAS AND MODALITIES OF SUPPORT FOR THE 2017-2018 PERIOD

#### **General guidelines**

EXEMPTION FROM ADDITIONALITY OF RESOURCES IN THE BRAZILIAN AMAZON REGION deforestation control submitted by Federal or State bodies or institutions with legal mandate to carry out inspection activities within the framework of the National Environmental System (Sisnama) and projects related to item I 12 may be exceptionally exempted from the minimum condition of additionality of resources mentioned in item B 7. This shall require a formal consultation with the Ministry of the Environment (MMA) and a statement from the submitting body/institution attesting the nonexistence of sources of funds for the financial aid requested. The aforementioned technical justification and statement are mandatory and must be annexed to the proposal formally filed with BNDES, which will check, for eligibility purposes, adherence to the condition in the scope of Amazon Fund donation agreements.

Projects that aim to continue or enhance environmental surveillance and

#### **Operational modalities**

Structuring projects are those that cumulatively meet the following criteria:

- a. Contribute to the implementation of a public policy.
- b. Present a solution to the problem at hand.
- c. Have a regional scope (whenever the project is regionally developed).

STRUCTURING PROJECTS	Structuring projects may be proposed by: (a) Federal Government bodies; (b) state government bodies; (c) private nonprofit organizations; (d) companies; or (e) multilateral institutions. The "regional scope" criterion shall be considered fulfilled when, for example, the activities of the project encompass a group of municipalities, settlements or protected areas, a state planning region, the surrounding areas of major infrastructure projects etc. Regional scale shall be measured according to the characteristics of the project and relevant public policies.
	Besides calls for projects directly issued by the Amazon Fund (BNDES), support for partner institutions to issue public calls for projects will be admitted. Partner institutions shall have proven experience, knowledge and operational capacity to guarantee public calls of high quality and wide scope. Partner institutions here are understood as third sector institutions and Federal/state government bodies.
PUBLIC CALLS	The Amazon Fund shall be permanently open to requests by partner institutions for financial support to issue public calls for projects focusing on prioritized initiatives for the 2017-2018 period in the Brazilian Amazon region.
	Public calls directly issued by the Amazon Fund or indirectly supported through partner institutions shall be publicized and published on the Amazon Fund's website or on partner institutions' websites, according to each case.

Continuation)	
	Brazilian Amazon region – Monitoring and Control
MONITORING AND COMBATTING ENVIRONMENTAL CRIMES AND VIOLATIONS	Promotion of actions to monitor, investigate and combat environmental crimes and violations, including support for: (i) increased combating, surveillance and investigation capacity of the Federal and state governments; (ii) integration of State and Federal intelligence and surveillance systems; (iii) integration of surveillance actions among State environmental agencies, Brazilian Institute of Environment and Renewable Natural Resources (Ibama), National Indian Foundation (Funai), and Chico Mendes Institute for Biodiversity Conservation (ICMBio); (iv) integration of State forest management electronic data with the Brazilian National System for the Control of the Origin of Forest Products (Sinaflor), including authorizations for plant suppression and management plans, and (v) disposal of seized assets.
IMPLEMENTING AND CONSOLIDATING THE RURAL ENVIRONMENTAL REGISTRY (CAR) AND ENVIRONMENTAL REGULARIZATION	Promotion of the environmental regularization process through: (i) support for registration with the Rural Environmental Registry (CAR) of small farms or rural family holdings (up to four tax modules), indigenous lands and <i>quilombola</i> communities; (ii) support for integrating State CAR systems into the Sicar Rural Environmental Registry System and adapting complementary modules of analysis and monitoring, management of state Environmental Regularization Programs (PRA) and Environmental Reserve Quotas (CRA); (iii) support for the development and implementation of PRAs; (iv) support for activities to validate CAR registrations; (v) support for elaborating and validating projects to recover degraded and changed areas (Prada) of small farms or rural family holdings; and (vi) support for structuring and operationalizing the monitoring of environmental regularization of rural properties.
REGULARIZATION	Support for implementing CAR and environmental regularization of rural properties will be done primarily through operations with states, which may enter into partnerships/contracts to carry out the necessary actions in compliance with the applicable legislation. However, it will be possible to support CAR and environmental regularization projects through other partnerships in areas not included in projects contracted with states.
PREVENTING AND COMBATTING FORFST FIRES	Support for action to prevent and combat forest degradation caused by fires in native vegetation, submitted by government bodies operating in the Brazilian Amazon region, military fire brigades or nongovernmental organizations in partnership with government bodies, primarily in settlements, protected areas and indigenous lands.
FORESTFIRES	Support for integration of information on authorizations for fire clearance issued by states with the National Fire Information System (Sisfogo), by integrating the systems.
ENHANCING AND STRENGTHENING PLANT COVER MONITORING	Support for monitoring deforestation, changes in land use, forest degradation and fire clearance in the Brazilian Amazon region.
Brazilian	Amazon region – Fostering Sustainable Production Activities
ECONOMIC ACTIVITIES FOR THE SUSTAINABLE USE OF THE FOREST AND BIODIVERSITY	Structuring, strengthening and consolidating sociobiodiversity and family- based sustainable agriculture production chains, including adding value to the extraction economy, timber and nontimber forest management, aquaculture and fishing, agroecological and agroforestry systems, community-based tourism, sustainable livestock breeding and technical assistance for these activities.
BOLSA VERDE PROGRAM AND COMPENSATION FOR ENVIRONMENTAL SERVICES	Strengthening of the Environmental Conservation Support Program – Bolsa Verde, and incentives for community-based environmental and ecosystem services.

(Continuation)	
RECOVERY OF DEGRADED AND CHANGED AREAS	Support for implementation of the National Policy for the Recovery of Native Vegetation (Proveg), especially the recovery of degraded and modified areas of: (i) small farms or rural family holdings of up to four tax modules, with prioritization for the implementation of Pradas; and (ii) nature protected areas, indigenous lands and traditional communities
Brazilian Ar	nazon region – Land-Use Planning and Land-Title Regularization
LAND-TITLE REGULARIZATION	Support for the regularization of State-owned lands, with priority for critical areas with large-scale deforestation and land conflicts, including support for the allocation of State-owned land and collaborative efforts of environmental and land regularization. It does not include support for payment of compensation for expropriation.
LAND-USE PLANNING	Support for the elaboration, review and detailing of Ecological-Economic Zoning (EEZ), including initiatives to train government and civil society managers and technicians and the design of action plans applying EEZ in other public policy instruments, such as the Multi-Year Plan, Environmental Regularization programs, environmental licensing and granting of rural credit and rights to use water resources.
INDIGENOUS LANDS	Support for designing and implementing land and environmental management plans for indigenous lands aligned with the National Policy for Land and Environmental Management of Indigenous Lands (PNGATI), including protection and surveillance of indigenous lands.
PROTECTED AREAS	<ul> <li>Support for creating, recognizing and consolidating protected areas (protected areas and indigenous lands).</li> <li>Support for forming ecological corridors connecting state and private land, through, among others: (i) creation of protected areas; (ii) improvement of environmental and land management of protected areas, including areas of permanent preservation (APP), legal reserves and of restricted use; (iii) recovery of degraded areas in accordance with the provisions of item I 13, and (iv) formalization of agreements to preserve the corridors.</li> <li>Support for the recovery and maintenance of key areas for management of protected areas in buffer zones, limited to small farms or rural family holdings (up to four tax modules).</li> </ul>
SETTLEMENTS	Support for environmental and land regularization of settlements, including implementation of the Green Settlements Program (Program for Preventing, Combating and Developing Alternatives to Illegal Deforestation in Amazon Settlements).
Brazilian A	mazon region – Science, Innovation and Economic Instruments
NEW SOCIOBIODIVERSITY PRODUCTS	Support for scientific and technological research focused on sociobiodiversity product chains, including the development of new products from Amazon biodiversity – pharmaceuticals, phytopharmaceuticals, medicines, cosmetics and other products of interest to the chemical and food industries.
SUSTAINABLE PRODUCTION ACTIVITIES	Support for scientific and technological research focused on timber and nontimber forest management, recovery of degraded areas (including species selection, seed management and methods to optimize recovery), crop-livestock- forest integration (CLFi), sustainable fishing and aquaculture, conservation of water resources and soil conservation.
SYSTEMS TO MONITOR AND CONTROL DEFORESTATION, FOREST DEGRADATION AND FIRE CLEARANCE	Support for developing, implementing and improving systems to monitor land use and cover and control of deforestation, forest degradation, regeneration and fire clearance to quantify deforestation as a means to aid public policies for preventing and combating deforestation.

(Continuation)	
STUDIES, PROJECTIONS AND SIMULATIONS	Support for studies, projections and simulations related to land use and cover aimed at assisting the design and implementation of public policies to prevent and combat deforestation and reduce greenhouse gas emissions from deforestation, according to criteria to be defined by COFA.
COMMUNITY FUNDING	Support for structuring and transferring financial resources to community revolving funds or similar instruments to enable the expansion of value chains related to forest management, sociobiodiversity and agroecology.
PROMOTION OF PUBLIC PROCUREMENT POLICIES	Support for expanding public procurement policies for products stemming from forest management, sociobiodiversity and agroecology, affording them greater support and scope.
ECONOMIC INSTRUMENTS AND IMPACT BUSINESS	Support for the development of an impact business ecosystem and other impact actions in the Brazilian Amazon region, as well as economic instruments that allow the Amazon Fund's resources to be merged with private resources or other sources' funding.
Amazor	n Fund support in Brazil outside the Brazilian Amazon region
RURAL ENVIRONMENTAL REGISTRY (CAR) AND ENVIRONMENTAL REGULARIZATION OF RURAL PROPERTIES	Promotion of the environmental regularization process through: (i) support for registration with the Rural Environmental Registry (CAR) of small farms or rural family holdings (up to four tax modules); (ii) support for integrating State CAR systems with the Sicar Rural Environmental Registry System and adapting complementary analysis and monitoring modules, and (iii) support for activities to validate CAR registrations. Beneficiaries of CAR supporting projects outside the Brazilian Amazon shall necessarily make financial contributions. In projects in states where the Cerrado, Caatinga and Pantanal biomes account for, cumulatively, more than 40% of the area, financial contributions shall amount to at least 10% of the total project value. In other cases outside the Brazilian Amazon region, financial contributions shall be at least 20% of the total project value. Support for implementing CAR will be done primarily through operations with states, which, within the limits of applicable legislation, may enter into partnerships/contracts to carry out the necessary actions.
DEFORESTATION MONITORING SYSTEMS	Support for projects that contribute to creating or improving forest cover monitoring systems outside the Brazilian Amazon region according to guidelines and criteria in force (see items G 1 to G 20). Support for indigenous lands protection and surveillance. To promote informatization of the data of State forest management integrated with Sinaflor, including authorizations of suppression of vegetation and management plans.
	Amazon Fund support in other tropical countries
DEFORESTATION MONITORING SYSTEMS IN OTHER TROPICAL COUNTRIES	Support for projects that contribute to creating or improving forest cover monitoring systems and deforestation control systems in other tropical countries, according to guidelines and criteria in force (see items H 1 to H 17).

# Fundraising

# **Fundraising rules**

Raising funds for the Amazon Fund is conditional on the reduction of carbon emissions from deforestation, that is, Brazil must prove it has reduced deforestation in the Amazon region in order to receive new donations.

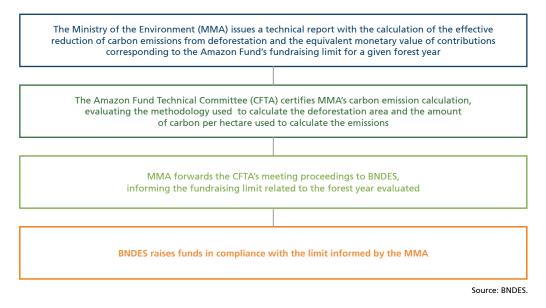
A simple, conservative method was chosen to calculate the Amazon Fund's annual fundraising limit, thus ensuring that emission reduction values are not overestimated. Briefly, calculating the reduction of carbon emissions from deforestation is based on the difference between the average historical deforestation rate and the deforested area actually measured in the year of evaluation, then multiplying this result by the amount of carbon in the biomass, in tonnes of carbon per hectare. Thus, the calculation is given by the following equation:

ED = (TDM - TD) * tC/ha	ED = reduction of carbon emissions from deforestation, in tonnes of carbon (tC)
	TDM = average rate of deforestation (in hectares)
	TD = annual rate of deforestation for the period (in hectares)
	tC/ha = tonnes of carbon per hectare of forest

The deforestation rate in the Brazilian Amazon region is measured by the National Institute for Space Research (Inpe), a public agency linked to the Ministry of Science, Technology, Innovations and Communications (MCTIC). The MMA is in charge of defining the methodology to calculate the Amazon Fund's annual fundraising limit, while the CTFA's specialists are responsible for certifying the effective reduction of carbon emissions from deforestation in a given period, evaluating the methodology for calculating the deforested area and the amount of carbon per hectare used for calculating emissions.

Based on the emission reduction data certified by CTFA, BNDES is authorized to raise donations and issue diplomas acknowledging donors' contributions. The fundraising flow of the Amazon Fund is described schematically in Figure 2.

#### FIGURE 2: FUNDRAISING FLOW OF THE AMAZON FUND



# **Formalized donations**

Based on the annual fundraising limits certified by CTFA, the Amazon Fund has received donations from foreign governments and companies. By the end of 2018, formal commitments of donations to the Amazon Fund had been made in three currencies: Norwegian krone (kr\$ or NOK) for donations from Norway; euro (€ or EUR) for donations from Germany/KfW, and real (R\$ or BRL) for donations by Petrobras, as detailed below. Of this total, R\$ 3,396,694,793.53 (US\$ 1,288,235,378.26) has already been deposited in the Amazon Fund account.<sup>8</sup>

The Norwegian government was the first – and is to date the largest – donor to the Amazon Fund, having effectively contributed the amount of kr\$ 8,269,496,000.00, equivalent to US\$ 1,212,378,452.36, or R\$ 3,186,719,318.40.

In addition, since 2010 the Amazon Fund has received support from the German government through KfW Entwicklungsbank. By the end of 2018 the German government had contributed a total of € 54,920,000.00, equivalent to R\$ 192,690,396.00 or US\$ 68,143,672.60.

In 2011, the Amazon Fund started benefiting from a third donor, Petróleo Brasileiro S.A. (Petrobras), the first Brazilian company to contribute to the fund. By the end of 2018, Petrobras had contributed R\$ 17,285,079.13, equivalent to US\$ 7,713,253.30.

As established in Decree N°. 6,527/2008, BNDES is obliged to keep separate accounting records of these donations, and 3% of which is intended to cover operational costs and other expenses related to the Amazon Fund, including the hiring of auditing services.

<sup>&</sup>lt;sup>8</sup> The conversions of donation values into USD and/or BRL in this chapter were based on the exchange rate of the respective dates on which the funds were effectively transferred to BNDES, according to information on the donation diplomas.

### The Norwegian government

BNDES signed a donation agreement on March 25, 2009 with the Norwegian Ministry of Foreign Affairs that provided for a donation of up to kr\$ 700,000,000.00 to the Amazon Fund.

As established in the agreement, donated amounts that could be requested in subsequent years would be specified in amendments proposed by the donor. Five amendments have been made to the donation agreement, through which the Norwegian government has committed to make additional donations of up to kr\$ 2,850,000,000.00.

From 2009 to June 2013 the Amazon Fund received six donations from the Norwegian government in the total amount of US\$ 130,253,901.05 (R\$ 243,952,352.40).

#### AMENDMENTS AND CONSOLIDATION

On September 17, 2013, BNDES and the Norwegian government signed an amended and restated donation agreement to consolidate Norway's previous donations to the Amazon Fund and extend the term of this cooperation. This agreement provided that donated funds could be used in Amazon Fund projects until the end of 2020. The documents provided for the possibility of a full transfer of resources hitherto donated by Norway, which was made possible by exempting Amazon Fund donations from PIS-Pasep and Cofins tax collection, instituted by Law N°. 12,810, dated May 15, 2013, which amended Law N°. 11,828, dated November 20, 2008. Thus, resources previously committed but not yet disbursed to the Amazon Fund, totaling US\$ 464,669,325.96 (R\$ 1,024,642,336.54), were transferred on October 4, 2013.

From 2013 to 2018, six amendments to the consolidated donation agreement were entered into, with a total donation of Norwegian kroner equivalent to US\$ 617,455,225.35 (R\$ 1,918,124,629.46)

#### German government

On December 7, 2010, within the framework of official financial cooperation between the governments of Germany and Brazil, an agreement for financial contribution to the Amazon Fund was signed between KfW Entwicklungsbank and BNDES in the amount of € 21 million (US\$ 28,323,207.40 or R\$ 60,697,500.00). The donation has already been fully received by the Amazon Fund.

On November 14, 2017, a new agreement was signed between KfW Entwicklungsbank and BNDES in the total amount of € 33,920,000.00 (US\$ 39,820,465.20 or R\$ 131,992,896.00), fully received on December 12, 2017.

### Petróleo Brasileiro S.A.

By 2016, BNDES had signed with Petrobras 24 Amazon Fund's donation agreements, in the total amount of R\$ 14,221,982.31 (US\$ 6,788,152,85.00). In 2017, another three donation agreements were signed, totaling R\$ 1,823,618.22 (US\$ 578,063.10). In 2018, donations totaled R\$ 1,239,478.60 (US\$ 347,037.35), made in two contracts. In total, Petrobras donated R\$ 17,285,079.13 (US \$ 7,713,253.30) to the fund.

The company's donation complies with the requirement of the Brazilian Institute of Environment and Renewable Natural Resources (Ibama), according to which Petrobras must implement projects to offset greenhouse gas emissions caused by its activities. These emissions are caused by burning of gas during the production and transportation of oil and natural gas performed by the company.

The donated resources are exclusively intended to fund projects within the Amazon Fund framework, in accordance with its norms, conditions, guidelines and criteria. BNDES is responsible for analyzing, approving and financing the projects, as well as monitoring, supervising and reporting on results.

As determined by the BNDES' Board of Directors (Board Decision N°. 832/2012), donations to the Amazon Fund raised from public sources controlled by the Federal Government must have separate accounting to ensure they are not used in projects executed by the Federal Government.

### Diplomas: acknowledgment of donors' contributions

When raising donations for the Amazon Fund, BNDES issues diplomas stating the amount of each financial contribution and its corresponding quantity in tonnes of carbon. These diplomas are nominal, nontransferable and grant no rights or credits of any nature. The diplomas thus identify the donors and the amount they contributed to reduce carbon emissions. Table 3 features data on previously raised funds.



#### TABLE 3: FUNDS RAISED

Donor	Installment	Date received	Original donation amount	Amount in R\$ (BRL)*	Amount in US\$ (USD)*	Tonnes of carbon dioxide (tCO <sub>2</sub> )	Tonnes of carbon (tC)	Year of reduction
Norway	1 <sup>st</sup>	10.9.2009	NOK 123,437,000.00	36,448,350.22	20,960,578.70	4,192,115.7	1,142,265.9	2006
Norway	2 <sup>nd</sup>	8.9.2010	NOK 169,262,000.00	49,600,536.48	28,283,364.59	5,656,672.9	1,541,327.8	2006
Norway	3 <sup>rd</sup>	3.23.2012	NOK 261,273,000.00	82,144,231.20	45,149,077.28	9,029,815.0	2,462,677.0	2006
Norway	4 <sup>th</sup>	10.2.2012	NOK 101,774,000.00	36,109,415.20	17,817,731.77	3,563,546.0	971,876.0	2006
Norway	5 <sup>th</sup>	6.26.2013	NOK 44,254,000.00	16,139,433.80	7,344,452.24	1,468,890.0	400,606.0	2006
Norway	6 <sup>th</sup>	6.26.2013	NOK 64,465,000.00	23,510,385.50	10,698,696.47	2,139,739.0	583,565.0	2009
	7 <sup>th</sup>	10.4.2013	NOK 2,785,535,000.00	1,024,642,336.54	464,669,325.96	26,207,821.0	7,147,588.0	2009
Norway						33,363,022.0	9,099,006.0	2010
						33,363,022.0	9,099,006.0	2011
Norway	8 <sup>th</sup>	12.23.2013	NOK NOK 1,000,000,000.00	385,350,245.49	163,666,121.11	32,733,224.0	8,927,243.0	2012
Norway	9 <sup>th</sup>	12.15.2014	NOK 780,000,000.00	288,991,278.87	108,839,740.46	21,767,948.1	5,936,713.1	2013
Norway	10 <sup>th</sup>	3.12.2015	NOK 120,000,000.00	46,416,780.45	14,893,881.10	2,978,776.2	812,393.5	2013
Norway	11 <sup>th</sup>	12.4.2015	NOK 1,019,496,000.00	455,568,000.00	120,000,000.00	24,000,000.0	6,545,454.6	2014
Norway	12 <sup>th</sup>	12.16.2016	NOK 850,000,000.00	330,161,565.42	97,953,351.16	19,590,670.2	5,342,910.1	2015
Norway	13 <sup>th</sup>	12.14.2017	NOK 350,000,000.00	139,272,702.53	41,791,004.78	8,358,201.0	2,279,509.3	2016
Norway	14 <sup>th</sup>	12.17.2018	NOK 600,000,000.00	272,364,056.70	70,311,126.74	14,062,225.3	3,835,152.4	2017
Germany KfW	1 <sup>st</sup>	12.29.2010	EUR 3,000,000.00	6,644,100.00	3,952,500.00	790,500.0	215,395.0	2009
Germany KfW	2 <sup>nd</sup>	1.8.2013	EUR 6,000,000.00	15,954,600.00	7,864,832.89	1,572,967.0	428,991.0	2009
Germany	3 <sup>rd</sup>	1.6.2014	EUR 8,000,000.00	26,180,800.00	11,120,181.53	825,407.0	225,111.0	2009
KfW						1,398,630.0	381,444.0	2010
Germany KfW	4 <sup>th</sup>	7.22.2014	EUR 4,000,000.00	11,918,000.00	5,385,692.98	1,077,139.0	293,765.0	2010
Germany KfW	5 <sup>th</sup>	12.12.2017	EUR 33,920,000.00	131,992,896.00	39,820,465.20	7,964,093.0	2,172,025.4	2015
Petrobras	1 <sup>st</sup>	10.14.2011	BRL 1,765,983.70	1,765,983.70	1,016,335.00	203,267.0	55,436.0	2006
Petrobras	2 <sup>nd</sup>	10.14.2011	BRL 4,114,671.55	4,114,671.55	2,368,020.00	473,604.0	129,164.0	2006
Petrobras	3 <sup>rd</sup>	10.17.2011	BRL 1,435,257.60	1,435,257.60	826,000.00	165,200.0	45,054.0	2006

#### (Continuation)

Petrobras	4 <sup>th</sup>	1.23.2012	BRL 156,626.00	156,626.00	88,750.00	17,750.0	4,841.0	2006
Petrobras	5 <sup>th</sup>	4.26.2012	BRL 282,584.58	282,584.58	150,255.00	30,051.0	8,196.0	2006
Petrobras	6 <sup>th</sup>	7.13.2012	BRL 174,320.80	174,320.80	85,155.00	17,031.0	4,645.0	2006
Petrobras	$7^{\text{th}}$	2.20.2013	BRL 327,834.78	327,834.78	167,288.25	33,457.7	9,124.8	2006
Petrobras	8 <sup>th</sup>	3.25.2013	BRL 357,002.13	357,002.13	177,383.55	35,477.0	9,675.0	2006
Petrobras	9 <sup>th</sup>	9.25.2013	BRL 331,912.11	331,912.11	150,656.85	30,131.0	8,218.0	2006
Petrobras	10 <sup>th</sup>	1.23.2014	BRL 222,324.37	222,324.37	94,201.25	18,840.3	5,138.3	2006
Petrobras	11 <sup>th</sup>	2.25.2014	BRL 73,323.19	73,323.19	31,378.95	6,275.8	1,711.6	2006
Petrobras	12 <sup>th</sup>	5.6.2014	BRL 89,806.99	89,806.99	40,232.50	8,046.5	2,194.5	2006
Petrobras	13 <sup>th</sup>	5.8.2014	BRL 177,561.21	177,561.21	80,319.00	16,063.8	4,381.0	2006
Petrobras	14 <sup>th</sup>	10.2.2014	BRL 206.057,53	206,057.53	83,138.00	16,627.6	4,534.8	2006
Petrobras	15 <sup>th</sup>	10.10.2014	BRL 239,613.95	239,613.95	99,412.50	19,882.5	5,422.5	2006
Petrobras	16 <sup>th</sup>	12.26.2014	BRL 458,054.97	458,054.97	172,675.00	34,535.0	9,418.6	2006
Petrobras	17 <sup>th</sup>	1.19.2015	BRL 20,941.30	20,941.30	7,995.00	1,599.0	436.1	2006
Petrobras	18 <sup>th</sup>	3.13.2015	BRL 471,492.55	471,492.55	151,260.00	30,252.0	8,250.6	2006
Petrobras	19 <sup>th</sup>	3.27.2015	BRL 1,119,131.39	1,119,131.39	350,660.00	70,132.0	19,126.9	2006
Petrobras	20 <sup>th</sup>	7.3.2015	BRL 270,114.06	270,114.06	86,600.00	17,320.0	4,723.6	2006
Petrobras	21 <sup>th</sup>	7.30.2015	BRL 660,392.86	660,392.86	197,610.00	39,522.0	10,778.7	2006
Petrobras	22 <sup>th</sup>	7.30.2015	BRL 288,021.65	288,021.65	86,185.00	17,237.0	4,701.0	2006
Petrobras	23 <sup>th</sup>	5.10.2016	BRL 429,923.03	429,923.03	121,491.80	24,298.4	6,626.8	2006
Petrobras	24 <sup>th</sup>	5.10.2016	BRL 549,030.01	549,030.01	155,150.20	31,030.0	8,462.7	2006
Petrobras	25 <sup>th</sup>	4.6.2017	BRL 86,528.57	86,528.57	27,691.80	5,538.4	1,510.5	2006
Petrobras	26 <sup>th</sup>	4.6.2017	BRL 397,886.33	397,886.33	127,335.85	25,467.2	6,945.6	2006
Petrobras	27 <sup>th</sup>	7.31.2017	BRL 1,339,203.32	1,339,203.32	423,035.45	84,607.1	23,074.7	2006
Petrobras	28 <sup>th</sup>	5.16.2018	BRL 84,498.16	84,498.16	23,658.35	4,731.7	1,290.5	2006
Petrobras	29 <sup>th</sup>	5.16.2018	BRL 1,154,980.44	1,154,980.44	323,379.00	64,675.8	17,638.8	2006
			Total	3,396,694,793.53	1,288,235,378.26			

Source: BNDES.

\* Historical amounts as stated on the diplomas issued by the Amazon Fund.

# Institutional coordination and technical cooperation

As manager of the Amazon Fund, BNDES keeps close contact with various stakeholders in order to be transparent in its activities, receive technical feedback for its performance and establish partnerships.

Prominent among these efforts it is the technical cooperation agreement between the Amazon Fund, BNDES and the German Agency for International Cooperation (GIZ – Gesellschaft für Internationale Zusammenarbeit), which, since 2015, has been co-funded by the Norwegian government, in addition to funds received from the German government. In 2018, several activities were carried out thanks to this technical cooperation, and the most important are:

- Continuity of technical support for the collaborative actions, conducted in projects whose planned actions present low execution rate, including activities aimed at management, monitoring and accountability to the Amazon Fund.
- Performance of face-to-face and virtual training for public sector project implementers (government of the Brazilian Amazon states and federal agencies) in the areas of project management, monitoring of results and impacts, elaboration of terms of reference and accountability to the fund.
- Support for workshops to disseminate the public call for "Recovery of Plant Cover," carried out with the objective of training tenderers to prepare proposals according to the selection criteria of the fund. Events were held in Porto Velho (state of Rondônia), Cuiabá (state of Mato Grosso), Belém (state of Pará) and Brasília (DF), with 394 participants.
- Support for the workshop "Fire Brigades of the Amazon: Synergies, Integration and Governance", which aimed to strengthen the synergies between the projects of fire brigades in the Brazilian Amazon region. This workshop subsidized the elaboration of the "Guidelines for the support of the Amazon Fund to the Military Fire Brigade of the States of the Brazilian Amazon region for preventing and combating forest fires and unauthorized fires."
- Advice for elaboration of government agencies' structuring projects that aim the support of the Amazon Fund.
- Support for the implementation of the Forum on Socio-Environmental Impact Business in the Amazon, with companies and civil society organizations.
- Conclusion of evaluations of effectiveness of the following: Bolsa Floresta (Phase I) project, Sustainable Amazonas Foundation (FAS), and Dissemination and Improvement of Sustainable Forestry Management Techniques, of the Instituto Floresta Tropical (IFT). The evaluation of projects under the transversal component "science and technology" has been also initiated, namely:

Belém Islands and Public Policies Incubator in the Amazon, both executed by the Federal University of Pará (UFPA) and Research Development and Support Foundation (Fadesp).

- Verification of the adherence of the reference terms in the context of the midterm evaluation of the Amazon Fund effectiveness before BNDES and MMA, encompassing the set of actions developed within the four components of the fund's performance. The Economic Commission for Latin America and the Caribbean (Eclac) will be responsible for coordinating the evaluation.
- Development of the study on gender equity in projects of sustainable productive activities supported by the Amazon Fund (BNDES), with the general objective of identifying good practices and lessons learned with regard to incorporating gender equality and promoting women's autonomy in sustainable production projects.
- Launch of the Amazon Fund's new website, developed jointly with GIZ, to better present the fund's results.
- Elaboration of georeferenced maps on projects supported by the fund.
- Support for the presentation of the lecture "Crop-livestock-forest Integration (CLFi)".
- Systematic support for the Amazon Fund team concerning monitoring and evaluation of results.

# Communication

Regarding instruments for transparency and dialog, the following stand out:

# Website www.fundoamazonia.gov.br

BNDES runs a permanently updated website for the Amazon Fund, with an English version. The first version of the website was launched in 2010, and it was totally renewed in 2018. In addition to a more modern, beautiful and friendly layout, the new website offers more functionalities, such as an interactive map of the fund's performance, space for publication and dissemination of audiovisual pieces produced by the projects, and a multicriteria system for project search.

As of February 19, 2018, the new Amazon Fund website received 53,951 accesses, a monthly average of 5,241 hits. Around 80.3% of hits come from Brazil, mainly from state capitals in the Amazon region and from Rio de Janeiro, Brasília and São Paulo. International hits come from many countries, especially the United States, India, France, the United Kingdom, Norway, and Germany.

### Website content

Several types of information are available on the Amazon Fund website, such as guidelines on submitting projects, the approval process and documents required in each project phase. It also publishes updated information on the fund's governance, donations, monitoring, and evaluation of results. Further information can be obtained by e-mail in the "Contact Us" section, by phone, or through the FAQ section.

The complete portfolio of projects supported is available, with information on the projects that includes: name of projects and organization in charge; regional scope; beneficiaries; objectives; total cost, funding amount, term, date of approval and date of contract. Data on disbursements and activities executed in each project are also available, as well as information on how each activity contributed to the four core themes that make up the Amazon Fund's Logic Framework.

## Annual reports

To increase the transparency of its activities, the Amazon Fund publishes its annual reports online. Besides being instruments of accountability, the reports document the Amazon Fund's activities and results, disclosing them to society.

## Newsletters

As of the new website launch in 2018, the newsletter issue was canceled. Pieces of news have gained their own section on the website and are published timely as events and activities occur. Nowadays, a new feature also allows news to be shared on social media. The old newsletters remain available on the Amazon Fund's online library.

# Events in 2018

The BNDES team organizes and participates in various events with the purpose of disseminating the Amazon Fund's actions, qualifying its activities and demonstrating the results to donors and society. In 2018, the following events stood out:

### Forum on Socio-Environmental Impact Business in the Amazon – March 16 – São Paulo (SP)

Organized by BNDES, the event promoted meetings and debates to identify opportunities and develop the Social Finance Ecosystem and Socioenvironmental Impact Business in the Amazon.

### Amazon Fund's 10<sup>th</sup> Anniversary – What Has Been Achieved and Where Are We Going? – June 26 – Oslo, Norway

In June 26, in Oslo, with the presence of the Environment Ministers of Brazil, Edson Duarte, and Norway, Ola Elvestuen, the event celebrated the ten years of the Amazon Fund. The event was also attended by the Deputy Director-General of the Federal Ministry for Economic Cooperation and Development of Germany (BMZ), Christiane Bögeman-Hagedorn. During the meeting, the results obtained with the program were discussed. The Brazilian Minister stressed that the fund's assistance was fundamental so that, in 2017, Brazil could reduce deforestation by 12%. Throughout the event, there were discussions with experts, representatives from the Ashaninka ethnic group and from the Brazilian government.

# Amazon in Focus: the Forest of Today and Tomorrow – August 2 – Rio de Janeiro (RJ)

Organized by Inpe, the event was held in August 2 at the Museum of Tomorrow, aiming to mobilize scientists and society in favor of the future of the Amazon. The program included two discussion panels between experts, as well as an exhibition of images from the Amazon region and the launch of a documentary and a video in virtual reality, which allowed the public to have an immersive experience in the Amazon.

# PNGATI 2030 – Building a Shared Agenda to Promote the Territorial and Environmental Management Policy of Indigenous Lands – October 8 – Rio de Janeiro (RJ)

Amazon Fund's head, Daniela Baccas, participated in the PNGATI 2030, organized by TNC do Brasil, at the Rio Art Museum (MAR). Recent developments in the implementation of this policy and the challenges for its consolidation over the next ten years were addressed. There was discussion on, among other topics, the financial sustainability of PNGATI, the role of public and private cooperation, and other indigenous territorial management initiatives.

### 1<sup>st</sup> Forum on Impact Investments and Sustainable Business in the Amazon (Fiinsa) – November 13 and 14 – Manaus (state of Amazonas)

Amazon Fund's head, Daniela Baccas, participated in one of the panels that brought together various stakeholders to discuss the challenges and opportunities for developing impact businesses in the Amazon, and sharing experiences.

### 24<sup>th</sup> Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 24/UNFCCC) – December 10-12 – Katowice, Poland

The Amazon Fund integrated two events organized by the MMA at the climate conference. The side event on payment for REDD+ results highlighted the Amazon Fund's ten years of activities: its results and challenges, with the participation of BNDES, MMA and representatives from the governments of Norway and Germany. The side event on forest restoration highlighted the following themes: conversion of fines, financing for restoration and support for the Forest Code, and the importance of Brazilian agriculture to the world.

### Women and Sustainable Development: Contribution of Women in Value Chains of Projects Supported by the Amazon Fund – December 16 – Xapuri (state of Acre)

In December 16, during the event for celebration of Chico Mendes legacy, in Xapuri, Acre, the Amazon Fund organized a panel on the participation of women in socio-biodiversity production chains, with beneficiaries, technicians and managers of some of the projects supported by the Amazon Fund.

# "Contact Us" service

To provide greater transparency and security in information exchange, BNDES created the mailbox <fundoamazonia-faleconosco@bndes.gov.br> to answer questions sent by the public through the website. All incoming messages are registered and answered. Consultations made directly to BNDES technical staff and those sent through BNDES official communication channels are not included.

In 2018, some 200 contacts were made and answered, sent from states in the Brazilian Amazon region, other Brazilian states, and also from abroad. The main subjects were related to requests for clarification on how to submit projects, information on the fund's areas of operation and potential beneficiaries, besides requests for clarification on the public call for "Recovery of Plant Cover."

# OPERATIONAL PERFORMANCE

# Portfolio of projects

From June 2009 to December 2018, the Amazon Fund approved financial support to 103 projects, in the total amount of R\$ 1,860,881,542.00. Table 4 shows the number of supported projects and the total amount of funds disbursed per year.

Year	Number of supported projects	Total amount of support (R\$)	Total amount of support (US\$)	Total amount disbursed to projects (R\$)	Total amount disbursed to projects (US\$)
2009	5	70,339,010.00	38,052,441.96	-	-
2010	8	119,891,704.43	69,248,454.83	11,105,966.90	6,108,472.74
2011	10	70,499,580.47	41,239,084.67	59,740,091.61	34,203,707.19
2012	14	179,803,548.39	89,389,684.61	71,205,781.90	39,683,624.81
2013	14	332,003,810.00	149,855,879.94	80,903,376.47	43,190,858.95
2014	21	268,578,173.00	113,098,416.79	167,954,502.78	81,820,890.01
2015	11	195,510,972.31	60,919,816.61	127,509,195.78	56,437,936.37
2016	8	196,603,174.19	58,120,499.66	134,145,446.07	51,716,979.75
2017	12	234,886,684.03	72,538,764.24	223,760,804.23	81,606,404.82
2018	11	378,517,794.00	106,893,155.38	187,372,391.40	63,939,370.40
Canceled projects*	(11)	(147,921,929.16)	(60,653,143.24)	N/A	N/A
Reduced balance**		(37,830,979.66)		N/A	N/A
Total	103	1,860,881,542.00	720,647,342.05	1,063,697,557.14	458,708,245.05

TABLE 4: SUPPORTED PROJECTS, CANCELED PROJECTS AND DISBURSEMENTS (2009-2018)<sup>9</sup>

Source: BNDES.

\* The list of canceled projects is disclosed in Annex 5.

\*\* Projects with supplementation and whose values were altered are disclosed in Annex 5.

N/A = not available.

Disbursements to supported projects occur in installments in the course of their implementation and follow the terms established in the respective physical and financial schedules, normally ranging from one to six years.

Table 4 shows that the amount disbursed to projects totaled R\$ 1,063,697,557.14.<sup>10</sup> Approximately 18% of this amount (R\$ 187,372,391.40) was disbursed in 2018. Of the funds disbursed in 2018, 44% were allocated to projects with the third sector and 56% to public sector projects (34% to projects with the Union and 22% to

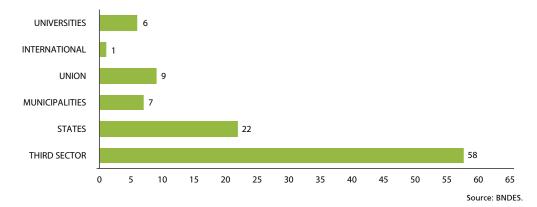
<sup>&</sup>lt;sup>9</sup> The total value disbursed to project in 2018 diverges from that presented in the audited financial statements (attached) in R\$ 158,000. This value refers to the receipt of return of remuneration from the client's project account to BNDES, registered in the BNDES systems wrongly as principal repayment. It should be emphasized that this discrepancy generated difference only "between the lines," having been duly raised by the independent auditors, who considered it irrelevant for the purpose of their opinion. The correction in the BNDES systems was carried out in 2019.

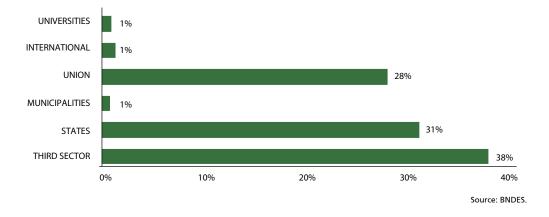
<sup>&</sup>lt;sup>10</sup> The list of projects that have already received funds is shown in the explanatory Note 5 of the financial statements of the Amazon Fund, in Annex 1.

projects with state and municipal governments).

The fund's portfolio comprises projects with multiple types of intervention and stages of execution, as well as diverge legal natures of the projects' managers, as illustrated in graphs 6 and 7.

GRAPH 6: NUMBER OF SUPPORTED PROJECTS, BY LEGAL NATURE OF MANAGING ENTITY

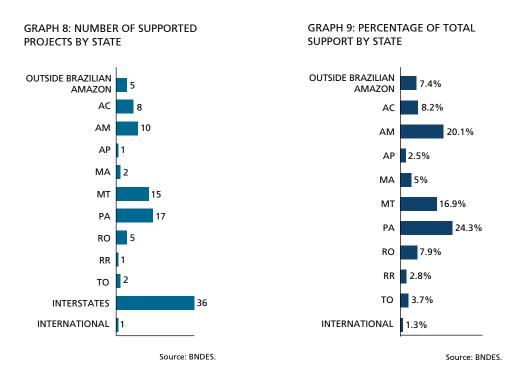




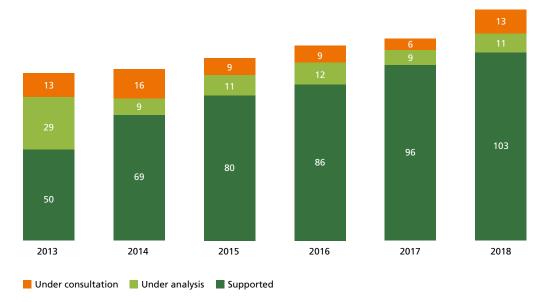
GRAPH 7: PERCENTAGE OF TOTAL SUPPORT, BY LEGAL NATURE OF MANAGING ENTITY

Graphs 8 and 9 feature the territorial coverage of supported projects and share of support by state. As illustrated, all states of the Brazilian Amazon region have projects supported by the Amazon Fund. The four states with the largest share of total financial support (Acre, Amazonas, Mato Grosso and Pará) account together for more than 77% of the total area of the Brazilian Amazon region<sup>11</sup> and 69% of the value of the Fund's support.

<sup>&</sup>lt;sup>11</sup> Information available from: http://www.ibge.gov.br.



Graphs 10 and 11 show the yearly evolution of the Amazon Fund portfolio (projects under consultation, in analysis and supported).



GRAPH 10: EVOLUTION OF THE NUMBER OF PROJECTS, BY BNDES OPERATIONAL STAGE

Source: BNDES.

Note: This graph shows the accumulated number of projects supported by net of cancellations. For this calculation, each canceled project was deducted from the accumulated number of projects in the year of its cancellation (not in the year of its approval). For example, in 2018, four projects were canceled and deducted from the total number of supported projects until that year. The Annex 5 of this report shows the list of projects: canceled; with supplementation and whose values were altered.

#### **Operational performance**



#### GRAPH 11: EVOLUTION OF TOTAL VALUE OF PROJECTS, BY BNDES OPERATIONAL STAGE (R\$ MILLION)

Note: This graph shows the accumulated value of projects, net of cancellations and alterations in values. The reductions in project values and the project values canceled in a given year are discounted that same year. See in Annex 5 of this report the list of projects: canceled, with

supplementation and whose values were altered.

As illustrated in graphs 10 and 11, in 2018, the accumulated number of supported projects grew 7.3% compared to the total accumulated up to 2017 (from 96 to 103 projects), while the total volume of financial support to projects increased 18.1% (from R\$ 1,575,789,439.04 to R\$ 1,860,881,542.00).<sup>12</sup>

Of the total volume of funds available for investment in projects (donations plus income generated over the years), in the amount of R\$ 4,547 million, R\$ 3,437 million (76%) is already allocated in the Amazon Fund project portfolio, distributed as follows:

- R\$ 1,861 million for projects supported by the Amazon Fund (ongoing and concluded);
- R\$ 394 million for projects that were framed in the guidelines and criteria of the Amazon Fund and are under detailed analysis regarding their merits and viability;
- R\$ 982 million for projects that have had their proposals formally submitted to BNDES and are under preliminary analysis of the institutional capacity of the proponent and the project' compliance with the Amazon Fund's guidelines and criteria; and
- R\$ 200 million for projects presented under the Public Call for projects of the Amazon Fund 2/2017 – Recovery of the Vegetation Cover (public call in progress).

<sup>&</sup>lt;sup>12</sup> Perceived differences between current values and those referring to portfolio positions in previous periods are due to cancellation or alterations in project values (see Annex 5).

### Accounting and financial aspects

Accounting and financial aspects related to the Amazon Fund are recorded and reported according to the current legislation and the principles and rules issued by the Federal Council of Accounting (CFC), an independent agency that, among others exclusive functions, regulates accounting and independent auditing procedures to be adopted in Brazil. Through its collective bodies and working groups, the CFC seeks to align practices adopted in Brazil with international standards.

Tables 5 and 6 summarize the information reported in audited financial statements and explanatory notes related to the year 2018. Annex 1 shows the full statements and the opinion of independent auditors.

ASSETS	LIABILITY		
Current		Current	
Cash and cash equivalents	3,482,996	Resources for projects	3,482,996
Prepaid expenses	90,094	Funding resources	90,094
		Net equity	
		Accumulated surplus	
Total assets	3,573,090	Total liability	3,573,090

TABLE 5: AMAZON FUND BALANCE SHEET ON DECEMBER 2018 (R\$ THOUSAND)

Source: BNDES.

Of the total amount of current assets, R\$ 3,482,996 thousand is cash available on December 31, 2018 for disbursements to supported projects. This amount is invested in the Gaia and Gaia II funds, managed by the Bank of Brazil. Such funds have a conservative profile (applications in fixed-rate investment – Brazilian public securities) and were contracted to maintain the monetary adjustment and remunerate the available balances for financial support to projects (see "financial revenue" in Table 6).

Donated values are recorded as cash and cash equivalents of the Amazon Fund and are linked to the support of projects. The resources for projects are recorded in the liabilities. Thus, donations received do not imply an increase in the fund's assets.

#### TABLE 6: FINANCIAL STATEMENT FOR THE YEAR 2018 (R\$ THOUSAND)

REVENUES	391,759
Donation revenue for investments	187,214
Donation revenue for costs	960
Financial revenue	203,585
(-) EXPENSES	(391,759)
Expenses with donations for investments	(187,214)
Administrative expenses	(960)
Expenses with return on project resources	(203,585)
Year surplus/deficit	0

Source: BNDES.

While the balance sheet shows an accumulated balance, the financial statement considers only what occurred in a specific year. The total amount of R\$ 187,214 thousand presented in the items "donation revenue for investments" and "expenses with donations for investments" refers to the amounts effectively disbursed in 2018 to projects supported by the Amazon Fund.

The amount of R\$ 960 thousand reported in Table 6 refers to the appropriation made by BNDES, in 2018, of costs and expenses related to the Amazon Fund.

Financial revenue of Gaia and Gaia II, in the amount of R\$ 203,585 thousand, are considered revenue and expense because they correspond to return on resources available for project disbursements, presented in the balance sheet as balance of the items "cash and cash equivalents" and "resources for projects."

According to the understanding of Brazilian Federal Revenue Regional Superintendence of the 7<sup>th</sup> Tax region, donations to the Amazon Fund should not, on the date of their entry, integrate the calculation base of the Income Tax (IR) and the Social Contribution on Net income (CSLL). For the purposes of calculating these taxes, whenever there is a disbursement to a supported project, whenever there is a disbursement to a supported project, a revenue entry and an expense entry must be recognized on the same date and in the exact amount disbursed. Thus, the basis for calculating IR and the CSLL for donations to the fund is always equal to zero, with no recollection of these taxes to the public coffers.

### **Audits**

The Amazon Fund is annually submitted to the following auditing processes:

- financial audit to evaluate the accuracy of the balances recorded in its financial statements, as well as the appropriate allocation of these balances in BNDES' financial statements; and
- compliance audit to evaluate whether the supported projects, regarding their expected objectives, outputs, and activities, are in accordance with Decree N°. 6,527/08, the guidelines and criteria of the Amazon Fund Guidance Committee (COFA), the Action Plan for the Prevention and Control of Deforestation in the Brazilian Amazon (PPCDAm) and the National REDD+ Strategy (ENREDD +).<sup>13</sup>

The financial audit for 2018 were carried out by KPMG Auditores Independentes, which concluded that the financial statements presented by BNDES were appropriate. The compliance audit was carried out by BDO RCS Auditores Independentes, which also concluded that the projects supported by the fund in 2018 complied with requirements.

The independent auditors' opinion and the compliance audit are shown in annexes 1 and 2, respectively.

<sup>13</sup> National Strategy for Reducing Emissions from Deforestation and Forest Degradation, Conservation of Forest Carbon Stocks, Sustainable Forest Management and Increased Forest Carbon Stocks (ENREDD+).



# MONITORING AND EVALUATION OF RESULTS

# Context

The Amazon Fund supports actions to prevent, monitor and combat deforestation and promotes the sustainable use of natural resources in the Brazilian Amazon. Its main references are the National Strategy for REDD+ (ENREDD+)<sup>14</sup> and the Plan for the Prevention and Control of Deforestation in the Brazilian Amazon (PPCDAm).

PPCDAm is based on the periodic diagnosis of the extent, dynamics and vectors of deforestation. The Logical Framework of the Amazon Fund – a tool for planning, managing, monitoring and evaluating results and impacts – was elaborated considering the diagnoses of this plan, which identifies the main causes of deforestation in the Amazon:

- the expansion of agriculture, driven by the growing demand for commodities in the globalized market;
- the impunity of environmental crimes due to the low capacity of government agencies to supervise and punish such acts in a territory of great dimensions;
- the existence of unused public lands and a lack of legal security regarding property rights in the region, which includes illegal occupation of public lands, conflicts over land ownership and discouragement of private investments; and
- the low economic incentive of maintaining the forest standing, due to lack of adequate infrastructure and economic incentives to promote sustainable production chains.

A great need for investments in innovation and scientific production for the monitoring and controling of deforestation, land management and the sustainable use of biodiversity in the Brazilian Amazon was also identified.

In the construction of the Logical Framework of the Amazon Fund, we also considered the seven thematic areas defined in Decree N°. 6,527/2008, which regulates the operation of the fund in the Brazilian Amazon, namely:

- 1. management of public forests and protected areas;
- 2. environmental control, monitoring, and inspection;
- 3. sustainable forest management;
- 4. economic activities developed based on sustainable use of vegetation;
- 5. ecological-economic zoning, territorial planning, and land regularization;
- 6. conservation and sustainable use of biodiversity; and
- 7. recovery of deforested areas.

<sup>&</sup>lt;sup>14</sup> National Strategy for Reducing Emissions from Deforestation and Forest Degradation, Conservation of Forest Carbon Stocks, Sustainable Forest Management, and Increasing Forest Carbon Stocks – ENREDD+.

The decree that authorized the creation of the Amazon Fund established that up to 20% of its funds can be used in the development of systems to monitor and control deforestation in other Brazilian biomes and in other tropical countries.

## Logical Framework of the Amazon Fund

The Logical Framework of the Amazon Fund was first released as a full document in 2010. In 2017, it was reviewed, due to the changes in the dynamics of deforestation and in the emphasis of public policies, especially the PPCDAm, which had its fourth phase released at the end of 2016.<sup>15</sup>

The logical framework is a methodology used to ensure that the actions financed contribute to the overall objective of a program (or project), and it can be defined as a matrix, which includes strategic decisions on the application of funds in a program, explaining what effects or objectives it wants to obtain and how it wants to accomplish it.

Figure 3 illustrates the logical sequence of cause and effect that leads from the direct and indirect impacts of various projects to the general objective of a program, such as the Logical Framework of the Amazon Fund.

FIGURE 3: AMAZON FUND'S LOGICAL SEQUENCE



The general objective of the Amazon Fund focus on the Brazilian Amazon, even though the fund is authorized to support the development of systems for monitoring and control of deforestation in other regions of Brazil and other tropical countries. Therefore, the "reduction in the deforestation with sustainable development in the Brazilian Amazon" was defined as the general objective of the Amazon Fund.

Regarding the indirect effects to be achieved by the Amazon Fund, the seven thematic areas defined in Decree N°. 6,527/2008 (listed in the previous section of this chapter) were adopted as the starting point. This decree also established that in the projects carried out in the Brazilian Amazon, the guidelines of the PPCDAm and the National REDD+ Strategy (ENREDD+) should be observed.

<sup>&</sup>lt;sup>15</sup> As of 2016, with the promulgation of Decree N°. 8,773, dated May 11, 2016, the Amazon Fund also had its area of territorial performance expanded (for all the actions it supports) from Amazon biome to Brazilian Amazon. The Brazilian Amazon covers a territorial area with defined dimensions in the legislation, comprising the integrality of the Amazon biome and areas between this biome and other Brazilian biomes, making a total area of about 5 million km<sup>2</sup>.

#### Monitoring and evaluation of results

Considering the breadth of the Amazon Fund's areas of action, its logical framework was structured into four components. It is noteworthy that an emphasis was given to science, technology and innovation while preparing the logical framework, since it is a strategic and cross-cutting issue for all the components of the Amazon Fund, as well as the use of economic instruments from the fourth phase of the PPCDAm (2016 to 2020) was incorporated.<sup>16</sup>

More detailed information about the Logical Framework of the Amazon Fund can be found on the internet<sup>17</sup> in the document entitled Logical Framework of the Amazon Fund – 2017. In this document, the indicators of results are described, as well as the main risks (assumptions) and how the monitoring of the supported projects and the monitoring of the Amazon Fund will occur.

Figure 4 shows the intervention methodology of the Logical Framework of the Amazon Fund. The number alongside the direct and indirect effects in this figure allows for the identification to which effects of the Logical Framework of the Amazon Fund these projects contributed or will contribute. This is also reported on the following chapters: approved projects in 2018 and concluded projects.

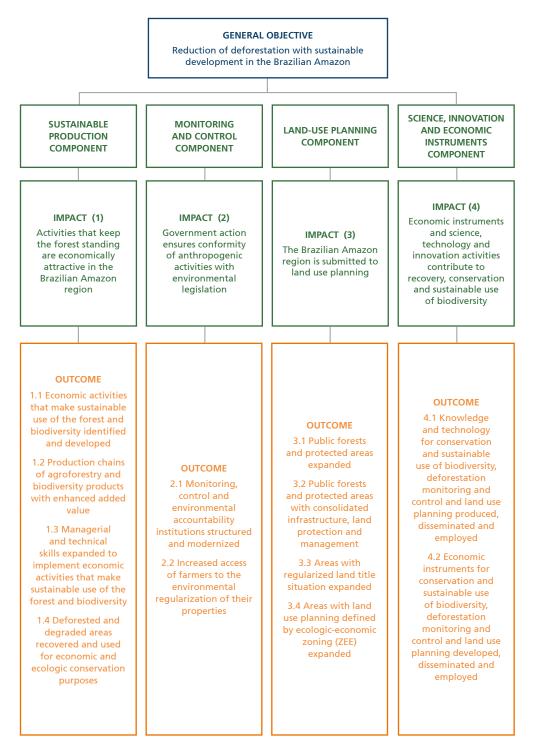


 <sup>&</sup>lt;sup>16</sup> PPDCAm is currently structured into four axes, which are: (i) "promotion of sustainable productive activities";
 (ii) "monitoring and control"; (iii) "land use planning"; and (iv) "normative and economic instruments."

<sup>&</sup>lt;sup>17</sup> See http://www.fundoamazonia.gov.br, in the section about monitoring and evaluation.

#### Monitoring and evaluation of results

FIGURE 4: LOGICAL FRAMEWORK OF THE AMAZON FUND



# Distribution of funds by component of the logical framework

The Amazon Fund supported 103 projects up to 2018. The actions and funds of these projects are distributed between the four components of the logical framework as follows:

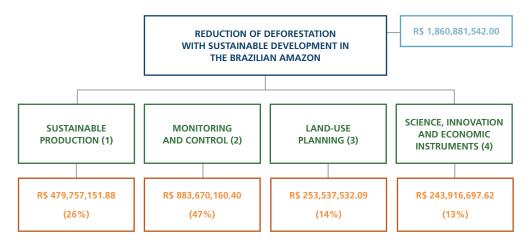


FIGURE 5: DISTRIBUTION OF FUNDS BY THE SUPPORT COMPONENTS OF THE AMAZON FUND

Some of the projects supported occur in Brazil outside the Brazilian Amazon and in other countries with tropical forests, in the amount of R\$ 167 million. This value is distributed across the components of the Logical Framework of the Amazon Fund as follows: R\$ 17 million of the component "monitoring and control" refers to actions in other countries to develop deforestation monitoring capacity in member countries of the Amazon Cooperation Treaty Organization (ACTO) and R\$ 143 million to actions in Brazil outside the Brazilian Amazon to support the implementation of the Rural Environmental Registry (CAR). The amount of R\$ 7 million of the component "science, innovation and economic instruments" is destined to actions in other countries, aiming at the production and diffusion of knowledge and technologies for the monitoring of the regional Amazon in the member countries of ACTO.

# Monitoring of regional indicators

The Amazon Fund identified in its logical framework some regional or systemic indicators that relate to the public policies to which it aims to contribute through the projects it supports.

Monitoring these public policies helps in understanding the progress made in reducing deforestation with sustainable development in the Amazon. For such monitoring, the Amazon Fund indicators are analyzed in a comparative perspective at the level of their general objective and indirect effects. The baseline of each indicator is the year 2009, when the first operations of the Amazon Fund were approved, although there were no released of funds for these projects.

The current year of evaluation is 2018. Whenever possible, there is a comparison with 2009. In the cases in which this information does not exist, the latest data available are used.

It is noteworthy that the contribution of the Amazon Fund to the behavior of all these indicators is not exclusive, although already identifiable and relevant, as attested to the evaluation of the projects concluded with the support of the fund, is not exclusive, in addition to initiatives and actions of a plurality of public and private agents that operate in this vast territory that is the Amazon.

## General objective: reduction of deforestation with sustainable development in the Brazilian Amazon

#### Indicator: (1) Annual deforestation in the Brazilian Amazon

One of the indicators selected to measure the evolution of the general objective was "Annual deforestation in the Brazilian Amazon," as assessed by the National Institute for Space Research (Inpe).

Preliminary data from Inpe indicate that deforestation in the Brazilian Amazon in 2018 was of 7,900 km<sup>2</sup>. In relation to 2004, the deforestation rate in the Amazon was reduced by 72%. By comparing the deforestation rate of 2018 with that of 2009 (baseline), we note a 6% increase in the deforestation rate in this period. However, when comparing the mean for annual deforestation occurred in the period from 2010 to 2018 with the Amazon Fund baseline (2009), we observe a decrease of 14% in the deforested area during this period.

#### Monitoring and evaluation of results

Brazilian Amazon deforestation						
2004	2009	2018*	Variation (%) 2018/2004	Variation (%) 2018/2009		
27,772	7,464	7,900	(72)	6		

#### TABLE 7: EVOLUTION OF DEFORESTATION IN THE BRAZILIAN AMAZON - 2004-2018 AND 2009-2018

Source: BNDES, based on data from Inpe. \* Preliminary data.

\* Preliminary data.

#### TABLE 8: EVOLUTION OF DEFORESTATION IN THE BRAZILIAN AMAZON - 2009 AND 2010-2018 AVERAGE

Deforestation 2009 (A)	Average deforestation from 2010 to 2018 (B)	Variation (%) (B)/(A)
7,464	6,427	(14)

Source: BNDES, based on data from Inpe.

The National Policy on Climate Change estimates reduction of 80% up to 2020, of the mean annual deforestation rate observed between 1996 and 2005. That is, the goal to be reached in 2020 by Brazil is a maximum of 3,925 km<sup>2</sup> of annual deforestation in the Brazilian Amazon. To achieve this goal, deforestation in the Amazon will have to be reduced by approximately 50% in the next two years in relation to the rate verified in 2018.

It is incumbent upon the Federal Government and the state governments to establish specific policies and programs to address the deforestation vectors. Within the scope of the Amazon Fund, it is incumbent upon its Guidance Committee (COFA) – composed of 23 members representing Federal Government, state and civil society agencies – to establish and revise its guidelines and its criteria for support.

It is noteworthy that one of the main agents in the fight against deforestation is the Brazilian public sector, through its various administrative structures, both at the federal level and at the state and municipal levels, without prejudice to the contribution of civil society, which communicates environmental misconduct, as well as promoting pioneering initiatives, sometimes incorporated in the established order.

Despite its role in complementing the Federal Government and the state governments, the Amazon Fund has been strategic for reducing deforestation, supporting the continuity and expansion of several initiatives that are essential for reducing deforestation, as well as facilitating actions to induce transformations. In the current context, after two years of economic recession (2015 and 2016) with the increase in deforestation rate, the performance of the Amazon Fund becomes even more relevant, by sustaining the continuity of the fight against forest destruction and the promotion of sustainable use of biodiversity in the Amazon.

The analysis of the indicator "Annual deforestation in the Brazilian Amazon" concluded that the general objective of the Amazon Fund (reduction of

deforestation with sustainable development in the Brazilian Amazon) has been reached as to the reduction dimension of deforestation, when compared with the average annual deforestation in the period from 2010 to 2018 with deforestation rate of 2009 (a 14% reduction). However, when comparing the rate measured in 2018 with the rate verified in 2009, there was an increase of 6%, which makes it very challenging to reduce the annual deforestation rate of the Brazilian Amazon to 3,925 km<sup>2</sup> by 2020.

# Indicator: (2) Share of the GDP of the states of the Brazilian Amazon in relation to the national GDP

The second indicator selected to measure the evolution of the general objective of the Amazon Fund is the share of the gross domestic product (GDP) of the states of the Brazilian Amazon in relation to the Brazilian GDP. That is, the GDP of the nine states of the Brazilian Amazon is summed up and this subtotal and compared with the total of the national GDP.

GDP is a basic indicator of economic behavior that shows the economic development of a particular region. However, it is not an ideal indicator for the measurement of sustainable development, since it does not include, for example, information such as the environmental liabilities generated. Therefore, this indicator needs to be analyzed along with the deforestation reduction indicator.

The most current information provided by the Brazilian Institute of Geography and Statistics (IBGE) on the evolution of the GDP of each state is from 2016. Table 9 shows that the GDP of the Brazilian Amazon increased in relation to the Brazilian GDP, although in the period from 2013 to 2015 there was a stagnation in this gradual increase in the share of GDP of the Brazilian Amazon compared with the Brazilian GDP. In 2016, this participation began to grow again. In the years 2015 and 2016, Brazil experienced a recessive period (GDP retraction of 3.5% and 3.3%, respectively), and the year of 2017 marked the beginning of the economic recovery with continuity in 2018, albeit at a very gradual pace (1.1% growth in both 2017 and 2018).

TABLE 9: EVOLUTION OF THE SHARE OF GDP OF THE STATES OF THE BRAZILIAN AMAZON IN RELATION TO THE NATIONAL GDP (%)

2009	2010	2011	2012	2013	2014	2015	2016
8.04	7.98	8.29	8.30	8.45	8.41	8.45	8.72

Source: BNDES, based on data from IBGE.

# Indirect effect (1) Activities that maintain the forest standing are economically attractive (component "sustainable production")

#### INDICATOR: PLANT EXTRACTIVISM AND FORESTRY

#### INDICATOR: LEGAL LOGGING IN THE AMAZON

The Amazon Fund prioritizes the structuring of the sociobiodiversity productive chains. This prioritization has materialized through its financial support to several projects whose objectives are to expand and improve the collection and processing of extractive products by traditional communities and indigenous peoples.

The actions supported include the construction of sheds for the storage of production; the acquisition of trucks, vans, tractors and boats for collection and distribution of products; the implementation or extension and modernization of processing units of these products; and the technical and managerial training of the indigenous, extractivists and family farmers involved in the projects.

For the monitoring of this component, the indicator of production of the vegetal extraction and of the forestry verified in the states of the Brazilian Amazon was selected, whose data are based on the annual publication of IBGE,<sup>18</sup> and an indicator that measures the legal logging in the Amazon was developed.

Data on the production of the vegetal extraction are obtained by IBGE in consultation with public and private entities, producers, technicians and agencies directly or indirectly connected to the sectors of the production, commercialization, industrialization and inspection of native vegetal products.

Vegetal extraction comprises the process of exploring native plant resources through the collection of products. The Amazon is an important source of production of the açaí berry, Brazil nuts, native rubber, almonds and other oleaginous products and diverse fibers, which are economically representative and are commercialized inside and outside the region. The evolution of the production and revenue of these products is monitored by the Amazon Fund due for its economic relevance in the regional context.

In the set of oilseeds, the extractive production of, among other products, tonka bean (or Cumaru almond), souari nut (or *pequi* fruit) and diesel tree oil is being monitored. The evolution of the babassu production chain, the oilseeds of which are mainly used in the food industry, is also monitored. As the babassu has a large participation in the regional extractive economy, it was monitored separately from the other oilseeds. In the group of fibers, piassava and Moriche palm, among other products, are being monitored.

<sup>&</sup>lt;sup>18</sup> Production of Plant Extraction and Forestry (Pevs), from IBGE, available from: https://www.ibge.gov.br/estatisticas/ economicas/agricultura-e-pecuaria/9105-producao-da-extracao-vegetal-e-da-silvicultura.html?=&t=resultados.

Table 10 shows the evolution of the physical production (in tonnes) of the vegetal extraction of these products in 2009 and 2017.

Products	2009 (tonnes)	2017 (tonnes)	Variation (%)
<i>Açaí</i> berry	115,767	219,882	90
Brazil nut	37,468	26,191	(30)
Rubber (liquid and coagulated latex)	3,459	1,025	(70)
Oilseeds*	1,240	1,333	8
Babassu	103,359	50,797	(51)
Fibers**	2,848	2,876	1
Historical total	264,141	302,104	14

#### TABLE 10: OUTPUT OF PLANT EXTRACTIVISM IN THE BRAZILIAN AMAZON STATES (TONNES)

Source: BNDES, based on data from IBGE.

\* Include diesel tree (oil), tonka bean, souari nut and other products.

\*\* Include Moriche palm, piassava and other products.

Table 11 shows the evolution of these same products from the perspective of the revenue generated.

Products	2009	2009*	2017	Variation (%)
Açaí berry	160,312	261,198	545,356	109
Brazil nut	52,261	85,150	95,175	12
Rubber (liquid and coagulated latex)	7,597	12,378	3,610	(71)
Oilseeds**	6,570	10,705	14,981	40
Babassu	114,847	187,122	78,784	(58)
Fibers***	4,495	7,324	5,038	(31)
Historical total	346,082	563,876	742,944	32

#### TABELA 11: OUTPUT OF PLANT EXTRACTIVISM IN THE BRAZILIAN AMAZON STATES (R\$ THOUSAND)

Source: BNDES, based on data from IBGE.

\* Updated values for reals of 2017 by the variation of the Extended National

Consumer Price Index (IPCA) from 2010 to 2017.

\*\* Include diesel tree (oil), tonka bean, souari nut and other products.

\*\*\* Include Moriche palm, piassava and other products.

We observed that the production of the açaí berry, a fruit increasingly used in the preparation of foods and drinks, increased by 90% in the Brazilian Amazon between 2009 and 2017, and the revenue, in updated figures, increased by 109% in this period, reaching R\$ 545 million in 2017.

Brazil nut is another important regional product, which is one of the tallest trees of the Amazon rainforest. The volume of production has been decreasing since 2012 (except for the harvest of 2015). In 2017, the volume produced reached its

#### Monitoring and evaluation of results

lowest level since 2009, which in the 2009-2017 period represented a decrease of 30%. The annual revenue, however, grew 12% in the same period, reaching the amount of R\$ 95 million in 2017.

The oilseed production grew less than the revenue. While the first production increased by 8%, the revenue increased only by 40%, reaching R\$ 15 million in 2017.

Fibers had a small increase in production (1%) in the 2009-2017 period, accompanied by a 31% drop in revenue generation, reaching R\$ 5 million annually in 2017. Rubber, comprised of the liquid and coagulated latex, had a considerable fall in production (70% less in 2009-2017), with a 71% drop in revenue generation, totaling R\$ 3.6 million in 2017.

Babassu, in turn, is a palm tree with oilseeds from which an oil is extracted and used for medical purposes. In Brazil it is present in the state of Maranhão, although some other states of the Brazilian Amazon also produce it. Its production volume in Brazilian Amazon in 2017 was 51,000 tonnes, that is, about half of that of 2009 (103,000 tonnes). The revenue in the same period decreased 58%, totaling R\$ 79 million in 2017.

In this report, the evolution of timber production in legally extracted logs in the states of the Brazilian Amazon is monitored. Timber production has as its legal raw material source only forests exploited under a sustainable regime, through sustainable forest management plans (SFMP) or authorized deforestation. This indicator was measured thanks to the systematization and availability of information on the transportation of forest products registered through the Forest Origin Document (DOF) by the Brazilian Institute of the Environment and Renewable Natural Resources (Ibama), on its website.<sup>19</sup>

<sup>&</sup>lt;sup>19</sup> It is worth mentioning that the control of native wood exploitation in Brazil, although quite advanced, is not proof of fraud in the issuance of exploration permits. Therefore, part of the logs accounted for as legally extracted, based on information registered through the DOF system, may in fact be illegal wood resulting from fraud in the system.

#### TABLE 12: LEGAL LOGGING IN THE AMAZON (M<sup>3</sup>)

States	2009	2017	Variation (%) 2017/2009
Acre	277,489	144,241	(48)
Amazonas	355,113	706,543	99
Amapá	64,189	227,743	255
Maranhão	10,359	4,052	(61)
Mato Grosso	2,043	41,610	1,936
Pará	9,041	235,186	2,501
Rondônia	-	1,611,337	0
Roraima	89,502	333,927	273
Tocantins	21,366	3,625	(83)
Total	829,102	3,308,266	299

Source: BNDES, based on data from Ibama.

#### TABLE 13: LEGAL LOGGING IN THE AMAZON (R\$ THOUSAND)

States	2009	2009*	2017	Variation (%) 2017/2009*
Acre	10,095	16,448	6,319	(62)
Amazonas	19,633	31,988	90,557	183
Amapá	3,944	6,425	17,383	171
Maranhão	905	1,475	417	(72)
Mato Grosso	1,317	2,146	3,910	82
Pará	3,314	5,399	40,421	649
Rondônia	0	0	101,074	0
Roraima	4,153	6,766	21,612	219
Tocantins	7,314	11,916	15	(100)
Total	50,675	82,564	281,709	241

Source: BNDES, based on data from Ibama.

\* Updated values for reals of 2017 by the variation of the Extended National

Consumer Price Index (IPCA) from 2010 to 2017.

Based on the data analysis of legal logging, the volume of timber production from 2009 to 2017 practically increased by four times (299%). The annual revenue, in turn, went from R\$ 82 million in 2009 to reach R\$ 281 million in 2017 (241%).

Another positive fact is that more than 70% of the total logs harvested in 2017 (3.3 million m<sup>3</sup>) was obtained through sustainable forest management (2.4 million m<sup>3</sup>). Sustainable forest management is the administration of the forest to obtain benefits, respecting the sustaining mechanisms of the ecosystem

being managed. That is, sustainable forest management does not include clear cutting of the forest in the Amazon.

The Amazon Fund has directly contributed to these results in two ways: (i) direct support to projects of sustainable forest management or instrumentalize this activity through scientific research or training of technicians; and (ii) repression of illegal logging activities that represent an unfair competition for sustainable forest management. Sustainable forest management has more costs due to its legal operation and lower return for not predatory logging.

The analysis of the behavior of the basket of products of the Amazon forest based on IBGE Pevs data shows that there was a 32% growth in the revenue generated by these products between 2009 and 2017 corresponding to a growth of 14 % in the volume produced. On the other hand, the analysis of the evolution of the legal logging shows that there was a growth of 241% in the revenue generated by the logs, corresponding to a growth of 299% in the volume produced between 2009 and 2017.

Therefore, the evolution of these indicators shows that the indirect effect "activities that maintain the forest standing have economic attractiveness in the Brazilian Amazon" is being reached.

#### Indirect effect (2) Governmental actions ensure the conformity of human activities to environmental legislation (component "monitoring and control")

INDICATOR: NUMBER OF OUTPOSTS (REGIONAL UNITS) OF STATE ENVIRONMENTAL AGENCIES

INDICATOR: NUMBER OF MUNICIPALITIES ABLE TO LICENSE ACTIVITIES WITH LOCAL ENVIRONMENTAL IMPACT

# INDICATOR: NUMBER OF ENVIRONMENTAL PERMITS OR AUTHORIZATIONS GRANTED ANNUALLY BY STATE ENVIRONMENTAL AGENCIES

To monitor this component, indicators were created to measure the capacity of the environmental agencies of the Brazilian Amazon to implement the current environmental legislation.

Two of the indicators respectively measure the levels of decentralization identified in environmental management: "number of outposts (regional units) of state environmental agencies" and "number of municipalities able to license activities with environmental impact of local scope."

The decentralization of environmental management through the implementation of outposts or regional units of state environmental agencies

brings these agencies closer to the inhabitants and economic agents of the more remote regions, which promotes a more efficient environmental management.

On the other hand, municipalities are responsible for the environmental licensing of projects and activities that cause or may cause local environmental impact, according to the typology defined by the respective state environmental councils, considering the size, pollutant potential and nature of the activity. The indicator that measures the number of municipalities able to license activities with local environmental impact verifies the degree of participation of municipalities in the implementation of environmental legislation in their territories.

A third indicator monitors the "number of environmental permits or licenses granted annually by state environmental agencies." Licensing is an important instrument of the National Environmental Policy, and the increase in the granting of licenses and other authorizing acts signals the degree of control of environmental agencies over human activities that interfere with environmental conditions.

Despite the lack of information that monitors these indicators, Table 14 shows data obtained from the state environmental agencies of the Brazilian Amazon.

State	environmer	No. of outposts of the state environmental agencies (cumulative)*		se activities ivironmental	permits c	ironmental or licenses innual)***
	2009	2018	2009	2018	2009	2018
Pará	4	6	10	123	3,259	1,496
Acre	5	5	1	1	2,239	492
Amazonas	0	4	2	1	2,723	2,666
Roraima	1	1	13	12	183	979
Tocantins	20	15	0	4	3,360	5,600
Mato Grosso	11	9	5	46	5,430	26,518
Rondônia	14	14	1	20	2,480	6,452
Maranhão	1	2	0	49	0	3,417
Total	56	56	32	256	19,674	47,620
Variation 2018/2009 (%)		D	70	00	14	42

TABLE 14: REGIONAL INDICATORS OF THE COMPONENT "MONITORING AND CONTROL"

Source: BNDES, based on data provided by state environmental agencies.

\* Consolidated number (cumulative) – set of all outposts of the state environmental agency.

\*\* Consolidated number (cumulative) – all municipalities in the state able to license activities with local environmental impact. \*\*\* Number of licenses: prior, installation, operation, rural property; renewal, retification, declaratory, previous consent, and permits: environmental, deforestation, use of raw material, for exploitation of forest management, transit and commercialization of fish, and transportation of dangerous cargoes dispatched in the year.

A joint analysis of the monitored indicators shows the significant evolution in two of the three dimensions followed, highlighting a significant increase (700%) in the number of municipalities able to license activities with local environmental impact. The number of permits issued annually by environmental agencies also experienced an increase in the monitored period (142%).

#### Monitoring and evaluation of results

The growth in the number of municipalities able to license activities with local environmental impact indicates increased capacity of these entities to assume responsibilities related to environmental management and licensing, showing a tendency to become an increasingly important locus of environmental management. Finally, the number of outposts of state environmental agencies remained constant.

The Amazon Fund has contributed to this evolution by supporting projects strengthen state and municipal environmental agencies; improve the environmental licensing process; train the public servants; decentralize environmental management through the strengthening of regional units; and decentralize and strengthen municipal environmental management.

# Indirect effect: (3) The Brazilian Amazon is submitted to land-use planning (component "land-use and planning")

INDICATOR: AREA OF INDIGENOUS LANDS (TI) AND FEDERAL PROTECTED AREAS (PA) IN THE BRAZILIAN AMAZON WITH TERRITORIAL MANAGEMENT INSTRUMENT

#### INDICATOR: DEFORESTATION IN PROTECTED AREAS IN THE BRAZILIAN AMAZON

Two indicators were created to monitor this component. The first measures the extent of federal protected areas with an elaborated territorial management tool and the second one tracks the deforestation rate in protected areas (federal and state PAs and TIs in the Brazilian Amazon).

The indicator "area of indigenous lands and federal nature protected areas in the Brazilian Amazon with territorial management instrument" follows the evolution of the elaboration of territorial management instruments in federal TIs and PAs that have, respectively, territorial and environmental management plans (PGTA) and management plans. The use of these instruments in protected areas has contributed significantly to reducing deforestation in these territorial domains.

The management plan of a PA is a document in which, based on the general objectives of a PA, its zoning and the norms that should govern the use of the area and the management of natural resources are established, including the implementation of the necessary physical structure management.

In turn, the PGTAs are tools for implementing the Brazilian Policy for Territorial and Environmental Management of Indigenous Lands (PNGATI), and can be defined as instruments that aim at the valorization of indigenous material and immaterial heritage, recovery, conservation and sustainable use of natural resources, ensuring the improvement of the quality of life and the full conditions of physical and cultural reproduction of current and future indigenous generations. These plans must express the protagonism, autonomy and selfdetermination of the peoples in the negotiation and in the establishment of internal agreements that allow the strengthening of the territorial protection and control, as well as being a subsidy that guides the execution of public policies directed to the indigenous peoples.<sup>20</sup>

Protected areas	Number of and TIs wit managen		Variation 2018/2009 (%)	Area (km²) o and TIs witl managen	h territorial	Area variation 2018/2009 (%)
	2009	2018		2009	2018	
Federal PAs	28	83	196	160,741	431,130	168
TIs*	33	90	173	75,741	469,707	520
Total	61	173	184	236,482	900,837	281

TABLE 15: AREA OF FEDERAL PAS AND TIS IN THE BRAZILIAN AMAZON WITH TERRITORIAL MANAGEMENT INSTRUMENT (MANAGEMENT PLANS OR PGTAS)

Source: BNDES, based on data from the Chico Mendes Institute for Biodiversity Conservation (ICMBio) and Funai.

\* Data on TIs of 2009 altered due to the reclassification.

Based on the data analysis in Table 15 about protected areas with territorial management instrument between 2009 and 2018, considerable growth of protected areas with these instruments in the Amazon was observed.

The Amazon Fund has supported several projects to strengthen and consolidate the protected areas of the Amazon. Eight projects were supported to draft and implement PGTAs, selected under the Public Call for Support to Territorial and Environmental Management of Indigenous Lands, promoted by the Amazon Fund.

Among other actions, these projects promote environmental management and the development of sustainable productive activities of indigenous peoples; the protection of isolated and recently-contacted indigenous peoples; the implementation of initiatives to monitor and control the territory; as well as the strengthening of local community organization, culture and way of life of these populations. Besides these projects dedicated exclusively to the indigenous theme, there are other supported projects that also contemplate some action that benefits these populations.

In 2018, a project to increase the level of consolidation of management in protected areas of the Brazilian Amazon was approved through public call for projects and complementary actions for the conservation of natural resources.

<sup>&</sup>lt;sup>20</sup> Definition of PGTA based on the document Guidelines for the elaboration of territorial and environmental management plans for indigenous lands, of the National Indian Foundation (Funai), in 2013.

It is noteworthy that, in support of all projects that have indigenous peoples as direct beneficiaries, the Amazon Fund verifies that the socio-cultural systems and traditional knowledge of indigenous peoples have been considered and have been respected during the implementation of the projects. It also verifies the communities to be benefited consent to the actions to be implemented.

There are 101 TIs benefiting from some type of action supported by the Amazon Fund, which comprises approximately 65% of the area of all TIs in the Brazilian Amazon.

Table 16 shows the variation of the deforestation rate in protected areas in the Brazilian Amazon (federal and state PAs and indigenous territories).

Protected areas	Number of protected areas	Deforestation rate in 2009 (km²)	Deforestation rate in 2017 (km²)	Variation (%)
Federal PAs	174	287.35	177.74	(38)
State PAs	178	320.09	761.90	138
TIs	379	246.51	186	(25)
Total	731	853.95	1,125.64	32

TABLE 16: DEFORESTATION IN PROTECTED AREAS IN THE BRAZILIAN AMAZON

Source: BNDES, based on data from Inpe/Prodes. \* Preliminary data.

Table 16 shows that the deforestation rate increased by 32% in all of the 731 protected areas monitored between 2009 to 2017. However, it is worth mentioning the 25% reduction in deforestation in TIs, even though there was an increase compared to 2016, which shows the importance of this territorial category and the relevant role of indigenous peoples in preventing deforestation.

Federal PAs also stood out with a 38% reduction in deforestation, when the deforested area of 2017 is compared with that of 2009. The increase in the deforestation rate in the state PAs was responsible for the increase in this rate in all protected areas, which shows the urgency to consolidate the management of this category of protected areas and to strengthen the state public entities responsible for their monitoring. The Amazon Fund contributes to this with projects supported by territorial planning and monitoring and deforestation control.

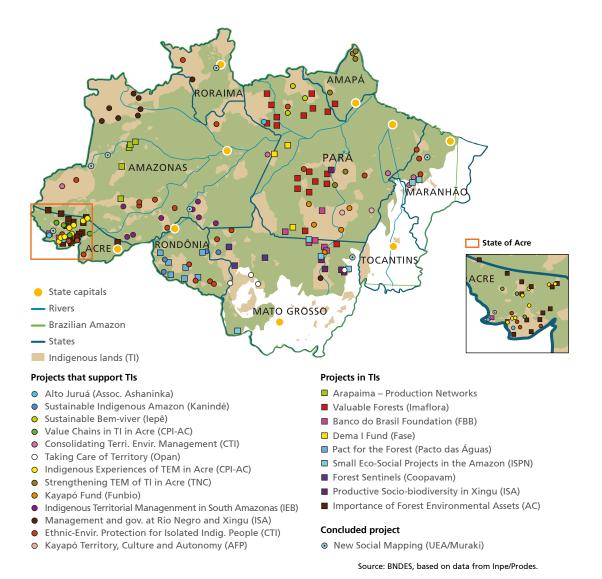


FIGURE 6: PROJECTS SUPPORTED BY THE AMAZON FUND IN TIS

Indirect effect (4) Economic instruments, science, technology and innovation contribute to the recovery, conservation and sustainable use of biodiversity (component "science, innovation and economic instruments")

## INDICATOR: NUMBER OF PATENT APPLICATIONS FILED AT THE NATIONAL INSTITUTE OF INDUSTRIAL PROPERTY (INPI)

In order to monitor the component "science, innovation and economic instruments", two indicators were selected: (i) "number of patent applications filed at the National Institute of Industrial Property" (INPI), which allows for

an initial assessment of the degree of the regional innovation system; and (ii) "subsidy value paid to extractivists for the promotion of socio-biodiversity product chains in the states of the Brazilian Amazon (PGPM-Bio)," to monitor the evolution of the economic incentives policy in the Amazon region.

The second indicator was not included in this report due to the fact that until 2018 the Amazon Fund has not supported projects for the payment of subsidies to socio-biodiversity products or similar projects.

Brazil	2009	2018	Variation (%)
Brazii	7,709	6,790	(11.9)
Amazon states	2009	2018	Variation (%)
Acre	3	10	233.3
Amazonas	63	24	(61.9)
Amapá	3	12	300.0
Maranhão	24	61	154.1
Mato Grosso	29	40	37.9
Pará	25	46	84.0
Rondônia	13	76	484.6
Roraima	1	8	700.0
Tocantins	8	11	37.5
Total	169	288	70.4

TABLE 17: PATENT APPLICATIONS FILED AT THE INPI BY RESIDENTS OF THE STATES OF THE BRAZILIAN AMAZON

Source: BNDES, based on data from INPI.

Comparing the number of patent applications filed at the INPI by residents in the states of the Amazon in 2009 and 2018, there was a growth of 70%. In Brazil, in general, considering the same years, there was a decrease of 12%.

Despite the considerable growth in the number of patent applications in the period analyzed, the number of patent applications filed in the region in absolute numbers is low (4% of the total applications in Brazil). This shows the need to strengthen this aspect that is relevant to the knowledge and sustainable development of the resources of the region, to improve the monitoring of deforestation and also to develop and enhance ways and methods that contribute to the territorial planning of the region.

The reasons leading to this scenario are complex and have historical roots. They comprise differences in levels of investment in higher education and research until factors such as the level of development of the industrial sector in each one of these states or regions.

The science and technology projects supported by the Amazon Fund face this challenge through actions such as the construction, renovation or structuring of centers of advanced studies for research in biotechnology; survey and processing of georeferenced biological and socioeconomic data; and development of models for biomass estimation and carbon sequestration in ecosystems.

# Synthesis of the monitoring of the regional indicators related to the Amazon Fund

- Growth of 6% in the deforestation rate in the Brazilian Amazon between 2018 and 2009. On the other hand, when comparing the average annual deforestation that occurred in the period from 2010 to 2018 with the deforestation in 2009 (baseline of the Amazon Fund), there is a 14% drop in the deforested area.
- Growth of the share of GDP of the Amazon in relation to the Brazilian GDP (2009-2016).
- Growth of 14% in the volume produced and 32% of the revenue generated by the basket of extractive products monitored, according to data from IBGE Pevs, and growth of 299% in the volume and 241% of the revenue generated by legal logging (2009-2017).
- Expansion of the decentralization of environmental management to municipalities by 700% and of the number of permits issued by environmental agencies by 142%, with the same number of outposts of environmental state agencies (2009-2018).
- Increase of 281% in the area of federal PAs and TIs with territorial management instrument (2009-2018) and worsening of the indicator that monitors deforestation in protected areas, which indicates a 32% increase in deforestation (2009-2017) due to the substantial increased deforestation in state PAs.
- Growth of 70% in the number of patent applications filed at INPI by residents of the states of Brazilian Amazon (2009-2018).

# Project results chart

For each project, a specific logical framework is built, discussed with the beneficiaries and integrated with the objectives defined in the logical framework of the Amazon Fund.

Figure 7 illustrates how the results and effects at project level should contribute to the development of the four components and, thus, to the achievement of the general objective of the Amazon Fund.

**GENERAL OBJECTIVE** OF THE AMAZON FUND INDIRECT EFFECTS OF INDIRECT EFFECTS OF THE PROJECTS THE PROJECTS **EFFECTIVENESS** DIRECT EFFECTS OF DIRECT EFFECTS OF INDICATORS OF THE PROJECTS THE PROJECTS THE PROJECTS LOGICAL FRAMEWORK OF THE AMAZON FUND **EFFECTIVENESS** PRODUCTS AND INDICATORS OF SERVICES THE PROJECTS INTERVENTION LOGIC OF THE AMAZON FUND PROJECT

FIGURE 7: INSERTION OF PROJECTS IN THE LOGICAL FRAMEWORK OF THE AMAZON FUND

## Monitoring of results of the Amazon Fund projects

In the monitoring of the projects supported by the Amazon Fund, in addition to monitoring the indicators of the results of each project, several procedures, described below, are executed in order to prevent or solve situations that put their implementation at risk.

The monitoring period for each project goes from signing the contract to completing the obligations assumed. To subsidize the monitoring process, those responsible for the execution of the project supported by the Amazon Fund sends performance reports containing: (i) a summary of the main activities carried out in the period; (ii) financial information referring to the amounts used in the period; and (iii) documentation regarding compliance with contractual obligations.

The monitoring by BNDES also includes verification of the physical and financial execution of the project, which includes a visit to the project site, when necessary. Each release of resources is also subject to verification of compliance with relevant contractual standards and clauses.

At the conclusion of the project, the beneficiary submits an evaluation report of the results. The main objective of this report is to consolidate information about the implementation of the project supported and its results and impacts. The document must contain information about the progress of the project, the monitoring of its logical framework indicators, the future sustainability of its results, problems that emerged in its implementation, as well as the knowledge gained and the lessons learned.

### Results of the projects supported by the Amazon Fund

The projects supported by the Amazon Fund are monitored individually. The activities carried out by projects in the execution phase are reported in the Amazon Fund's website,<sup>21</sup> with a specific section for each project supported, containing, among other information: name of the organization responsible for implementing the project; territorial scope of the project and its beneficiaries; value of the project and value of the Amazon Fund's financial contribution; expected execution time; amounts already disbursed and dates of the disbursements; context in which the project is inserted and summarized information about it; its intervention logics and a summary of the activities that have already been carried out.

To monitor the results of the projects supported, a range of indicators common to them that enable their consolidation and provide a joint perspective of the products and services provided and of the impacts resulting from their actions was developed. It should be noted that, in some cases, the results are qualitative in nature, requiring that they be analyzed individually.

In addition to the projects' supervision during their execution, the Amazon Fund publishes an assessment of the results and impacts of each project completed. In the "Completed projects" chapter of this report, there is information about the six projects completed this year, including an assessment of their results and impacts. Thus, of a portfolio of 103 projects supported, 21 were completed and had their assessment published in the Amazon Fund's annual reports. Whenever possible, an analysis of the impacts of completed projects on the deforestation rate of their catchment areas is made.

<sup>&</sup>lt;sup>21</sup> Available at: http://www.fundoamazonia.gov.br/pt/carteira-de-projetos/.

In 2018, the Amazon Fund replaced the development of individual logical frameworks for the projects supported with a new tool developed by BNDES called the result's framework (RF). This change was aimed at aligning the performance of the Amazon Fund with the procedures followed by BNDES's other operational units, and will allow the digitization of this macro-process, with efficiency and quality gains. The RF of the individual projects presents: (i) the objectives, in terms of results, for which the project will contribute; (ii) the amount of financing associated with each objective; and (iii) the indicators of efficacy and effectiveness to be monitored. The RF taken as reference for the elaboration of the individual RFs can be seen in Annex 6 of this report.

Tables containing the consolidation of the results and impacts measured based on indicators selected in the logical frameworks of projects supported by the Amazon Fund are presented subsequently. In these tables, a color code was adopted to facilitate the identification of the indicators according to their nature (of effectiveness or of efficacy).

# "Promotion of sustainable productive activities" component

By the end of 2018, the support to sustainable productive activities represented 26% of the value of the Amazon Fund's portfolio of projects, i.e., R\$ 480 million. One of the objectives of PPCDAm is to promote sustainable forestry economy with the appreciation of environmental products (timber and nontimber) and services of the forest, to create an economic alternative that enables the native vegetation's conservation.

The set of projects supported in this axis comprises, for example, extractive activities, processing (industrialization) of extractive and family agriculture products, food security (food production for own consumption), handicrafts and community-based tourism. The products supported include: rubber, seeds, handicrafts, cassava flour, cocoa, tourism, timber, honey, resin, soaps, oils, babassu and açaí berry (edible fruit of palm trees).



### TABLE 18: INDICATORS OF THE "PROMOTION OF SUSTAINABLE PRODUCTIVE ACTIVITIES" (1) COMPONENT – CUMULATIVE VALUES

Indicators of sustainable production (component 1)	Until 2017 (accrued)	Until 2018 (accrued)	Variation 2018/2017 (%)
Individuals trained to practice sustainable economic activities (total)	21,147	24,236	15
Individuals trained to practice sustainable economic activities (women)	791**	878	11
Individuals trained to practice sustainable economic activities (indigenous)	1,020	2,544	149
Strengthened community organizations	391	434	11
Small projects (up to R\$ 150,000) supported by merged entities*	2,627	2,659	1
Medium or large projects supported by merged entities	58	91	57
Rural properties with sustainable production projects	5,437	4,330	(20)
Rural estates (families) benefiting from technical assistance	7,370**	7,801	6
Processing units for family agriculture and extractive products	142	357	151
Individuals directly benefited by the supported activities (total)	142,457	162,195	14
Individuals directly benefited by the supported activities (women)	20,187	34,146	69
Area of forest directly managed as a result of supported projects (hectares)	18,159,869	22,026,165	21
Recovered area used for economic purposes (hectares)	11,484	12,274	7
Individuals trained to practice sustainable economic activities effectively using the knowledge acquired (total)	7,661	9,679	26
Revenue obtained from the sale of <i>in natura</i> products (R\$ thousand)	89,161	98,369	10
Revenue obtained from the marketing of processed products (R\$ thousand)	33,649	44,084	31

\* The concept of design in this case includes, for example, the simple acquisition of equipment for a productive activity that has been planned in the community. \*\* Values adjusted as a result of revision/divergence of classification criteria or correction of material error.

Colors/legend code	Output indicators	Outcome indicators

The data shown in Table 18 are cumulative, that is, the results measured in 2018 are added to data measured in previous years. By comparing the results of 2018 and 2017, it may be noted that: (i) there was a significant increase in the number of units for the processing of family agriculture and extractivism products, implemented with the Amazon Fund's resources, from a cumulative of 142 units in 2017 to a total of 357 units by the end of 2018; and (ii) there was a significant increase in the number of indigenous people trained to perform sustainable economic activities, from around 1,000 to 2,500 in one year. Another indicator that showed significant progress was the one measuring the area of directly managed forest, which reached 22 million hectares (21% growth) as a result of the projects supported.

#### Monitoring and evaluation of results

The 21% growth in one year of the directly managed forest area shows the scale of support to sustainable activities, generating income while also promoting the forest's conservation, since the populations that live there become motivated to protect it.

Indicator "individuals trained to practice and manage sustainable economic activities that effectively apply the knowledge acquired" also had a significant (26%) growth in 2018, reaching about 9,600 individuals. This indicator measures the degree of application of the knowledge acquired during training by a total of 24,200 individuals in the context of the sustainable production projects supported by the Amazon Fund<sup>22</sup> over time. About 40% of the individuals reported applying the knowledge acquired, which indicates that this knowledge is being used to generate income with sustainability.

The increase in the revenues obtained by the communities with the sale of benefited products (31%) was also highlighted.<sup>23</sup> This growth in revenue indicates that the sustainable forest management activities and sustainable agricultural and livestock production systems supported by the Amazon Fund's projects are effectively generating income.

Table 19 shows the evolution of the consolidated revenues of all sustainable production projects supported. In the baseline column, the values of all sustainable production projects supported are shown; the 2018 column includes the last measured values of all supported projects, and the sum of the annual increases in the revenue generated by each of these projects is presented in the increment column.

This means that, over the years, the sustainable production projects supported generated new revenues of R\$ 98.4 million with *in natura* products and R\$ 44.1 million with benefited products. This increment is estimated for each project by annually comparing the revenue in a given year with the revenue of its baseline. This annual increase (or reduction) is added over the years of the project's execution and, when consolidated with the results of other projects, it generates the totals mentioned.

<sup>&</sup>lt;sup>22</sup> The organizations responsible for the projects' execution monitor the application of the knowledge acquired by the trained individuals. In some projects, sampling was used for the performance of this assessment, based on studies about the influence of training on the individuals' professional performance.

<sup>&</sup>lt;sup>23</sup> The estimation of the revenue generated by sustainable production projects does not include: (i) the revenue received after the projects' completion (the revenue generated by the projects is monitored since their baseline – ground zero – until completion); (ii) the value of food produced and processed by the projects supported that is consumed by the respective communities, contributing to their food security; and (iii) the revenue of individuals trained in sustainable production techniques in cases where the projects supported did not include direct investments in productive activities.

TABLE 19: INDICATORS OF THE REVENUE OBTAINED FROM THE COMMERCIALIZATION OF PRODUCTS BY THE AMAZON FUND'S PROJECTS

Revenue with sustainable production activities					
In natura products			Processed products		
Baseline	Last year	Increment	Baseline	Last year	Increment
R\$ 23.4 million	R\$ 71.7 million	R\$ 98.4 million	R\$ 26.4 million	R\$ 55.8 million	R\$ 44.1 million

Source: BNDES.

The "Concluded projects" chapter of this report presents the results of two completed projects that have implemented actions to promote sustainable production. The "Reforestation in the South of the State of Amazonas" project, executed by the state of Amazonas, in addition to promoting the registry CAR of 1,000 rural properties in the municipalities of Boca do Acre, Lábrea, Apuí and Novo Aripuanã, supported the recovery of 1,074 hectares of deforested and/or degraded areas, with the implementation of 767 agroforestry systems (SAF) that integrate the simultaneous cultivation of agricultural crops and forest species.

The "Sustainable Fishing" project (reported in the "Concluded projects" chapter) focused on the adoption of *pirarucu*<sup>24</sup> management measures in the state of Acre, with the signing of fishing agreements to reduce the degradation of aquatic ecosystems, establishing a sustainable economic alternative to deforestation. A pioneering action developed within the scope of this project was the creation of a standard for the certification of managed pirarucu, with the endorsement and technical support of the Marine Stewardship Council (MSC), an international certifier of marine fishing activities.

## "Monitoring and control" component

At the end of 2018, the support to actions of monitoring and control represented 47% of the value of the Amazon Fund's portfolio of projects, i.e., R\$ 891 million. Approximately 90% of this total was allocated to projects implemented by Brazilian public administration entities (federal, state and municipal governments). The "monitoring and control" axis has been recognized in independent evaluations of PPCDAm as the one that improved the most and, consequently, as the one with greater participation in the reduction in the Amazon's deforestation since 2004.

Among the actions supported by the Amazon Fund, the following stand out: (i) expansion and strengthening of the CAR as an instrument for the environmental management and monitoring of deforestation in rural settlements; (ii) expansion and improvement of Inpe's system of environmental monitoring by satellites and implementation of a deforestation detection system in the Amazon using orbital radar images by the Operational and Management Center of the Amazon Protection System (Censipam), of the Ministry of Defense; (iii) control

<sup>&</sup>lt;sup>24</sup> Pirarucu (Arapaima gigas) is one of the largest freshwater fish in Brazil, reaching up to 3 m and over 150 kg.

of deforestation in the Brazilian Amazon with inspection procedures carried out by the Brazilian Institute of the Environment and Renewable Natural Resources (Ibama); and (iv) prevention and combat of forest fires and unauthorized fires, with the operational structuring of the region's military fire brigades and actions to mobilize and train rural producers in fire prevention and combat techniques, including the formation of civilian brigades. Of the total supported in this component (R\$ 890 million), 90% went to public administration bodies.

Monitoring and control indicators (component 2)	Until 2017 (accrued)	Until 2018 (accrued)	Variation 2018/2017 (%)
Strengthened environmental bodies (federal, state and municipal)	281	304	8
Servers trained (total)	5,428	6,091	12
Servers trained (women)	382	667	75
Amount disbursed for projects to combat forest fires and illegal burnings (R\$ thousand)	62,972	74,349	18
Individuals trained in monitoring technologies	344	344	0
Environmental inspection missions carried out	466	687	47
Unauthorized forest fires or fires fought by the Military Fire Brigade	14,643	23,630	61
Servers trained effectively using the knowledge acquired (total)	3,538	5,329	51
Rural properties registered in the CAR (protocol)	530,430	746,905	41
Area of rural properties registered in the CAR (protocol) (ha)	86,805,573	90,343,357	4
Area with vegetation cover recovered for conservation or environmental regularization (regeneration in progress)	13,276	13,420	1
Infraction notices issued for infractions against the flora	5,060	9,158	81

TABLE 20: INDICATORS OF THE "MONITORING AND CONTROL" (2) COMPONENT - CUMULATIVE VALUES

Source: BNDES.

Colors/legend code

Output indicators

Outcome indicators

The CAR's implementation was defined by COFA as one of the priority actions to be supported by the Amazon Fund. Its implementation is an important step in the process of environmental regularization of rural properties, subsidizing the development of production systems that are more adapted to the Amazon and, thus, environmentally sustainable.

Furthermore, the CAR allows the identification of the environmental assets and liabilities of rural establishments, enabling the management of these assets and the planning and implementation of actions for the recovery of deforested areas that, by legal determination, need to be reforested. An important function of the CAR is that, in case of land possessions, it formally identifies the settlers of these properties (individuals occupying a rural property without a title to ownership), establishing the possibility of holding them accountable for environmental violations that may occur in these properties.

The Amazon Fund has been prioritizing the support to projects involving actions related to the CAR. There are already 746,000 properties registered on it with the Amazon Fund's support, representing an annual 41% growth. In turn, the total area registered on the CAR supported by the Amazon Fund increased by 4%, reaching 90 million hectares. This higher percentage increase in the number of properties registered on the CAR (41%) *vis-a-vis* the 4% growth of the registered properties' total area was due to the increase in the number of registrations of smaller properties, especially in the area of the CAR Bahia project.

In relation to the inspection activities, there was a 47% increase in the number of environmental inspection missions carried out by Ibama with the Amazon Fund's support (687 missions), as well as an 81% increase in the number of tax assessment notices issued (9,158 notices).

One of Ibama's main attributions is the exercise of its environmental police power. Since 2016, the Amazon Fund started to support Ibama's actions, providing resources for the rental of pickup trucks and helicopters used in its field actions. To this end, R\$ 90 million have already been allocated to Ibama in order to maintain and increase its deterrence capacity in the fight against environmental crimes and infractions.

The Amazon Fund also supported actions for the prevention and combat of forest fires and illegal burning. A total of 23,630 forest fires or burnings that had not been authorized by the Military Fire Brigades (CBM) were fought, representing an annual 61% increase, which shows a significant improvement in the ability of these corporations to verify hot spots and combat fires and illegal burning.

### "Territorial management" component

At the end of 2017, the support to actions of land and territorial management represented 14% of the value of the Amazon Fund's portfolio of projects, i.e., R\$ 253 million. The occupation of the forest is inherent to the region's development process; however, this occupation needs to be planned. Among the instruments available, the Amazon Fund's support to the consolidation of the management of PAs and implementation of PNGATI stand out.

Land-use planning indicators (component 3)	Until 2017 (accrued)	Until 2018 (accrued)	Variation 2018/2017 (%)
PAs supported	129	190	47
TIs supported	96	101	5
Individuals trained in activities related to the management of public forests and protected areas (total)	2,059	3,177	54
Individuals trained in activities related to the management of public forests and protected areas (indigenous)	799	1.311	64
Indigenous people directly benefited by the support of the Amazon Fund	30,734	49,318	60
Individuals trained in activities related to the management of public forests and protected areas effectively using the knowledge acquired	656	1.376	110
Area of PAs created (km <sup>2</sup> )	7,083	7,083	0
Extension of protected areas with infrastructure, environmental management and/or control of its strengthened territory (km²)	411,622	425,974	3
			Source: BNDES

TABLE 21: INDICATORS OF THE "TERRITORIAL MANAGEMENT" (3) COMPONENT – CUMULATIVE VALUES

Federal and state PAs and TIs together account for more than 40% of the Brazilian Amazon's total area. They are territorial categories protected by the legislation, which in itself inhibits the action of land deforesting agents and grileiros (land grabbers).

Output indicators

Colors/legend code

The Amazon Fund has been increasing its support to projects that promote the consolidation of the management of protected areas and benefit the traditional populations living in them. The Amazon Fund has increased its support to projects that benefit indigenous peoples, which may be observed in the evolution of the indicator measuring the number of indigenous individuals that directly benefit from the projects supported, which grew by 60% in 2018, amounting to over 49,000 individuals.

In 2018, the support to a project of the Committee in Favor of the Indigenous Peoples of Acre (CPI-Acre) for the implementation of PGTAs of eight TIs was approved, with the promotion of territorial protection actions, training of indigenous agroforestry agents and management of backyards and SAFs. It should be noted that the Amazon Fund already supports 24 projects that are partially or fully dedicated to the benefiting of indigenous populations. These peoples, with their lands and traditions, are relevant agents in the preservation and combat of deforestation.

The indicator that monitors the number of individuals trained in activities related to the management of public forests and protected areas (including TIs) grew by 54%, reaching 3,177 individuals trained for this purpose. In the portfolio of

Outcome indicators

projects supported by the Amazon Fund, there is a project dedicated exclusively to the training of environmental agents and managers for the strengthening of federal and state protected areas in the state of Amapá, which is being implemented by the Amazon Conservation Team (Ecam).

## "Science, innovation and economic instruments" component

At the end of 2018, the support to scientific and technological development actions and economic instruments for the protection of the standing forest represented 13% of the value of the Amazon Fund's portfolio of projects, i.e., R\$ 244 million. The support to this axis has a strategic and cross-sectional character, benefiting the other components.

Indicators of science, innovation and economic instruments (component 4)	Until 2017 (accrued)	Until 2018 (accrued)	Variation 2018/2017 (%)
Total amount disbursed for scientific and technological research (R\$ million)	73.8	134.0	82
Researchers and technicians involved in scientific and technological research activities in the Amazon region during project execution	319	368	15
Families receiving payment for environmental services	1,902	1,902	0
Scientific, pedagogical or informative publications produced	390	465	19
Patents requested or deposited	0	2	100

TABLE 22: INDICATORS OF THE "SCIENCE, INNOVATION AND ECONOMIC INSTRUMENTS" (4) COMPONENT – CUMULATIVE VALUES

Source: BNDES.

Colors/legend code	Output indicators	Outcome indicators

The analysis of Table 22 shows that, in 2018, disbursements for scientific and technological development projects grew by 82% in relation the cumulative total disbursements for this component until 2017.

The main projects in execution are: The National Forest Inventory – Amazon, under the responsibility of the Brazilian Forest Service (SFB); the Amazon Integrated Project, implemented by the Brazilian Company for Agriculture and Cattle-Raising Research (Embrapa); and the Project of Environmental Monitoring by Satellite in the Amazon Biome, of Inpe.

The projects being executed by Inpe also contribute with their actions to the Amazon Fund's "monitoring and control" component. However, the values computed in the "total value disbursed for scientific and technological research" indicator in Table 22 refer exclusively to the investments related to the "scientific and technological development" component.

The indicator that monitors the number of scientific, pedagogical or informative publications produced grew by 18%, from a cumulative number of 390 publications to 465 publications. Of this total, Inpe was responsible for the production of 104 publications under the scope of the Project of Environmental Monitoring by Satellites in the Amazon Biome, aiming at the development of studies on land use and land cover in the Amazon biome, as well as the expansion and improvement of environmental monitoring by satellites, and of the real-time deforestation detection system in the Brazilian Amazon (Deter).

The Amazon Fund supports four projects in which expenses with environmental services occur, and there has been no increase in the number of beneficiary families when comparing the data from 2018 and 2017. An example of this type of support is the Olhos d'Água da Amazônia – Phase II project, which was implemented by the municipality of Alta Floresta, in the state of Mato Grosso, where one of the actions supported is the Guardião das Águas Program, created by a law of the municipality, which rewards those that protect and preserve the springs supplying the water used in the municipal headquarters with payment for environmental services (PSA) (72 benefited families, corresponding to a 535-hectare area of protected riparian forests). More information on this project can be found in the "Concluded projects" chapter.

The activities and respective indicators of effectiveness and effectiveness, lessons learned and other information pertaining to the three scientific and technological development projects<sup>25</sup> implemented at the Federal University of Pará (UFPA) in 2018 are also presented in the "Completed projects" chapter. With the support of the Amazon Fund, 1,825 m<sup>2</sup> of laboratories were built (or renovated), including the creation of the Center for Advanced Studies on Biodiversity (Ceabio), located in the Guamá Science and Technology Park in Belém; acquisition of research equipment; development of new products and technological applications from bioactive compounds extracted from plants and fruits typical of the Amazon; production of several scientific publications and submission of two patent applications to INPI.

### The Amazon Fund's safeguards

Decision N°. 1/CP.16 of the United Nations Framework Convention on Climate Change (UNFCCC) defined safeguards for REDD+. The safeguards are a set of seven guidelines that seek to enhance positive socioenvironmental impacts and reduce the negative impacts related to REDD+ activities. The REDD+ safeguards are also known as Cancun safeguards because the Mexican city hosted the 16<sup>th</sup> Conference of the Parties (COP) in 2010.

<sup>&</sup>lt;sup>25</sup> The projects are: Bioactive Compounds of the Amazon, Biodiversity and Mangrove Forests.

These safeguards should ensure that REDD+ initiatives appropriately address sensitive issues such as the rights of indigenous peoples and traditional communities, social participation, the preservation of natural ecosystems, the permanence of the REDD+ results achieved, and the risk of deforestation and degradation spreading to other areas. The REDD+ initiatives should promote and support:

- actions that complement or are consistent with the objectives of the national forest programs and other relevant international conventions and agreements;
- transparent and effective forest governance structures, under the principle of national sovereignty and according to the national legislation;
- respect for the knowledge and rights of indigenous peoples and members of local communities, considering the relevant international obligations, national laws and the United Nation's declaration on the Rights of Indigenous Peoples;
- full and effective participation of stakeholders, particularly indigenous peoples and local communities;
- actions that are consistent with the conservation of natural forests and biological diversity, ensuring that the actions referred to in paragraph 70 of Decision N°. 1/CP.16 are not used for the conversion of natural forests, but rather to encourage the protection and conservation of natural forests and their ecosystem services, and to contribute to other social and environmental benefits;
- actions to avoid the risks of reversals of the REDD+ results; and
- actions to reduce the spreading of carbon emissions to other areas.<sup>26</sup>

The Amazon Fund precedes the approval of the Cancun safeguards, but, since its creation, COFA has established a set of guidelines and criteria that, associated with the operational policies of BNDES, its manager, have been working as its safeguards. The Amazon Fund is prepared to adjust its processes to comply with the Cancun safeguards when the National REDD+ Committee (CONAREDD+) completes the systemization of these safeguards.<sup>27</sup>

In 2015, Brazil started the development of its National REDD+ Safeguards Information System (SISREDD+), and the Ministry of the Environment is responsible for its coordination. The Thematic Advisory Chamber on Safeguards,<sup>28</sup> created under the scope of CONAREDD+, is composed of experts and representatives of civil society and public and private entities and has the attribution of contributing to the development of SISREDD+. When in operation, SISREDD+ will make its information available to society.

<sup>&</sup>lt;sup>26</sup> Previous text on safeguards extracted from the Ministry of the Environment's website: http://redd.mma.gov.br/pt/ salvaguardas.

<sup>&</sup>lt;sup>27</sup> The National REDD+ Committee, established by Decree N°. 8,576 of November 26, 2015, is responsible for coordinating, following and monitoring the implementation of the National REDD+ Strategy in Brazil.

<sup>&</sup>lt;sup>28</sup> On June 11, 2016, the Thematic Advisory Chamber on Safeguards (CCT-Salv) was created, with the attribution of developing inputs to support CONAREDD+'s decision-making on issues related to the monitoring of how the Cancún safeguards (Decision N°. 1/CP.16) are being addressed and complied with in the implementation of REDD+ by Brazil. CCT-Salv's works have not yet been completed.

Brazil submitted to UNFCCC the 1<sup>st</sup> Safeguards Summary in 2015, and the 2<sup>nd</sup> Safeguards Summary,<sup>29</sup> in 2018, with information about how the Cancun safeguards were addressed and respected by Brazil throughout the implementation of actions to reduce emissions from deforestation in the Amazon Biome since 2006. These two summaries also address how the Amazon Fund has been supporting and contributing to the compliance with these safeguards.

The Amazon Fund is subject to an annual compliance audit intended to ensure compliance with, among others, the guidelines and criteria established by COFA when approving the projects it supports. Additionally, since 2016, evaluations of the effectiveness of the completed projects have been conducted, in which external evaluators state their opinion on the compliance of theses projects with the Cancun safeguards.<sup>30</sup>

It is important to mention that, in 2017, the Project of Environmental Monitoring of the Brazilian Biomes was approved, to be implemented by Inpe, which includes the development and implementation of deforestation monitoring systems for the Atlantic Forest, Caatinga, Pampa and Pantanal biomes among its actions.

This project will bring significant gains to the fight against deforestation throughout the Brazilian territory, since Inpe is currently monitoring the Brazilian Amazon and implementing a project to monitor the Cerrado biome. In this way, the Cerrado and the forests/vegetation cover of the entire national territory will be monitored by satellites in the near future.

The Amazon Fund's support to the Project of Environmental Monitoring of the Brazilian Biomes is therefore an action that will directly contribute to inhibiting/ reducing the spreading of carbon emissions from the deforestation of the Amazon to other areas of Brazil, thus mitigating one of the risks associated with actions of prevention and combat of deforestation (carbon leakage).<sup>31</sup>

### **Evaluation of effectiveness**

The Amazon Fund's portfolio has 103 projects, of which 21 have been completed. The results and impacts of the completed projects were evaluated by the Amazon Fund's team. Information about these projects and their impact is disclosed in the Amazon Fund's annual reports (in the "Completed projects" chapter) and also on its website.

<sup>&</sup>lt;sup>29</sup> "Summary of information on how the Cancun safeguards were addressed and respected by Brazil throughout the implementation of actions to reduce emissions from deforestation in the Amazon Biome between 2006 and 2010": http://redd.mma.gov.br/images/publicacoes/salvaguardas\_1sumario.pdf.

<sup>&</sup>lt;sup>30</sup> "Second Summary of information on how the Cancun Safeguards were addressed and respected by Brazil throughout the implementation of actions to reduce emissions from deforestation in the Amazon Biome": https://redd.unfccc.int/files/2sumariosalv\_br\_final.pdf.

<sup>&</sup>lt;sup>31</sup> "REDD+ initiatives should promote and support: (vii) actions to reduce the spreading of carbon emissions to other areas" – REDD+ safeguards.

In 2016, with the technical support of German agency GIZ, the conceptual framework to be adopted in evaluations of the effectiveness of the projects executed with resources from the Amazon Fund was developed and disclosed."<sup>32</sup> By 2018, five independent evaluations of the effectiveness of projects completed with the support of the Amazon Fund had been conducted. In 2018, the "Dissemination and improvement of sustainable forest management techniques" project, implemented by the Tropical Forest Institute (IFT), was evaluated.

The evaluation of the effectiveness of the "Bolsa Floresta" project, implemented by the Amazonas Sustentável Foundation (FAS),<sup>33</sup> as well as the first thematic evaluation of the effectiveness of five scientific and technological development projects implemented by UFPA, are scheduled to be completed by 2019.

The two independent effectiveness evaluations may be found in full on the Amazon Fund's website.<sup>34</sup> The performance of these evaluations has the following main purposes:

- helping the Amazon Fund report to its donors the types of projects supported and their impacts;
- enable the institutional learning of the projects' developers and of the fund itself, contributing to the improvement in the projects' quality and to the prioritization of investments, thus supporting decision-making processes;
- monitoring the compliance with the Cancun safeguards agreed upon under the scope of UNFCCC for REDD+ actions by the Amazon Fund's projects; and
- monitoring the projects' alignment with PPCDAm, with the state plans for prevention and control of deforestation and with the National REDD+ Strategy.

During the course of 2018, an evaluation of the effectiveness of the Amazon Fund was initiated as a program ("Mid-term evaluation of the Amazon Fund's effectiveness"), with the objective of verifying its performance and the impacts achieved during its ten years of operation. This midterm evaluation will be composed of a main evaluation, which will encompass the four axes of the Amazon Fund's Logical Framework, and two complementary studies, one focusing on the distribution of benefits<sup>35</sup> and the other on the Amazon Fund's performance in relation to the CAR.<sup>36</sup> This mid-term review is expected to be completed in the second half of 2019.

<sup>&</sup>lt;sup>32</sup> http://www.fundoamazonia.gov.br/export/sites/default/pt/.galleries/documentos/monitoramento-avaliacao/Marco\_ Conceitual\_Avaliacao\_de\_Efetividade\_Projetos\_Fundo\_Amazonia\_2016.pdf.

<sup>&</sup>lt;sup>33</sup> Already completed at the time of this activity report's development: http://www.fundoamazonia.gov.br/export/sites/ default/pt/.galleries/documentos/monitoramento-avaliacao/relatorio-efetividade/FAS-Bolsa-Floresta-Relatorio.pdf.

<sup>&</sup>lt;sup>34</sup> http://www.fundoamazonia.gov.br/pt/monitoramento-e-avaliacao/avaliacoes-externas/.

<sup>&</sup>lt;sup>35</sup> To evaluate the distribution of benefits under the scope of the projects supported by the Amazon Fund, considering aspects such as equity, transparency, efficiency, effectiveness and beneficiaries.

<sup>&</sup>lt;sup>36</sup> To evaluate the Amazon Fund's support to the Rural Environmental Registry (CAR), in the context of the implementation of the Law of Protection of the Native Vegetation (Law N<sup>o</sup>. 12,651/2012).

# The Amazon Fund's contribution to the Sustainable Development Goals

The Sustainable Development Goals (SDG) form a set of 17 global goals set by the UN General Assembly, covering issues of economic growth, social inclusion and protection of the environment. These SDG were agreed upon at the UN by 193 countries, after extensive participation of global civil society, and entered into force on January 1, 2016.

Among the 17 SDG, a subset of ten SDG to which the Amazon Fund contributes can be identified: end poverty in all its forms everywhere (SDG 1); end hunger and promote sustainable agriculture (SDG 2); achieve gender equality (SDG 5); ensure availability and sustainable management of water and sanitation for all (SDG 6); promote sustainable economic growth and decent work for all (SDG 8); make cities and human settlements sustainable (SDG 11); ensure sustainable consumption and production patterns (SDG 12); combat climate change (SDG 13); protect and promote the sustainable use of terrestrial ecosystems (SDG 15) and strengthen the global partnership for sustainable development (SDG 17). Table 23 highlights the SDG with their respective goals.



#### TABLE 23: MAIN SDG TO WHICH THE AMAZON FUNDS CONTRIBUTES

Sustainable development goals	Main goals to which the Amazon Fund contributes
SDG 1 – NO POVERTY To end poverty in all its forms, everywhere	SDG 1 aims to eradicate extreme poverty and ensure that all men and women, particularly the poor and vulnerable, have equal rights to economic funds, and to build, by 2030, the resilience of the poor and those in situation of vulnerability, and reduce their exposure and vulnerability to extreme events related to climate and other shocks and economic, social and environmental disasters (goals 1.1, 1.4 and 1.5). COFA defined as one of the guiding criteria for actions supported the prioritization of projects involving direct benefits to traditional communities, settlements and family farmers. In all of the actions supported by the Amazon Fund until 2018, about a quarter of the funds went to the promotion of sustainable productive activities, which made the fund an important agent in the eradication of poverty.
2 DEC 2 – ZERO HUNGER To end hunger, achieving food security and improving nutrition, and to promote sustainable agriculture	SDG 2 aims to eradicate hunger and increase the agricultural productivity and income of small food producers, particularly women, indigenous peoples, family farmers, pastoralists and fishermen; ensure sustainable food production systems, and implement resilient, productivity-enhancing agricultural practices that help maintain ecosystems; and increase investment in rural infrastructure, research and extension of agricultural services, to increase agricultural production capacity in developing countries (goals 2.1, 2.2, 2.3, 2.4 and 2.a). The Amazon Fund has contributed to these goals by supporting projects that target not only production for the marketing of surpluses, but also support projects aimed at food security (food production for own consumption) of traditional peoples. The following are also supported: (i) the implantation of SAFs in degraded areas, promoting the forest restoration consortium with food production; (ii) the conclusion of fisheries agreements and managed fisheries to avoid the depletion of stocks of some species and conflicts related to access to fishing areas; (iii) construction of laboratories, acquisition of equipment and research support to develop new products and technological applications from bioactive compounds extracted from plants and fruits typical of the Amazon; and (iv) training of technicians in sustainable forest management; among other supported actions.
SDG 5 – GENDER EQUALITY To achieve gender equality and empower all women and girls	SDG 5 aims to end all forms of discrimination against women and ensure equal opportunities for leadership at all levels of decision-making in political, economic and public life (goals 5.1 and 5.5). The results of economic projects supported by the Amazon Fund should prioritize collective or public benefits and contribute to gender equality and the empowerment of young people. Starting in 2012, the fund has demanded, in public calls for projects, that they indicate their strategy to: (i) incorporate women and young people into activities directly related to value chains; and (ii) promote the participation of women in leadership positions.
6 Karanetari Karanetari T	SDG 6 aims to ensure universal and equitable access to clean water and ensure the sustainable management of water and sanitation; as well as restoring ecosystems related to water, including forests, wetlands, rivers, aquifers and lakes (goals 6.1 and 6.6).
SDG 6 – CLEAN WATER AND SANITATION To ensure the availability and sustainable management of water and sanitation for all	Projects supported by the Amazon Fund prioritize the forest restoration of the so-called riparian or riparian forests, that is, plant formations located on the banks of streams, lakes, dams and springs. For example, the project "Amazon Water Springs – Phase II" (see chapter "Concluded projects"), implemented by the municipality of Alta Floresta, in the state of Mato Grosso, prioritized the recovery of springs and implemented the program "Water Guardian," which rewards by payment for environmental services those who protect and preserve the springs that supply the water catchment for the consumption of the municipality of Alta Floresta.

(Continued)

#### (Continuation)



SDG 8 – DECENT WORK AND FCONOMIC GROWTH To promote sustainable, inclusive and sustainable economic growth, full and productive employment and decent work for all

SDG 8 aims at economic growth per capita according to national circumstances and at least 7% of GDP in the least developed countries, as well as promoting development-oriented policies that support productive activities, decent work generation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro, small and medium-sized enterprises, including the access to financial services (goals 8.1 and 8.3). One of the great challenges to be answered by Brazilian society and the Amazon Fund is how to implement an economic model of production and land occupation in the Amazon that is environmentally sustainable, preserves biodiversity and promotes social well-being. To this end, the Fund has supported dozens of sustainable production projects that promote socio-biodiversity productive chains; the building of capacities and skills to promote a viable economic model that is sustainable and the transformation of agricultural activity into a fully sustainable activity, including increased productivity.

The goal of SDG 11 to which the Amazon Fund has contributed most directly is



SDG 11 -SUSTAINABLE CITIES AND COMMUNITIES To make cities and human settlements inclusive, safe, resilient and sustainable



SDG 12 -**RESPONSIBLE** CONSUMPTION AND PRODUCTION To ensure sustainable production and consumption patterns

to strengthen efforts to protect and safeguard the world's cultural and natural heritage (Goal 11.4). This is one of the goals more aligned with the general objective of the Amazon Fund, which in its logical framework was defined as "reduction in deforestation with sustainable development in the Legal Amazon". To achieve this objective, the fund supports actions in the four components of its logical framework that directly or indirectly safeguard the natural heritage represented by forests. In addition, the fund has also become an important financier in the formulation and implementation of the PGTA, which aim to value indigenous material and immaterial heritage, recover, conserve and use sustainable natural resources, ensuring the improvement of the quality of life and conditions of physical and cultural reproduction of present and future indigenous generations.

SDG 12 aims to achieve sustainable management and efficient use of natural resources by 2030 (Goal 12.2). The Amazon Fund allocates much of its funds to environmental monitoring and control to ensure the efficient and sustainable use of biodiversity in the Amazon. The environmental monitoring actions were strengthened with the support of the fund, including support for improved monitoring of deforestation by satellites in Brazil and other South American countries bordering the Amazon, which are developing or improving their own monitoring systems. The fund's support has also included the expansion of monitoring missions undertaken by Ibama the national environmental agency, as well as actions to prevent (through training of local populations) and to combat forest fires, including the training of military firefighters, the establishment of civil fire brigades and the acquisition of equipment.

In addition, it contributes to sustainable extractive activities, for the processing of extractive products and for family agriculture, food security, handicrafts and communitybased tourism, as well as the expansion of guarantee of origin systems, such as "Origens Brasil," which contributes to the strengthening of productive chains and the valorization of socio-biodiversity products in protected areas of the Amazon (Goal 12.2).



SDG 13 -CLIMATE ACTION To take urgent actions to combat climate change and its impacts

SDG 13 calls for urgent action to be taken to combat climate change and its impacts by integrating climate change measures into national policies, strategies and planning (Goal 13.2).

With innovative governance, the Amazon Fund has an external body to BNDES, COFA, which has the formal competence to define the guidelines and priority criteria for its action, in line with the Plan for the Prevention and Control of Deforestation in the Brazilian Amazon (PPCDAm) and the National Strategy for Reducing Emissions of Greenhouse Gases from Deforestation and Forest Degradation, Forest Carbon Stock, Sustainable Forest Management, and Forest Carbon Stock Enhancement (ENREDD+). It is in this democratic arena that the dynamics of deforestation and new strategies for the performance of the fund are discussed. This committee includes policymakers from both the Federal Government and state governments are represented, as well as opinion formers from civil society.

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#### (Continuation)



SDG 15 – LIFE ON LAND To protect, restore and promote the sustainable use of terrestrial ecosystems, sustainable forest management, combat desertification, stop and reverse land degradation and detain biodiversity loss SDG 15 aims at protecting, restoring and promoting the sustainable use of terrestrial ecosystems, sustainable forest management, stop and reversing land degradation and halting biodiversity loss, promoting the implementation of sustainable management of all types of forests and mobilizing and increasing financial resources for the conservation and sustainable use of biodiversity and ecosystems (goals 15.1 to 15.5, 15a and 15b).

With the Amazon Fund, actions were supported in 190 PAs and 101 TIs, covering protection activities and territorial surveillance, consolidation of its management and promotion of sustainable productive activities, and 13,400 hectares of deforested areas (regeneration in progress) were recovered for regularization purposes or environmental conservation.



SDG 17 – PARTNERSHIPS FOR THE GOALS To strength the means of implementation and revitalize the global partnership for sustainable development SDG 17 aims to strengthen the mobilization of domestic funds of developing countries and to revitalize the global partnership for sustainable development, including the expansion of the commitments of developed countries regarding official development assistance. It also aims to improve North-South, South-South and triangular regional and international cooperation and access to science, technology and innovation; strengthen international support for the effective and targeted implementation of capacity building in developing countries to support national plans to implement all sustainable development objectives; and to encourage and promote effective public, private-public partnerships and with the civil society (goals 17.1, 17.2, 17.6, 17.7, 17.9, 17.14, 17.16 and 17.17).

The Amazon Fund was created by the Brazilian society in dialogue with the international community, with innovative governance that promotes cooperation between several spheres of national government (federal, state and municipal), civil society organizations, universities, foreign donors, an international technical cooperation agency, in addition to an international project being implemented by the Amazon Cooperation Treaty Organization (ACTO), with the support of the Amazon Fund, for the monitoring of forest cover in the Regional Amazon, that is, beyond the borders of Brazil.

### The Amazon Fund's risk management

Risk management is an integral part of managing the Amazon Fund and the projects it supports. External factors that may negatively influence the execution of projects or the maintenance of the results achieved by the Fund are considered risks.

The following format was defined for the Amazon Fund's risk management:

- presentation of the risks identified, based on the intervention logic represented by the Amazon Fund's general goal and its indirect effects;
- evaluation with regard to the probability of occurrence of each risk identified; and
- definition of measures and provisions for their mitigation, when possible, by the Amazon Fund or other actors.

A periodic review of the behavior of both the risks and effects of the mitigation measures is performed as a risk management procedure. In the review conducted in 2018, the risk of "qualified technical staff and researchers leaving the region" was reassessed from medium to high, given that the effects of the severe fiscal crisis that struck the country in 2015 and 2016 still last and resulted in budgetary constraints for scientific and technological development activities.

In 2018, the composition of the Brazilian National Congress and the country's executive power were both reorganized. The consequences of this reorganization will be monitored in relation to their impact on the Amazon Fund's objectives.



	GENERAL OBJECTIVE				
Intervention logic	Risks identified	Probability	Response to/Mitigation of the risk		
Reduction of deforestation with sustainable development in the Brazilian Amazon	Migration flows in the Amazon exert pressure on the environment		Population growth has been constant in municipalities with infrastructure-related ventures such as hydroelectric plants and road construction and/or paving enterprises. This growth also occurs in municipalities experiencing the expansion of agricultural activities. This expansion of agricultural activities and the implementation of large infrastructure projects influence the population's migrations to the Amazon, which can lead to the advancement of the boundaries of deforestation in the region. The Amazon Fund supports projects to address these pressures on all fronts. The new projects approved in 2018 have the following goals: (i) environmental regularization with the CAR implementation for small properties; (ii) consolidation of socio-biodiversity product chains and strengthening of community-based entrepreneurship; and (iii) environmental monitoring and control of deforestation. The Amazon Fund continues to assess the risk as medium.		
Reduction of deforestation with sustainable development in the Brazilian Amazon	Incorporation of new strategies and technologies by offenders to subsidize illegal deforestation		New geoprocessing technologies applied by infractors in unexplored areas have facilitated the advancement of illegal logging activities. It is necessary to continue the process of occupation of public tracts of land (where 29% of the Amazon's deforestation occurred in 2017), as well as strengthen the implementation of environmental control instruments in private areas (where 36% of the Amazon's deforestation occurred in 2017), such as the CAR. The Amazon Fund has been supporting the improvement of deforestation monitoring tools with the use of (optical and radar) satellite images, so deforestation may be detected in areas where it was not previously visible, in addition to the priority support it has been providing to the CAR. The Amazon Fund assesses the risk as medium.		
Reduction of deforestation with sustainable development in the Brazilian Amazon	Changes in the Brazilian environmental legislation reduce the forest's protection	0 • 0	In 2018, there was a great reorganization of the National: 47% of the House of Deputies and 57% of the Senate were changed. This reorganization can bring about changes to various public policies, including environmental ones. The Amazon Fund continues to assess the risk as medium.		
Reduction of deforestation with sustainable development in the Brazilian Amazon	Climate change causes periods of prolonged drought and forest fires		<ul> <li>The adherence of Brazil to the Paris agreement and the fulfillment of the goals established therein contribute to the mitigation of climate change in Brazil and worldwide.</li> <li>The Amazon Fund supports projects that contribute to achieving these goals, some of which are: restoration and reforestation of 12 million hectares of forests by 2030; expansion of the systems of sustainable management of native forests; strengthening of the compliance with the Forest Code, and eradication of illegal deforestation in the Brazilian Amazon by 2030.</li> <li>The latest projections about climate changes in Brazil produced by the Brazilian Panel on Climate Change (PBMC) estimate a decrease in rainfall in the Amazon that will lead to an increase in the dry period and in the frequency of forest fires.</li> <li>In 2018, the Amazon Fund's Guiding Committee established new criteria for the support of the Amazon's states, for the prevention and combat of forest fires and unauthorized burning.</li> <li>The Amazon Fund continues to assess the risk as high.</li> </ul>		

(Continued)

#### (Continuation)

	COMPONENT 1			
Intervention logic	Risks identified	Probability	RESPONSE TO/MITIGATION OF THE RISK	
			Economic activity in Brazil showed improvements in 2017 and 2018, having grown 1.1% in both these years, after two years of recession.	
Activities that maintain the conomic activities affects the	0	The annual production volume of forest-based extractivism products monitored by the Amazon Fund declined slightly in 2017 (compared to 2016), although the total revenue obtained had shown growth.		
forest standing are economically attractive	sustainable forest- based economy's development	0	The Amazon Fund has been supporting the organization and expansion of forest-based production chains and the environmental sustainability of the agricultural activities of small rural producers, as well as actions of monitoring and structuring of environmental agencies for the environmental sustainability of regional agribusiness. Given this situation, the Amazon Fund assesses the risk as medium.	

	COMPONENT 2			
Intervention logic	Risks identified	Probability	RESPONSE TO/MITIGATION OF THE RISK	
Governmental actions ensure the conformity of human activities to	The legislation on the regularization of rural lands was modified in 2017 (Law N°. 13,465, of July 11, 2017). The National Congress underwent a major reorganization of its composition in the elections that occurred in October 2018. These changes indicate that the topics of land use and agrarian reform will probably be a subject of debate in the new parliamentary term.			
the environmental legislation	the environmental environmental policy	The Amazon Fund has contributed to the mitigation of the risk at issue by supporting the policy of implementation of the CAR in agrarian reform settlements and sustainable production in these areas. The Amazon Fund continues to assess the risk as medium.		
			The repression of illegal logging – which has lower costs in relation to legal activities – is one of the key components for the development of a legal and competitive logging economy, as well as for the prevention of the private appropriation of public lands by "grileiros", <sup>37</sup> who promote illegal deforestation and take over public lands.	
Governmental	Insufficient actions		In order to be effective, it is necessary to not only continue but also expand the scope of the fight against illegality, implementing new surveillance practices and enhancing the technologies employed. Therefore, budgetary resources and the prioritization of this agenda are required.	
actions ensure the conformity of human activities to the environmental legislation	actions ensure the conformity of human activities to the environmental tax restrictions	0	However, the 2015-2016 recession generated a reduction in tax revenues from all government spheres, leading to the constraint of public budgets and strong competition for their resources between all stakeholders.	
			The Amazon Fund has supported several projects involving actions of monitoring, surveillance and repression of environmental crimes. Of the ten largest projects supported (by value of support), five are dedicated to: (i) development, expansion or improvement of environmental monitoring by satellites; or (ii) support to the monitoring and repression of environmental crimes by the police.	
			Given the large territorial scale of the Amazon and the fiscal restrictions imposed on governments as a result of the economic recession, the Amazon Fund continues to assess this risk as high.	

(Continued)

<sup>&</sup>lt;sup>37</sup> Grileiro is an expression used in Brazil to describe an individual who takes over vacant public lands.

#### (Continuation)

	COMPONENT 3			
Intervention logic	Risks identified	Probability	RESPONSE TO/MITIGATION OF THE RISK	
The Brazilian Amazon is submitted to land-use planning	Growth of demand for new lands for cultivation and pasture		The cattle herd in the Amazon, which supplies the beef cattle market, remained stable between 2016 and 2017, reaching 85.9 million head (from 74 million head in 2009). The planted soybean area grew from 11.4 to 11.7 million hectares (from 6.7 million hectares in 2009). The Amazon Fund supports projects of federal agencies such as Inpe, Censipam and Ibama, for monitoring and environmental surveillance actions; projects of sustainable productive activities, to subsidize productive rural activities of low environmental impact, and projects for the promotion of environmental regularization, such as the CAR. The risk continues to be assessed as medium.	

	COMPONENT 4				
Intervention logic	Risks identified	Probability	RESPONSE TO/MITIGATION OF THE RISK		
Economic instruments, science, technology and innovation contribute to the recovery, conservation and sustainable use of biodiversity	Qualified technical staff and researchers leaving the region		The National Council for Scientific and Technological Development (CNPq), an agency of the Ministry of Science, Technology, Innovations and Communications (MCTIC), supports scientific and technological research and encourages the training of Brazilian researchers. According to data from the "Investment Map" published by CNPq, it appears that this agency's support in the states of the Brazilian Amazon accounts for about 7% of the total fellowships for the training of human resources, and approximately 7% of the research projects financed by this agency. This gap means that the region has low attractiveness for researchers from other places and faces a high risk of abandonment. In addition, the public budgets for science, technology and innovation activities are being constrained, due to the economic recession the country experienced in 2015 and 2016, which resulted in cuts in resources intended for research activities. According to an analysis conducted by the Brazilian Society for the Progress of Science (SBPC), these cuts included projects involving the study of the biodiversity, technological innovation and sustainability of Amazonian ecosystems. The risk threatens the Amazon Fund's cross-sectional component with regard to the generation of knowledge, which is now assessed as high.		

# CONCLUDED PROJECTS

\* The concluded projects are those that: (i) performed the planned activities; (ii) have their accounts approved; and (iii) conducted an evaluation of their results.

### **Biodiversity**

#### PROJECT MANAGEMENT

Federal University of Pará (UFPA) and Research Development and Support Foundation (Fadesp)

#### **REGIONAL SCOPE**

Municipality of Belém, state of Pará

#### BENEFICIARIES

UFPA, scientific community, potential suppliers and companies of the Amazon region that work with products coming from the biodiversity and their potential consumers

#### OBJECTIVES

To expand UFPA's research infrastructure for biodiversity studies by: (i) building and structuring the Center for Advanced Studies on Biodiversity (Ceabio); and (ii) remodeling the Pharmaceutical Planning Laboratory and the Cellular and Molecular Neurochemistry Laboratory, as well as buying and installing lab equipment for research on biotechnology

#### TOTAL COST OF PROJECT

R\$ 4,639,706.98 US\$ 2,459,556.29

#### AMAZON FUND SUPPORT

R\$ 4,639,706.98 US\$ 2,459,556.29

#### **EXECUTION PERIOD**

1<sup>st</sup> quarter 2013 to 1<sup>st</sup> quarter 2018

#### PROJECT PROGRESS

DATE OF APPROVAL	DATE OF CONTRACT	TOTAL AMOUNT DISBURSED	TOTAL PERCENTAGE DISBURSED OF AMAZON FUND SUPPORT	
4.24.2012	10.2.2012	R\$ 4,639,706.98	100%	



### Context

Brazil is a country of continental dimensions, with geographic and climatic diversity. In addition to having the largest tropical forest coverage worldwide, it is home to an immense biological diversity, making it the main mega-biodiversity country of the planet, with between 15% and 20% of the 1.5 million species described on Earth. In particular, the Amazon region is considered the most biodiverse of the planet, although this biodiversity is only partially known.

The maintenance of biodiversity provides a number of benefits to society, such as the provision of environmental services as carbon fixation, maintenance of water sources, soil protection and fertilization, temperature and climate regulation, as well as bringing scientific, cultural, and aesthetic values, among other universally recognized values – even if they are intangible and nonmonetary.

In addition, preserving biodiversity is intrinsically linked to the supply of different sources of food, pharmaceuticals and chemicals, and information for developing biotechnology; besides, it works as the basis for agricultural crops and for improving and developing new agricultural varieties.

However, in spite of its wealth, some factors are responsible for limiting the use of the benefits of Amazonian biodiversity, such as insufficient knowledge about the subject and deforestation, which is responsible for its impoverishment.

### The project

The Biodiversity project, coordinated by UFPA's Biological Sciences Institute (ICB), aimed to strengthen the research infrastructure related to the biodiversity study, focusing on two components.

The first component refers to acquiring equipment and constructing a building called Center for Advanced Studies on Biodiversity (Ceabio), which expands the physical space available to the ICB and brings together UFPA's research groups.

The building holds several laboratories and rooms used to develop works in several areas of research on the Amazon's biodiversity, such as the planning and development of pharmaceuticals; isolation of peptides from Amazon seeds using biological activities of biomedical interest; and development of bio-herbicides by characterizing the activities of the substances produced by Amazonian plants.

The second component is related to remodeling the Pharmaceutical Planning and Development Laboratory and the Cellular and Molecular Neurochemical Laboratory, besides acquiring equipment used by UFPA's biotechnology group, coordinated by the ICB, but which also receives researchers connected to the Institute of Exact and Natural Sciences.

### Intervention logic

The project is part of the "science, innovation and economic instruments" (4) component of the Amazon Fund's Logical Framework, and the outcome expected is the production and dissemination of knowledge and technologies directed at the sustainable use of Amazonian biodiversity.

The project expanded UFPA's research infrastructure related to the study of biodiversity by constructing the first Center for Advanced Studies on Biodiversity in the North region of the country (Ceabio) and the renovation of two laboratories, including the acquisition of equipment for research on biotechnology.

Ceabio is expected to strengthen research infrastructure related to the biodiversity study, as well as providing marketing services in the fields of health, phytotherapy, cosmetics and dermocosmetics, as well as technological services for companies that need to expand their research and launch new products in the market.

It is also expected that, with the renovation of the Molecular and Cellular Neurochemistry Laboratory and the Pharmaceutical Planning and Development Laboratory, further research will be carried out on the properties of the plants of the North region, as well as several studies in the fields of biotechnology, fine chemistry, molecular dynamics, ecology and environment, and pharmacology, among others.

### Activities executed

Ceabio was built at the Guamá Science and Technology Park (PCT Guamá), in Belém.

UFPA's Molecular Neurochemical Laboratory (linked to ICB) and Pharmaceutical Planning and Development Laboratory (linked to the Institute of Exact and Natural Sciences – Icen) underwent renovation. In addition, there was the purchase of equipment to be used by the biotechnology group comprising Icen's Pharmaceutical Planning and Development Laboratory (LPDF), Liquid Chromatography Laboratory (LabCroL) and Systematic Research and Fine Chemistry Laboratory (LISQF), and ICB's Molecular and Cellular Neurochemistry Laboratory (LNMC) and Structural Biology Laboratory (LBE).

Among the equipment acquired, the following can be mentioned: a calcium wave measurement system; a fluorescence microscope with image capture system; a computer cluster for bioinformatics; a mass detector with coupled nitrogen generator; a solvent evaporation system, a rotating vacuum concentrator; computers, and a spectrophotometer.

### Institutional and administrative aspects

Fadesp was the beneficiary of the project, and UFPA was its technical intervener. Fadesp, created in 1976 to support UFPA's activities, operates in research, teaching, extension, institutional development and specialized technical services projects not only within UFPA's scope, but also in several public and private institutions.

Created in 1957, UFPA is one of the most important research and teaching institutions in the North region. With 14 institutes, seven nuclei, 36 university libraries, two university hospitals and one application school, the university houses a community of more than 50,000 people. This project was coordinated by professors from the ICB, which brings together the faculties of Biomedicine, Biological Sciences, and Biotechnology, as well as postgraduate programs in the fields of genetics and molecular biology, neurosciences and biology of infectious and parasitic agents, zoology, animal science, aquatic ecology, and fishing and biotechnology.

### **Result and impact indicators**

The project activities contributed to the results related to the "science, innovation and economic instruments" (4) component of the Amazon Fund's Logical Framework.

Outcome 4.1: Knowledge and technologies aimed at the sustainable use of Amazonian biodiversity produced and disseminated.

The main indicators agreed for monitoring this objective were:

• Number of theses, articles, books and chapters in scientific books related to the research performed (effectiveness indicator)

Target: 10. Result achieved: 63.

• Number of researchers and technicians involved in RD&I activities in the laboratories supported by the project (efficacy indicator)

Target: 9. Result achieved: 31.

• Laboratory area constructed (efficacy indicator)

Target: not defined. Result achieved: 1.300 m<sup>2</sup>, including the equipment necessary to research performance.

By providing an adequate infrastructure for the execution of research projects, the project achieved targets related to scientific publications and number of researchers and technicians involved in RD&I activities. Scientific papers were accepted in indexed journals, as well as dissertations and theses defended with results obtained from the use of the equipment that was acquired with financial contribution to the project. The acceptance of scientific papers in high quality journals demands more sophisticated analytical requirements, which involves high technology equipment and high acquisition costs. These research projects encompass several areas within biotechnology, ranging from identifying and isolating compounds and substances from diverse sources of Amazonian biodiversity to biological tests of such compounds and substances in order to obtain products (new therapeutic drugs and/or cosmetics, for example).

Part of the project's impact indicators refers to results that will be obtained ex post, from the moment Ceabio actually starts its activities. The researchers have been performing their activities as from the building inauguration, on February 21, 2018. Therefore, the indicators of the "number of patents applied for or deposited" and the "number of new products or technological processes developed" have not yet been measured and are expected to reach their respective targets in the next two years.

### **Risks and lessons learned**

The project proved itself to be relevant to the feasibility of an adequate infrastructure at UFPA for biodiversity research. However, there were some delays in its execution, mainly in relation to the construction of Ceabio. There was a need to land and align the ground, since it was more unstable than expected.

In this context, a counterpart contribution from UFPA was necessary to complete the building, which demonstrated the institutional interest in the realization of the investment. In addition, UFPA has undertaken additional works, such as the cleaning and urbanization of the area, grating and alarm system installation, and connection to the Internet and to the electrical network. Thus, despite the slower-than-expected pace, the project results were satisfactorily achieved, due to the commitment of the actors involved in its execution.

### Sustainability of results

The investments made by the project, together with the partnerships entered into and/or strengthened throughout the project between the participating laboratories and with national and international institutions, enabled the improvement of researchers' activities, reflected on several publications on international journals.

Strengthening research infrastructure related to the study on biodiversity, by gathering UFPA's research groups in the same physical space, will enable the performance of a larger volume of pieces of research in better biosecurity conditions. Moreover, it will provide the Amazon with an environment equipped and suitable for developing research to know and preserve the biodiversity of the region, based on the sustainable use of natural resources, giving economic value to the standing forest. Ceabio will be a reference to other groups settled in the Amazon, with the potential to generate a significant advance for the scientific production at UFPA.

The fact that Ceabio is part of a Science and Technology Park allows a greater interaction with technology-based companies and the provision of specialized services to society. With this interaction, it is expected that the knowledge of market demands may be broadened and that research can be developed in order to better meet these demands. Moreover, possibilities of providing services and entering into partnerships with the private sector increase the prospects for investment sustainability and the achievement of positive impacts by the project in the long term.



#### **Concluded projects**

### **Amazon Bioactive Compounds**

#### **PROJECT MANAGEMENT**

Federal University of Pará (UFPA) and Research Development and Support Foundation (Fadesp)

#### **REGIONAL SCOPE**

State of Pará

#### **BENEFICIARIES**

UFPA, suppliers of raw materials for the production of bioactive compounds and companies from the Amazon region that work with products derived from bioactive compounds

#### **OBJECTIVES**

(i) To install a pilot plant in UFPA'S food laboratory to produce and characterize extracts rich in bioactive compounds; and (ii) to develop new products and technological applications from bioactive compounds extracted from plants and fruits typical of the Amazon

#### TOTAL COST OF PROJECT

R\$ 1,413,357.00 US\$ 756,511.78

#### AMAZON FUND SUPPORT

R\$ 1,352,368.48 US\$ 756,511.78

#### **EXECUTION PERIOD**

2<sup>nd</sup> quarter 2014 to 1<sup>st</sup> quarter 2018

#### PROJECT PROGRESS

DATE OF APPROVAL	DATE OF CONTRACT	TOTAL AMOUNT DISBURSED	TOTAL PERCENTAGE DISBURSED OF AMAZON FUND SUPPORT	
1.3.2012	8.21.2012	R\$ 1,352,336.00 US\$ 756,511.78	100%	



### Context

The state of Pará has a large part of its economy focused on the exploitation of raw materials, such as rubber, nuts, minerals, fruits, and other primary products with low added value. The fruit sector has its enormous potential still little explored, since most of what is produced is as pulp or juice, products of low added value and little diversity.

The development of new products and technological applications from the Amazonian biodiversity can add value to the raw materials of the region and become an alternative for its economic development. It should be noted that these new products and technologies aim to enhance the standing forest, create alternatives to deforestation activities and increase attractiveness to the sustainable exploitation of the products of the region.

### The project

The Amazon Bioactive Compounds project, presented by Fadesp and executed by UFPA, aimed to develop new products and technological applications from bioactive compounds extracted from plants and fruits typical of Eastern Amazon. For this purpose, a pilot plant has been installed, where the bioactive compounds undergo extraction, purification, concentration and fractionation processes.

In this project, research for developing new products or technological applications, such as sunscreens, anti-aging creams and capsules of food supplements, were divided into two different lines: one carried out in partnership with a private company and a cooperative, and another executed solely by UFPA, without participation of private partners.

### **Intervention** logic

The project is part of the "science, innovation and economic instruments" (4) component of the Amazon Fund's Logical Framework, and the effect expected is the production and dissemination of knowledge and technologies aimed to develop new products from bioactive plant compounds typical of the Amazon biome.

The project was aimed at contributing to the activities of science, technology and innovation to enable the sustainable use of natural resources in the Amazon, generating employment and income for the population, adding value to forest products and, consequently, valuing native forests. For this purpose, a pilot plant for the production of bioactive compounds was installed, and research was performed to develop new products and technologies from plant compounds from the Amazon biome.

### Activities executed

UFPA installed in a 200 m<sup>2</sup> area at Espaço Inovação, at the PCT Guamá, in Belém do Pará, a pilot plant focused on developing extracts rich in bioactive compounds from the Amazon, besides new products which employ them to add greater value to the raw materials. The pilot plant includes areas for storage, supplies, processing and conditioning, and has equipment for washing, drying, pulping, grinding, centrifuging, homogenizing, partially purifying, freeze-drying and vacuum packaging.

A study was carried out on 20 Amazonian plants, evaluating their antioxidant capacity, antimicrobial and/or regulating activity on the production of methane by cattle and/or photochemioprotection (for skin). Among the plants, seven extracts<sup>38</sup> stood out and have been produced in pilot scale following process optimization. It was possible to observe which bioactive compounds were responsible for these properties, and monitor them online.

### Institutional and administrative aspects

The project was performed within the scope of the Center for the Valorization of Amazonian Bioactive Compounds (CVACBA) at PCT Guamá, in Belém (PA). The group of researchers, with undergraduate, masters and doctoral students, in addition to the professors, gathered about thirty people from UFPA's Faculties of Biotechnology, Pharmaceutical Sciences, Food Science and Technology and Chemical Engineering. Work was also produced jointly with the Université Libre de Bruxelles and the Université Catholique de Louvain.

Founded in 1957, UFPA is one of the most important research and teaching institutions in the North region. With 14 institutes, seven nuclei, 36 university libraries, two university hospitals and one application school, the university houses a community of more than 50,000 people.

The PCT Guamá is the first technological park to operate in the Amazon. The target is to stimulate applied research, innovative entrepreneurship, service delivery and technology transfer for developing higher value-added and competitive products and services.

<sup>&</sup>lt;sup>38</sup> Inga edulis, Byrsonima crassifolia, Cecropia obtusa, Desmodium ovalifolium, Euterpe oleracea, Theobroma cacao and Passiflora edulis.

### **Result and impact indicators**

The project activities contributed to the results related to the "science, innovation and economic instruments" (4) component of the Amazon Fund's Logical Framework.

Outcome 4.1: Technologies and knowledge for developing new products from bioactive compounds of plants typical of the Amazon biome produced and disseminated.

The main indicators agreed to monitor these objectives were:

Number of patent applied for or deposited (effectiveness indicator)

Target: Not defined. Result achieved: 2.

As a project result, two patents were deposited in the National Institute of Industrial Property (INPI), one for a utility model and one for invention.<sup>39</sup>

 Number of theses and scientific articles published (effectiveness indicator) Target: not defined. Result achieved: 14.

The project allowed the publication of eleven scientific papers and the defense of three theses, 13 dissertations, seven term papers and eight reports on scientific initiation.

- Number of pedagogical or informational publications (effectiveness indicator) Target: not defined. Result achieved: 35.
- Number of new products or technological processes developed (effectiveness indicator)

Target: 2. Result achieved: 10.

Number of new products or technological processes developed with effective application (effectiveness indicator)

Target: not defined. Result achieved: 6.

• Number of plant species researched (efficacy indicator)

Target: 30. Result achieved: 31.

Laboratory area modernized (efficacy indicator)

Target: 160 m<sup>2</sup>. Result achieved: 200 m<sup>2</sup>.

 Amount received due to provision of laboratory analysis services to thirdparties (efficacy indicator)

Target: Not defined. Result achieved: R\$ 165,248.85.

• Number of researchers and technicians involved in activities of RD&I settled in the region (efficacy indicator)

Target: not defined. Result achieved: 6.

<sup>&</sup>lt;sup>39</sup> (i) Patent: utility model. Registration number: BR2020170123419. Title: "Devices for collecting samples of gases produced in fermentation processes conducted in an open system". Deposit: 6/9/2017; and (ii) Patent for invention. Registration number: BR1020180037722. Title: "Processing of pulp of fruits of the genus Euterpe and its derivatives preserving autochthonous or allochthonous microbial agents with functional properties". Deposit: 2/26/2018.

The project investments and the scholarships funded with the Amazon Fund's resources helped the CVACBA, located at PCT Guamá, provide quality control services for plant products destined to food, pharmaceutical, chemical, biotechnology and cosmetics industries. There was development of new products, such as the defatted *açaí* berry and the cosmetic formulation containing plant extract.

In addition to new products, new processing methods were developed for a cooperative involved in the project. The project provided technology transfer to the cooperative, improving monitoring and quality of production, notably *açaí* berry and cacao. For example, it is possible to highlight the optimization of the defatting of passion fruit seeds and the extraction of piceatannol, which is a high value-added compound due to its high antioxidant properties.

By providing complete infrastructure and research support, in addition to the direct participation of a cooperative (Cooperativa Agrícola Mista de Tomé-Açu – Camta) and of a company with a vocation for innovation (Amazon Dreams), the project contributed directly to a higher value-added byproduct, prepared from fruits of high natural occurrence in the region.

### **Risks and lessons learned**

The project achieved satisfactory results, despite significant delays in its execution. One reason for postponing the deadline was a fire that destroyed part of the CVACBA infrastructure in January 2012. The project was also impacted by a delay of four years in the delivery of the Espaço Inovação at PCT Guamá, where the laboratory and the pilot plant would be based. The building in question was not the object of support of this project, having been inaugurated in April of 2015, late delivery compared to the planned schedule.

In this context, it was necessary to change some items to be acquired by the project in relation to what that had been initially foreseen, either because other projects had already made possible the purchase of certain equipment, or because the demand for certain innovations had evolved over the years.

Some operation specific features also influenced its execution time. Initially, it was necessary to reformulate the proposal originally presented in order to segregate and make it explicit in the project the different responsibilities and the scope of each partner involved in the research, namely UFPA, a private company (Amazon Dreams), and a cooperative (Camta). The operation also involved the negotiation between UFPA and the aforementioned partner entities on intellectual property and participation in the research results, as well as the legal discussion raised by Judgment N°. 2,731/2008 of the Federal Court of Accounts on the relationship between federal educational institutions and their foundations of support, culminating in the edition of Law N°. 12,349/2010.

Among the lessons learned, it should be mentioned that the fire in the laboratory in 2012 caused safer systems to be installed in its reconstruction, such as exhaust circuits in the units with storage and/or use of flammable material, smoke detectors connected to an alarm, in addition to performing a rigorous balance of the electrical circuits to prevent overloads. The adoption of these standards is expected in all new interventions.

### Sustainability of results

The project was relevant for the valuation of bioactive compounds from Amazonian plants, through innovative and competitive processes of extraction, purification, fractionation and isolation. Having been held at a public university, the project provided the engagement of undergraduate and graduate students and interaction with local productive organizations, thus expanding the interaction between the university community and society.

By providing a complete infrastructure and research support, in addition to the direct participation of a cooperative and a company with a vocation for innovation, the project contributed directly to the production of higher valueadded byproducts, prepared from fruits of high natural occurrence in the region. It should be mentioned that the pilot plant installed due to the project continued to be used after its conclusion for the performance of new studies.

### **Mangrove Forests**

#### **PROJECT MANAGEMENT**

Federal University of Pará (UFPA) and Research Development and Support Foundation (Fadesp)

#### **REGIONAL SCOPE**

Municipality of Bragança, state of Pará

#### **BENEFICIARIES**

UFPA, scientific community, traditional communities of Tamatateua and Taperaçu of the Caeté-Taperaçu Marine Extractive Reserve, and other communities of the region

#### OBJECTIVES

(i) To construct and outfit a laboratory for research on mangrove ecology at the UFPA campus in the municipality of Bragança (PA);
(ii) research and development of knowledge and techniques related to recovering degraded mangrove areas in the North region; and
(iii) development of models for estimating biomass, carbon sequestration and assessment of carbon stock of mangrove forests

#### TOTAL COST OF PROJECT

R\$ 1,982,143.00 US\$ 1,130,843.79

#### AMAZON FUND SUPPORT

R\$ 1,982,143.00 US\$ 1,130,843.79

#### **EXECUTION PERIOD**

1<sup>st</sup> quarter 2013 to 3<sup>rd</sup> quarter 2017

#### PROJECT PROGRESS

DATE OF	DATE OF	TOTAL AMOUNT	TOTAL PERCENTAGE DISBURSED	723
APPROVAL	CONTRACT	DISBURSED	OF AMAZON FUND SUPPORT	
1.24.2012	7.17.2012	R\$ 1,982,143.00 US\$ 1,130.843.79	100%	



### Context

The Mangrove Forests project was coordinated by the Mangrove Ecology Laboratory (Lama) linked to the Institute for Coastal Studies (lecos), located at the UFPA campus, in the municipality of Bragança.

The study area of the project is located in the Bragança peninsula, where the Caeté-Taperaçu Marine Extractive Reserve (Resex) was implemented. The project encompassed two traditional Resex communities, Tamatateua and Taperaçu, and the areas surrounding the PA-458 state highway.

### The project

The project aimed to perform research and develop knowledge and techniques related to recovering degraded mangrove areas in the North region. In the scope of the project, models have been also developed for estimating biomass, carbon sequestration and assessment of carbon stock of mangrove forests.

UFPA's Lama was built and provided with equipment, where the research materials and the material collected and analyzed have been maintained.

### Intervention logic

The project is part of the "science, innovation and economic instruments" (4) component of the Amazon Fund's Logical Framework, and the outcome expected is the generation of knowledge and development of technologies to recover deforested mangrove areas in the Amazon biome, and the capture and storage of carbon in this ecosystem.

For this purpose, the following were foreseen and performed: (i) construction of a laboratory and provision of equipment for research on mangrove ecology at the UFPA campus, in the municipality of Bragança (PA); (ii) research for developing technologies to recover degraded mangrove areas in the Amazon biome; and (iii) research for development of models for estimating biomass, carbon sequestration and assessment of carbon stock in this ecosystem.

It is expected that the science, technology and innovation activities implemented by the project contribute to the recovering, conservation and sustainable use of the Amazon biome.

### Activities executed

The Lama was built in the UFPA campus in the municipality of Bragança (PA) to develop lines of research in the areas of mangrove forest ecology and socioenvironmental studies on the populations inhabiting them.

The main research activities carried out in the scope of the project were: (i) development of biomass and carbon sequestration models, with the publication of five master's dissertations and two doctoral theses; (ii) wood zoning and exploitation, with the publication of an undergraduate monograph and a doctoral thesis; (iii) Mangrove Crab zoning and exploitation, with the publication of four undergraduate monographs, two master's dissertations and a doctoral thesis; (iv) gall infestation, with the publication of an undergraduate monograph and a master's thesis; and (v) measurement of seedling survival, mortality and growth, with the publication of three undergraduate monographs.

A total of 60,400 seedlings and propagules were planted in about nine hectares of mangrove area, and a workshop entitled Recovery of Amazonian Mangroves: an Ecological and Socioenvironmental Approach was held at Bragança's campus (UFPA), where themes such as primary and secondary productivity of mangrove forests and the recovery of degraded areas were presented.

### Institutional and administrative aspects

Fadesp was the beneficiary of the project, and UFPA was its technical intervener. Fadesp, created in 1976 to support UFPA's activities, operates in research, teaching, extension, institutional development and specialized technical services projects not only within UFPA's scope, but also in several public institutions.

Created in 1957, UFPA is a research and teaching institution in the North region. With 14 institutes, seven nuclei, 36 university libraries, two university hospitals and one application school, the university houses a community of more than 50,000 people. This project was coordinated by the Lama, of the Institute for Coastal Studies, at the Bragança campus, located at 200 km from Belém. The project gathered 22 researchers from the institution, including undergraduate, master's degree and doctoral students, and teachers.

### **Result and impact indicators**

The project activities contributed to the results related to the "science, innovation and economic instruments" (4) component of the Amazon Fund's Logical Framework.

Outcome 4.1: Generation of knowledge and development of technologies to recover deforested mangrove areas in the Amazon biome, and capture and storage of carbon in this ecosystem.

The main indicators agreed to monitor these objectives were:

Number of theses and scientific articles published (effectiveness indicator)

Result achieved: 4 doctoral theses, 7 master's dissertations and 9 term papers defended.

- Number of pedagogical or informational publications (effectiveness indicator) Result achieved: 1 book.
- Measurement of number of researchers and technicians involved in RD&I activities settled in the region (effectiveness indicator)

Target: 15 researchers. Result achieved: 21 researchers and one technician settled in the region throughout project implementation.

 Measurement of the amount of carbon captured and stored in the mangrove areas effectively reforested by the technologies developed in the project (effectiveness indicator)

Target: not defined. Result achieved: advances have been made in relation to the estimates of the amount of biomass that the mangrove contains and the carbon sequestered and stored in the Amazonian mangroves.

• Area replanted (efficacy indicator)

Target: 5.7 hectares. Result achieved: 9 hectares.

Measurement of seedlings produced (efficacy indicator)

Target: 40,000. Result achieved: 55,400 seedlings and 5,000 propagules planted.

Laboratory area constructed (efficacy indicator)

Target: 325 m<sup>2</sup>. Result achieved: 325 m<sup>2</sup>, including the equipment necessary to research performance.

The expansion of the laboratory infrastructure and the acquisition of equipment have been shown to be relevant for generating knowledge and developing technologies, with the publication of theses, scientific articles, pedagogical documents, and the creation of new products or technological processes. The vehicle purchased with project resources enabled field surveys that were not possible previously. The auditorium built offers a more adequate space for the defense of term papers, dissertations and theses, and the performance of lectures and courses. The physical structure of the laboratory enabled researchers to be received and the development of the studies, promoting an increase in the potential of human resources training as well as broadening the horizon of research and extension.

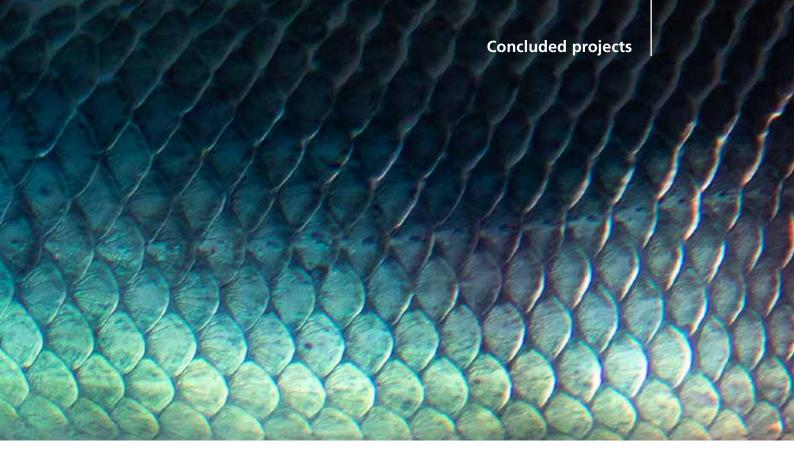
In addition to constructing the laboratory, which is fundamental for developing lines of research in the areas of mangrove forest ecology and socioenvironmental studies on the populations that inhabit them, it is worth mentioning the planting of 60,400 seedlings and propagules in nine hectares in the Bragança region, the most degraded mangrove area of the Amazonian Brazilian coast. This replanting is an advance not only for developing technologies to recover degraded mangrove areas, but also for recovering the ecological functions and services that this ecosystem provides for the community. The information generated by the project had an impact both in improving the knowledge about the mangrove system and in the actions carried out with the community through practices and courses. Similarly, the results obtained are subsidy for the management plan of the Caeté-Taperaçu Marine Extractive Reserve, promoting the sustainable use of the resources and services available in the mangrove area of this region.

### **Risks and lessons learned**

The extraction workers who live in the region are social actors of great importance to the mangrove ecosystem and have engaged in the socioenvironmental activities proposed in the scope of the project. In this sense, sensitization activities allowed researchers' support to be well received, and their importance in recovering degraded areas of mangrove within the extractive reserve and its surroundings was recognized.

This experience has shown that community involvement is critical to project execution and success. Throughout the project, it was also evident that the articulation between community and academia strengthens both parties in face of the daily challenges faced. The generated inputs – such as maps of distribution of mangrove trees, distribution of the Mangrove Crab, areas of wood cutting, areas of potential crab extraction and carbon storage – also result from this dialogue, forming the database for implanting the already existing management plan.

On the other hand, the articulation with the public authority (especially the Municipal Secretariat of the Environment and the Chico Mendes Institute for Biodiversity Conservation – ICMBio) could have been more active. That would enable the expansion of replanting activities and the improvement of the population's awareness of the need to change activities in favor of mangrove management and conservation within Resex.



### Sustainability of results

In order to maintain the activities initiated by the project, the supported researchers entered into the following partnerships:

- Carbon Sequestration Project and Recovery of Deforested Mangrove Forests in the Ajuruteua Peninsula – Bragança, Pará. Notice 001/2010. Fundação Amazônia Paraense (Fapespa/Vale S.A.).
- Toxicological Effect of Heavy Metal Bioaccumulation in Crab Populations in the Brazilian Amazonian Mangroves project (CNPq).
- Support for Construction and Consolidation of Sustainable Productive Chains of Artisanal Coastal Fishing in the Brazilian Amazon project (Unesco/Vale Fund).

There were also institutional partnerships with the University of São Paulo (USP) – at the Piracicaba and Ribeirão Preto campuses, and with São Paulo State University (Unesp), in São Vicente, in an experimental campus on the São Paulo coast.

### Sustainable Fishing

#### PROJECT MANAGEMENT WWF-Brasil

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#### **REGIONAL SCOPE**

Municipalities of Feijó, Tarauacá and Manoel Urbano, in the state of Acre

#### BENEFICIARIES

Artisanal fishermen and riverside and indigenous communities of the state of Acre

#### OBJECTIVE

To promote adoption of management measures associated with entering into fishing agreements to reduce damage to water ecosystems and create an economically sustainable alternative to deforestation in the state of Acre

#### TOTAL COST OF PROJECT

R\$ 3,205,943.00 US\$ 1,362,028.63

#### AMAZON FUND SUPPORT

R\$ 3,205,943.00 US\$ 1,362,028.63

#### **EXECUTION PERIOD**

2<sup>nd</sup> quarter 2014 to 4<sup>th</sup> quarter 2017

#### **PROJECT PROGRESS**

DATE OF	DATE OF	TOTAL AMOUNT	TOTAL PERCENTAGE DISBURSED	
APPROVAL	CONTRACT	DISBURSED	OF AMAZON FUND SUPPORT	
12.30.2013	4.17.2014	R\$ 3,205,943.00 US\$ 1,362,028.63	100%	



### Context

Fishing has been one of the most traditional and important extractive activities in the Amazon, representing an important source of food for local communities. However, in recent decades, as a result of the expansion of fishing and the inadequate use of rivers and lowland lakes, the first signs of depletion of stocks of some species have appeared, in addition to conflicts related to access and ownership of fishing areas.

Within this context, fishing agreements have been drawn up, beginning with community mobilization and the interaction among the various users of fishing resources in the manageable area. The aim is to define proposals for using the lakes, followed by deliberation at a local community body and the submission of the agreement to the Brazilian Institute for the Environment and Renewable Natural Resources (Ibama) or, eventually, when it is a specific agreement, to the state environmental agency. This body, in turn, sends the proposal to be regulated through an inter-ministerial decision, involving the Ministry of the Environment (MMA) and the Secretariat for Aquaculture and Fisheries, linked to the Ministry of Industry, Foreign Trade and Services. The government supervision and protection of lakes are key elements for the success of the community management system and fishing agreements.

The initial scope of the project encompassed three contiguous municipalities in the state of Acre: Manoel Urbano, Feijó and Tarauacá. During the execution of the project, however, the community of Manoel Urbano decided to stop participating in the initiative. In order to make up for it, the Sustainable Fishing project started involving the indigenous communities Kaxinawá (Huni Kuin) of the New Olinda indigenous land (TI), in the municipality of Feijó, that had already shown interest in participating in the activities programmed. It is also worth mentioning that the project target population already had another indigenous community since the conception of the proposal, the Kaxinawá community of Praia do Carapanã TI, in the municipality of Tarauacá.

### The project

The project aimed to promote the adoption of management measures associated with entering into fishing agreements to reduce the damage to water ecosystems and create an economically sustainable alternative to deforestation in the state of Acre. It focused on the management of the species *Arapaima gigas*, known in Brazil as *pirarucu*. *Pirarucu* is one of the largest freshwater fish worldwide, reaching up to three meters long and weighing more than 200 kilos, and has a high commercial value. It is a species threatened with extinction. Within the scope of the project, related actions were planned and executed: (i) development and consolidation of the participatory *pirarucu* management system in the municipalities of Manoel Urbano,<sup>40</sup> Feijó and Tarauacá, by consolidating, expanding and regulating fishing agreements in these municipalities; (ii) development of principles and criteria for the certification of managed pirarucu fishing; (iii) development of an analysis on the ecological and economic viability and the potential for expansion of the pirarucu management practices and production chain, in order to guide the design of actions necessary to expand management practices and strengthen the pirarucu production chain; and (iv) dissemination of project results in order to stimulate replication of good practices and lessons learned on the pirarucu sustainable use.

## Intervention logic

The project is part of the "sustainable production" (1) component of the Amazon Fund's Logical Framework. The effects expected in this component were the *pirarucu* management implemented and the *pirarucu* production chain managed with value-added expansion.

Thus, the project aimed to contribute to the activities that keep the standing forest economically attractive in the municipalities benefiting from the project actions, promoting the productive inclusion of riverside and indigenous communities and stimulating productive models that preserve the forest.

## Activities executed

The project supported the elaboration of 19 fishing agreements that were approved collectively and submitted to the competent environmental agency, and several participatory events happened. In addition, it supported the implementation of the internal regulations of the Pirarucu Management Group of Feijó, the elaboration and implementation of the Huni Kuin Fishing Regiment of the Praia de Carapanã TI, and the formation of the Indigenous Pirarucu Management Group of the Nova Olinda TI.

A study on ecological-economic evaluation and the potential of expansion of *pirarucu* management practices was performed.

There was also the acquirement of goods and equipment, the training and other several activities for *pirarucu* management (fishermen re-registration, licensing of fishing quotas, expeditions of counting, cleaning, fishing, monitoring, processing and trade) and for the implementation of certification criteria of

<sup>&</sup>lt;sup>40</sup> Although the communities in the municipality of Manoel Urbano have chosen to leave the project before the expected increase in the number of local fishing agreements and the achievement of other results, several actions carried out in the project attended the public targeted in that municipality. Such actions were important for the community's awareness and thus for the maintenance of the three existing agreements regulated since 2006.

this management. The Fishing Improvement Plan, developed for certification purposes, was inserted into a global database of fishing systems in the process of certification.<sup>41</sup>

Activities were carried out for the institutional strengthening of the Aspakno and Askapa indigenous organizations and the Colony of Fishermen and Aquaculture Farmers of Feijó (Colpaf), in addition to disclosing project activities and results, with the dissemination of knowledge on the pirarucu management in order to stimulate replication of the initiative.

## Institutional and administrative aspects

Promoting and adopting management measures, associated with entering into fishing agreements in order to reduce the damage to water ecosystems and assure an economically sustainable alternative to deforestation, depend on the success of the integrated action of public agencies of the various spheres of government, on the mobilization of civil society, and on the private sector's interest. Thus, WWF-Brasil conducted the implementation of the Sustainable Fishing project through an inter-institutional arrangement with actors such as: (i) the Brazilian Institute of Environment and Renewable Natural Resources (Ibama) and the National Indian Foundation (Funai), representing the Federal government; (ii) the Acre Environment Institute (Imac), the Secretariat of Agroforestry Extension and Family Production (Seaprof) and the Environmental Military Police Battalion (PM Ambiental/ Acre) as representatives of the Government of Acre; (iii) the Federal University of Minas Gerais (UFMG), the University of São Paulo (USP), Federal University of Acre (Ufac) and the Federal Center for Technological Education of Minas Gerais, representing technology centers; and (iv) the Colpaf association and Kaxinawá (Huni Kuin) people's organizations, representing civil society. In the scope of the project, conversations were also held with representatives of the private sector in order to elaborate a diagnosis of the pirarucu chain.

The project also counted on a WWF's team, responsible for the executive and operational coordination of all actions developed, so that the administrative arrangement provided the execution of interdependent actions executed with the partner institutions in an articulated and integrated way.

## **Result and impact indicators**

The project activities contributed to the results related to the "sustainable production" (1) component of the Amazon Fund's Logical Framework.

<sup>&</sup>lt;sup>41</sup> Available at: https://fisheryprogress.org/.

## "Sustainable production" (1) component

Outcome 1.1: Pirarucu management implemented.

Outcome 1.2: Pirarucu production chain managed with value-added expansion.

The main indicators agreed to monitor these effects were:

• Number of fishing agreements approved collectively and submitted to the competent body (effectiveness indicator):

Target: 15. Result achieved: 19 agreements.

Of the 19 fishing agreements approved collectively and submitted to the competent body, seven have been regulated. WWF-Brasil reported to have kept working on the mobilization fronts of TIs' indigenous leaders and Funai's managers to jointly reinforce the negotiations with Ibama for regulation of other agreements submitted to the body in 2016.

• Number of individuals directly benefited by the activities supported by the project (effectiveness indicator)

Target: 920 individuals. Result achieved: 1,627 individuals.

The project activities directly benefited 1,627 individuals, including riverside and indigenous people.

• Number of community organizations strengthened (effectiveness indicator) Target: 3 organizations. Result achieved: 3 organizations.

The project supported the strengthening of the following: Colpaf association; Aspakno, indigenous organization representing the Kaxinawá people of the Nova Olinda TI; and Askapa, an indigenous organization representing ten Kaxinawá villages of the Carapanã TI.

 Revenue obtained from the economic activity of sustainable use supported by the project (effectiveness indicator)

Target: 30% increase in revenues obtained from commercialization of the *pirarucu* managed with sustainability. Result achieved: reduction of 7.6% of the total revenue obtained with the commercialization of the *pirarucu* managed with sustainability.

Of the 19 *pirarucu* sustainable management agreements elaborated, seven have been regulated for the municipality of Feijó. Thus, regarding the revenue indicator, only the fishing and trading data collected within the scope of the seven agreements already regulated in this municipality, between 2014 and 2016, have been computed.

This contraction in sales was due to the absolute reduction in the volume of *pirarucu* caught, as a result of the implementation of fishing agreements aimed to protect water ecosystems. This decrease occurred because fishing quotas authorized by the environmental agency were smaller, exactly to avoid fishing to become a predatory short-term activity, but rather a long-term sustainable activity.

In the definition of fishing quotas for monitored lakes, the environmental agency takes into account the population data of the species, from periodic counts. In the Sustainable Fishing project, the measurement of the indicator considered the period from 2014 to 2016, since that in 2017 there was no authorized fishing.

However, it is worth noting that there was a 24% increase in the average income of each fisherman involved in fishing, which increased from R\$ 650.00/year in 2013 to R\$ 802.87/year in 2016, due to the greater fishing productivity.

 Number of lakes under management with certification criteria implanted (product indicator)

Target: 10 lakes. Result achieved: 10 lakes.

One of the project outcomes expected was the development of a standard for managed pirarucu certification, which has been achieved. With the endorsement and technical support of the Marine Stewardship Council (MSC), an international certifier of marine fishing activity, a Fishing Improvement Program (FIP) was developed within the scope of the project, with actions to comply with 27 certification requirements for achievement of the MSC seal to the pirarucu sustainable management. The project advanced in the implementation of 24 of these requirements in the management practiced in ten lakes, which allowed the resolution of several relevant issues.

Finally, it is worth mentioning that a study on ecological and economic viability and the potential for expansion of pirarucu management practices and production chain have been developed in order to guide the design of actions necessary for the expansion of pirarucu management practices and the strengthening of its production chain.

## **Risks and lessons learned**

In general terms, it can be said that the Sustainable Fishing project was properly developed, reaching the objective of adopting management measures and entering into fishing agreements to reduce the damage to water ecosystems in the state of Acre. However, in order to guarantee the effectiveness of the project and for chain consolidation, adopting public policies, legislation and regulations that value and encourage the activity is fundamental. For example, payment for the environmental services offered, legal certainty regarding the maintenance of unemployment insurance for artisanal fishermen ("closed season insurance") and the performance of educational and inspection actions by government bodies would make the activity more attractive to the traditional populations, reducing the resistance of many fishermen. However, the State's actions regarding these issues have proved to be insufficient due to the discontinuity of governments and to budgetary constraints.

Another issue that hinders the dissemination of *pirarucu* sustainable management and discourages many actors is the fact that the first years of the chain consolidation process involved costs for carrying out core activities and investments in infrastructure that were much higher than the total revenue generated. Incremental actions that would add value to the chain's products, such as obtaining sanitary inspection and certification seals, adopting technical innovations and developing byproducts, also require a high investment of money and time.

In addition, due to the pirarucu characteristics, a fairly long interval is required to replenish stocks in order to achieve higher fishing levels with the competent environmental agencies, which could provide more attractive financial returns.

It is worth mentioning that the change in the center of operation management of the project from Brasilia to Rio Branco (AC) brought the project coordination closer to the central activities, since it began to participate physically in a greater number of sensitive actions. Therefore, the link between the entity and the actors involved was improved, facilitating the communication and dialogue within the project, which, in turn, enabled a more incisive action in the management of conflicts and, thus, greater speed in the decisions and execution of activities.

It should be emphasized that the knowledge generated referring to the theme, systematized and shared through the project, can greatly help the definition and implementation of new initiatives aimed to adopt management measures and to enter into fishing agreements.

## Sustainability of results

The sustainability of the results obtained depends on the maintenance of the riverside and indigenous populations' awareness and mobilization regarding the pirarucu sustainable production theme, and on the continuity of local community's and institutions' efforts, including government agencies. It is central to the effectiveness of initiatives such as the Sustainable Fishing project to keep alive the interest in preserving water ecosystems under fishing agreements in the population that has fishing in the Amazon a means of survival and which is constantly in competition with predatory fishing.

Maintaining the target communities' adherence to new fishing agreements is as important as the adoption of such agreements. As already mentioned, incisive governmental actions are paramount for this purpose.

# Reforestation in the Southern Region of Amazonas State

#### PROJECT MANAGEMENT

State of Amazonas

#### **REGIONAL SCOPE**

Municipalities of Boca do Acre, Lábrea, Apuí and Novo Aripuanã in the state of Amazonas

#### BENEFICIARIES

Population of the state of Amazonas

#### OBJECTIVES

To support the strengthening of the environmental management of the state of Amazonas in areas suffering from deforestation, in the municipalities of Boca do Acre, Lábrea, Apuí and Novo Aripuanã, by means of: (i) strengthening environmental management, focusing on implementing the Rural Environmental Registry (CAR); and (ii) recovering deforested areas through reforestation with species with economic and ecological function, through agroforestry, silvicultural and agrosilvopastoral systems

#### TOTAL COST OF PROJECT

R\$ 17,575,286.19 US\$ 10,204,660.13

#### AMAZON FUND SUPPORT

R\$ 17,575,286.19 US\$ 10,204,660.13

#### **EXECUTION PERIOD**

3<sup>rd</sup> quarter 2011 to 2<sup>nd</sup> quarter 2018

#### **PROJECT PROGRESS**

DATE OF	DATE OF	TOTAL AMOUNT	TOTAL PERCENTAGE DISBURSED
APPROVAL	CONTRACT	DISBURSED	OF AMAZON FUND SUPPORT
8.17.2010	12.17.2010	R\$ 17,575,286.19 US\$ 10,204,660.13	100%



## Context

The state of Amazonas holds the largest forest patrimony in Brazil. There are 140 million hectares of native forests, and about 52% of the territory are legally protected, consisting of 28% of Tls, 12% of state protected areas (PA) and 12% of federal PAs. It has the lowest rate of deforestation in the Amazon region (less than 3% of the state's total area), although the municipalities located in the south of the state present high rates of deforestation. Among the main causes are: migratory pressure of neighboring states; lack of integrated policies aimed at the sustainable development of the region; incipient land regularization, and lack of permanent control and environmental supervision.

# The project

The Reforestation in the Southern Region of Amazonas State project aimed at supporting the strengthening of the environmental management of the state of Amazonas in areas suffering from deforestation in the municipalities of Boca do Acre, Lábrea, Apuí and Novo Aripuanã.

The project contemplated activities around two axes: (i) strengthening of environmental management, focusing on implementation of the CAR; and (ii) recovery of deforested areas through reforestation with species with economic and ecological function, through agroforestry, silvicultural and agrosilvopastoral systems. For this purpose, the state environmental agency selected 1,000 rural producers in the four municipalities.

Awareness workshops were held with local communities, besides training and technical assistance through sustainable use and management practices of natural resources, using demonstration units where farmers could observe the implementation methods and results of agroforestry systems (SAF). As support for reforestation actions, the project implemented: (i) mechanization services for cleaning and preparation of area for planting; (ii) supply of inputs to support planting; and (iii) supply of seedlings to producers for the implementation of SAFs.

The project was implemented by the State Secretariat for the Environment and Sustainable Development (SDS), which, after an administrative reform in the state in 2015, became the State Secretariat for the Environment (Sema). It also had the direct partnership of the Institute for Sustainable Development of Agriculture and Forestry Development of the State of Amazonas (Idam) and the Institute of Environmental Protection of Amazonas (Ipaam).

## **Intervention** logic

The project is part of the "sustainable production" (1) and "monitor and control" (2) components of the Amazon Fund's Logical Framework.

The effects expected in the "sustainable production" component were: (i) recovery of deforested and degraded areas in the municipalities of Boca do Acre, Lábrea, Novo Aripuanã and Apuí, for economic and ecological conservation purposes; and (ii) expansion of managerial and technical capacity of the local rural communities for the implementation of SAFs and other activities of sustainable management of natural resources in these municipalities.

Thus, the project aimed to contribute to the economic attractiveness of the activities that maintain the forest, promoting the productive inclusion of rural communities and encouraging productive models that preserve the forest, as well as sequestering carbon by recovering the vegetation cover of deforested areas.

Regarding the "monitoring and control" component, the project aimed to increase the access of rural producers to the environmental regulation of their properties in the state of Amazonas, by supporting the rural environmental diagnosis of rural properties and rural ownerships in the municipalities of Boca do Acre, Lábrea, Novo Aripuanã and Apuí and their registration with the CAR. One of the main merits of the CAR is that it acts as an inducer of production systems with environmental sustainability.

Through the CAR, the environmental assets and liabilities of rural properties are identified, allowing both the management of these assets and the planning and execution of actions to recover deforested areas that, by legal determination, need to be reforested. An important function of this registration is that, in the case of rural properties, the squatters in these properties are formally identified (individuals who occupy a rural property without having a title of their property), establishing the possibility of their liability in case of possible environmental infractions in these properties.

## Activities executed

A thousand rural properties were registered in the districts of Boca do Acre, Lábrea, Apuí and Novo Aripuanã, also covering the identification of the priority areas cleared for subsequent reforestation actions.

There was recovery of 1,074 hectares of deforested and/or degraded areas for economic and ecological conservation purposes in the four municipalities benefited by the project, including the implementation of 767 SAFs that integrate the simultaneous cultivation of agricultural crops and forest species.

In the component related to training rural producers, the highlights are 208 training events attended by 903 participants, representing 90% of the project's target audience. Twelve units were installed for demonstration courses in the municipalities benefited by the project, involving three types of demonstration units: SAFs (five units), rotational grazing (three units) and crop-pasture-forest integration (four units). The training program addressed four themes: environmental education for family agriculture, collection of forest seeds, agroecology, and workshops on the CAR.

With the support of the project, a proposal was made for legislation, which contributed to the promulgation of Law N°. 4,406, dated December 28, 2017, which established the State Policy for Environmental Regularization, which sets forth points for the CAR, the Rural Environmental Registry System (Sicar-AM), and the Environmental Regulation Program (PRA) in the state of Amazonas.

## Institutional and administrative aspects

The state of Amazonas performed the implementation of the project through an inter-institutional arrangement led by the Sema, former SDS. Idam and Ipaam were the main partners of the initiative and acted as interveners in the contract with the BNDES.

To deal with the complexity of the project, the state of Amazonas created a project management unit, with an exclusive team, responsible for the executive and operational coordination of all actions developed during the project. The intention was to obtain an administrative arrangement of its own, with a certain degree of autonomy, so that interdependent actions could be carried out in an articulated and integrated way between the partner institutions. Despite these efforts, there were difficulties of interlocution between the institutions participating in the project. Another weakness was the fact that, as a result of administrative reforms, there was a repeated process of changes in the team responsible for conducting the project, imposing laborious restarts.

Some changes that have occurred in the project since its original approval are also noteworthy. The amount contracted initially corresponded to R\$ 20 million and, in addition to the activities described previously, it had a component for land regularization of 800 rural properties in the municipalities of Novo Aripuanã and Boca do Acre. This component of support for land tenure and land use planning, however, was excluded from the project at the request of the Sema because of difficulties in its execution; the contract value was adjusted, and R\$ 17,575,286.19 was disbursed.

## **Result and impact indicators**

The project activities contributed to the results related to the "sustainable production" (1) and "monitoring and control" (2) components of the Amazon Fund's Logical Framework.

## "Sustainable production" (1) component

Outcome 1.3: Expanded management and technical capacity for the implementation of SAFs, sustainable management of natural resources in the municipalities of Boca do Acre, Lábrea, Novo Aripuanã and Apuí.

Outcome 1.4: Deforested and degraded areas recovered and used for economic and ecological conservation purposes in the municipalities of Boca do Acre, Lábrea, Novo Aripuanã and Apuí.

The main indicators agreed to monitor these objectives were:

- Area recovered and used for economic purposes (effectiveness indicator) Target: 1,400 hectares. Result achieved: 1,074 hectares.
- Number of land management projects for simultaneous cultivation of planted agricultural crops and forest species (SAF) (efficacy indicator)

Target: 1,000 projects. Result achieved: 767 projects implemented.

• Number of seedlings distributed (indicator of efficacy)

Target: 1,450,000 seedlings. Result achieved: 1,450,000 seedlings distributed.

The project's target was the reforestation of 1.4 hectares in each of the thousand properties/possessions registered in the project, totaling an area of 1,400 hectares to be reforested. For this purpose, the project performed: (i) mechanization services for cleaning and preparation of area for planting; (ii) supply of inputs to support planting; (iii) supply of seedlings to producers to implement SAFs; and (iv) provision of technical assistance and rural extension (Ater).

Throughout the monitoring of the project, the state of Amazonas adequately proved the execution of the services related to these objectives. The areas selected for planting, totaling 1,450 hectares, received agricultural mechanization in two stages: soil cleaning and organic debris removal (method that replaces the use of fire), and harrowing. The production and availability of seedlings for the farmers also reached the planned quantity, and a total of 1,450,000 seedlings of 17 species were distributed.

However, there were adversities that reflected on the success rates of the plantations, which did not reach the targets established in the indicators. One of the issues observed is the perception of a poor quality of the seedlings produced and their delivery to farmers out of the most adequate time, making transportation difficult and increasing the propensity to plant loss. Other weaknesses are related to the technical assistance and training offered, which, despite the efforts made, did not achieve the desired results regarding local communities' motivation and interest.

## "Monitoring and control" (2) component

Outcome 2.2: Increased access of rural producers to the environmental regularization of their properties in the state of Amazonas.

The main indicators agreed for monitoring this objective were:

• Number of properties that had their application to join the CAR registered (effectiveness indicator)

Target: 1,000 adhesion contracts. Result achieved: 1,000 adhesion contracts registered.

• Area of properties that had their application to join the CAR registered (effectiveness indicator)

Target: not defined. Result achieved: 57,137 hectares.

In the CAR theme, the project was seen as a pilot, acting in the municipalities with the greatest deforestation in the state. The date of the contract of the project was prior to the enactment of the new Forest Code (Law N°. 12,651/2012), which established the CAR as electronic public record nationwide, compulsory for all rural properties. Thus, the first activities conducted by Sema, together with Ipaam, related to the elaboration of legal frameworks for State action. Also in 2011, the state created the State Environmental Regulation Program and regulated the CAR, through Law N°. 3,635/2011. This result was highly relevant for the state, and demonstrated its commitment to territorial management and sustainability.

The resources set forth and implemented in this component were basically intended to the accomplishment of the registration of 1,000 rural properties/ possessions selected in the four municipalities, which included the identification of the priority areas for establishment of the plantations, target of the "sustainable production" component previously addressed. The data of 1,000 properties/possessions were inserted into the state system, called Amazonas Environmental Control System (Scaam) and managed by Ipaam, generating the Terms of Commitment and Adherence to the CAR (TCA), which corresponds to the first phase of adhesion to the Environmental Regularization Program of Rural Property in the State of Amazonas. It should be emphasized that the insertion of the adhesions into the state system occurred before the CAR Federal System (Sicar).

Impact 2: Actions of the state of Amazonas ensure adaptation of anthropic activities to environmental legislation.

In order to measure the reach of this effect, the indicator that monitors the rate of annual deforestation per shallow cut in the state of Amazonas, verified by the National Institute for Space Research (Inpe) through satellites, has been chosen:

• Annual deforestation in the state of Amazonas (effectiveness indicator)

Table 24 shows the evolution of the annual rate of deforestation by shallow cut verified in the state of Amazonas as of 2010, base year of the project (595 km<sup>2</sup>). Comparing this year to subsequent years, it is observed that, initially, there was a reduction in deforestation rates in the state of Amazonas; however, in later years, deforestation increased, reaching 1,045 km<sup>2</sup> in 2018 (preliminary data). For the purpose of historical comparison, the two highest rates of deforestation in the state of Amazonas were in 1995 (2,114 km<sup>2</sup>) and in 2003 (1,550 km<sup>2</sup>).

Year	Deforested area (km²)	Variation (%)
2010	595	Baseline
2011	502	(16)
2012	523	(12)
2013	583	(2)
2014	500	(16)
2015	712	20
2016	1,129	90
2017	1,001	68
2018	1,045	76
(preliminary datum)	.,	

#### TABLE 24: DEFORESTATION IN THE STATE OF AMAZONAS (2010-2018)

Source: Inpe.

## **Risks and lessons learned**

The project proved itself to be relevant, having been an important pilot in the CAR theme in the state, mobilizing efforts to develop the agenda of ecological conservation and sustainable production in a region that is strategic to combat deforestation. Nonetheless, weaknesses were observed, leading to the recording of some lessons learned.

Regarding the executive conduction of the project, a central point is the need for attention to administrative transitions, characteristic of initiatives with public entities. Therefore, special care should be taken to record the plans and decisions related to the projects, especially in the transitions between the teams, so as to avoid the loss of information on those occasions. In particular, in the project in question, the complexity of dealing with an inter-institutional arrangement reinforces the demands of articulation and management.

With regard to fieldwork, the Sema has identified that the geographic dispersion of the project may have led to results of lower overall impacts, and that methodological processes applied on a larger scale and with more resources might contribute with a more effective and sustainable response to deforestation in those regions. Methodologically, it was observed that a project of this nature should carry out a participatory socio-environmental diagnosis beforehand focusing on mobilizing local social bases. These would be central elements in an initiative to promote alternative activities of land use with family farmers, in order to motivate the rural producers and make them interested.

## Sustainability of results

The project sought to stimulate the economic attractiveness of activities that keep the standing forest in rural communities in the municipalities of Boca do Acre, Lábrea, Novo Aripuanã and Apuí, which are areas under intense deforestation. To a certain extent, it has succeeded in reaching the commitment of small rural producers with the environmental regularization of their properties and adaptation to the environmental legislation, which, with registration with the CAR, begin to integrate the base under state's environmental monitoring.

The provision of training, technical assistance, agricultural services and inputs were the pillars for the mobilization of producers in the implementation of SAFs, which, if properly maintained, can be an economically sustainable alternative, generating food, employment and income in the region. The long-term sustainability of the results obtained, however, depends on the continuity of local efforts aligned with the principles of sustainable development, reinforcing the importance of combining production with ecological conservation.

Finally, it is mentioned that, in the period of implementation of the project, there was an increase in the deforestation rate in the state of Amazonas. It is evaluated that, despite the positive effects of the actions supported, the scale of the project was not enough to deal with the intensity of the vectors that cause deforestation in this state. Therefore, new strategies and initiatives should be developed to reverse this tendency that has appeared in recent years, especially because the Amazon conserves more than 97% of its native forests.

## Amazon's Water Springs – Phase 2

#### **PROJECT MANAGEMENT**

BENEFICIARIES

Municipality of Alta Floresta Local population, mainly family farmers of the municipality of Alta Floresta

#### **REGIONAL SCOPE**

Municipality of Alta Floresta, state of Mato Grosso

#### OBJECTIVE

To support the recovery of degraded areas and the development of sustainable productive activities with a view to the environmental regularization of rural properties of family agriculture in the municipality of Alta Floresta

#### TOTAL COST OF PROJECT

R\$ 7,597,201.04 US\$ 3,532,596.04

#### AMAZON FUND SUPPORT

R\$ 7,146,563.54 US\$ 3,532,596.04

#### **EXECUTION PERIOD**

4<sup>th</sup> quarter 2013 to 2<sup>nd</sup> quarter 2018

#### **PROJECT PROGRESS**

DATE OF	DATE OF	TOTAL AMOUNT	TOTAL PERCENTAGE DISBURSED
APPROVAL	CONTRACT	DISBURSED	OF AMAZON FUND SUPPORT
6.11.2013	9.5.2013	R\$ 7,146,563.54 US\$ 3,532,596.04	100%



## Context

Founded in 1976, the municipality of Alta Floresta is located in the extreme North region of the state of Mato Grosso, about 830 km from the capital Cuiabá. Its territory covers 8,953 km<sup>2</sup>, with a population of 51,615 inhabitants.<sup>42</sup>

Together with 15 other surrounding municipalities, the municipality of Alta Floresta makes up the so-called Território Portal da Amazônia, which in turn represents 12% of the area and 8% of the population of the state of Mato Grosso.

In 2012, it was removed from the list of municipalities that require priority actions for prevention, monitoring and control of deforestation in the Amazon biome. That was the result of specific actions to register rural properties with the CAR and the implementation of the strategy to recover deforested and degraded areas, both supported by the Amazon's Water Springs project, which in turn are supported by the Amazon Fund.<sup>43</sup>

# The project

The project Amazon's Water Springs – Phase 2 aimed to continue and expand the recovery actions of degraded areas with focus on the environmental regularization of rural properties of family agriculture in the municipality of Alta Floresta.

In the scope of the project, sustainable production initiatives have also been developed, such as fish farming and the production of honey and organic vegetables. These initiatives aimed to create conditions for the consolidation of a local model of sustainable development, combining income generation and stimulus for the conservation of the permanent preservation areas of rural properties.

# Intervention logic

The project is part of the "sustainable production" (1) and "monitor and control" (2) components of the Amazon Fund's Logical Framework. The project focused on promoting sustainable production, with the implementation of sustainable productive activities, such as: fish farming, meliponiculture, horticulture and use of good practices in dairy farming. In addition to contributing to the valorization of standing forest, these activities sought to promote income generation with sustainability, stimulating the permanence of man in the field and thus avoiding rural exodus.

Regarding the "monitoring and control" (2) component, the project supported the recovery of degraded permanent preservation areas (APP), in particular the recovery of springs and courses of rivers (riparian forests). It also supported the georeferencing

<sup>&</sup>lt;sup>42</sup> Available at: https://cidades.ibge.gov.br/brasil/mt/alta-floresta/panorama.

<sup>&</sup>lt;sup>43</sup> More information on the Amazon Fund website: http://www.fundoamazonia.gov.br/en/projeto/Olhos-dAgua-da-Amazonia/.

of rural properties in order to update data related to the CAR<sup>44</sup> performed in the first phase of the project, supported by the Amazon Fund, in addition to improving the environmental monitoring system. All these actions aimed to contribute to the environmental and land regularization of rural properties, and consequently assisted in monitoring and controlling deforestation in the municipality.

## Activities executed

Throughout the project, 3,338 hectares of degraded permanent preservation areas (regeneration in progress) were recovered, and this action was financially prioritized by the project.

In addition, twenty units of Pais (acronym for *produção agroecológica integrada e sustentável*, or integrated and sustainable agroecological production)<sup>45</sup> were implemented, including production of honey from native stingless bees (meliponiculture); construction of fish-farming tanks; training of 1,557 rural producers in SAFs, pasture management, among others, and provision of 359 technical assistance services to producers.

In the scope of the project, the georeferencing of 760 rural properties was carried out, and 413 properties registered with the CAR in the first phase of the project had their data updated, with the complementation of information after changes from the Forest Code and its regulation by Sema-MT.

In addition, the Water Guardian Program was implemented, which rewards, through payment for environmental services, those that protect and preserve the springs that supply water for consumption in the municipality of Alta Floresta.

## Institutional and administrative aspects

The Amazon's Water Springs – Phase 2 project included, among other partners, the following: Brazilian Agricultural Research Corporation (Embrapa), National Rural Apprenticeship Service (Senar), Rural Union, State University of Mato Grosso (Unemat), and the Life Center Institute (ICV). These institutions assisted mainly in the training and technical assistance activities promoted by the project, as shown below:

- Embrapa Agrossilvipastoril, Sinop (MT): through a partnership agreement in the areas of recovery of degraded areas, good farming practices and organic vegetable gardens, Embrapa worked on validating techniques, continuing staff training and providing technical assistance to producers.
- Senar and Rural Union: an informal partnership was established in the mobilization and training of producers regarding horticulture, fish farming, pasture management and SAFs.

<sup>&</sup>lt;sup>44</sup> Through the CAR, the environmental assets and liabilities of rural properties are identified, allowing both the management of these assets and the planning and execution of actions for recovering deforested areas that, by legal determination, need to be reforested.

<sup>&</sup>lt;sup>45</sup> Pais promotes organic agriculture, integrated with the creation of small animals, and uses inputs produced in the property itself.

- Unemat: cooperation in the academic training in georeferencing technology of rural properties and good agricultural practices.
- ICV: partnership for the construction and maintenance of an online environmental monitoring platform, with the construction of a digital database of actions carried out within the scope of the project.

## **Result and impact indicators**

The project activities contributed to the results related to the "sustainable production" (1) and "monitoring and control" (2) components of the Amazon Fund's Logical Framework.

## "Sustainable production" (1) component

Outcome 1.1: Management and technical skills of Alta Floresta producers expanded for the implementation of SAFs, pasture management activities, fish farming, meliponiculture, and Pais.

Outcome 1.2: Deforested and degraded areas recovered and used for economic and conservation purposes in the properties of the municipality of Alta Floresta.

The main indicators agreed to monitor these objectives were:

• Number of demonstration units of milk production with improved pasture management practices (effectiveness indicator)

Target: 17. Result achieved: 17.

Milk production was measured in one of the demonstration units supported by the project, and a 51% increase of this production was verified.

 Number of demonstration units for beef cattle breeding implanted (effectiveness indicator)

Target: 3. Result achieved: 3.

- Number of rural properties benefiting from pasture management (efficacy indicator) Target: 100. Result achieved: 103.
- Number of producers trained to implement SAFs, pasture management activities, fish farming, meliponiculture, and Pais (efficacy indicator) Target: 600. Result achieved: 1,557.
- Number of units of demonstration of Pais implanted (efficacy indicator) Target: 20. Result achieved: 20.
- Number of new hives distributed to producers (efficacy indicator) Target: 200. Result achieved: 300.
- Number of fish-farming tanks built and licensed (efficacy indicator) Target: 50. Result achieved: 85.

Eighty five tanks were built and licensed, and 14 underwent renovation. There were also 19 training events in fish farming to the rural producers of the municipality.

• Area covered by the Guardian Water Program (efficacy indicator)

Target: 647 hectares. Result achieved: 535 hectares.

The municipality started the Guardian Water Program benefiting producers located in the water catchment basin used in the municipality. The project's target was for 100 families to participate in the program, covering 647 hectares; 72 were registered, covering 535 hectares. In two years, a total payment of R\$ 291.5 thousand was allocated to the program participants.

## "Monitoring and control" (2) component

Outcome 2.1: Alta Floresta Municipal Secretariat of Environment (Secma) structured and modernized for environmental monitoring, control and accountability.

Outcome 2.2: Easy access of the rural producers of Alta Floresta to the environmental regularization of their properties.

The main indicators agreed to monitor these objectives were:

 Extension of APPs recovered for environmental regularization – regeneration in progress (effectiveness indicator)

Target: 3,317 hectares. Result achieved: 3,338 hectares.

Increase in the annual budget executed by Secma (effectiveness indicator)

Target: not defined. Result achieved: 176% increment of annual budget executed (comparative between 2014 and 2016).

 Number of property perimeters with precision georeferencing performed (efficacy indicator)

Target: 1,500. Result achieved: 760.

 Number of environmental records of the first phase of the project updated (effectiveness indicator)

Target: 400. Result achieved: 413.

The project carried out the georeferencing of 760 properties, which contributed to the rectification of 413 registrations with the CAR. The initial target of georeferencing was 1,500 rural properties, and this target was revised after database updating of properties in the municipality of Alta Floresta, which found a total of 760 properties eligible for project support.

The project also helped Alta Floresta's municipal environmental agency structure and consolidate a database capable of managing the recovery actions of APPs and monitoring the progress of the Degraded Areas Recovery Plans.

 Deforested area in the Municipality of Alta Floresta (effectiveness indicator) Baseline: 6.8 km<sup>2</sup> (2013). Value measured: 12 km<sup>2</sup> (2017). There was an increase in the annual rate of deforestation in the municipality of Alta Floresta in 2017 when compared to the project baseline (2013). However, when the temporal perspective of the deforestation rate behavior in the municipality is expanded, there is a significant reduction in these rates between 2004 and 2009 (Amazon Fund's baseline), from 232 km<sup>2</sup> to 7.2 km<sup>2</sup>, with permanent oscillation of this rate at a significantly lower level.

Nonetheless, the fact that there was an increase in deforestation during the project execution shows that the actions supported were not enough to combat deforestation vectors, which reinforces the need for continuing the implementation of deforestation monitoring actions and control in the region.

## **Risks and lessons learned**

The project reached the agreed operational targets, due to the hiring of a qualified and native team from the region of Alta Floresta, which has fully dedicated to its implementation. This strategy presented gains of agility in the execution of the activities and in the commitment with the deliveries expected in the project.

Another important contribution to reach the results was the partnerships signed with Embrapa, Senar, Rural Union, Unemat and ICV. These institutions helped mainly in the activities of training and technical assistance promoted by the project.

In spite of this, it was verified that the implementation of the actions supported by the project was not enough to prevent the increase of the deforestation rate in the municipality, given the limited scale of these actions in relation to the anthropic pressure from deforestation.

# Sustainability of results

The project consolidated the importance of environmental preservation in the region. The central axis of the project was water conservation and encompassed the environmental regularization of properties (with the recovery of riparian forests), and the promotion of sustainable production chains, such as fish farming, meliponiculture and horticulture.

It is expected that, in an environment with successful institutional arrangements and arrangements such as those developed under the project, the positive results achieved with investments, mobilization and technical capacities will continue to contribute to the environmental regularization and increase the income of local producers, besides serving as a demonstration effect for more producers to engage in this agenda.

In order to increase the chances of success of the sustainability of the results achieved, training and technical assistance should continue in a perennial way. However, to this end, the municipality has to remain committed to this public policy, besides finding new funding sources.

# Projects concluded by 2017

Besides the projects concluded in 2018, another 15 projects supported by the Amazon Fund closed by 2017, which are listed below. Detailed information on these projects, as well as their results and impacts, can be found in the Amazon Fund's activity reports from 2013 to 2017 and on the website fundoamazonia.gov.br.

Year of conclusion	Projects/ Management	Territorial scope	Objective	Date of contract	Amazon Fund support
2017	Forest Firefighters of Mato Grosso State of Mato Grosso/Fire Brigade of the State of Mato Grosso (CBMMT)	State of Mato Grosso	To support actions to monitor, prevent and combat deforestation resulting from forest fires and unauthorized burnings in the state of Mato Grosso through training and purchase of aircraft, vehicles and support equipment for the Military Fire Brigade Air and Ground Operations Base of the state of Mato Grosso, located in the city of Sorriso	1.17.2012	R\$ 12,518,230.09 US\$ 7,407,675.06
2017	Recovering Marcelândia Municipality of Marcelândia	Municipality of Marcelândia	To strengthen municipal environmental management and the recovery of degraded areas surrounding 50 springs in the sub-basin of the Manissauá-Missu River, near the municipality's urban area	5.24.2011	R\$ 551,556.98 US\$ 320,021.46
2017	<b>Semas Pará</b> State of Pará	State of Pará	To support the strengthening of environmental management in the state of Pará by improving the issuance of the Rural Environmental Registry (CAR), decentralizing and deconcentrating the activities of the State Environment and Sustainability Department and improving the legal process of environmental licensing	10.6.2010	R\$ 15,923,230.00 US\$ 9,020,637.89

(Continued)

Year of nclusion	Projects/ Management	Territorial scope	Objective	Date of contract	Amazon Fund support
2016	Acre: Zero Forest Fires State of Acre/ Military Fire Brigade of the State of Acre	State of Acre	To support actions to monitor, prevent and combat deforestation resulting from forest fires and unauthorized burnings in the state of Acre, by offering training courses and purchasing vehicles and support equipment for the education, protection and firefighting units of the Military Fire brigades of the state of Acre	7.5.2012	R\$ 13,280,709.56 US\$ 6,892,624.85
2016	Public Policy Incubator in the Amazon Federal University of Pará (UFPA) and Research Development and Support Foundation (Fadesp)	All states of the Amazon biome	To develop an interdisciplinary research project on the socioeconomic and environmental impacts resulting from the expansion of the economic frontier of the Amazon region, within the scope of the Public Policy Incubator in the Amazon, linked to the Forum for Research and Graduate Studies in Sustainable Development of the Amazon region	12.9.2011	R\$ 2,660,567.23 US\$ 1,710,865.69
2015	Protected Areas in the Amazon (Arpa) – Phase 2 Brazilian Biodiversity Fund (Funbio)	All states of the Amazon biome	To support the creation and consolidation of PAs in the Amazon biome to ensure the conservation of the biodiversity and the maintenance of ecological processes and services in the region	4.22.2010	R\$ 19,949,058.91 US\$ 10,478,547.59
2015	Forest Assistance Program Sustainable Amazon Foundation (FAS)	16 PAs in the state of Amazonas, covering about 10 million hectares	To promote control of deforestation and improve the quality of life of traditional populations living in PAs in the state of Amazonas	3.31.2010	R\$ 19,107,547.89 US\$ 11,080,050.97
2015	Dissemination and Improvement of Sustainable Forest Management Techniques Tropical Forest Institute	States of Pará, Amazonas, and Rondônia	To support the expansion of the practice of sustainable forest management through technical training, awareness- raising of the key actors and workers, and applied research	4.15.2011	R\$ 7,449,000.00 US\$ 4,164,244.19

(Continued)

(Continuation)

Year of conclusion	Projects/ Management	Territorial scope	Objective	Date of contract	Amazon Fund support
2015	Belém Islands Federal University of Pará (UFPA)/ Research Development and Support Foundation (Fadesp)	State of Pará	To implement a methodology to help establish local economic and environmental zoning for the islands surrounding the city of Belém and expand the research infrastructure in the Graduate Program in Water Ecology and Fishing at UFPA	7.17.2012	R\$ 1,138,083.93 US\$ 638,082.49
2015	New Social Mapping in the Amazon State University of Amazonas (UEA)/ Muraki Institutional Support Foundation	All states of the Amazon biome	To foster the social mapping of 27 communities in the Amazon biome and strengthen the research network involved in the project	5.6.2011	R\$ 4,614,587.03 US\$ 2,646,585.82
2014	Socioenvironmental Management in Municipalities of Pará Institute of People and the Environment of the Amazon (Imazon)	11 municipalities in the state of Pará: Abel Figueiredo, Bom Jesus do Tocantins, Moju, Dom Eliseu, Goianésia do Pará, Itupiranga, Jacundá, Paragominas, Rondon do Pará, Tailândia and Ulianópolis	To mobilize state and municipal governments, farmers, labor unions and associations, in order to speed up the adherence to CAR; to monitor deforestation using satellite images; and to help plan landscaping as well as to restore degraded areas in the Uraim River Basin, in the municipality of Paragominas	7.29.2010	R\$ 9,736,473.00 US\$ 5,173,746.21
2014	<b>Going Green</b> The Nature Conservancy of Brazil (TNC Brazil)	Seven municipalities of the state of Mato Grosso: Cotriguaçu, Juruena, Sapezal, Campos de Júlio, Nova Mutum, Tapurah and Nova Ubiratā; and five municipalities of the state of Pará: Bannach, Cumaru do Norte, Ourilândia do Norte, São Félix do Xingu and Tucumã	To help mobilize local players in 12 municipalities of Mato Grosso and Pará, seeking adherence to CAR, and to monitor deforestation in the region using satellite images	4.13.2010	R\$ 16,000,000.00 US\$ 8,117,294.91

(Continued)

(Continuatio	n)				
Year of conclusion	Projects/ Management	Territorial scope	Objective	Date of contract	Amazon Fund support
2013	<b>Amazon's</b> <b>Water Springs</b> Municipality of Alta Floresta, Mato Grosso	Municipality of Alta Floresta, state of Mato Grosso	To strengthen municipal environmental management by conducting an environmental diagnosis and enabling the registration of small farmers in CAR, besides supporting measures to foster the recovery of degraded areas of permanent preservation near springs located in small properties	1.25.2011	R\$ 2,781,340.40 US\$ 1,554,863.82
2013	Preserving Porto dos Gaúchos Municipality of Porto dos Gaúchos, state of Mato Grosso	Municipality of Porto dos Gaúchos, state of Mato Grosso	To strengthen municipal environmental management by structuring facilities and operations of the Municipal Secretariat of the Environment and Tourism	8.12.2011	R\$ 120,655.00 US\$ 72,456.76
2013	<b>Portal Seeds</b> Ouro Verde Institute	Seven municipalities that comprise the region known as Portal of the Amazon, in the North of Mato Grosso: Apiacás, Alta Floresta, Carlinda, Nova Guarita, Nova Guarita, Nova Canaã do Norte, Terra Nova do Norte and Matupá	To foster the environmental recovery of 1,200 hectares of degraded areas (recovery of areas of permanent protection and legal reserve), and revaluation of family farming in six municipalities of the Amazon Portal by disseminating agroforestry systems (SAF) that combine the sustainable use of the forest with the generation of income. In addition, the Terena indigenous community will be trained to collect seeds that will be used in SAFs	3.25.2009	R\$ 5,397,778.87 US\$ 3,119,742.73

# APPROVED PROJECTS

**Approved projects** 

## Indigenous Experiences of Territorial and Environmental Management in Acre

#### **PROJECT MANAGEMENT**

Acre Pro-Indigenous People Commission (CPI-Acre)46

#### **BENEFICIARIES**

Indigenous communities of the Kaxinawá, Ashaninka and Shanenawa people

#### **REGIONAL SCOPE**

Eight indigenous lands (TI) in the state of Acre

OBJECTIVE Support the implementation of Territorial and **Environmental Management Plans (PGTA)** of eight TIs in the state of Acre, through the promotion of territorial protection actions, training of indigenous agroforestry

agents and management of backyards and

#### **TOTAL COST OF PROJECT**

R\$ 5,823,061.00 US\$ 1,796,298.55

#### **AMAZON FUND SUPPORT**

R\$ 5,823,061.00 US\$ 1,796,298.55

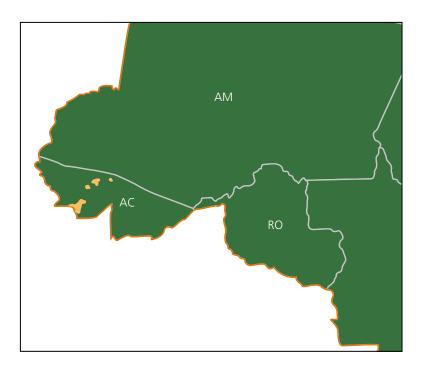
#### **EXECUTION PERIOD**

40 months (from the signing date)

#### **PROJECT PROGRESS**

DATE OF	DATE OF	TOTAL AMOUNT	TOTAL PERCENTAGE DISBURSED IN RELATION
APPROVAL	CONTRACT	DISBURSED	TO THE AMAZON FUND'S SUPPORT
2.26.2018	6.14.2018	R\$ 1,051,738.22 US\$ 324,440.33	18%

agroforestry systems.



 Brazilian Amazon region States Amazon biome Indigenous lands supported by the project

<sup>&</sup>lt;sup>46</sup> Website of the project manager: http://www.cpiacre.org.br/.

## Context

The Acre Pro-Indigenous People Commission (CPI-Acre), civil association founded in 1979, has the mission of supporting the indigenous peoples from Acre in their efforts for the recognition and exercise of their territorial and sociocultural rights. Currently, CPI-Acre works with ten indigenous peoples, who inhabit 19 TIs in the state. The institution had a first project contracted with the Amazon Fund, in 2015, aiming at the strengthening of sustainable production, culture and the way of life in four TIs in Acre (http://www.fundoamazonia.gov.br/pt/projeto/ Cadeias-de-Valor-em-Terras-Indigenas-no-Acre/).

The project Indigenous Experiences of Territorial and Environmental Management in Acre was selected through the public call for projects to support PGTA in TIs, under the Amazon Fund. PGTA is understood as an instrument that materializes the planning, agreed by the indigenous community involved, of the use of its territory for cultural, environmental, and economic purposes.

# The project

The project comprises activities that contribute to the implementation of PGTA in eight TIs in the state of Acre: TI Kaxinawá do Rio Jordão, TI Kaxinawá do Baixo Rio Jordão, TI Kaxinawá Seringal Independência, TI Kaxinawá e Ashaninka do Rio Breu, TI Kaxinawá do Igarapé do Caucho, TI Kaxinawá da Praia do Carapanã, TI Kampa do Igarapé Primavera, and TI Katukina/Kaxinawá.

The set of activities that will be developed under the project in each one of these regions has been designed based on the respective PGTA. Three activities are common to all TIs, namely: (i) management of agroforestry systems and backyards; (ii) installation of rainwater collection points; and (iii) workshops on environmental and territorial management and solid waste management. In addition, some TIs will carry out: (i) interinstitutional articulation for territorial protection; (ii) monitoring and surveillance; and (iii) articulation with surrounding communities.

The project includes other activities, such as the training of indigenous agroforestry agents (AAFI), through which three groups will be supported with the participation of 35 indigenous people in each, at the Training Center for People of the Forest in Rio Branco. AAFI, trained and in training, develops educational and participative work with indigenous communities and their surroundings, contributing to the management of these territories.

# Intervention logic

The project is part of the "sustainable production" (1) and "land-use planning" (3) components of the Logical Framework of the Amazon Fund.

#### **Approved projects**

The project will implement several activities aligned with the PGTA of eight TIs in the state of Acre. Part of these activities is to encourage sustainable production, such as the enrichment and management of agroforestry systems in TIs (for food safety) and the training of AAFI for the provision of technical assistance and agricultural extension in economic activities of sustainable use of the forest and biodiversity.

Workshops for the review and implementation of the environmental and territorial management strategies of TI will be supported, with emphasis on agroforestry production, surveillance and territorial protection, and the articulation and involvement with the surrounding communities of TI will be promoted. Rainwater collection points will be installed in the eight TIs to facilitate the work routine, prevention and mitigation of shortage situations and improve the indigenous health conditions. Educational actions to raise awareness about the risks of the inadequate treatment of solid waste to human and environmental health will be carried out, as well as the mobilization for reuse, recycling or proper disposal of this waste.

In terms of territorial surveillance, trips will be made for monitoring and community surveillance of the limits of the three TIs by the Jordão River and Kaxinawá/Ashaninka, by the Breu River.

Thus, the project will contribute to the sustainable production in TIs and for its management consolidation and territory surveillance, ensuring that they will continue to be a territorial category that stands out due to its low deforestation rates. Studies show that the deforestation rate in TIs is substantially lower than in surrounding areas, correlating the importance of protected areas in maintaining the forest.

## **Approved projects**

# Profisc I – B

#### **PROJECT MANAGEMENT**

Brazilian Institute of Environment and Natural Resources (Ibama)<sup>47</sup>

**REGIONAL SCOPE** 

Brazilian Amazon

#### BENEFICIARIES

Brazilian Amazon population

#### OBJECTIVE

Support the activities of Ibama for environmental monitoring and control of deforestation in the Brazilian Amazon

#### TOTAL COST OF PROJECT

R\$ 140,264,000.00 US\$ 41,822,410.40

#### AMAZON FUND SUPPORT

R\$ 140,264,000.00 US\$ 41,822,410.40

#### **EXECUTION PERIOD**

36 months (from the signing date)

#### **PROJECT PROGRESS**

DATE OF APPROVAL	DATE OF CONTRACT	TOTAL AMOUNT DISBURSED	TOTAL PERCENTAGE DISBURSED IN RELATION TO THE AMAZON FUND'S SUPPORT	
3.19.2018	4.5.2018	R\$ 34,064,383.11 US\$ 10,156,951.25	24%	



<sup>&</sup>lt;sup>47</sup> Website of the project manager: http://www.ibama.gov.br/.

## Context

Since the creation of the Action Plan for Prevention and Control of Deforestation in the Brazilian Amazon (PPCDAm), Brazil has managed to considerably reduce the deforestation rate in the Amazon. PPCDAm is structured in four axes: landuse planning and tenure; environmental monitoring and control; promotion of sustainable productive activities; and economic and regulatory instruments. PPCDAm enlisted the collaboration of several ministries, as well as representatives of the civil society and the Amazonian states, and its implementation was coordinated by the Ministry of Environment (MMA).

Ibama is one of the main institutions of the Federal Government in the strategy to combat deforestation. According to the evaluation of the second phase of PPCDAm, the decrease in deforestation was mainly due to the inspection made by the agency, which were intensified in 2004.

To carry out the inspection, adequate means of transportation are required for this type of operation in the Amazon region, such as 4x4 pick-ups for on-ground actions and helicopters for air actions. Historically, Ibama had such means and monitored the forest with considerable success. However, in recent years, this environmental agency has adopted a contingency budget as a result of the country's fiscal situation.

## The project

The project is a continuation of the previous support of the Amazon Fund to the autarchy (Project Strengthening of Environmental Monitoring and Control for Fighting Illegal Deforestation in the Amazon) and aims to provide budget for payment of adequate means of transportation for environmental monitoring. The operation will be carried out through the rental of pick-ups and helicopters to be used in monitoring actions on the field.

The activities are concentrated in regions that suffer greater deforestation pressure, according to warnings issued by the Real-time Deforestation Detection System (Deter), among others.

The project is part of the exemption established by the Amazon Fund Steering Committee (COFA) – as stated in the document Amazon Fund's Support Focuses in 2017 and 2018 – regarding the condition for additionality of funds for "projects that aim to continue or improve environmental monitoring and deforestation control, presented by federal or state agencies or public institutions with legal mandate for monitoring."

## **Intervention** logic

The project is part of the "monitoring and control" (2) component of the Logical Framework of the Amazon Fund.

The Amazon Fund resources aim to ensure land vehicles and helicopters for environmental monitoring and surveillance activities in the Amazon, providing thus operational structure for Ibama to suppress environmental crimes.

Ibama is one of the main environmental institutions of the country, responsible, among other duties, for the licensing of most of the large projects and for relevant environmental and deforestation monitoring actions in Brazil.

Command and control actions performed by Ibama were considered determining factors in reducing deforestation rates in the Amazon. With the project, logistics funds will be available for the implementation of new actions to suppress environmental crimes in the entire Brazilian Amazon region (with greater focus on regions of the arc of deforestation), ensuring the adequacy of the anthropic activities with the environmental legislation and, consequently, promoting forest conservation.



## Land Regularization

#### **PROJECT MANAGEMENT**

State of Mato Grosso – Office of Articulation and Regional Development (GDR/MT)<sup>48</sup>

#### **REGIONAL SCOPE**

State of Mato Grosso

#### BENEFICIARIES

Land-holders of settlements of agrarian reform and of public (state and federal) lands

#### OBJECTIVE

To modernize the land management in the state and contribute to the regularization of public areas and settlements, at both state and federal levels.

#### TOTAL COST OF PROJECT

R\$ 72,900,000.00 US\$ 21,932,727.60

### AMAZON FUND SUPPORT

R\$ 72,900,000.00 US\$ 21,932,727.60

#### **EXECUTION PERIOD**

60 months (from the signing date)

#### PROJECT PROGRESS

DATE OF APPROVAL	DATE OF CONTRACT	TOTAL AMOUNT DISBURSED	TOTAL PERCENTAGE DISBURSED IN RELATION TO THE AMAZON FUND'S SUPPORT	
4.2.2018	6.26.2018	R\$ 6,320,250.00 US\$ 1,901,513.33	9%	



<sup>&</sup>lt;sup>48</sup> Website of the project manager: http://www.mt.gov.br/gabinete-de-desenvolvimento-regional.

## Context

Data on the occupants of the agrarian reform settlements and the public lands and on the perimeter of occupied lands, overlapping titles, agrarian and land litigation in the state of Mato Grosso is partially outdated. Also, there is low integration between the land register agencies at state and federal levels.

## The project

Land Regularization aims to reduce land conflicts and illegal deforestation, and to strengthen family agriculture in the municipalities located at the Amazon region of Mato Grosso, through the regularization of settlements and public lands, at state and federal levels, and the modernization of land management at state level, integrating it with that of the federal level.

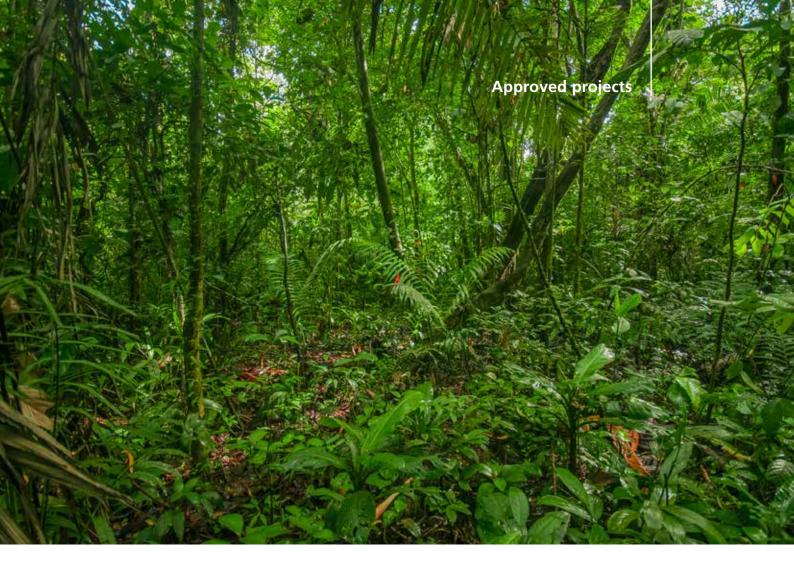
The project is part of the Sustainable Municipalities Program (PMS), which aims to promote the sustainable development of municipalities through the strengthening of the local economy; improvement of municipal public governance; promotion of legal security; conservation of natural resources; environmental recovery; and reduction of social inequalities.

## **Intervention** logic

The project is part of the "land-use planning" (3) component of the Logical Framework of the Amazon Fund.

The diagnosis of the Amazon shows the occurrence of overlapping titles of property, illegal deforestation and land grabbing (illegal occupation) of public lands, in addition to serious land conflicts.

The activities of the project aim to regularize the public lands and agrarian reform settlements, as well as improve land management. To do so, the following measures will be taken: preservation of the documentary collection of the Mato Grosso Institute of Lands (Intermat); renewal of physical infrastructure and of information technology (IT) in Intermat; integration of data and maps of titles from Intermat's collection of the current state system of land management; geodetic georeferencing of rural real estate and lands; identification and socioeconomic survey of occupants; inclusion of data on the occupants and the georeferencing of the properties in the systems with overlaps and conflicts; workshops of mediation and conflict resolution and training of public servants in agrarian regularization.



The aim of the project is to enlarge the area of the state of Mato Grosso with regular land situation within Intermat, the National Institute of Colonization and Agrarian Reform (Incra) and the Secretariat of Land Tenure Agrarian Regularization in the Brazilian Amazon of the Federal Government.

Thus, it is expected to contribute to the reduction of illegal deforestation and conflicts over land possession, as well as strengthen family agriculture in the municipalities of the state. In parallel, the project aims to modernize the infrastructure of the land management at the state level and promote its articulation at the federal level, contributing to the orderly occupation of the Amazon territory after its execution period.

## **Tapajós Active Forest**

#### **PROJECT MANAGEMENT**

Center for Advanced Studies in Social and Environmental Promotion - Ceaps (Health and Joy Project)49

#### **REGIONAL SCOPE**

Rural areas of the municipalities of Santarém, Belterra, Aveiro and Juruti, in the state of Pará, including actions forest productive in: two protected areas (PA): Tapajós National Forest (Flona) and Tapajós-Arapiuns Extractive Reserve (Resex); community-based five agroextrativist settlement projects (PAE): Lago Grande, Santa Rita, Salé, Valha-me Deus and Balaio; four agroextractive settlement state projects (Peaex): Aruã, Vista Alegre, Mariazinha and Curumuci; and a Federal Settlement Project (PA): Moju I and II

#### **BENEFICIARIES**

Riverside communities, agroextractivists, family farmers

#### OBJECTIVE

To strengthen nontimber chains, tourism and entrepreneurship in the Tapajós region of Western Pará

#### **TOTAL COST OF PROJECT**

R\$ 12,493,011.00 US\$ 3,588,811.30

#### AMAZON FUND SUPPORT

R\$ 12,493,011.00 US\$ 3,588,811.30

#### **EXECUTION PERIOD**

36 months (from the signing date)

#### **PROJECT PROGRESS**

DATE OF APPROVAL	DATE OF CONTRACT	TOTAL AMOUNT DISBURSED	TOTAL PERCENTAGE DISBURSED IN RELATION TO THE AMAZON FUND'S SUPPORT	
5.2.2018	7.24.2018	R\$ 1,763,100.00 US\$ 506,477.83	14%	



<sup>49</sup> Website of the project manager: http://www.saudeealegria.org.br/.

## Context

Western Pará has a history of predatory exploitation of natural resources. Its occupation occurred partly through illegal deforestation and occupation of public lands. The traditional populations, which occupy the settlements and protected areas in the region, are organized in communities ranging from thirty to two hundred families, many in remote areas, distant up to twenty hours by boat from urban centers. These populations live in poor conditions, with difficulties in guaranteeing their own subsistence. The average human development index (HDI) of the municipalities covered by the project is 0.585 (the national figure is 0.754).<sup>50</sup>

In general, a large part of the residents are beneficiaries of income distribution programs such as Bolsa Família and Bolsa Verde. Public transportation, sanitation, energy and communication services are still insufficient. Most communities do not have high schools. The rural exodus mainly affects younger people, who end up migrating to the cities, due to lack of local opportunities for study or work. Women accumulate long hours as they work in the household, taking care of the children and the older people, besides working on lands and plantations. The project is expected to help transform this situation by offering opportunities for training and income generation.

Most families depend on subsistence economy, with cassava flour being their main source of income, complemented by perennial crops in the backyards, fishing, hunting and farming of small animals, handicrafts, extraction of rubber and oils (mainly *andiroba* and *copaiba*).

The predominant agricultural production system is still based on the practice of "cutting and burning," which is a vector of deforestation, by opening new cropping areas and does not guarantee food security or income improvement. Some initiatives improve production and value added to economic activities, but the agroextractivism still lacks effective strategies to identify and maximize the productive chains and facilitate the access of products to the market.

# The project

The aim of the project is to expand the scale of production, improve the production process and increase the commercial insertion of the productive chains of vegetable oils, meliponiculture, seeds and seedlings,

<sup>&</sup>lt;sup>50</sup> Source: IBGE – INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA. Indicadores Sociais Municipais. Available at: https://ww2.ibge.gov.br/home/estatistica/populacao/censo2010/indicadores\_sociais\_municipais/ indicadores\_sociais\_municipais\_tab\_zip.shtm. Accessed on: March 1<sup>st</sup>, 2018.

in the Tapajós region. The dissemination of agroecological production practices and the expansion of crafts and community-based tourism are also anticipated in order to create alternative income generation for vulnerable populations and make the maintenance of the standing forest attractive.

Hostels, receptive centers and a handicraft house will be built. Three tourist inventories and three visitation plans will be carried out, and qualification and work on communication will be provided for the local population. The implementation of processing units of vegetable oils and honey are expected, as well as units for storage of seeds, a warehouse and a complex of plant nurseries, among others.

The project also contemplates the extension of an educational center that disseminates sustainable forest management practices and agroecology, with an area of approximately 2,000 hectares in the Tapajós-Arapiuns Resex, called Active Forest Experimental Center (Cefa). Currently, the center is equipped with accommodation, spaces for educational activities for two hundred people, a nursery of seedlings, a vegetable garden, a breeding unit for bees, a fish tank and several native fruit-bearing species. The investments aim to expand and diversify Cefa's demonstrative production units to make it a reference space for theoretical training and practice of agroecological techniques and for the generation of socioenvironmental technologies that may be appropriate for the sustainable productive chains in the region.

## Intervention logic

The project is part of the "sustainable production" (1) and "science innovation and economic instruments" (4) components of the Logical Framework of the Amazon Fund.

The promotion of sustainable production is the main focus of the project, including the preparation of studies of economic potential and business plans of socio-biodiversity productive chains, as well as the support for honey production and processing, the construction of units for storage and marketing of seeds, the handicraft house and tourist receptive centers and hostels, besides the support and other productive activities.

The activities present in this component aim to identify and develop economic activities of sustainable use of the forest and biodiversity at PAs and agrarian reform settlements covered by the project, including the addition of value to these chains, as well as the managerial and technical capacity of local communities for the implementation of these economic activities.

The sustainable economic activities supported are expected to have economic attractiveness at PAs and at the federal and state settlements benefited, promoting productive inclusion of people and traditional communities and encouraging productive models that preserve the standing forest. The project also aims at the creation of a seeds laboratory at the Federal University of Western Pará (Ufopa) to be used in research on forestry seeds that collaborate with the project. Thus, the project also contributes to the "science, innovation and economic instruments" (4) component of the Logical Framework of the Amazon Fund by providing the production and use of knowledge and technology related to the conservation and sustainable use of biodiversity.



### **Approved projects**

### Amazônia Agroecológica project

#### **PROJECT MANAGEMENT**

Federation of Agencies for Social and Educational Assistance (Fase)<sup>51</sup>

#### **REGIONAL SCOPE**

Alenguer, Almeirim, Aveiro, Belterra, Juruti, Mojuí dos Campos, Monte Alegre, Óbidos, Oriximiná and Santarém; To strengthen Itaituba, Jacareacanga, Novo Progresso, Rurópolis and Trairão; Altamira, Anapu, Brasil Novo, Gurupá, Medicilândia, Pacajá, Placas, Porto de Moz, São Félix do Xingu and Uruará; Abaetetuba, Igarapé Miri, Acará, Baião, Cachoeira do Piriá, Cametá, Capitão Poço, Irituia, Mãe do Rio, Mocajuba, Moju, Ourém, Santa Isabel, Santa Luzia do Pará, São Miguel do Guamá and Viseu (PA) by the beneficiary Cáceres, Poconé, Nossa Senhora Livramento, Chapada dos Guimarães, Cuiabá and Jangada (MT)

#### **BENEFICIARIES**

Traditional communities, indigenous people and family farmers

#### OBJECTIVE

sustainable economic activities through a public call for the selection of small projects and actions to be directly undertaken

#### **TOTAL COST OF PROJECT**

R\$ 17,547,560.00 US\$ 4,736,950.65

### **AMAZON FUND SUPPORT**

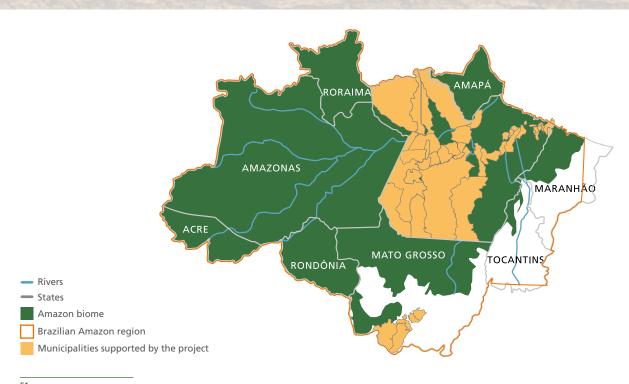
R\$ 17,547,560.00 US\$ 4,736,950.65

### **EXECUTION PERIOD**

36 months (from the signing date)

#### **PROJECT PROGRESS**

DATE OF APPROVAL	DATE OF CONTRACT	TOTAL AMOUNT DISBURSED	TOTAL PERCENTAGE DISBURSED IN RELATION TO THE AMAZON FUND'S SUPPORT
6.13.2018	9.17.2018	R\$ 2,155,451.00 US\$ 581,862.37	12%



<sup>&</sup>lt;sup>51</sup> Website of the project manager: https://fase.org.br/.

### Context

The project covers 41 municipalities in the state of Pará and six municipalities in the state of Mato Grosso. This territory includes the first Sustainable Forest District of Brazil (DFS) of the BR-163 road, where the Regional Sustainable Development Plan of this highway is being developed. The region has a high deforestation rate and a high population density for the Amazon standards.

The population covered by the project is predominantly composed of riverside communities, indigenous, *quilombolas*, fishermen and farmers. Although engaged in sustainable activities, they have limited purchasing power and present economic and socioenvironmental vulnerability, with low and medium human development index (HDI) and food and nutrition security (SAN). They also endure pressures associated with the expansion of extensive livestock production, mineral extraction and the monoculture of agricultural commodities, as well as with the implementation of major infrastructure projects.

This is the second project of the Federation of Agencies for Social and Educational Assistance (Fase) supported by the Amazon Fund. For information about the first project, visit: http://www.fundoamazonia.gov.br/pt/projeto/Fundo-Dema/.

### The project

Within the scope of the project, a public call is proposed for up to sixty low-value projects of local communities under the themes "economic activities developed from the sustainable use of the forest," "food and nutrition security," and "conservation and sustainable use of biodiversity." Training workshops in project design, management and monitoring of the results of community projects geared to the target audience of the public call are also expected.

The project also offers direct support to small projects in the regions of Cáceres, Baixada Cuiabana, Baixo Tocantins and agroextractivist settlement project (PAE) of Lago Grande, including the implementation and reform of productive infrastructures systems, training activities, technical assistance, processing and marketing, as well as environmental conservation practices. Also, the implementation of nurseries, apiaries and meliponaries are expected, as well as the construction of biodigesters to produce biogas and fertilizers, the reform of community bakeries and flour houses, in addition to the implementation and restructuring of agribusiness units, among others.

The project is expected to revitalize the Tipiti Training Center (area of study and development of agroecological practices for the marketing of products from family agriculture in Abaetetuba, in Baixo Tocantins); to make annual technical visits to communities and families involved; in addition to training workshops and exchange of experiences, among others.

### Intervention logic

The project is part of the "sustainable production" (1) component of the Logical Framework of the Amazon Fund.

The activities of the project include public call for the support of up to sixty subprojects and direct support to the infrastructure for beekeeping, meliponiculture, poultry farming and production of biogas and fertilizers, as well as the provision of technical assistance for the implementation of the activities supported.

Aiming at the addition of value to the chains of agroforestry products, the following measures are expected: implementation and reform of agribusiness units, flour houses and community bakeries; feasibility studies and diagnoses of the suitable sanitary standards; and the implementation of actions directed to the marketing of socio-biodiversity products.

In order to expand management and technical capacities for the implementation of economic activities of sustainable use of the forest and biodiversity, the project aims to provide for the consolidation of participatory governance mechanisms of the projects and qualification in the creation and management of projects and in management techniques, production and processing of socio-biodiversity products, among other initiatives.

Plant nurseries, agroforestry systems (SAF and Sasp), backyards and medicinal vegetable gardens will be implemented to recover deforestation and forest degradation. The consolidation of a seed exchange network is also expected, as well as studies and the publication of booklets on agricultural production and environmental conservation.

All these activities shall promote the recovery of deforested areas and the general improvement of the quality of ecosystems, in addition to generating income to the beneficiary populations who live in geographically isolated regions, characterized by the absence of adequate infrastructure. Diversified farming activities, management of biodiversity, as well as support to sales channels and small-scale food processing may ensure the maintenance of jobs, providing a dignified life to the families and the forest's conservation.

### Pact for the Forest

#### **PROJECT MANAGEMENT**

**Elaboration and Development** of Socioenvironmental Projects (Pacto das Águas)<sup>52</sup>

### **REGIONAL SCOPE**

Alta Floresta d'Oeste, Costa Marques, Guajará-Mirim, Ji-Paraná, Nova Mamoré, São Francisco do Guaporé and São Miguel do Guaporé (RO)

#### BENEFICIARIES

Indigenous peoples and traditional communities

### OBJECTIVE

To support the consolidation of the productive chain of Brazil nuts and strengthen productive activities related to açaí, cassava flour and natural rubber in two indigenous lands (TI) and three extractive reserves in Rondônia

### TOTAL COST OF PROJECT

R\$ 8,700,000.00 US\$ 2,348,558.47

### **AMAZON FUND SUPPORT**

R\$ 8,700,000.00 US\$ 2,348,558.47

#### **EXECUTION PERIOD**

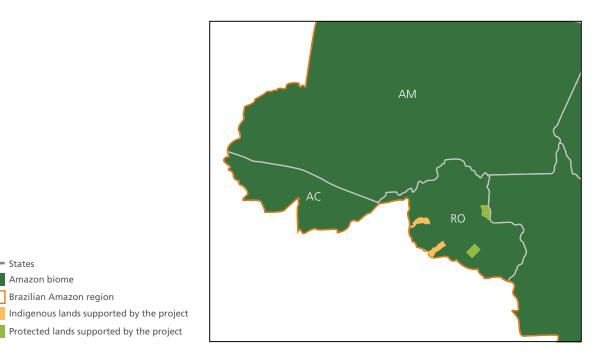
36 months (from the signing date)

#### **PROJECT PROGRESS**

 States Amazon biome

Brazilian Amazon region

DATE OF APPROVAL	DATE OF CONTRACT	TOTAL AMOUNT DISBURSED	TOTAL PERCENTAGE DISBURSED IN RELATION TO THE AMAZON FUND'S SUPPORT
6.13.2018	8.14.2018	R\$ 1,299,723.29 US\$ 350,859.32	15%



<sup>&</sup>lt;sup>52</sup> Website of the project manager https://www.pactodasaguas.org.br/.

### Context

The TI Igarapé Lourdes and the TI Rio Branco and the state and federal extractive reserves (Resex) of Cautário River and Ouro Preto River, located in Rondônia, are protected areas of relevance for conservation; their territories suffer serious pressures from illegal activities, such as illegal exploitation, mining activities, illegal hunting and fishing and land grabbing.

The sustainable production promoted by traditional peoples and communities fulfill an important role in the maintenance of the standing forest, besides generating income for these communities; the extraction of Brazil nuts is the main economic activity in these five territories.

However, the consolidation of the chains of socio-biodiversity products, among other challenges, still lacks infrastructure for production, processing and distribution, increase in the capacities of local organizations, insertion into new markets, and provision of technical assistance.

### The project

The project aims at the consolidation of the productive chain of Brazil nuts through: (i) construction and expansion of infrastructure of collection, storage and processing of nuts; (ii) qualification of communities in good manufacturing practices; (iii) addition of value through processing and organic certification; and (iv) prospection for different markets and formation of new business partnerships.

Also, the project anticipates the strengthening of community organizations for management of funds, projects, organization of production and prospection of new markets, and the articulation with key actors for working in networks, aiming at the strengthening of the socio-biodiversity chains.

The project contemplates actions to strengthen productive chains that are complementary to that of Brazil nuts (*açaí* berry,, cassava flour and natural rubber), contributing to the stability in the generation of income for these populations throughout the year.

### **Intervention** logic

The project is part of the "sustainable production" (1) component of the Logical Framework of the Amazon Fund.

Actions will be supported to structure the extractive activities of Brazil nuts, açaí and latex in five protected areas located in the state of Rondônia, namely: two TIs and three protected areas (PA) of sustainable use, i.e., PAs whose basic goal is to reconcile nature conservation with sustainable use of some of their natural



resources. Value will also be added to these chains of socio-biodiversity products, through processing and certification of its source.

The expansion of cassava flour production is also expected, as well as the expansion of managerial and technical capacities for the implementation of economic activities of sustainable use of the forest and socio-biodiversity. Actions will be developed to consolidate the governance of local community organizations, including their qualification in associativism and good practices of management processes, storage, transportation and processing of the products from socio-biodiversity.

With this set of actions, it is expected that the activities that maintain the standing forest have economic attractiveness in the protected areas covered by the project, promoting food security and generating income for indigenous peoples and extractive communities, as well as encouraging productive models that preserve the standing forest.

Thus, the project is expected to contribute to the maintenance of these protected areas as territorial categories that stand out by low rates of deforestation.

### **CAR Espírito Santo**

#### **PROJECT MANAGEMENT**

Institute of Agricultural and Forestry Defense of Espírito Santo (Idaf)<sup>53</sup>

### **REGIONAL SCOPE**

All municipalities of the state of Espírito Santo

#### **BENEFICIARIES**

Owners or settlers of rural properties with up to four fiscal modules who develop agroforestry activities through actions of Rural Environmental Registry (CAR), as well as the state of Espírito Santo through support to the analysis of CAR and improvement of the infrastructure for the implementation of CAR

#### OBJECTIVE

To support the implementation of CAR in the state of Espírito Santo

#### TOTAL COST OF PROJECT

R\$ 17,361,800.00 US\$ 4,624,510.56

### AMAZON FUND SUPPORT

R\$ 13,889,440.00 US\$ 3,699,608.45

### **EXECUTION PERIOD**

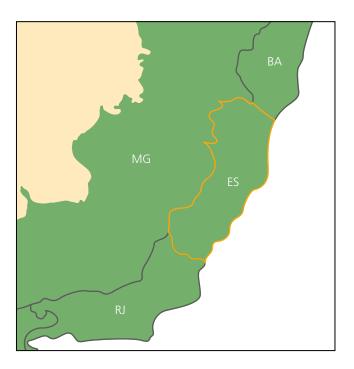
24 months (from the signing date)

#### **PROJECT PROGRESS**

DATE OF APPROVAL	DATE OF CONTRACT	TOTAL AMOUNT DISBURSED	TOTAL PERCENTAGE DISBURSED IN RELATION TO THE AMAZON FUND'S SUPPORT	
6.13.2018	10.3.2018		0%	



States
 State supported by the project
 Biomes
 Caatinga
 Cerrado
 Mata Atlântica



53 Website of the project manager: https://idaf.es.gov.br/.

### Context

With the enactment of the current Forest Code (Law N°. 12,651/2012), CAR was established as a national public electronic registration, mandatory for all rural properties, with the purpose of integrating the environmental information of the properties and land possessions, composing a database for control, monitoring, environmental and economic planning and combat against deforestation.

As provided for in Decree N°. 7,830/2012, the competent environmental agency will conduct the analysis and validation of registries, and, in case pending issues or inconsistencies are detected in the information declared and in the documents submitted, notify the applicant to provide additional information or promote correction and adequacy of the information submitted.

The state of Espírito Santo supports small farmers in the registration of their properties in CAR and analyzes and validates registries of all sizes. However, it faces challenges in the implementation and validation of CAR in all its territory.

### The project

The project is part of the strategy of the state for the implementation of CAR, since it aims to support the registration of 59,000 rural properties of up to four fiscal modules, and the analysis of 78,000 rural environmental registries of the state of Espírito Santo. It is structured into three components: (i) promotion and support to the registration in CAR; (ii) support to the analysis of CAR; and (iii) infrastructure for the implementation of CAR.

The support to the first component includes the hiring of services in order to make the registration desired. The second includes the hiring of support services for registry analysis. And the third component comprises the improvement of Idaf infrastructure and of the qualification of public agents.

The project stands out for its steps of registration and analysis, advancing in the implementation of CAR in the state of Espírito Santo. Its goal is to register all the rural properties of up to four fiscal modules in the state of Espírito Santo, and analyze the registry of all rural properties in the state.

### **Intervention** logic

The project is part of the "monitoring and control" (2) component of the Logical Framework of the Amazon Fund.

The actions supported aim to increase the access of rural producers from the state of Espírito Santo to the environmental regularization of their establishments by raising awareness of the benefits of the registration in CAR and the support to the registration of rural properties of up to four fiscal modules. The support to the registration includes, among other activities, the active search of properties of up to four fiscal modules for the execution of applications for registration in CAR; the georeferencing of the vertices of the property, if necessary; and the insertion of environmental data relating to the legal reserve, the areas of permanent preservation (APP), the native vegetation, water resources and environmental liabilities in the Integrated System for Environmental Licensing and Monitoring (Simlam).

The project includes the structuring and modernization of Idaf for the implementation and management of CAR and support to the analysis of registries of rural properties in Espírito Santo. To do so, equipment and vehicles will be acquired, software will be licensed, and public agents will be trained in CAR-related systems.

Through the actions supported, the objective is that agricultural activities in the state of Espírito Santo respect environmental legislation, promoting the conservation of forests and areas of native vegetation on private properties, reducing deforestation, environmental liabilities and conserving native forests.

### PPP-Ecos in the Amazon – Phase 2

#### **PROJECT MANAGEMENT**

Society, Population and Nature Institute (ISPN)<sup>54</sup>

### **REGIONAL SCOPE**

States of Mato Grosso, Tocantins and part of the state of Maranhão, within the limits of the Brazilian Amazon

#### BENEFICIARIES

Populations of rural, traditional, indigenous, *quilombola*, riverside, fishermen, and extractive communities

#### OBJECTIVE

To support structuring projects of sustainable productive chains through public calls within the Small Eco-social Projects Program (PPP-Ecos)

### TOTAL COST OF PROJECT

R\$ 25,934,973.53 US\$ 6,220,225.81

### AMAZON FUND SUPPORT

R\$ 22,765,773.53 US\$ 5,460,127.11

### **EXECUTION PERIOD**

48 months (from the signing date)

#### **PROJECT PROGRESS**

DATE OF	DATE OF	TOTAL AMOUNT	TOTAL PERCENTAGE DISBURSED IN RELATION
APPROVAL	CONTRACT	DISBURSED	TO THE AMAZON FUND'S SUPPORT
9.18.2018	12.20.2018	Cont	0%



<sup>&</sup>lt;sup>54</sup> Website of the project manager: http://www.ispn.org.br/.

### Context

In the last two decades, command and control actions were very important for the reduction in deforestation rates in the Amazon. However, although fundamental, the potential of these actions to reduce deforestation has been reaching its limit, mainly due to the reduction in the size of deforestation polygons, which hinders its detection by monitoring systems and increasing supervision costs.

In this scenario, the promotion to projects that support the sustainable use of natural resources is an alternative to address the new dynamics of deforestation and transform the pattern of occupation of the Amazon, which is still heavily based on forest conversion to other land-use systems, such as extensive cattle breeding. Thus, to develop sustainable productive activities that allow environmental conservation is a relevant strategy to pursue the reduction in deforestation rates in the Amazon and provide incomegenerating alternatives to people who live in the forest.

This project aims to continue the first project of ISPN supported by the Amazon Fund (for more information, visit: http://www.fundoamazonia.gov.br/pt/projeto/Pequenos-Projetos-Ecossociais-na-Amazonia/).

### The project

The project is organized into three axes: public calls for small projects, strengthening of community institutions and systematization and dissemination of information, the first – release of public calls for small projects – is the central axis of the project. The other components will promote the qualification of the beneficiaries, the registration of experiences for the disclosure and evaluation of results, and the production of technical content in support of community projects, such as knowledge of health conditions. Small projects must fit into one or more themes of the following areas:

**Economic activities developed from the sustainable use of vegetation:** actions for adding value and marketing of agroforestry products. Community processing and marketing strategies and activities associated with projects. Examples: business plans, communication and marketing plans, product development, registries, certification and licensing, among other strategies.

**Conservation and sustainable use of biodiversity:** actions for sustainable use of socio-biodiversity, associated with the maintenance of natural ecosystems. Examples: actions for territorial and environmental management, in situ conservation of threatened species, agroecological productive systems, prevention and rational use of fire and others.

**Recovery of deforested areas:** actions such as the implementation and consolidation of agroforestry systems (SAF) and other forms of recovery of

deforested areas, recovery of areas of permanent preservation (APP) and legal reserves and soil erosion control, among others.

**Cross-sectional themes:** actions related to other themes that promote regional development and reduce the impacts on deforestation and forest degradation. For example, through the articulation for the agrarian regularization of traditional territories etc.

### **Intervention** logic

The project is part of the "sustainable production" (1) component of the Logical Framework of the Amazon Fund.

The central axis of the project is the implementation of small subprojects to be selected through public calls, which enable the development of productive activities aligned to the conservation and sustainable use of the Brazilian Amazon.

These subprojects shall promote economic activities based on the sustainable use of the vegetation, the conservation and sustainable use of biodiversity and recovery of deforested areas.

Training, consulting, management and technical actions are also expected for the subprojects supported, as well as the dissemination of technical information through publications and application, aiming to enhance the managerial and technical capacity of the community organizations and traditional populations for the development of economic activities of sustainable use of the forest and biodiversity.

The sustainable economic activities supported are expected to have economic attractiveness in their area, promoting the productive inclusion of people and traditional communities and encouraging productive models that preserve the standing forest.

### **CAR** Amazonas

#### **PROJECT MANAGEMENT**

State of Amazonas, through the Secretariat of the Environment in the State of Pará (Sema-AM)<sup>55</sup>

### **REGIONAL SCOPE**

36 municipalities in the state of Amazonas

#### **BENEFICIARIES**

Owners or settlers of rural properties with up to four fiscal modules of 36 municipalities through actions for registration on the Rural Environmental Registry (CAR), as well as the state of Amazonas, through the improvement of infrastructure and software for the implementation of CAR

#### OBJECTIVE

To support the implementation of CAR in properties with up to four fiscal modules

### TOTAL COST OF PROJECT

R\$ 29,867,722.00 US\$ 7,459,657.33

### AMAZON FUND SUPPORT

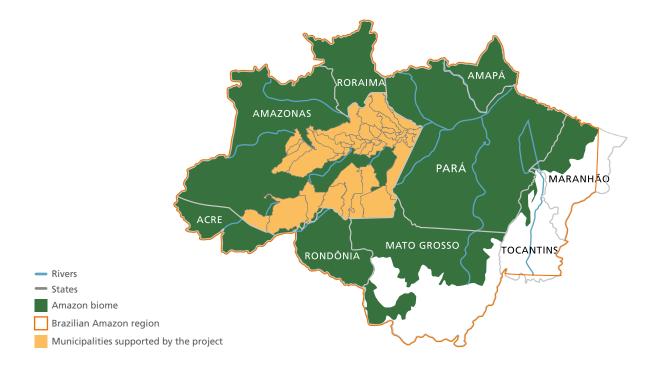
R\$ 29,867,722.00 US\$ 7,459,657.33

### **EXECUTION PERIOD**

36 months (from the signing date)

PROJECT PROGRESS
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DATE OF	DATE OF	TOTAL AMOUNT	TOTAL PERCENTAGE DISBURSED IN RELATION
APPROVAL	CONTRACT	DISBURSED	TO THE AMAZON FUND'S SUPPORT
10.1.2018	-Provinces	The second	0%



<sup>55</sup> Website of the project manager: http://www.ipaam.am.gov.br/.

### Context

The Rural Environmental Registry (CAR) consists of an electronic registry of georeferenced spatial information of rural properties, with delimitation of areas of permanent protection (APP), Legal Reserves (RL), remnants of native vegetation, consolidated rural area and social areas of interest and public utility. With the enactment of the new Forest Code (Law N°. 12,651/2012), CAR became mandatory for all rural properties, with the purpose of integrating the environmental information of rural properties and land possessions, composing thus a database for control, monitoring, environmental and economic planning and combat against deforestation.

CAR registration enables the environmental and economic planning of the use and occupation of rural property, and it represents a fundamental step in ensuring its environmental regularity.

### The project

The project is structured into two parts. the first one aims at the institutional strengthening of Sema-AM and the Amazonas Environmental Protection Institute (Ipaam), which are agencies responsible for the implementation of CAR in Amazonas; and the second one aims at the registration of 55,588 rural properties with up to four fiscal modules in 36 municipalities.

The project will support the development of software for customized solution of modules of Sicar-AM Platform, digital processing of cartographic base of the state of Amazonas, in addition to the development of institutional capabilities – with transfer of technology, technical and scientific support and qualification of human resources. Investments will also be made in the infrastructure of Ipaam, with the purpose of enhancing the analysis capability of registrations. To do so, a network expansion service will be conducted, and equipment will be acquired, such as a large server and computers with ability of image processing, geographical analysis and analysis procedures of the registries made.

For the registration of rural properties, the elaboration and disclosure of informative materials about CAR aim to provide the information necessary for the registration, in addition to clarifications about the benefits of CAR to the target audience. Several activities will also be developed, such as: awareness and mobilization, implementation of service counters, active search with itinerant teams and registration on Sicar. A specialized service will be hired to support the agency responsible for analyzing the registrations, including the qualification of sixty professionals, among servers of Ipaam and employees of the service provider.

### **Intervention** logic

The project is part of the "monitoring and control" (2) component of the Logical Framework of the Amazon Fund.

Awareness-raising actions about the benefits of registration in CAR will be provided to small rural producers, as well as the support for their registration, by collecting information of rural properties of up to four fiscal modules in the area of the project. These activities aim to broaden the access of these producers to the environmental regularization of their properties. One of the main merits of CAR is that it works like an inductor of production systems more adapted to the Amazon and, therefore, to environmental sustainability.

Furthermore, the environmental assets and liabilities of rural establishments are identified with CAR, enabling the management of these assets regarding planning and implementation of actions for recovery of deforested areas that need to be reforested due to legal determination. An important function of CAR is that, in case of land possessions, it formally identifies the settlers of these properties (individuals occupying a rural property without a title to ownership), establishing the possibility of holding them accountable for environmental violations that may occur in these properties.

The project also aims to structure and modernize Sema-AM for the implementation and management of CAR. To do so, information technology and communication equipment will be acquired, the training of public agents and the support to the analysis of the registry of rural properties in the Amazon will be provided, as well as the development and integration of computerized tools (software) for analysis of CAR, the preparation of land use maps, and the compatibility of cartographic bases.

The objective of this project is to contribute to the compliance with the environmental legislation of the agricultural activities of the state of Amazonas, resulting in the reduction of deforestation and the recovery of environmental liabilities.

### Integrated Legacy of the Amazon Region (Lira)

#### **PROJECT MANAGEMENT**

Institute for Ecological Research (IPÊ)<sup>56</sup>

#### **REGIONAL SCOPE**

Brazilian Amazon

#### BENEFICIARIES

Indigenous and *quilombola* people, agrarian reform settlers, artisanal fishers, family farmers and fish farmers located in the Brazilian Amazon

### OBJECTIVE

To increase the level of consolidation and effectiveness of management in protected areas of the Brazilian Amazon, through the public call for projects and complementary activities aimed at the conservation of natural resources

### TOTAL COST OF PROJECT

R\$ 61,350,000.00 US\$ 15,881,850.42

### AMAZON FUND SUPPORT

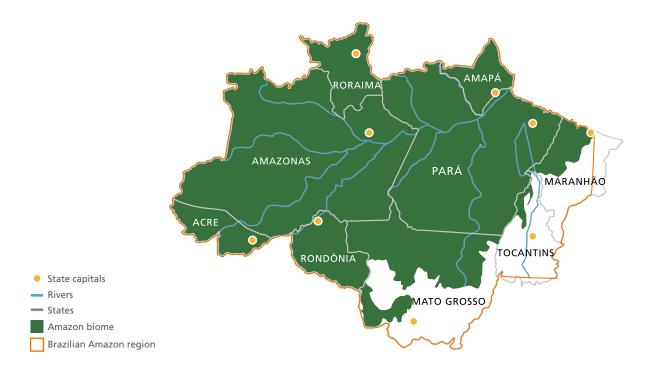
R\$ 45,000,000.00 US\$ 11,649,279.04

### **EXECUTION PERIOD**

48 months (from the signing date)

#### **PROJECT PROGRESS**

DATE OF	DATE OF	TOTAL AMOUNT	TOTAL PERCENTAGE DISBURSED IN RELATION
APPROVAL	CONTRACT	DISBURSED	TO THE AMAZON FUND'S SUPPORT
10.30.2018	12.13.2018		0%



<sup>&</sup>lt;sup>56</sup> Website of the project manager: https://www.ipe.org.br/.

### Context

The creation and maintenance of protected areas contribute to the reduction in deforestation and to the climatic balance, among other benefits. However, these areas are facing difficulties related to structure, management and implementation of activities of agrarian regularization and to the promotion of sustainable productive activities. This situation aggravates social conflicts and the risk of deforestation and forest degradation in the protected areas of the Amazon, leaving the forest vulnerable, as well as the biodiversity and the traditional peoples and communities living there.

This project is the result of a partnership between the Gordon and Betty Moore Foundation and BNDES through the Amazon Fund, to create a coordinated structuring action to support prevention, monitoring and combat against deforestation in the Brazilian Amazon. The Moore Foundation, financial and technical partner of the project, will support its implementation with up to R\$ 16,350,000.00.

### The project

The Lira Project aims to contribute to the increase in the level of consolidation and the effectiveness of management in protected areas of the Brazilian Amazon, through the public call of projects and complementary activities aimed at the conservation of natural resources.

The potential area of influence of the Lira Project will comprise a territory that encompasses 83 protected areas, in six regional blocks, totaling an area of almost 80 million hectares, comprising 41 indigenous lands (TI) and 42 protected areas (PA).

The central axis is the release of a public call for projects to support up to 12 projects that aim to promote the consolidation of protected areas in the Brazilian Amazon, with value range of at least R\$ 1.5 million and R\$ 6 million at most. Two projects will be selected in each one of the six regional blocks defined by the Ipê Institute, namely: Xingu, Calha Norte, Alto Rio Negro, Baixo Rio Negro, Madeira and Rondônia.

The proposals of the public call will follow the "unifying-unified" model. In this model, the unifying entity – the proposing institution – coordinates an integrated arrangement of subprojects of other organizations, the unified entities, which will perform activities aimed at the objective of the notice. Also, support in the total amount of R\$ 6 million has been stipulated (but it may not exceed the limit of R\$ 150,000 for each activity) to small subprojects that promote social participation in the management of the territory and, consequently, expand job generation and income, improve the quality of life of the population and promote territory development with conservation of landscape, in addition to the activities to be contracted by the projects selected in the public call.

The Lira Project also includes qualification activities, through courses, technical visits and exchange programs; integration activities and diffusion of knowledge and the development of a socioenvironmental promotion plan (PPS) for each of the six blocks, which will identify the main opportunities and bottlenecks to the economic insertion of local populations in the regional economy. Finally, the adaptation of existing technological solutions will be supported for the use in biodiversity monitoring activities and territorial protection.

### Intervention logic

The project is part of the "sustainable production" (1), "land-use planning" (3) and "science, innovation and economic instruments" (4) components of the Logical Framework of the Amazon Fund.

The main activity of the project is to carry out a public call, to be held by the IPÊ Institute, in order to promote the consolidation of protected areas in the Brazilian Amazon. The public call process is complemented by interventions that shall strengthen the projects selected and the territories covered, with qualification of the target group involved, strategic activities and diffusion of knowledge. Therefore, from the implementation of planned activities, the protected areas will be managed in an effective and consolidated way, reducing the internal pressures of deforestation, preserving biodiversity and its climate functions, as well as forming blocks in the landscape to deter the expansion of deforestation. Thus, the project will contribute to the "sustainable production" (1) and "land-use planning" (3) components of the Logical Framework of the Amazon Fund.

Regarding the "science, innovation and economic instruments" (4) component, the project aims to establish partnerships with technological nuclei and/ or universities to adapt and disseminate existing technological solutions in biodiversity monitoring activities and territorial protection, contributing thus to the monitoring and control of deforestation.

### **Environmental Regularization**

#### **PROJECT MANAGEMENT**

Brazilian Foundation for Sustainable Development (FBDS)<sup>57</sup>

#### **REGIONAL SCOPE**

Amazon biome

#### BENEFICIARIES

People and institutions that may use information related to environmental liabilities in areas of permanent preservation (APP) of water bodies and potential areas for recovery in protected areas (PA) and indigenous lands (TI), as well as the Brazilian government and environment state bodies, which will have a geospatial database integrated into the Rural Environmental Registry System (Sicar)

### OBJECTIVE

To support the environmental regularization process in the Amazon biome, through: (i) land cover and use mapping; (ii) calculation of environmental liabilities in areas of permanent preservation (APP) of water bodies and potential areas for recovery at PAs and Tls; and (iii) integration of geospatial database to Sicar

#### TOTAL COST OF PROJECT

R\$ 9,267,000.00 US\$ 2,398,726.48

### AMAZON FUND SUPPORT

R\$ 9,267,000.00 US\$ 2,398,726.48

### **EXECUTION PERIOD**

36 months (from the signing date)

#### **PROJECT PROGRESS**

DATE OF	DATE OF	TOTAL AMOUNT	TOTAL PERCENTAGE DISBURSED IN RELATION	
APPROVAL	CONTRACT	DISBURSED	TO THE AMAZON FUND'S SUPPORT	
12.3.2018		Contraction of the second	0%	



<sup>&</sup>lt;sup>57</sup> Website of the project manager: http://www.fbds.org.br/.

### Context

CAR, provided for by the current Forest Code (Law N°. 12.651/2012), consists of a mandatory public electronic registration, containing georeferenced spatial information of rural properties, including the delimitation of areas of permanent protection (APP), legal reserves (RL), remnants of native vegetation, consolidated rural area and areas of social interest and public utility. CAR aims to integrate the environmental information of rural properties and land possessions, composing a database for control, monitoring, environmental and economic planning and combat against deforestation.

CAR registration is made by the owners and settlers of rural properties by inserting this information in Sicar. After registration, the state environmental agency analyzes and validates the registries. In case of identification of environmental liabilities in the property registered, the owner or settler may require the adherence to Environmental Regularization Program (PRA), which is the set of actions or initiatives to be developed by rural owners and settlers to adapt and promote the environmental regularization.

CAR and PRA are important instruments to recover the vegetation cover and their effective implementation contributes to the achievement of commitments made by the Brazilian government regarding the reduction in emission of greenhouse gases in the Paris Agreement. In addition, the environmental recovery of degraded or deforested areas ensures the maintenance of environmental services such as climate regulation and maintenance of water bodies.

The project contributes to the implementation of CAR, since it aims to produce a georeferenced database about the coverage of the land use in the Amazon biome that will allow integration as a new module of Sicar and support the steps of analysis and validation of CAR by the states.

### The project

The project proposes to map the land cover and use, and map and update hydrographic networks of the entire Amazon biome, in high-precision scale (1:20.000), using satellite images of the Sicar as reference. This mapping will enable the monitoring of land use in the scale of properties, PAs and TIs, as well as the demarcation of APP of water bodies and the calculation of environmental liabilities in APP of water.

The maps generated will be consolidated into a georeferenced database that will be integrated into Sicar, composing a new module of the platform, with free access to state and municipal administrators. This database will be an instrument of analysis and validation of registries for the states and municipalities, allowing for better visualization of APP of water bodies, as well as the land use and cover in the rural properties of the Amazon biome.

Finally, the project provides for the dissemination of information generated along with the agencies responsible for the implementation of the environmental policy in the states of the Amazon biome, Ministry of Environment, managing bodies at PAs and TIs.

Thus, the project will contribute to the identification of environmental liabilities and to the improvement in the process of analysis and validation of registries within Sicar. In addition, the thematic bases and the maps generated by the project can be a subsidy for the implementation of CAR and other public policies aimed at the control of deforestation, environmental management, recovery of vegetation cover, and management of water resources in the local, state and federal spheres.

### Intervention logic

The project is part of the "monitoring and control" (2) and "science, innovation and economic instruments" (4) components of the Logical Framework of the Amazon Fund.

The project proposes to map the land cover and hydrography for all the Amazon biome in the best scale available, as well as to map and calculate the liabilities of APP of water for the entire biome. The products generated will be consolidated into a georeferenced database, which will be integrated into Sicar, composing a new module of the platform to support the steps of analysis and validation of CAR by the states.

Thus, the project will contribute to the direct effect "structured and modernized institutions of environmental monitoring, control and accountability" (2.1) of the "monitoring and control" component, as well as to the direct effect "knowledge and technologies for conservation and sustainable use of biodiversity, monitoring and control of deforestation and land use planning, which were produced, disseminated and used" (4.1), of the "science, innovation and economic instruments" component.

The project is expected to contribute to the implementation of CAR and other instruments of the Forest Code, as well as other public policies aimed at the control of deforestation and environmental management.

## PROJECTS IN PROGRESS

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PROJECTS IN PROGRESS						
Project/Project management	Territorial scope	Objective	Date of approval	Amazon Fund support value	Percentage disbursed	
<b>Alto Juruá</b> Amônia River Ashaninka Association (APIWTXA)	Region of Alto Juruá in the state of Acre	Promote agroforestry management and production in traditional and indigenous communities to build a sustainable economic alternative to deforestation; support territorial monitoring and control; and strengthen local community organization	2.24.2015	US\$ 2,289,952.10 R\$ 6,597,5810.00	100%	
Sustainable Indigenous Amazon Association of Ethno- environmental Defense Kanindé	Indigenous lands (TI) Igarapé Lourdes (Rondônia), Zoró (Mato Grosso), Rio Guaporé (Rondônia) and Rio Negro Ocaia (Rondônia)	(i) To help implement Territorial and Environmental Management Plans (PGTA) in the TIs Igarapé Lourdes and Zoró; and (ii) to design PGTAs in the TIs Rio Guaporé and Rio Negro Ocaia	4.12.2015	US\$ 2,156,669.07 R\$ 8,188,872.44	78%	
Amazonia SAR Federal Government/ Defense Ministry – Operations and Management Center of the Amazonian Protection System (Censipam)	Around 950,000 km <sup>2</sup> will be monitored per year (23% of the Amazon biome): 764,000 km <sup>2</sup> of areas under the greatest deforastation pressure; 144,000 km <sup>2</sup> in the state of Amapá; and an additional 5% in isolated points of the Amazon biome due to specific demands	Implement a deforestation detection system in the Amazon using orbital imaging radar	6.23.2015	US\$ 20,783,439.87 R\$ 63,923,626.00	61%	
<b>APL Babaçú</b> Association of Settlement Areas in the state of Maranhão (Assema)	Municipalities of Lago do Junco, Lago da Pedra and Bacabal in the state of Maranhão	Support conservation and sustainable management of babassu palm plantations and recover damaged areas using SAFs in three municipalities in the Amazon biome, in the state of Maranhão	9.2.2014	US\$ 2,363,754.25 R\$ 5,286,300.00	69%	
Arapaima: Production Networks Native Amazon Operations (Opan)	Tls Biá River, Espírito Santo, Acapuri de Cima, Estação, Macarrão and Deni; Uacari and Cujubim Sustainable Development Reserves; Médio Juruá Extractionist Reserve; all located in the middle course of the rivers Juruá and Solimões in the state of Amazonas	Support: (i) fishing management and nonwood forest resources on TIs and protected areas (PA); and (ii) strengthen indigenous associations and extractionist farmer associations	10.28.2014	US\$ 2,511,633.32 R\$ 6,364,730.00	100%	
Sustainable Settlements in the Amazon Amazon Environmental Research Institute (Ipam)	Western Pará: municipalities of Anapu, Pacajá, Senador José Porfírio, Mojuí dos Campos and Aveiros	Support the development of a demonstrative experience of sustainable production and implement an environmental services payment scheme to families committed to reducing deforestation at National Institute of Colonization and Agrarian Reform (Incra) settlements	11.29.2011	US\$ 13,411,056.34 R\$ 24,939,200.37	94%	
Sustainable Bem Viver Institute of Research and Indigenous Education (lepé)	Tis Parque do Tumucumaque (Pará and Amapá), Paru d'Este (Pará) and Zo'é (Pará)	Implement the PGTA of the TIs Parque do Tumucumaque (Amapá and Pará) and Rio Paru d'Este (Pará) and develop a PGTA for the TI Zo'é (Pará)	11.19.2015	US\$ 3,127,236.59 R\$ 11,858,793.87	100%	

### (Continuation)

Project/Project			Date of	Amazon Fund	Percentage
management	Territorial scope	Objective	approval	support value	disbursed
Forest Assistance+ Program Foundation Sustainable Amazonas (FAS)	16 state PAs in the Amazonas state with about 10.9 million hectares	Maintain and expand the actions of the Bolsa Floresta program in PAs in the state of Amazonas by: (i) supporting the development of small enterprises and sustainable forest production arrangements; (ii) training local leadership and associations to manage projects focusing on income generation and environmental and social concerns; (iii) systematization and dissemination of content, methodologies, lessons learned and innovative solutions; and (iv) launching a public call for small and medium income generating projects in the surrounding region of those PAs	4.5.2016	US\$ 8,786,621.50 R\$ 31,518,490.00	98%
Family Farming Value Chains in the State of Mato Grosso Alternative Technology Center Foundation (CTA)	Regions of Portal da Amazônia, Mid-Northern and Southeastern of the state of Mato Grosso	Support and strengthen family farming in municipalities within the Amazon biome in the southeast region of the state of Mato Grosso, by implementing and consolidating agroforestry systems (SAF), supporting collective structures for production processing and structuring commercialization channels for the SAF's products	9.2.2014	US\$ 1,447,876.95 R\$ 3,238,032.00	100%
Value Chains of Nontimber Forest Products SOS Amazon Association	Municipalities of Cruzeiro do Sul, Mâncio Lima, Rodrigues Alves, Porto Walter, Tarauacá and Feijó, in the state of Acre, as well as the municipalities of Pauini, Boca do Acre, Lábrea and Silves, in the state of Amazonas	Promote and support entrepreneurial ventures of nine partner institutions aimed at job and income generation, through the sustainable development of production chains of vegetable oils, wild cocoa and rubber in six municipalities in the state of Acre and four in the state of Amazonas	1.27.2015	US\$ 3,848,494.18 R\$ 9,993,000.00	100%
Value Chains in Indigenous Lands in Acre Acre's Pro-Indigenous People Commission (CPI-Acre)	TIs Kaxinawá do Rio Humaitá and Rio Gregório (Tarauacá, Acre); TI Alto Rio Purus (Santa Rosa do Purus and Manuel Urbano, Acre) and TI Arara do Igarapé Humaitá (Porto Walter, Acre)	Strengthen the sustainable production, the culture and the way of life in the TIs of the Kaxinawá of the Humaitá River, Arara do Igarapé Humaitá, Rio Gregório and Alto Rio Purus in the state of Acre, by developing and promoting agroforestry products value chains and training indigenous technical assistants	8.11.2015	US\$ 889,760.23 R\$ 3,106,064.00	100%
Sustainable Northern Corridor Institute of Agriculture and Forest Management and Certification (Imaflora)	Municipalities of Oriximiná and Alenquer in the state of Pará	Strengthen family extractive and agricultural activities to foster the development of the Northern Corridor of the state of Pará by implementing food processing units, sapling nurseries for SAFs and community carpentry, in quilombos and settlements	7.7.1909	US\$ 1,452,506.58 R\$ 3,312,877.00	93%
Training to Conserve Amazon Conservation Team (Ecam)	PAs in the state of Amapá	Train environmental agents and managers to strengthen the PAs in the state of Amapá	9.23.2014	US\$ 608,294.93 R\$ 1,452,000.00	99%

#### (Continuation)

		PROJECTS IN PROGRESS			
Project/Project management	Territorial scope	Objective	Date of approval	Amazon Fund support value	Percentage disbursed
CAR Acre State of Acre	22 municipalities in the state of Acre	Support the implementation of the Rural Environmental Registry (CAR) and the adherence to the Environmental Regularization Program (PRA) in the state of Acre	10.29.2013	US\$ 7,707,589.49 R\$ 16,838,000.00	70%
CAR Bahia Institute of Environment and Hydric Resources of the State of Bahia (Inema) – State of Bahia and State Secretariat for the Environment (Sema)	161 municipalities in the state of Bahia by promoting registration, indirectly benefiting the whole state by providing training and improving CAR's implementation infrastructure	Support the implementation of the CAR in the state of Bahia	3.25.2014	US\$ 13,623,107.36 R\$ 31,671,000.00	90%
CAR Ceará Environment State Superintendency of the State of Ceará (Semace)	109 municipalities in the state of Ceará by promoting registration, indirectly the whole state through communication actions and by improving CAR's implementation infrastructure	Support the implementation of the CAR in the state of Ceará	2.23.2016	US\$ 6,205,114.01 R\$ 24,583,420.70	28%
CAR Mato Grosso do Sul Environmental Institute of the State of Mato Grosso do Sul (Imasul)	69 municipalities in the state in the Cerrado, Pantanal and Atlantica Forest biomes	Promote the implementation of the CAR in the state of Mato Grosso do Sul	9.23.2014	US\$ 3,682,362.80 R\$ 8,789,800.00	52%
<b>CAR Paraná</b> Paraná Environmental Institute (IAP)	All municipalities in the state of Paraná	Support the implementation of the CAR in the state of Paraná	10.26.2016	US\$ 4,523,532.16 R\$ 14,110,253.86	15%
CAR Roraima Environment and Water Resources Foundation of the State of Roraima (Femarh)	All municipalities of the state of Roraima	Support the implementation of the CAR in the state of Roraima	11.4.2014	US\$ 1,238,055.18 R\$ 3,075,205.25	100%
<b>CAR: Legal Tocantins</b> State of Tocantins	State of Tocantins	Support: (i) the implementation of the CAR in municipalities throughout the state; (ii) the improvement of the deforestation monitoring and control system of the state of Tocantins; (iii) the implementation of the environment management decentralisation state program in the municipalities of the Amazon biome; and (iv) the development of the sustainable forestry district in the state's Amazon biome	5.21.2013	US\$ 13,180,543.94 R\$ 26,800,000.00	92%

### (Continuation)

		PROJECTS IN PROGRESS			
Project/Project management	Territorial scope	Objective	Date of approval	Amazon Fund support value	Percentage disbursed
Forest Cities Institute of Conservation and Sustainable Development of the Amazon (Idesam)	14 municipalities in the state of Amazonas: Manaus, Itapiranga, Silves, São Sebastião do Uatumã, Apuí, Novo Aripuanã, Borba, Manicoré, Tefé, Carauari, Juruá, Jutaí, Lábrea and Urucará	Support community forest management in the state of Amazonas by: (i) developing the Forest Cities platform to connect forest actors and support wood productive chains; and (ii) supporting the sustainable production and commercialization of wood and vegetable oils	12.27.2017	US\$ 3,642,314.76 R\$ 12,092,485.00	17%
Environmental Operations Company Federal Government (Ministry of Justice)	Amazon biome. The Environmental Operations Company may also be called upon to provide assistance in other biomes	Support the physical and operational structure of the Environmental Operations Company of the National Public Security Agency (FNSP) for conducting environmental operations in the Amazon biome	1.27.2015	US\$ 11,796,765.00 R\$ 30,631,480.00	3%
Materialize Association of Small Agro-farmers of the Reca Project (Reca Project)	Region of Ponta do Rio Abunã – municipalities of Porto Velho, in the state of Rondônia, and Acrelândia, in the state of Acre	Strengthen the cupuassu and <i>açaí</i> berry production sector by implementing SAFs and increasing and modernizing the production capacity of pulp processing units in traditional communities in Ponta do Abunã, aiming to create a sustainable economic alternative to deforestation	14.10.2014	US\$ 2,411,118.40 R\$ 6,422,748.00	100%
<b>Knowing for</b> Preserving Amazon Museum (Musa)	Municipality of Manus in the state of Amazonas	Implement the Musa and a training center on the Água Branca Settlement, in Manaus, aiming to disseminate knowledge to promote and conserve Amazon's natural resources and cultural heritage, by developing an innovative model for forest visiting	11.30.2010	US\$ 5,302,059.59 R\$ 9,984,629.00	100%
Consolidating Territorial and Environmental Management in Indigenous Lands Center for Indigenous Work (CTI)	Five TIs in the states of Amazonas, Maranhão and Pará, covering 9,375,076 hectares: Vale do Javari (AM), Krikati (MA), Governador (MA), Andirá-Marau (PA and AM) and Nova Jacundá (PA)	Support the implementation of the PGTA at TIs Vale do Javari (AM), Krikati (MA) and Governador (MA); and the development of PGTAs of TIs Andirá-Marau (PA and AM) and Nova Jacundá (PA), under the National Policy for Territorial and Environmental Management of Indigenous Land (PNGATI)	9.8.2016	US\$ 3,688,281.11 R\$ 11,934,540.00	58%
Preserving the Babassu Forest Interstate Association of the Movement of Women Babassu Coconut Breakers (AMIQCB)	States of Maranhão (37 municipalities), Tocantins (16 municipalities) and Pará (6 municipalities)	Support the Babassu Fund process for selecting and supporting socioenvironmental projects of agro- extractive organizations in the states of Maranhão, Tocantins and Pará, associated with actions to develop skills, provide technical support and strengthen associativism through public calls for projects approved by BNDES	12.27.2017	US\$ 2,777,933.43 R\$ 9,222,739.00	16%
Everlasting Forest Institute of Amazon People and Environment (Imazon)	East of the state of Pará - municipalities of Capitão Poço, Dom Eliseu, Paragominas and Ulianópolis	Promote the environmental adequacy of rural properties in the Brazilian Amazon region by: (i) implementing forest restoration techniques in Eastern Pará; (ii) training knowledge multiplier agents; (iii) elaborating a monitoring scheme for restoration areas; and (iv) promoting forest restoration activities	12.11.2017	US\$ 4,356,193.05 R\$ 14,293,105.00	26%

### (Continuation)

	PROJECTS IN PROGRESS					
Project/Project management	Territorial scope	Objective	Date of approval	Amazon Fund support value	Percentage disbursed	
<b>Communal Forests</b> Tropical Forest Institute (IFT)	State of Pará	Support the implementation of new community forest management models for wood and <i>açaí</i> berry use and commercialization to strengthen social organization, generate income and contribute to deforestation reduction in PAs of sustainable use in the Marajó archipelago in the state of Pará	4.6.2017	US\$ 2,619,409.50 R\$ 8,100,000.00	29%	
Valuable Forests – New business models for the Amazon Institute of Agriculture and Forest Management and Certification (Imaflora)	States of Pará and Mato Grosso	Support: (i) the consolidation and expansion of the "Brazil Origins" certification of origin system, contributing to the strengthening of production chains and the promotion of socio-biodiversity products of PAs in the Brazilian Amazon; and (ii) the sustainable production of cocoa on the vicinities of the Xingu region	1.18.2017	US\$ 5,411,041.23 R\$ 17,369,442.36	54%	
Strengthening the Forest Based Sustainable Economy Extraction Commercialization Central Cooperative for the State of Acre (Cooperacre)	14 municipalities in the administrative regions Alto Acre, Baixo Acre and Purus	Strengthen Brazil nut and fruit pulp sectors in the state of Acre by: (i) recovering damaged and/or altered areas located in small properties or family rural properties; (ii) optimizing storage logistics of Brazil nuts and fruit transport; (iii) improving Brazil nut processing; (iv) adding value and diversifying products; (v) improving the product market strategy; and (vi) training the affiliated network	9.23.2014	US\$ 2,128,932.97 R\$ 5,081,763.00	100%	
Strengthening environmental management in the Amazon Institute of Amazon People and Environment (Imazon)	Several municipalities in the states of Amazonas, Mato Grosso, Pará and Rondônia	Support: (i) the strengthening of environmental management in priority municipalities to develop policies aimed at preventing and controlling deforestation in the Amazon biome; (ii) studies to conduct land-title diagnosis in the states of Amazonas, Mato Grosso, Pará and Rondônia to disseminate information on land-title regularization efforts in the state of Pará; and (iii) improvements to PA management in the North Corridor region in the state of Pará	11.6.2015	US\$ 3,194,485.79 R\$ 12,104,865.00	100%	
Strengthening Territorial and Environmental Management of Indigenous Lands in the Amazon The Nature Conservancy of Brazil (TNC Brasil)	Six TIs partially located in three municipalities in the state of Amapá and five municipalities in the state of Pará	Promote sustainable territorial and environmental management in six TIs in the states of Amapá and Pará, contributing to deforestation reduction in these areas	9.6.2014	US\$ 6,730,655.10 R\$ 15,750,406.00	99%	

### (Continuation)

PROJECTS IN PROGRESS					
Project/Project management	Territorial scope	Objective	Date of approval	Amazon Fund support value	Percentage disbursed
Strengthening Environmental Monitoring and Control to Combat Illegal Deforestation in the Brazilian Amazon Brazilian Institute of Environment and Natural Resources (Ibama)	Brazilian Amazon	Strengthen environmental monitoring and control to combat illegal deforestation in the Brazilian Amazon	10.19.2016	US\$ 17,662,033.20 R\$ 56,295,964.63	100%
Banco do Brasil Foundation – Amazon Fund/ Phase 2 Banco do Brasil Foundation (FBB)	Amazon biome	Support projects to develop productive activities that promote the conservation and sustainable use of the Amazon biome	10.7.2014	US\$ 4,979,666.36 R\$ 12,000,000.00	33%
Banco do Brasil Foundation (FBB) – Amazon Fund Banco do Brasil Foundation (FBB)	Amazon biome	Support projects to develop production activities in accordance with conservation and the sustainable use of the Amazon biome	5.15.2012	US\$ 7,306,715.21 R\$ 14,515,520.43	100%
<b>Dema Fund</b> Federation of Agencies for Social and Educational Assistance (Fase)	Traditional communities in the state of Pará, focusing on the area affected by the Transamazon and BR-163 highways, as well as in the Lower Amazon region	Support low-cost socio-environmental projects by issuing eight public calls over three years	3.15.2011	US\$ 4,579,312.13 R\$ 7,615,854.00	91%
Kayapó Fund for Indigenous Land Conservation Brazilian Biodiversity Fund (Funbio)	Tls Kayapó, Menkragnoti, Baú and Badjonkôre, in Southern Pará; and Tl Capoto-Jarina, in Northern Mato Grosso	Support Kayapó organizations' projects aimed at sustainable production activities, strengthening institutions, preventing deforestation, conserving biodiversity and territorial protection by implementing the Kayapó Fund, a long-term financial and operational scheme	6.21.2011	US\$ 10,583,004.57 R\$ 16,900,000.00	45%
Indigenous Land Management in the Rio Negro and Xingu Basin Socioenviromental Institute (ISA)	Nine TIs in the Amazon biome, with a total area of more than 24 million hectares, benefitting more than 60,000 individuals from indigenous peoples	Support the implementation of the PGTA for the Xingu Indigenous Park and the development of PGTAs for the TI Yanomami and the Alto Rio Negro region, systematizing knowledge and strengthening local governance structures and indigenous organizations	6.27.2016	US\$ 3,467,961.63 R\$ 11,712,000.00	61%
Indigenous Territorial Management in the South of Amazonas State International Education Institute of Brazil (IEB)	Eight TIs in the south of the state of Amazonas, covering 1,095,169 hectares: TIs Boca do Acre, Apurinã Km 124 BR-317, Água Preta/ Inari, Caititu, Jiahui, Nove de Janeiro, Ipixuna and Tenharim do Igarapé Preto	Support: (i) the implementation of the PGTA of TI in the Purus River basin (Boca do Acre, Apurinã Km 124 BR-317, Água Preta/Inari and Caititu) and in the Madeira River basin (Jiahui, Nove de Janeiro and Ipixuna) in Southern Amazonas; and (ii) the development of a PGTA for the TI Tenharim do Igarapé Preto in the Madeira River basin	11.1.2016	US\$ 3,598,913.90 R\$ 11,448,505.00	59%

### (Continuation)

PROJECTS IN PROGRESS					
Project /Project management	Territorial scope	Objective	Date of approval	Amazon Fund support value	Percentage disbursed
National Forest Inventory – The Amazon Federal Government (Brazilian Forest Service)	Amazon biome	Implement the Forest Inventory in the Amazon biome to produce information on forest resources, carbon stocks and how populations in the region use their territory	7.31.2012	US\$ 31,999,485.61 R\$ 65,000,555.12	43%
<b>IREHI – Taking Care of Territory</b> Native Amazon Operation (Opan)	Tls Menkü, Manoki, Pirineus de Souza and Marãiwatsédé in the state of Mato Grosso	Conclude and implement a PGTA for the TI Marãiwatsédé and implement PGTAs for the TIs Manoki, Menkü and Pirineus de Souza	12.18.2015	US\$ 2,096,159.68 R\$ 8,160,140.00	88%
Jacundá, Green Economy Municipality Municipality of Jacundá	Municipality of Jacundá in the state of Pará	Support and strengthen municipal environmental management by: (i) the physical and operational structuring of the Municipal Secretariat of the Environment and Tourism; (ii) expanding the production capacity of the municipal seedling nursery; and (iii) designing a study to characterize the municipal territory	11.29.2011	US\$ 107,201.58 R\$ 199,352.05	100%
More Sustainability in the Countryside State of Maranhão	State of Maranhão	Support the implementation of the CAR in the state of Maranhão	12.27.2017	US\$ 12,191,589.46 R\$ 40,476,077.00	0%
<b>Mamirauá</b> Mamirauá Sustainable Development Institute (IDSM)	Municipality of Tefé (AM); Mamirauá SDR (municipalities of Uarini, Fonte Boa and Maraã in the state of Amazonas); and Amanã SDR (municipalities of Maraã, Barcelos and Coari in the state of Amazonas)	Support participatory management initiatives in Mamirauá and Amanã SDRs through research, development and dissemination of knowledge in the following topics: sustainable agriculture, sustainable forest timber management, sustainable forest non- timber management, environmental education, environmental protection and monitoring	12.18.2012	US\$ 4,068,834.82 R\$ 8,504,678.54	91%
Sustainable Mato Grosso State of Mato Grosso	State of Mato Grosso, focusing on state PAs and on 40 municipalities in the Amazon biome	Support: (i) the consolidation of PAs in the Amazon biome; (ii) the strengthening of state environmental licensing and inspections; and (iii) the decentralization of state environmental management	12.3.2013	US\$ 14,932,820.16 R\$ 35,015,970.00	39%
Environmental Monitoring of Brazilian Biomes Space Science, Applications and Technology Foundation (Funcate) and National Institute of Space Research (Inpe)	Deforestation monitoring of and Frel proposition for Atlantic Forest, Caatinga, Pampa and Pantanal biomes; and development of a platform for analysis and visualization of large volumes of geospatial data for the entire national territory	<ul> <li>(i) Development and implementation of deforestation monitoring systems for the Atlantic Forest, Caatinga, Pampa and Pantanal biomes;</li> <li>(ii) calculation of deforested areas' CO<sub>2</sub> emissions and proposition of a Frel for each of these biomes; and</li> <li>(iii) development of a platform for analysis and visualization of large volumes of geospatial data</li> </ul>	9.25.2017	US\$ 15,911,139.52 R\$ 49,778,000.00	11%

#### (Continuation)

	PROJECTS IN PROGRESS				
Project/Project management	Territorial scope	Objective	Date of approval	Amazon Fund support value	Percentage disbursed
Satellite Environmental Monitoring of the Amazon Biome National Institute of Space Research (Inpe) and Space Science, Applications and Technology Foundation (Funcate)	Amazon biome	Support the development of studies of land use and coverage in the Amazon biome, as well the expansion and improvement of Inpe's satellite environmental monitoring	10.7.2014	US\$ 27,783,399.45 R\$ 66,952,436.00	100%
Monitoring Forest Coverage in the Amazon Region Amazon Cooperation Treaty Organization (OTCA)	Amazon region	Promote the development of the capacity to monitor deforestation and land use changes in OTCA's member countries	4.30.2013	US\$ 11,847,412.87 R\$ 23,693,641.00	100%
<b>Buriti Springs</b> Municipality of Carlinda	Municipality of Carlina in the state of Mato Grosso	Support and strengthen municipal environment management by physically structuring the Municipal Secretariat of the Environment and Tourism through actions to restore 1,722 hectares of permanent preservation areas surrounding the springs	8.2.2011	US\$ 1,206,032.37 R\$ 1,875,500.94	100%
<b>Amazon's Nectar</b> Peabiru Institute	Traditional communities in the municipalities of Curuçá, Almeirim and Monte Alegre, in the state of Pará, and in Macapá and Oiapoque, in the state of Amapá	Strengthen the native bee honey supply chain to provide a sustainable economic alternative to deforestation	5.13.2014	US\$ 915,899.66 R\$ 2,030,000.00	100%
Pará Combating Forest Fires and Unauthorized Burn-offs State of Pará/State of Pará Military Firefighters (CBMPA)	State of Pará	Support the monitoring, prevention and combat of deforestation resulting from forest fires and unauthorized burn-offs in the state of Pará, by the physical and operational structuring of CBMPA fire stations located in 10 municipalities in the state	11.27.2012	US\$ 8,096,541.11 R\$ 16,830,280.00	100%
Small Eco-Social Projects in the Amazon Society, Population and Nature Institute (ISPN)	States of Mato Grosso, Tocantins and Maranhão, limited to the Amazon biome	Support the launching of four public calls for selecting and funding low- cost socioenvironmental projects focusing on family farmers and traditional peoples and communities in the Amazon biome in the states of Mato Grosso, Tocantins and Maranhão	7.3.2012	US\$ 6,456,480.19 R\$ 12,843,476.00	100%
Sowing Rondônia Center for Studies on Culture and the Environment in the Amazon (Rioterra)	State of Rondônia, municipalities of Ariquemes, Castanheiras, Cujubim, Itapuã do Oeste, Jaru, Ji-Paraná, Machadinho d'Oeste, Novo Horizonte, Ouro Preto, Presidente Médici, Rio Crespo and Rolim de Moura	Promote the environmental adequacy of rural properties in Rondônia, by: (i) elaborating and implementing Projects for the Recovery of Degraded and/or Altered Areas in properties of up to four fiscal modules of family farmers; (ii) promoting the training and institutional strengthening of family farmers' associations; and (iii) providing landscape monitoring and evaluation	12.18.2017	US\$ 7,626,224.16 R\$ 25,305,337.00	21%
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### (Continuation)

PROJECTS IN PROGRESS					
Project/Project management	Territorial scope	Objective	Date of approval	Amazon Fund support value	Percentage disbursed
Prevfogo/lbama Brazilian Institute of the Environment and Renewable Natural Resources (Ibama)	Mainly the Amazon biome; also strengthening the logistics center at the National Center for Preventing and Combating Forest Fires (Prevfogo) in Brasília	Support the physical and operational structuring of the Prevfogo program and the provision of environmental education to raise awareness and train local actors to monitor, prevent and combat forest fires and unauthorized burn-offs in the Amazon biome	12.30.2013	US\$ 6,252,557.57 R\$ 14,717,270.00	80%
Environmental Management Qualification Program Brazilian Institute of Municipal Administration (Ibam)	Municipalities in the Amazon biome	Support the environmental management in municipalities of the Amazon biome by offering training and technical support, disseminating knowledge and information through networks and fostering innovation and promoting liaison with other government levels and the society, within the framework of environmental public policies	12.18.2012	US\$ 9,019,941.79 R\$ 18,853,482.32	100%
Green Municipalities Program State of Pará	100 municipalities in the state of Pará	Support the implementation and consolidation of the CAR of rural properties and strengthen municipal environmental management, contributing to deforestation and forest degradation combat in the state of Pará	12.10.2013	US\$ 32,420,481.86 R\$ 75,296,569.12	55%
Integrated Environmental Socioeconomic Development Project (PDSEAI) State of Rondônia - State Secretariat for Environmental Development (Sedam-RO)	State of Rondônia	Support the state environmental management, including actions aimed at protecting state PAs, consolidating the CAR and strengthening municipal environmental management, contributing to deforestation and forest degradation combat in the state of Rondônia	1.21.2014	US\$ 13,382,212.30 R\$ 31,227,392.40	34%
Amazon Integrated Project Brazilian Agricultural Research Corporation (Embrapa) and Eliseu Alves Foundation (FEA)	Amazon biome	Promote the production and dissemination of knowledge and technologies aimed at the recovery, conservation and sustainable use of the Amazon biome, by supporting the implementation of projects of Embrapa's decentralized units selected through an internal project call	12.29.2015	US\$ 8,597,810.44 R\$ 33,691,380.00	50%
Ethno- environmental protection of isolated or recently contacted indigenous people in the Amazon Center for Indigenous Work (CTI)	Amazon biome	Support and protect isolated and recently contacted indigenous people by establishing the territorial boundaries and protecting natural riches of the areas where these groups live, contributing to deforestation reduction in the Amazon	10.28.2014	US\$ 7,514,829.72 R\$ 19,043,330.00	100%

### (Continuation)

		PROJECTS IN PROGRESS			
Project/Project management	Territorial scope	Objective	Date of approval	Amazon Fund support value	Percentage disbursed
Tocantins Forest Protection State of Tocantins	The areas covered by the actions to be developed by the CBMTO's Environmental Protection Platoon, located in the municipality of Araguaína, in the northern region of the state; coverage will be extended to state PAs, such as the federal ecological corridors Araguaia-Bananal, Paranã-Pirineus and Jalapão-Chapada das Mangabeiras in the state of Tocantins	Support the monitoring, prevention and combat of deforestation caused by forest fires and unauthorized burn-offs in the state of Tocantins, especially in the central-north region, through training, structuring of integrated management mechanisms and purchase of materials and equipment for the Environmental Protection Platoon located in the municipality of Araguaína	3.27.2012	US\$ 2,755,883.81 R\$ 5,000,000.00	99%
Amazon Backyards Center for Studies on Culture and the Environment in the Amazon (Rioterra)	Municipalities of Machadinho d'Oeste, Cujubim and Itapuã do Oeste in the state of Rondônia	Support family farmers and Agrarian Reform settlers in the state of Rondônia, in the municipalities of Itapuã do Oeste, Cujubim and Machadinho d'Oeste to: (i) enroll their rural properties in the CAR; and (ii) plant seedlings and conduct research on SAFs aiming to recover altered or damaged legal forest reserves and permanent forest preservation areas	7.30.2013	US\$ 4,032,464.95 R\$ 9,117,000.00	98%
<b>Greener Rondônia</b> State of Rondônia	Area to be covered by the Air and Ground Operations Base - to be installed in the state capital, Porto Velho - and by the four largest firefighting operational units located in the municipalities of Ji- Paraná, Guajará-Mirim, Cacoal and Vilhena, which will also be equiped with project resources. The coverage will also encompass important preservation and environmental protection areas, especially the national parks of Pacaás and Serra da Cutia	Support the monitoring, prevention and combat of deforestation resulting from forest fires and unauthorized burn-offs in the state of Rondônia, by providing training and purchasing materials and equipment for (i) the Military Firefighters Aerial and Land Operations Base to be built by the state in Porto Velho; and (ii) four operational stations, located in other municipalities throughout the state	9.11.2012	US\$ 7,430,709.95 R\$ 15,040,500.00	100%
<b>New Paths in</b> <b>Cotriguaçu</b> Municipality of Cotriguaçu	Municipality of Cotriguaçu in the state of Mato Grosso	Strengthen environmental management in the municipality of Cotriguaçu by: (i) building and equipping the Municipal Environment Secretariat; (ii) recovering degraded permanent preservation areas (DPPA) in rural properties of up to four federal fiscal modules and in surrounding areas of bodies of water in public lands; and (iii) implementing demonstrative actions to recover and manage pastures	7.22.2014	US\$ 891,047.31 R\$ 1,981,511.00	79%

#### (Continuation)

PROJECTS IN PROGRESS					
Project/Project management	Territorial scope	Objective	Date of approval	Amazon Fund support value	Percentage disbursed
<b>Portal Seeds – Phase II</b> Ouro Verde Institute (IOV)	Eight municipalities in the Portal da Amazônia region, located in the north of the state of Mato Grosso: Apiacás, Alta Floresta, Carlinda, Colíder, Nova Canaã do Norte, Nova Guarita, Nova Santa Helena and Terra Nova do Norte	Support the recovery of damaged areas and strengthen family farming in the Portal da Amazônia region, in the state of Mato Grosso, through the implementation and consolidation of SAFs, by planting trees, enriching agroforests, structuring market channels for products and seeds and conducting research	10.1.2013	US\$ 7,213,452.91 R\$ 16,086,000.00	100%
<b>Forest Sentinels</b> Vale do Amanhecer Farmer Cooperative (Coopavam)	Eight municipalities in Northeastern Mato Grosso: Aripuanã, Brasnorte, Castanheira, Colniza, Cotriguaçu, Juara, Juína and Juruena	Strengthen the Brazil nut sector, from collection to processing and commercialization, increasing the income of extractive communities that live off the region's forest products	2.4.2014	US\$ 2,195,440.85 R\$ 5,288,817.00	98%
Productive Socio- biodiversity in Xingu Socioenvironmental Institute (ISA)	Xingu River basin, covering 11 municipalities in the state of Mato Grosso and two in the state of Pará	Support the structuring and strengthening of socio-biodiversity value chains in the Xingu basin, including forest seeds and seedlings, rubber, Brazil nuts, souari nuts ( <i>pequi</i> ) and fruits, produced by indigenous and extractive communities and family farmers, aiming to improve the quality of life of these populations and increase sustainable agro-forestry and extractive production	12.3.2013	US\$ 3,421,832.91 R\$ 8,023,856.00	100%
<b>Sustainable</b> Tapajós Conservation International of Brazil (CI-Brasil)	Municipalities of Santarém, Aveiro, Belterra, Itaituba, Jacareacanga, Placas, Rurópolis and Trairão in the state of Pará. Five PAs: Tapajós National Forest, Itaituba I National Forest, Crepori National Forest, Trairão National Forest and Tapajós-Arapiuns Extractive Reserve	Support sustainable community-based forest production and contribute to the valorization and conservation of Tapajós region's natural resources	10.23.2017	US\$ 7,438,704.49 R\$ 23,679,628.00	19%
Kayapó Territory, Culture and Autonomy Protected Forest Association (AFP)	Two TIs in the south of Pará (Kayapó and Las Casas), totaling 3.3 million hectares	Support the implementation and updating of the PGTA of the TI Kayapó and the implementation of the PGTA of the TI Las Casas, both located in the state of Pará, contributing to the protection and sustainable management of its territories and natural resources, the promotion of their economic autonomy and the valorization of their culture	12.4.2017	US\$ 2,785,228.17 R\$ 9,089,870.67	19%

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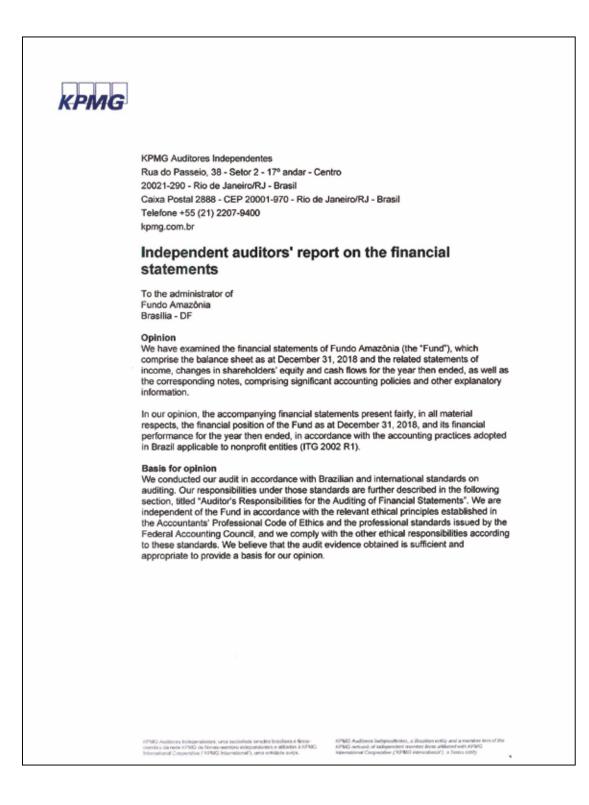
PROJECTS IN PROGRESS					
Project/Project management	Territorial scope	Objective	Date of approval	Amazon Fund support value	Percentage disbursed
Using Social Technologies to Reduce Deforestation Interstate Agricultural Development Association (Adai)	Communities in areas of influence of hydroelectric projects in the states of Pará, Mato Grosso, Rondônia and Tocantins	Implement family agroecological production units, contributing to food security and income generation of riverine dwellers and family farmers in an environmentally sustainable way	5.24.2017	US\$ 2,779,138.85 R\$ 9,075,000.00	55%
Adding Value to Forest Environmental Assets State of Acre	State of Acre	Foster sustainable practices aimed at reducing deforestation, through payments for environmental services, adding value to environment and forest assets to consolidate a green, fair and competitive economy, based on Ecological-Economic Zoning	10.26.2010	US\$ 33,511,958.77 R\$ 57,057,461.00	93%
Adding Value to Amazon Socioproductive Chains Life Center Institute (ICV)	Communities in four municipalities in the north and northwest regions of the state of Mato Grosso	Support and strengthen sustainable productive arrangements in the Amazon	12.11.2017	US\$ 4,999,847.61 R\$ 16,405,000.00	36%

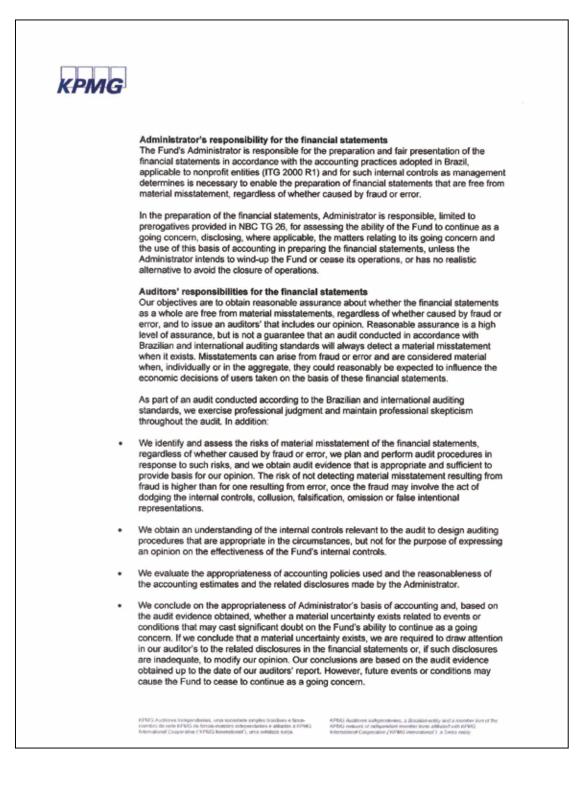
# ANNEXES

# ANNEX 1 – Independent auditor's report and the financial statements







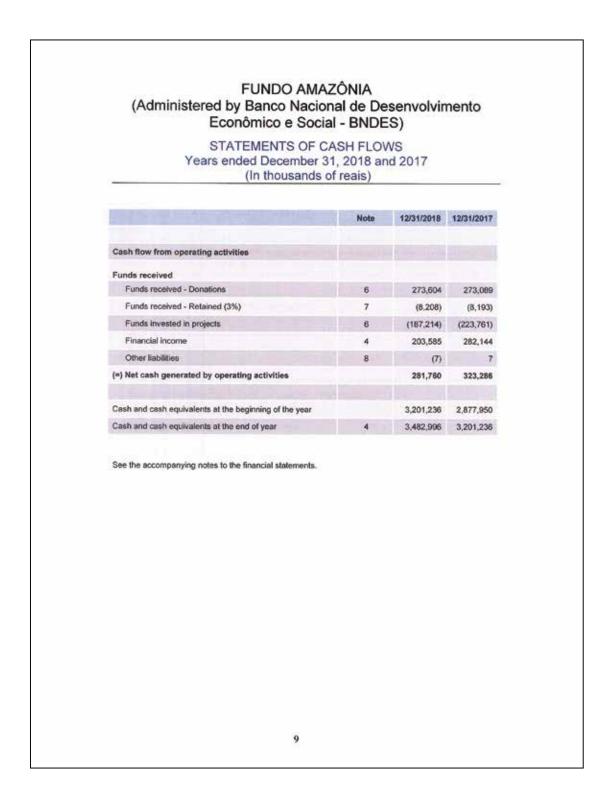


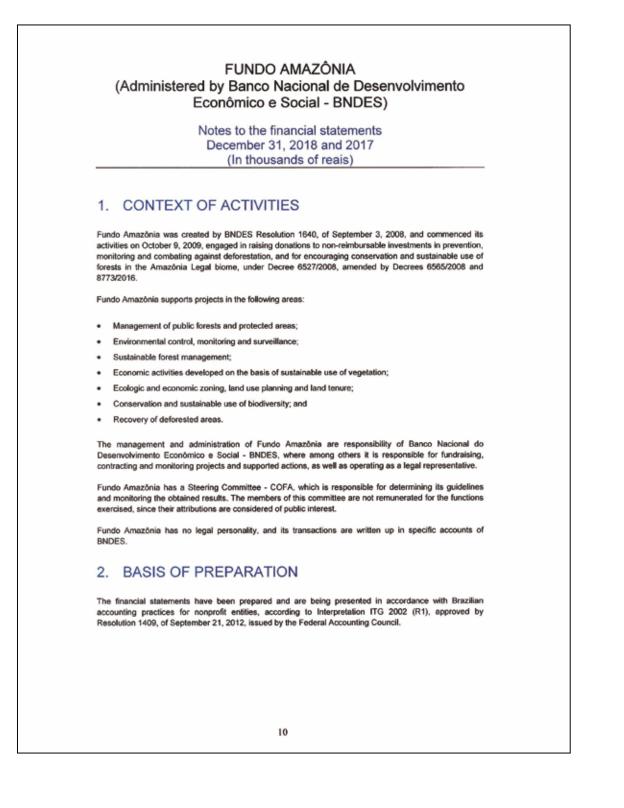


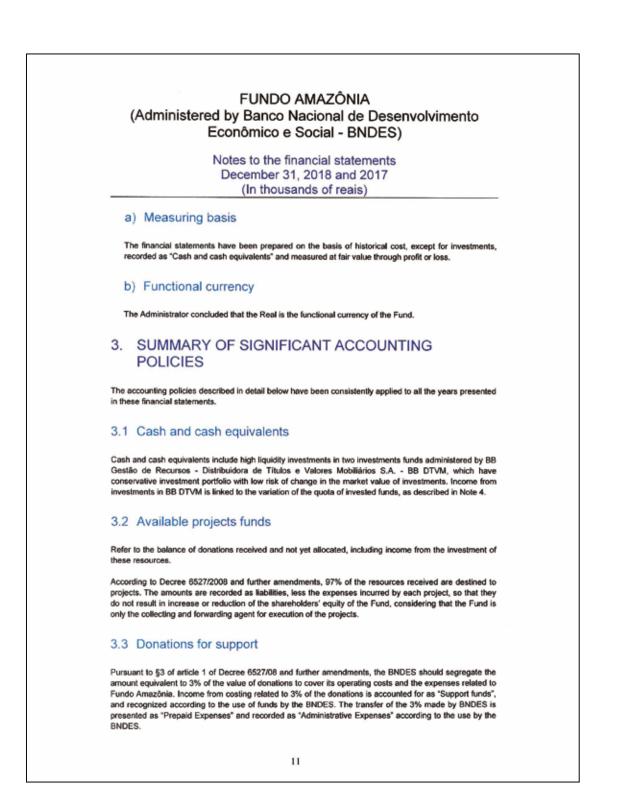
	Mate	12/31/2018	12/31/2017
ASSETS	Note	12/31/2018	12/31/2017
CURRENT ASSETS			
Cash and cash equivalents	4	3,482,996	3,201,236
Prepaid expenses	5	90,094	82,846
Total assets		3,573,090	3,284,082
LIABILITIES AND SHAREHOLDER'S EQUITY		The second	
CURRENT LIABILITIES		Se silie	
Available project funds	6	3,482,996	3,201,229
Support funds	7	90,094	82,846
Other liabilities	В		7
SHAREHOLDER'S EQUITY			
Accumulated surplus/(deficit)		-	
Total liabilities and net assets		3,573,090	3,284,082
See the accompanying notes to the financial statement	its.		

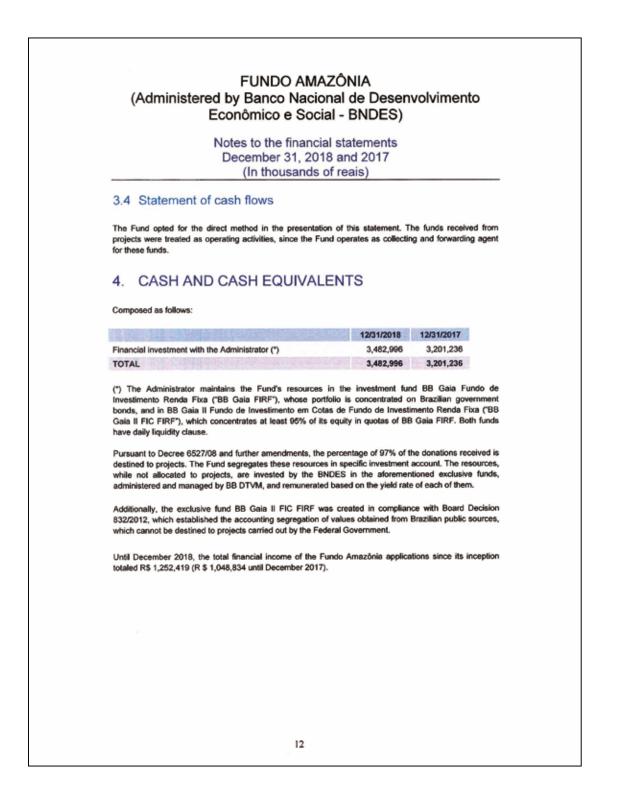
(Administered by Banco Nacion Econômico e Socia	I - BNDE	S)	
STATEMENT OF I Years ended December 31 (In thousands of	, 2018 an	nd 2017	
	Note	2018	2017
the second s	Note	2010	2017
Income			
Income from donations to investments	6	187,214	223,761
Revenues from donations to support	7	960	1,119
Financial income	4	203,585	282,144
EXPENSES			
Expenses with donations to investments	6	(187,214)	(223,781)
Expenses with remuneration of available project funds	6 9	(203,585)	(282,144)
Administrative expenses	A	(960)	(1,119)
SURPLUS/(DEFICIT) FOR THE YEAR			

Econômico e Soci STATEMENTS OF CHANGES IN	
December 31, 201 (In thousands	18 and 2017
	Accumulated
	surplus/(deficit)
Balance at January 1 <sup>st</sup> , 2017	
Year 2017	
Balance at December 31, 2017	
Year 2018	
Balance at December 31, 2018	



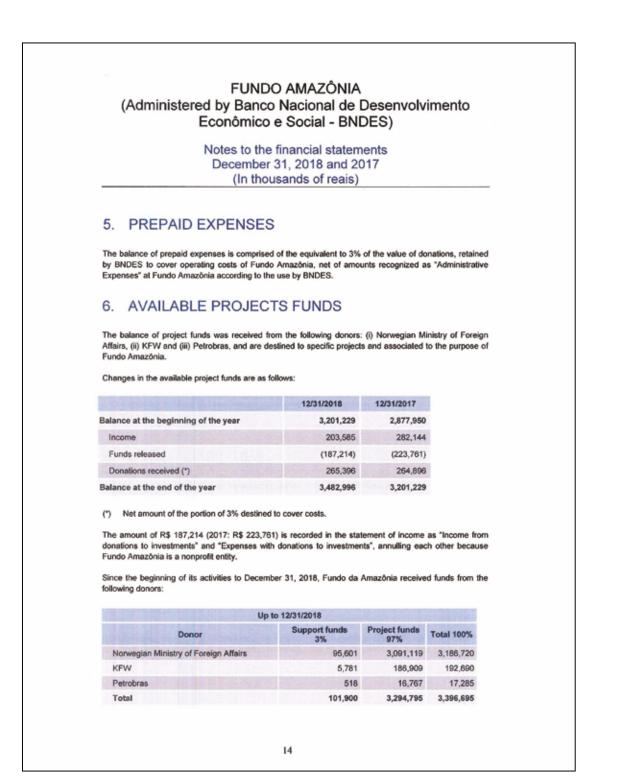






(Administered by Bar Econômi	nco Naci co e Soc	ial - BND	ES)	nento
Decemb		ial stateme 18 and 201 of reais)		
Changes in cash and cash equivalents are	as follow:			
Berger Lynnikh and Hug	12/31/2018			
	Total	Project funds (Gala FI)	Project funds (Gaia II FIC)	Support funds
Balance at January 1 <sup>st</sup> , 2018	3,201,236	3,183,846	17,390	-
Income	203,585	202,468	1,117	
Funds retained by BNDES (3%)	(8,208)			(8,208)
Funds to return	(7)	(7)		
Transfer between funds		(4)	4	01 .
Funds released	(187,214)	(187,214)		
Donations received	273,604	264,194	1,202	8,208
Norwegian Ministry of Foreign Affairs	272,365	264,194	- 2	8,171
KFW	1 1			
Petrobras	1,239		1,202	37
Balance at December 31, 2018	3,482,996	3,463,283	19,713	
	12/31/201			
	Total	Project funds		Support
		(Gala FI)	(Gaia II FIC)	funds
Balance at January 1st, 2017	2,877,950	2,863,777	14,173	
Income	282,144	280,696	1,440	(8,193)
Funds retained by BNDES (3%)	(8,193)	- 7	-	(0,193)
Funds to return Funds released	(223,761)	(223,761)		
Donations received	273,089	263,127	1,769	8,193
Norwegian Ministry of Foreign Affairs	139,272	135,094	1,100	4,178
KFW	138,272	128,033		3,960
Petrobras	1,824	100,000	1,769	55
Balance at December 31, 2017	3,201,236	3,183,846	17,390	

13



#### FUNDO AMAZÔNIA (Administered by Banco Nacional de Desenvolvimento Econômico e Social - BNDES) Notes to the financial statements December 31, 2018 and 2017 (In thousands of reais) Up to 12/31/2017 Support funds Project funds Total Donor 100% 3% 97% Norwegian Ministry of Foreign Affairs 87,430 2,826,925 2,914,355 KFW 192,690 5,781 186,909 Petrobras 481 15,565 16,046 3,029,399 3,123,091 Total 93.692 7. SUPPORT FUNDS The balance of support funds refers to the portion of the donation (3%) retained by BNDES not yet recognized as "Income from donation". Income from donation is recognized according to the use of support funds by BNDES. As of December 31, 2018, the amount of R\$ 8,208 was allocated for support (2017: R\$ 8,193) referring to 3% of the total resources received from donations in the amount of R\$ 273,604 (R\$ 273.089 in 2017). OTHER LIABILITIES 8. It refers to the amount of R\$ 7 for investment overpaid in the Fundo BB Gaia in 2017, which was returned to BNDES in 2018. 9. ADMINISTRATIVE EXPENSES In the year ended December 31, 2018, the amount of R\$ 960 (2017: R\$ 1,119) was recognized as administrative expenses, where the most relevant ones are: publicity, travels and lodging, lecturers and events and audit services. 10. TAXES Any tax liability resulting from operations in the ambit of Fundo Amazônia is responsibility of BNDES, since the Fund does not have its own legal personality, and its transactions are written up in specific bookkeeping accounts of BNDES. 15

## FUNDO AMAZÔNIA (Administered by Banco Nacional de Desenvolvimento Econômico e Social - BNDES)

Notes to the financial statements December 31, 2018 and 2017 (In thousands of reais)

#### **Pis and Cofins**

According to article 1 of Law 11828, of November 20, 2008, amend by Law 12810, of May 15, 2013, donations in cash received by public financial institutions controlled by the Federal Government and intended for actions to prevent, monitor, combat deforestation, including compensation programs for environmental services, and promoting conservation and sustainable use of Brazilian biomes are exempted from PIS-PASEP and from the Contribution for the Financing Social Security (COFINS).

#### Income and social contribution taxes

There is no income to be presented for taxation of income tax (IRPJ) and social contribution on net income (CSLL). The income from donation is recognized at the same time as the recognition of operating expenses with projects intended within the scope of Fundo Amazônia (as approved by inquiry 59 SRRF07/Disit, 08/06/2009, performed by BNDES to the Federal Revenue Department). The same occurred in relation to the financial income derived from investments in investment funds.

## 11. RELATED PARTY TRANSACTIONS

Fundo Amazônia has a relationship with BNDES, which is authorized to earmark the value of donations received in cash to non-reimbursable investments in prevention, monitoring, combating deforestation and promotion of conservation and sustainable use of the Amazon biome. The relationship mentioned refers to values corresponding to "cash and cash equivalents" (as mentioned in Note 4), which are held in bank accounts held by BNDES.

Additionally, BNDES holds an amount equivalent to 3% of the value of donations to cover its operating costs and the expenses related to Fundo Amazônia, see further explanations in note 5 "prepaid expenses".

### 12. SHAREHOLDERS' EQUITY

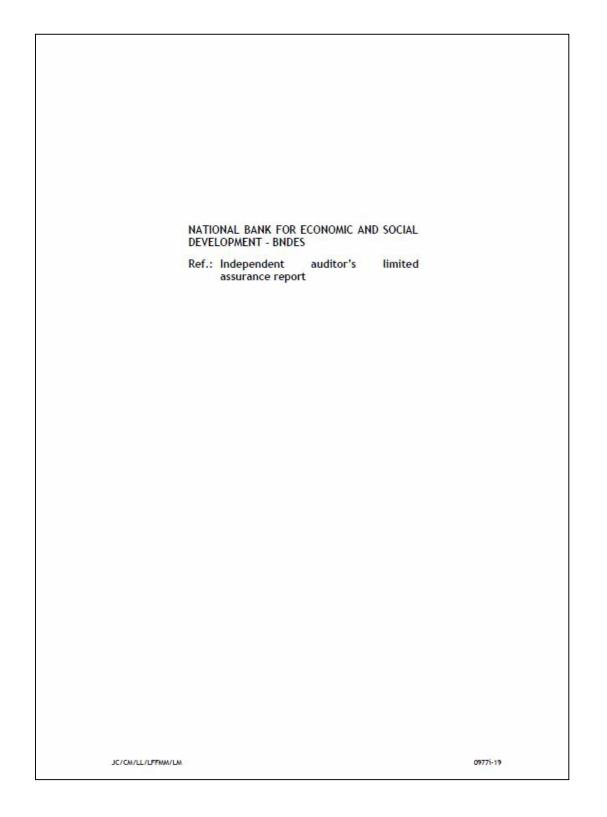
The shareholders' equity of Fundo Amazônia is composed of surplus/(deficit) for the years.

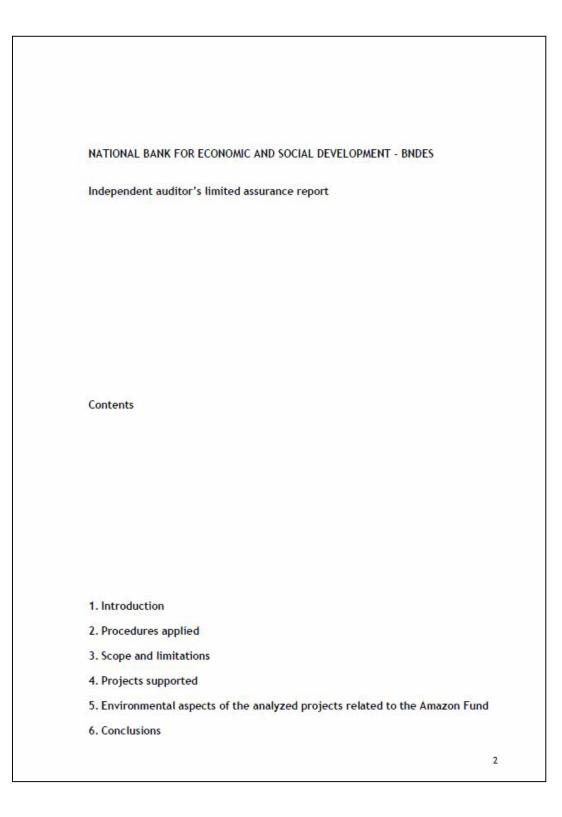
## 13. RISK MANAGEMENT

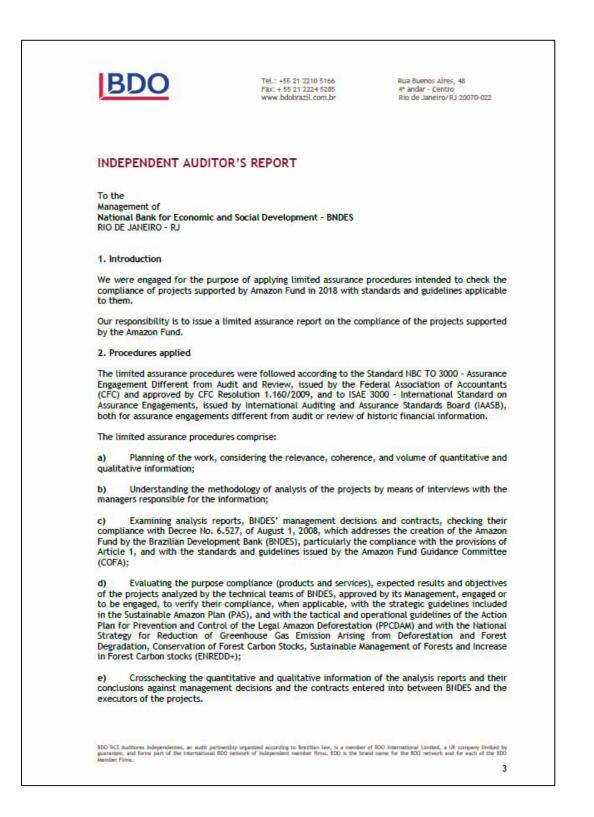
On December 31, 2018 and 2017, the Fund does not present material credit, liquidity, market and operational risks, since it has very limited operations. The Fund has concentration of credit risk with its Administrator (invested funds) as shown in Note 4. The book values represent the Fund's credit risk amount.

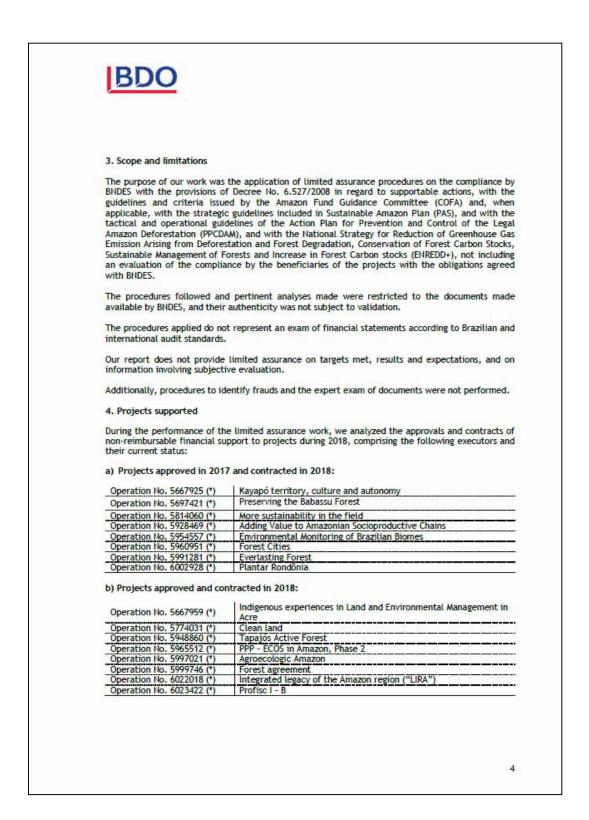
(	FUNDO AMAZÔNIA Administered by Banco Nacional de Desenvolvimento Econômico e Social - BNDES)
	Notes to the financial statements December 31, 2018 and 2017 (In thousands of reais)
EXEC	UTIVE BOARD:
Joaqu	im Vieira Ferreira Levy - Presidente
Eliane	Aleixo Lustosa de Andrade
Henric	que Bastos Rocha
Karla	Berlocco Trindade
José i	Flávio Ramos
Denis	e Pavarina
Rober	no Marucco
	RINTENDENT OF INTEGRITY DEPARTMENT, CONTROLLERSHIP AND RISK MANAGEMENT: a Frederico Rangel de Carvalho Silva
Alexa	D OF THE ACCOUNTING DEPARTMENT: ndre Cordeiro de Andrade untant - CRC-RJ 060694/O-0
	17

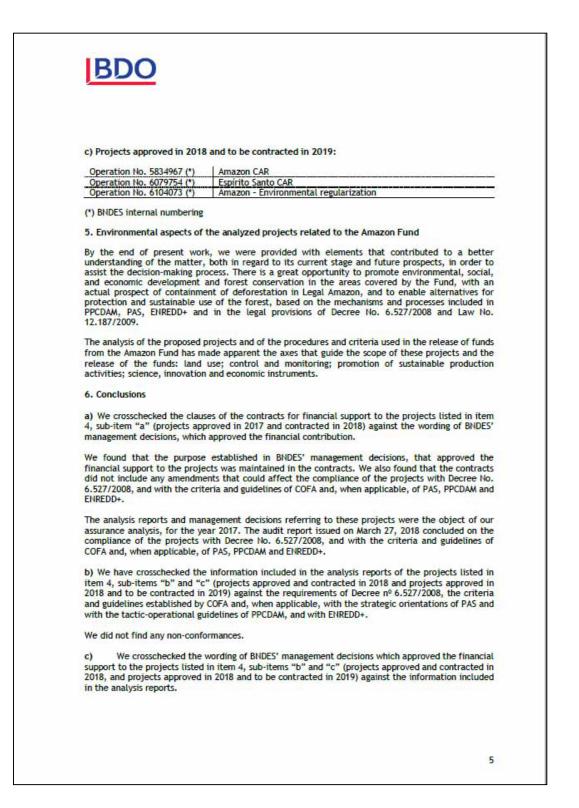
## ANNEX 2 – Compliance audit report













## ANNEX 3 – Guidelines and criteria for allocation of resources and focuses in 2017 and 2018

	Projects in the Brazilian Amazon	Projects in	Brazil outside the Brazilian Amazon	Projects in other tropical countries	
А	Guidance Criteria	G1-G4	Guidance Criteria	H1-H3	Guidance Criteria
В	Minimum Requirements for Projects	G5-G14	Minimum Requirements for Projects	H4-H11	Minimum Requirements for Projects
С	Resource Application Modalities	G15-G16	Resource Application Modalities	H12-H13	Resource Application Modalities
D	Resource Use Restrictions	G17-G19	Resource Use Restrictions	H14-H16	Resource Use Restrictions
E	Equality Criteria in Resource Application	G20	Equality Criteria in Resource Application	H17	Equality Criteria in Resource Application

F Resource Application Limitations

	Amazon Fund's support focuses in 2017 and 2018
11-13	General Guidance
14-16	Operational Modalities
17-110	Brazilian Amazon – Monitoring and Control
11- 13	Brazilian Amazon – Fostering Sustainable Production Activities
114-118	Brazilian Amazon – Land-title Regularization and Land-use Planning
119-124	Brazilian Amazon – Science, Innovation and Economic Instruments
125-126	Amazon Fund Support in Brazil outside the Brazilian Amazon
127	Amazon Fund Support in other Tropical Countries

CONSOLIDATED ON NOVEMBER 11, 2018

## Guidelines and criteria for the application of the Amazon Fund's resources in the Brazilian Amazon

Application	Application limit of the total resources available in the year	Tables
Projects in the Brazilian Amazon	no limits	A - F

The Brazilian Amazon (or Legal Amazon) comprises all of the states of Acre, Pará, Amazonas, Roraima, Rondônia, Amapá and Mato Grosso, and the regions located north of the 13 ° S parallel of the states of Tocantins and Goiás and to the west of the meridian of 44 ° W of the state of Maranhão (article 3, I, of Law N°.12.651, of May 25, 2012)

## A. GUIDANCE CRITERIA

Code	Criteria
A1	Торіс
A2	Geography
A3	Diversity of agents involved and shared governance
A4	Target audience
A5	Importance

## C. RESOURCE APPLICATION MODALITIES

Code	Modalities
C1	Direct application – Investment
C2	Direct application – Financing
C3	Payment for environmental services
C4	Indirect application

## D. RESOURCE USE RESTRICTIONS

Code	Restrictions	
D1	Daily payment	
D2	Payment to individuals	
D3	Taxes	

## E. EQUALITY CRITERIA IN RESOURCE APPLICATION

Code	Criteria
E1	Equality in resource application per state
E2	Equality per type of proponent

## F. RESOURCE APPLICATION RESTRICTIONS

Code	Restrictions
F1	Projects with economic purposes
F2	Projects with economic purposes to support socially-disadvantaged groups
F3	Projects with economic purposes of collective use Local Production Arrangements (APL)
F4	Projects with economic purposes of scientific and technological research developed in cooperation with Technology Institutions (IT) and entities with economic purposes

## B. MINIMUM REQUIREMENTS FOR PROJECTS

Code	Conditions
B1	Result indicators
B2	Applicants/executors
B3	Social participation
B4	Consistency with the Amazon Fund topics
B5	Consistency with the federal plan and the state plans to prevent and combat deforestation and Proveg
B6	Consistency with ENREDD+
B7	Additionality of resources
B8	Counterpart funds
B9	Territorial base
B10	Publicity and transparency
B11	Project sustainability
B12	Nonconcentration of resources
B13	Benefits of collective use
B14	Not replacing other sources of financing

#### **GUIDANCE CRITERIA**

#### A1 – Topic

The Amazon Fund supports projects in the following thematic areas:

- Management of public forests and protected areas;
- Control, monitoring and environmental inspection;
- Sustainable forest management;
- Economic activities developed from the sustainable use of vegetation;
- Ecological and economic zoning, territorial planning and land regularization;
- Conservation and sustainable use of biodiversity; and
- Recovery of deforested areas.

The projects should follow the focus established in these guidelines in Table I.

#### A2 – Geography

- Projects carried out in the priority municipalities to prevent, monitor and combat deforestation (these municipalities are defined in accordance with article 2 of Law N°. 6,321/2007);
- Projects carried out in municipalities under area of influence of major infrastructure works;
- Projects carried out in municipalities/regions with greater conservation of forest cover; and
- Projects carried out in priority areas for the conservation of biodiversity or the improvement of the conservation status of endangered species of fauna and flora.

#### A3 – Diversity of agents involved and shared governance

Projects involving contact between diverse agents from the public and private sector, third sector or local communities with a shared governance structure.

#### A4 – Target audience

Projects involving direct benefits for traditional communities, settlements and family farmers.

#### A5 – Importance

Projects with the highest potential for replication.

Projects with the highest potential impact (e.g. R\$/sustainably managed or protected hectares of forest).

#### MINIMUM REQUIREMENTS FOR PROJECTS

#### B1 – Result indicators

Project must include measurable indicators for results that are directly related to the Amazon Fund's goals.

#### **B2** – Applicants/executors

Projects must include agreement of all partners and co-executors.

#### **B3** – Social participation

Projects involving traditional communities and indigenous people must necessarily present documents certifying the previous consent of these communities or their representative institutions. The communities involved should be explained in the project.

#### **B4** – Consistency with the Amazon Fund topics

Projects must be compatible with at least one topic, as stated in Law N°. 6,527/2008.

#### B5 – Consistency with the PPCDAm, the PPCDs and Combat Deforestation and the Proveg

Projects must demonstrate clear coherence with actions foreseen in the Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAm), in the state plans for prevention and combat of deforestation (PPCD) and, when applicable, with the National Policy for the Recovery of Native Vegetation (Proveg).

#### **B6 – Consistency with ENREDD+**

Projects must demonstrate clear consistency with the National Strategy for Reducing Emissions of Greenhouse Gases from Deforestation and Forest Degradation, Forest Carbon Stocking, Sustainable Forest Management and Forest Carbon Stock Enhancement (ENREDD+).

#### **B7 – Additionality of resources**

Projects must respect the principle of additionality to the direct public budgets allocated to the Amazon Fund's application areas. In applying this criterion, the following aspects may be considered:

- The average direct public budget executed in the previous 2 (two) years in the public budget invested in the proposed action;
- Variation of the budget of the responsible institution or government body compared to the variation of the budget of the federative entity to which it is linked or integrates (in relation to the previous year);
- Forecasts from current government pluri-annual plans (PPA).

#### **B8 – Counterpart funds**

Projects must present counterpart funds and/or nonfinancial contributions, showing additionalities to resources received from the Amazon Fund and produce a multiplying effect for fund investments. Counter-applications can be in the form of financial resources directly invested in the project or by providing infrastructure, personnel and other indirect forms.

#### **B9** – Territorial base

Projects must clarify their territorial base (state and, where applicable, municipality).

#### **B10 – Publicity and transparency**

Projects must present a disclosure mechanism of its implementation through the internet.

#### **B11 – Project sustainability**

Submit support strategies for the project's results after its implementation.

#### **B12** – Nonconcentration of resources

In the Fund's efforts, there must be an effort to balance support in all its topic areas, in accordance with the priorities that are established.

#### **B13** – Benefits of collective use

The results of projects with economic purposes should prioritize collective or public benefits related to:

- The productive infrastructure, services and inputs for collective use, without prejudice to the individual appropriation of benefits by the target population of the Amazon Fund (item A 4);
- Studies and surveys with results available to the community;
- Training and capacity building open to the community;
- Technological development with results open to the community, whenever feasible;
- Replicable innovations with practical applications;
- Other collective benefits identified in the project evaluation process.

#### **B14** – Not replacing other sources of financing

The Amazon Fund resources cannot replace other available sources of financing.

#### **RESOURCE APPLICATION MODALITIES**

#### C1 – Direct application – Investment

Applications made directly by project executors, even through third-party contracts. This includes investments in buildings, equipment, training and qualification to establish initiatives. Projects may use more than one modality.

#### C2 – Direct application – Financing

Applications made directly by project executors, even through third-party contracts.

This includes travel expenses/field missions, individual or company consulting, field materials, communication, among others. Projects may use more than one modality.

#### C3 – Payment for environmental services

Payments made to providers of environmental services. Projects may use more than one modality.

#### C4 – Indirect application

Indirect applications by aggregating small projects, including funds and other organizations that implement projects.

#### **RESOURCE USE RESTRICTIONS**

#### D1 – Out-of-pocket expense payments

No out-of-pocket expense payments will be made to public agents, such as civil servants, public employees or any person in a public post. This restriction does not apply in the case of financing for research activities.

#### D2 – Payment to individuals

Payments of salaries or any type of remuneration may not be made to public agents, such as civil servants, public employees or any person in a public post in the three spheres of government (this restriction does not apply to the payment of research or study scholarships specifically related to the project).

#### D3 – Taxes

Resources cannot be applied to pay taxes that are not inherent or an integral part of financing or investments made by the project (restriction does not apply to taxes related to project activities, such as ICMS (value-added tax on sales and services) included in the price of products; National Institute of Social Security (INSS) on the payment for the services of individuals etc.).

#### EQUALITY CRITERIA IN RESOURCE APPLICATION

E1 – Equality in resource application per state

Avoid concentration of project resources in one state only.

#### E2 – Equality per type of applicant

Avoid concentration of resources among applicants: government agencies, research institutions and civil society organizations. Within the context of the Amazon Fund, civil society includes nongovernmental organizations, unions/guilds (representations for categories), firms and other institutions governed by private law.

#### **RESOURCE APPLICATION LIMITATIONS**

#### F1 – Projects with economic purposes

The Amazon Fund maximum participation:

90% for projects that involve small and micro businesses, producer cooperatives or associations with annual gross operating revenues less than or equal to R\$ 3.6 million;

70% for projects that involve medium-sized businesses, producer cooperatives or associations with annual gross operating revenue above R\$ 3.6 million and less than or equal to R\$ 300 million;

50% for projects that involve large companies, producer cooperatives or associations with annual gross operating revenue above R\$ 300 million.

Note: In the event of early activities on the calendar year, above limits will be proportional to the number of months in which the company has been operating, not considering fractions of months. In the case of companies under implementation, the annual sales projection will be considered, taking into account the total installed capacity. When the company is controlled by another company, or belongs to a business group, the size classification will consider the consolidated gross operating revenue.

F2 – Projects with economic purposes to support socially disadvantaged groups

Maximum share of the Amazon Fund, in duly justified cases: 100%. Economic results brought about by projects to support socially-disadvantaged groups should be distributed to the members, regardless of who the applicant is.

F3 – Projects with economic purposes for Local Production Arrangements (APL) for collective use

Maximum share of the Amazon Fund: 90%.

F4 – Projects with economic purposes for scientific and technological research developed in cooperation with Technology Institutions (IT) and companies with economic purposes

Maximum share of the Amazon Fund:

90% for projects involving small and micro businesses, producer cooperatives or associations with annual gross operating revenues less than or equal to R\$ 10.5 million;

80% for projects involving medium-sized businesses, producer cooperatives or associations with annual gross operating revenue greater than R\$ 10.5 million and less than or equal to R\$ 60 million;

70% for projects involving large companies, producer cooperatives or associations with annual gross operating revenue above R\$ 60 million – see note in item F 1.

- · Beneficiaries of the financial resources from the Amazon Fund will be Technological Institutions (IT) and/or Support Institutions (IA).
- Technological Institution (IT): companies governed by internal public law or an entity directly or indirectly controlled by it or a nonprofit company governed by, private law, whose institutional mission, among others, is to carry out basic or applied research activities of a scientific or technological character, as well as technological development.
- Supporting Institutions (IA) nonprofit institutions created to support research, teaching, and extension and institutional, scientific and technological development of interest to higher education institutions and scientific and technological research institutions and those institutions created under the terms of Law N°. 8,958, of December 20, 1994, which have the same purpose.
- Companies and/or other entities with economic purposes with strategic interest in research will not be direct beneficiaries of resources. They intermediate financing operations and will provide financial contribution to supplement the Amazon Fund's resources.
- Support is offered to investments made to benefit the Technological Institutions (IT), with a special purpose to meet project goals.
- Participation in the intellectual property and economic results from project creations will adhere to provisions in the Innovation Law (Law N°. 10,973, of December 2, 2004). Thus, the parties, in an agreement, will establish the ownership of intellectual property and profit sharing. Provided they are established in the agreement, these will be proportionately secured at a rate equivalent to the aggregate value of existing knowledge at the beginning of the partnership and of human, financial and material resources allocated by the Contracting Parties in the project.
- During analysis, the BNDES will check related aspects of intellectual property rights resulting from the research, development and innovation project so as to avoid, when appropriate, practices that restrict use and assignment of these rights. In addition to the matters referred to, the BNDES, in the analysis stage, will also verify the criteria for divvying up the project's financial results.

## Guidelines and criteria for the application of the Amazon Fund's resources in projects to develop systems to monitor and control deforestation in Brazil outside the Brazilian Amazon

Application	Application limit of the total resources	Tables
Projects in Brazil outside the Brazilian Amazon and other tropical countries	20%	G and H

#### **GUIDANCE CRITERIA**

#### G1 – Diversity of agents involved and shared governance

Projects involving contact between diverse agents, public, private and third sector or local communities with a shared governance structure.

#### G2 – Relevance

Projects that develop and implement long-term monitoring methodology for REDD.

#### G3 – Priority

Within the scope of support for other Brazilian biomes, priority will be given to permanent monitoring system projects per biome, which contribute to nationwide system for monitoring and controlling deforestation, burn-offs and forest fires, in accordance with the prevention and control plans.

#### G4 – Scope

Rural Environmental Registry (CAR) projects and integration of state forest management data into the National Forest Control Origin System (Sinaflor) are considered part of environmental control systems.

#### MINIMUM REQUIREMENTS FOR PROJECTS

#### **G5** – Result indicators

Projects must include measurable result indicators that are directly related to implementing systems so as to monitor deforestation or forest degradation.

#### G6 – Applicants/executors

Projects must include agreement between all partners and co-executors.

#### G7 – Social participation

Projects must have a monitoring phase, necessarily featuring governmental entities and civil society. Projects involving the development of monitoring systems should have a monitoring phase that necessarily includes the participation of governmental entities and civil society. Communities involved should be explained in the project.

#### G8 – Contribution to REDD

Projects must contribute directly or indirectly towards REDD.

#### **G9** – Additionality of resources

Projects must represent additionality to the public budgets destined to the areas of application of the Amazon Fund. In applying this criterion, the following aspects may be considered: the average direct public budget executed in the previous 2 (two) years in the public budget invested in the proposed action; variation of the budget of the responsible institution or government body compared to the variation of the budget of the federative entity to which it is linked or integrates (in relation to the previous year); and forecasts from current government multi-annual plans (PPA).

#### G10 – Counterpart funds

Projects must present counterpart funds and/or nonfinancial contributions, showing additionalities to resources received from the Amazon Fund and produce a multiplying effect for fund investments. Counter-applications can be in the form of financial resources directly invested in the project or by providing infrastructure, personnel and other indirect forms.

#### G11 – Territorial base

Projects must necessarily address the monitoring of forests of at least one entire biome.

#### G12 – Publicity and transparency

Monitoring systems supported by the Amazon Fund must be based on platforms that enable broad dissemination, transparency and access to data produced, via internet.

#### G13 – Project sustainability

Demonstration of the capacity to economically sustain the project after it is implemented.

#### G14 – Decentralization of resources

In the Fund's efforts, there must be an effort to balance support in all its topic areas, in accordance with the priorities that are established.

#### **RESOURCE APPLICATION MODALITY**

#### G15 – Direct application – Investment

Applications made directly by project executors, even through third-party contracts.

This includes investments in buildings, equipment, training and qualification to establish initiatives. Projects may use more than one modality.

#### G16 – Direct application – Financing

Applications made directly by project executors, even through third-party contracts.

This includes travel expenses/field missions, individual or company consulting, field materials, communication, among others. Projects may use more than one modality.

#### **RESOURCE USE RESTRICTIONS**

#### G17 – Out-of-pocket expense payments

No out-of-pocket expense payments will be made to public agents, such as civil servants, public employees or any person in a public post. This restriction does not apply in the case of financing for research activities.

#### G18 – Payment to individuals

Payments of salaries or any type of remuneration may not be made to public agents, such as civil servants, public employees or any person in a public post in the three spheres of government (this restriction does not apply to the payment of research or study scholarships specifically related to the project).

#### G19 – Taxes

Resources cannot be applied to pay taxes that are not inherent or an integral part of financing or investments made by the project (restriction does not apply to taxes related to project activities, such as ICMS (valued-added tax on sales and services) included in the price of products; INSS (National Institute of Social Security) on the payment for the services of individuals etc.).

#### EQUALITY CRITERIA IN RESOURCE APPLICATION

#### G20 – Equality in resource application per state

Avoid concentration of project resources in one state only.

## Guidelines and criteria for the application of the Amazon Fund's resources in projects to develop systems to monitor and control deforestation in other tropical countries

Application	Application limit of the total resources	Tables
Projects in Brazil outside the Brazilian Amazon and other tropical countries	20%	G and H

#### **GUIDANCE CRITERIA**

#### H1 – Diversity of agents involved and shared governance

Projects involving contact between diverse agents, public, private and third sector or local communities with a shared governance structure.

#### H2 – Relevance

Countries with large-scale forest coverage.

#### H3 – Scope

In other tropical countries, the Amazon Fund support will be limited to projects that contribute to creating or improving systems to monitor forest coverage and deforestation control systems.

Forest coverage monitoring systems is understood as applying techniques that involve processing (e.g., geo-referencing, enhancements and classification) of images of the Earth's surface (aerial or satellite) for the purpose of mapping land cover and use, deforestation, forest degradation and forest regeneration (regeneration and reforestation), using the information produced (e.g., mapping, spatial analysis and statistics) for forest management.

Deforestation control systems include devising action plans to reduce deforestation, developing platforms for measuring, reporting and verifying forest cover data, organizing, managing and making available information on the process of deforestation, such as management plans, authorizations, permits, sale and transportation documents and other forest control documents. It also includes support for the creation and improvement of forest product traceability systems (definition of methodologies and procedures, database development and information management systems).

#### MINIMUM REQUIREMENTS FOR PROJECTS

#### H4 – Result indicators

Projects must include measurable result indicators that are directly related to implementing systems so as to monitor deforestation or forest degradation.

#### H5 – Applicants/executors

Projects must be presented by the central government of the beneficiary country, multilateral institutions or by Brazilian governmental institutions, and, in the two latter cases, must have the formal consent of the central government of the country that will benefit from the efforts in the project.

#### H6 – Contribution to REDD

Projects must contribute directly or indirectly towards REDD.

#### H7 – Counterpart funds

Projects must present counterpart funds and/or nonfinancial contributions, showing additionalities to resources received from the Amazon Fund and produce a multiplying effect for fund investments. The following aspects may be considered: the average direct public budget executed in the previous 2 (two) years in the public budget invested in the proposed action; variation of the budget of the responsible institution or government body compared to the variation of the budget of the federative entity to which it is linked or integrates (in relation to the previous year); and forecasts from current government multi-annual plans (PPA). The contributions can be in the form of financial resources directly invested in the project or by the provision of infrastructure, personnel and other indirect forms.

## H8 – Publicity and transparency

Monitoring systems supported by the Amazon Fund must be based on platforms that enable broad dissemination, transparency and access to data produced, via internet.

#### H9 – Project sustainability

Demonstration of the capacity to economically sustain the project after it is implemented. The BNDES will provide a standardized tool for integrating and disseminating updated information to implement all projects.

#### H10 – Decentralization of resources

In the fund's efforts, there must be an effort to balance support in all its topic areas, in accordance with the priorities that are established.

#### H11 – Previous phase

As a stage to consider international projects, the BNDES, prior to project eligibility, will request a formal assessment from the Ministry of Foreign Affairs (MRE) on the priority and the impacts of the project with regard to Brazil's foreign relations.

#### **RESOURCE APPLICATIONS MODALITIES**

#### H12 – Direct application – Investment

Applications made directly by project executors, even through third-party contracts.

This includes investments in buildings, equipment, training and qualification to establish initiatives. Projects may use more than one modality.

#### H13 – Direct application – Financing

Applications made directly by project executors, even through third-party contracts.

This includes travel expenses/field missions, individual or company consulting, field materials, communication, among others. Projects may use more than one modality.

#### **RESOURCE USE RESTRICTIONS**

#### H14 – Out-of-pocket expense payment

No out-of-pocket expense payments will be made to public agents, such as civil servants, public employees or any person in a public post. This restriction does not apply in the case of financing for research activities.

#### H15 – Payment to individuals

Payments of salaries or any type of remuneration may not be made to public agents, such as civil servants, public employees or any person in a public post in the three spheres of government (this restriction does not apply to the payment of research or study scholarships specifically related to the project).

#### H16 – Taxes

Resources cannot be applied to pay taxes that are not inherent or an integral part of financing or investments made by the project .

#### EQUALITY CRITERIA IN RESOURCE APPLICATION

#### H17 – Equality in resource application per state

Avoid project concentration in the same country.

## Amazon Fund's support focuses in 2017 and 2018

#### **GENERAL GUIDELINES**

#### I 1 – Focuses for 2017 and 2018

The following items define the Amazon Fund's focus for the biennium 2017 and 2018 and establish additional guidelines and criteria. In the absence of a review of these focuses until 12.31.2018 the focuses defined herein will be in force until the next meeting of the Amazon Fund's Guidance Committee or until the approval of the new guidelines.

#### I 2 – Requirements for supporting states

Support for new projects presented by state governments will be conditional upon the state concerned being in the process of implementing the CAR in its territory, using either their own resources, those from the Amazon Fund or from other sources. Priority should be given to new projects submitted by states that are integrated or in the process of being integrated into the National Forest Control Origin System (Sinaflor), in compliance with article 35 of Law N°.12.651/2012.

Contracts between the Amazon Fund and the states within the Brazilian Amazon must include a contractual obligation for the state to revise their plans to prevent and combat deforestation (PPCD) if they are outdated, and another obligation to produce and publicize an annual monitoring report on their PPCDs.

#### I 3 – Exception to the requirement of resource additionality in the Brazilian Amazon

Projects related to item I 12 and projects that aim to continue or improve environmental monitoring and control of deforestation, presented by federal or state agencies or public institutions with legal mandate to carry out enforcement actions under the National Environmental System (Sisnama), may exceptionally be exempted from the minimum condition of additionality of resources mentioned in item B 8. Therefore, a technical justification formally presented by the Ministry of Environment will be required, as well as a declaration from the body/applicant institution stating the nonexistence of available source of resources for the requested financial support. The above mentioned technical justification and statement are mandatory documents that must accompany the financial support request formally filed at BNDES, which will also check adherence to the conditions established in the donation agreements to the Amazon Fund.

#### **OPERATIONAL MODALITIES**

#### I 4 – Operational modalities

The focuses here defined will be supported through the direct presentation of structuring projects or projects selected through public calls promoted directly by the Amazon Fund (BNDES) or through partner institutions.

Support for scientific and technological development projects will be provided exclusively through the public call modality (promoted directly by the Amazon Fund (BNDES) or through a partner institution) or through structuring projects that have the objective of subsidizing the formulation or implementation of public policies, according to criteria to be defined by COFA.

The Amazon Fund's Guidance Committee (COFA) may establish guiding criteria to induce the submission of projects adhering to the focus of the biennium, establishing aspects such as the minimum target scope, supported items, deadlines and other constraints.

#### 15 – Structuring projects

Structuring project is one that meets cumulatively the following criteria:

- a. Contributes to the implementation of a public policy.
- b. Will have a decisive impact to solve the problem situation.
- c. Has scale in the territory (whenever the project develops its actions in the territory).

Structuring projects may be proposed by: (a) Federal Government and its agencies; (b) state governments and its agencies; (c) private nonprofit organizations; or (d) companies; or (e) multilateral institutions.

The criterion "has scale in the territory" will be considered as fulfilled when, for example, the project actions cover in its entirety a set of municipalities, rural settlements or protected areas, a state planning region, the surroundings of major infrastructure works etc. Defining territorial scale must be done in accordance with the project's characteristics and the respective public policies.

#### 6 – Call-to-submission

In addition to calls for projects directly promoted by the Amazon Fund (BNDES), support will be granted to partner institutions to promote public calls for projects. The partner institutions must demonstrate experience, knowledge and operational capacity to confer quality and scale to public calls, with partner institutions being understood as entities of the third sector and the federal and state governments.

The Amazon Fund will be permanently open to the presentation by partner institutions of requests for financial collaboration that seek their support for public calls for projects, focusing on the actions prioritized for the biennium 2017 and 2018 in the Brazilian Amazon.

Public calls promoted directly by the Amazon Fund or indirectly supported through the partner institutions should be publicized on the Amazon Fund's website or the partner institutions responsible, as the case may be.

#### BRAZILIAN AMAZON – MONITORING AND CONTROL

#### I 7 – Inspection and control of environmental crimes and infractions

Promotion of inspection, investigation and combat of crimes and environmental infractions, including support: (i) to increase the capacity of environmental inspection, investigation and combat of federal and state governments; (ii) integration of state intelligence and oversight systems with federal systems; (iii) integrated control actions, involving state environmental agencies, Ibama, Funai and ICMBio; (iv) the integrated computerization of state forest management data to Sinaflor, including authorizations to suppress vegetation and management plans; and (v) allocation of seized assets.

#### I 8 – Implementation and effectuation of the Rural Environmental Registry (CAR) and environmental regularization

Promotion of the environmental regularization process through: (i) support for registration in the Rural Environmental Registry (CAR) of small properties or rural family possessions (up to four government-established modules), indigenous lands and quilombolas; (ii) support to the integration of state CAR systems into the Rural Environmental Registry System (Sicar) and adaptation of complementary modules for Analysis and Monitoring, management of State Environmental Regularization Programs (PRA) and Environmental Reserve Quotas (CRA); (iii) support to the development and implementation of the PRA; (iv) support for activities to validate enrolments in the CAR; (v) support to the elaboration and validation of projects for the rehabilitation of degraded and altered areas (Prada) of small farms or family farms; and (vi) support for structuring and operationalizing the monitoring of the environmental regularity of rural properties.

Support for the implementation of the CAR and the environmental regularization of rural properties will be done primarily through operations with the states, which may sign partnerships/contracts to carry out the necessary actions, in compliance with applicable legislation. However, CAR and environmental regularization projects carried out by other partners in areas that were not included in state-run projects may also receive support.

#### I 9 – Preventing and combating the occurrence of forest fires

Support for actions to prevent and combat forest degradation caused by fires in native vegetation presented by government agencies operating in the Brazilian Amazon, military fire brigades or nongovernmental organizations in partnership with government agencies, primarily in rural settlements, protected areas and lands of indigenous peoples.

To promote the integration of the information on authorizations of fires issued by the states with the National Fire Information System – Sisfogo, through support to the integration of systems.

#### I 10 – Improvement and strengthening of plant cover monitoring

Support for the monitoring of deforestation, the dynamics of land use change, forest degradation and burning in the Brazilian Amazon.

#### **BRAZILIAN AMAZON – FOSTERING SUSTAINABLE PRODUCTION ACTIVITIES**

#### I 11 – Economic activities for the sustainable use of forests and biodiversity

Structuring, strengthening and consolidation of productive chains of socio-biodiversity and family-based sustainable agriculture, including valorization of the extractive economy, timber and nontimber forest management, aquaculture and fishing arrangements, agroecological and agroforestry systems, community-based tourism, sustainable cattle raising and technical assistance for these activities.

#### I 12 – Green grant program and payments for environmental services

Strengthening of the Environmental Conservation Support Program (Bolsa Verde) and of incentives for community-based environmental and ecosystem services.

#### I 13 – Restoration of degraded and altered areas

Support to the implementation of the National Policy for the Recovery of Native Vegetation (Proveg), especially the restoration of degraded and altered areas of: (i) small farms or properties up to four government-established modules, with prioritization of Pradas implementation; and (ii) protected areas, indigenous lands and traditional communities.

#### BRAZILIAN AMAZON – LAND-TITLE AND TERRITORIAL PLANNING

#### I 14 – Land-title regularization

Support for land-title regularization of public lands, with priority of the critical areas with greater deforestation and agrarian conflicts, including support for the allocation of public lands and the holding of joined efforts for agrarian and environmental regularization. No support will be made available to pay for expropriation.

#### I 15 – Territorial planning

Support for the elaboration, revision and detailing of ecological-economic zoning (ZEE), including actions to train managers and technicians of government and civil society, and the formulation of action plans that foresee the application of the ZEE in other public policy instruments, such as the Pluri-annual Plan, Environmental Regularization Programs, environmental licensing, rural credit granting and the granting of rights to use water resources.

#### I 16 – Indigenous lands

Support to the elaboration and implementation of the territorial and environmental management plans for indigenous lands, aligned with the National Policy for the Territorial and Environmental Management of Indigenous Lands (PNGATI) including the protection and surveillance of indigenous lands.

#### I 17 – Protected areas

Support for the creation, recognition and consolidation of protected areas (nature conservation units and indigenous lands).

Support for the formation of ecological corridors, connecting public and private lands, by means of, among others: (i) the creation of protected areas (nature conservation units); (ii) improvement of the environmental and territorial management of protected areas, including areas of permanent preservation (APP), legal reserve and restricted use; (iii) recovery of degraded areas, in compliance with the provisions of item I 13; and (iv) of the formalization of agreements to maintain corridors.

Support for the restoration and maintenance of priority areas for management of protected areas in buffer zones, noted that support will be limited to small properties or rural family possessions (up to four government-established modules).

#### I 18 – Settlements

Support for the environmental and land regularization of settlements, including the implementation of the Green Settlements Program (Program for Prevention, Combat and Alternatives to Illegal Deforestation in Amazon Settlements).

#### **BRAZILIAN AMAZON – SCIENCE, INNOVATION AND ECONOMIC INSTRUMENTS**

#### I 19 – New products from socio-biodiversity

Support for scientific and technological research focused on socio-biodiversity product chains, including the development of new products based on Amazonian biodiversity – pharmaceuticals, phytopharmaceuticals, medicines, cosmetics and other products of interest to the chemical and food industries.

#### I 20 – Sustainable production activities

Support for scientific and technological research aimed at timber and nontimber forest management, recovery of degraded areas (including species selection, seed management and methods to optimize recovery), integration of crop-livestock-forest (ILPF), fisheries and aquaculture, conservation of water resources and soil.

#### I 21 – Systems for the monitoring and control of deforestation, forest degradation and fires

Support to the development, implementation and improvement of land use and land cover monitoring systems and control of deforestation, forest degradation, regeneration and fires to quantify deforestation, as a subsidy to public policies to prevent and combat deforestation.

#### I 22 – Studies, projections and simulations

Support for studies, projections and simulations related to land use and land cover, with the objective of subsidizing the elaboration and implementation of public policies to prevent and combat deforestation and to reduce greenhouse gas emissions resulting from deforestation, according to criteria to be defined by COFA.

#### I 23 – Community financing

Support for the structuring and contribution of financial resources to community revolving funds or similar instruments to enable the expansion of the value chains of forest management, socio-biodiversity and agroecology.

#### I 24 – Promotion of public procurement policy

Support for the expansion of the public procurement policy for products originating from forest management, socio-biodiversity and agroecology, aiming to give them support and a greater scale.

I 25 – Economic instruments and impact investment

Support for the development of a social and environmental impact investment ecosystem and other impact initiatives in the Brazilian Amazon, as well as for economic instruments that allow the Amazon Fund resources to be combined with private resources or with other sources.

#### AMAZON FUND'S SUPPORT OUTSIDE THE BRAZILIAN AMAZON

#### I 26 – Rural Environmental Registry (CAR) and environmental regularization of rural properties

Promotion of the environmental regularization process through: (i) support for registration in the Rural Environmental Registry (CAR) of small properties or rural family possessions (up to four government-established modules); (ii) support for the integration of state CAR systems into the Rural Environmental Registry System (Sicar) and adaptation of complementary modules for analysis and monitoring; and (iii) support to activities for the validation of enrollments in the CAR.

Beneficiaries of CAR support projects outside the Brazilian Amazon must necessarily make a financial contribution. In projects that contemplate states where the cerrado, caatinga and pantanal biomes represent, cumulatively, more than 40% of their territory, financial contributions must be of at least 10% of the total value of the project. In other cases outside the Brazilian Amazon, financial contributions must be of at least 20% of the total value of the project.

Support for the implementation of the CAR will be done primarily through operations with states, which may sign partnerships/contracts to carry out the necessary actions, in compliance with applicable legislation.

#### I 27 – Deforestation monitoring systems

Support to projects that contribute to the creation or improvement of systems for monitoring forest cover outside the Brazilian Amazon, according to the guidelines and criteria in force (see items G 1 to G 20).

Support for protection and surveillance on indigenous lands.

Promote integrated computerization of state forest management data to the National Forest Control Origin System (Sinaflor), including authorizations for suppression of vegetation and management plans.

#### AMAZON FUND'S SUPPORT IN OTHER TROPICAL COUNTRIES

#### I 28 – Deforestation monitoring systems in other tropical countries

Support for projects that contribute to the creation or improvement of forest cover monitoring systems and deforestation control systems in other tropical countries, according to current guidelines and criteria (see items H 1 to H 17).

#### **GENERAL GUIDELINES**

#### I 1 – Focuses for 2015 and 2016

The following items define the Amazon Fund's focus for 2015 and 2016 and establish guidelines and additional criteria.

#### I 2 – Requirements when supporting states

Support for new projects presented by state governments will require implementing the CAR in the territory, using either their own resources, those from the Amazon Fund, or from other sources.

Contracts between the Amazon Fund and the states within the Brazilian Amazon must include a contractual obligation for state to revise their plans to prevent and combat deforestation (PPCD) if they are outdated, and another obligation to produce and publicize an annual monitoring report on their PPCDs.

#### I 3 – Exception to the requirement of resource additionality in the Brazilian Amazon

Projects that aim to continue or improve environmental monitoring and control of deforestation, presented by federal or state agencies or public institutions with legal mandate to carry out enforcement actions under the National Environmental System (Sisnama) may exceptionally be exempted from the minimum condition of additionality of resources mentioned in item B 8. Therefore, a technical justification formally presented by the Ministry of the Environment will be required, as well as a declaration from the body/applicant institution stating the nonexistence of available source of resources for the requested financial support. The above mentioned technical justification and statement are mandatory documents that must accompany the financial support request formally filed at BNDES.

#### **BRAZILIAN AMAZON – MONITORING AND CONTROL**

#### 4 – Rural Environmental Registry (CAR) and environmental regularization of rural properties

Fostering environmental regularization through: (i) support for small properties or temporarily-owned rural family properties (up to four government-established modules) to enroll on the Rural Environmental Registry (CAR); (ii) support to integrate state-run CAR systems into the Rural Environmental Registry System (Sicar) and to adapt not only complementary modules for Analysis and Monitoring, but also management for state-run Environmental Regularization Programs (PRA) and Environmental Reserve Quotas (CRAs); (iii) support to develop and implement the PRAs; (iv) support for activities to validate enrollment on the CAR; (v) support to develop projects to recover degraded and altered areas (Prada) on small properties or temporarily-owned rural family properties; (vi) support for activities to validate Pradas; and (vii) support to structure and operationalize monitoring for environmental compliance of rural properties.

Support to implement the CAR and environmental regularization for rural properties will be carried out primarily through operations with the states, which may establish partnerships/contracts to carry out the necessary actions, while respecting applicable legislation. However, other CAR projects in areas that were not included in state-run projects may receive support from other partners.

#### I 5 – Forest fires

Support for efforts to prevent and combat forest degradation caused by fires in native vegetation, which were presented by government environmental agencies operating in the Brazilian Amazon and by NGOs in partnership with government agencies, primarily on settlements, in protected areas and on indigenous land.

#### I 6 – Monitoring

Support to monitor deforestation, forest degradation and forest fires in the Brazilian Amazon.

#### **BRAZILIAN AMAZON – FOSTERING SUSTAINABLE PRODUCTION ACTIVITIES**

#### I 7 – Economic activities that make sustainable use of the forest and biodiversity

Structuring, strengthening and consolidating socio-biodiversity production sectors and sustainable family farming, including adding value to the extraction economy, timber and nontimber forestry, aquaculture and fishing arrangements, agro-ecological and agro-forestry systems, as well as community-based tourism, including technical assistance for sustainable production activities.

#### I 8 – Green Settlements Program

Implementing the Green Settlements Program (Program for Prevention, Combat and Alternatives to Illegal Deforestation in Amazon Settlements).

#### I 9 – Recovering degraded and altered areas

Support to recover degraded and altered areas on small properties or temporarily-owned rural family properties (up to four governmentestablished modules), prioritizing the implementation of Pradas..

#### BRAZILIAN AMAZON – LAND-TITLE AND TERRITORIAL PLANNING

#### I 10 – Land-title regularization

Support to implement land-title regularization for public land, prioritizing critical areas with intense deforestation; priority is also given to digitalizing land titles as well as building or consolidating state land-title mapping, as well as computerizing property registration and records at state land agencies. No support will be made available to pay for expropriation.

#### I 11 – Indigenous land

Support to prepare and implement territorial and environmental management plans for indigenous land, in compliance with the National Policy on Territorial and Environmental Management of Indigenous Land (PNGATI).

#### I 12 – Protected areas

Support to create and consolidate protected areas.

#### **BRAZILIAN AMAZON – FOCUS ON SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENT**

#### I 13 – New products from socio-biodiversity sectors

Support for scientific and technological research focused on biodiversity product sectors, including developing new products using the Amazon's biodiversity-pharmaceuticals, plant health care, medicine, cosmetics and other products of interest to the chemical and food industries.

#### I 14 – Sustainable production activities

Support for scientific and technological research aimed at timber and nontimber forest management, recovering degraded areas, integrating farming and cattle-raising-forestry (ILPF), as well as sustainable fishing and aquaculture, water resources and soil conservation.

#### I 15 – Systems to monitor and control deforestation, forest degradation and forest fires

Support to develop, implement and improve systems to monitor land use and coverage, as well as to control deforestation, forest degradation and forest fires aimed at quantifying deforestation, so as to help public policies prevent and combat deforestation.

#### I 16 – Research infrastructure

Support from the Amazon Fund for scientific and technological development will include support for the necessary research infrastructure.

#### **BRAZILIAN AMAZON – OPERATIONAL MODALITIES**

#### I 17 – Guidance

The focus defined in items I 4 to I 16 will receive support exclusively by directly presented structuring projects or projects selected through calls-to-submission run directly by the Amazon Fund (BNDES) or through partner institutions.

#### I 18 – Structuring projects

A structuring project cumulatively meets the following criteria:

d. It contributes to implementing a public policy.

e. It is responsive to the problem-situation.

f. It has sufficient scale in the territory (whenever the project develops its efforts in the territory).

Structuring projects can be proposed by: (a) Federal Government agencies; (b) state or government agencies; or (c) private nonprofit organizations.

For scientific and technological development projects, structuring projects can be proposed by scientific and technological institutions, and/or their supporting foundations and/or civil society organizations, whose purpose is duly defined in its articles of incorporation or bylaws, or, proposed by the federal or state government agencies.

The criterion "have sufficient scale in the territory" will be deemed met when, for example, the project's efforts cover an entire set of municipalities, settlements or protected areas, a state planning region, the surrounding areas of PAC works etc. Defining territorial scale must be done in accordance with the project's characteristics and its respective public policies.

#### I 19 – Call-to-submission

In addition to the calls-to-submissions run directly by the Amazon Fund (BNDES), support for partner institutions will be admissible to promote calls-to-submissions for projects. Partner institutions must prove experience, knowledge and operational capacity to offer quality and scale in calls-to-submission. Partner institutions are understood as third-sector entities and those from federal and state governments.

The Amazon Fund, at any time, will receive requests presented by partner institutions for financial collaboration, which seek support to run calls-to-submissions for projects, with a focus on priority efforts in 2015 and 2016, as established in items I 4 to I 16.

The calls-to-submission run directly by the Amazon Fund or those receiving indirect support through partner institutions, will be advertised on the Amazon Fund's website or that of partner institutions, as may be the case.

#### AMAZON FUND SUPPORT IN BRAZIL OUTSIDE THE BRAZILIAN AMAZON

I 20 – Rural Environmental Registry (CAR) and environmental regularization of rural properties

Fostering environmental regularization through: (i) support for small properties or temporarily-owned rural family properties (up to four government-established modules) to enroll on the Rural Environmental Registry (CAR); support to integrate state CAR systems into the Rural Environmental Registry System (Sicar) and to adaptat complementary modules for Analysis and Monitoring; and (iii) support for activities to validate enrollments on the CAR.

Beneficiaries of projects supporting the CAR in other biomes will necessarily make financial contributions. Projects whose scope covers states where savanna (Cerrado), xeric shrubland (Caatinga) and Wetland biomes represent cumulatively more than 40% of its territory, must receive financial contributions of at least 10% of the total amount of the project. In other cases outside the Brazilian Amazon, financial contributions must represent at least 20% of the total amount of the project.

Support to implement the CAR will be carried out primarily through operations with the states, which may establish partnerships/contracts to carry out the necessary actions, and respecting applicable legislation.

I 21 – Systems to monitor deforestation in other Brazilian biomes

Support for projects that help create or improve monitoring systems for forest coverage in other Brazilian biomes, in accordance with current guidelines and criteria (see items G 1 to G 20).

#### AMAZON FUND SUPPORT IN OTHER TROPICAL COUNTRIES

#### I 22 – Systems to monitor deforestation in other tropical countries

Support for projects that help create or improve monitoring systems for forest coverage in other tropical countries, in accordance with current guidelines and criteria (see items H 1 to H 18).

# ANNEX 4 – Members and substitutes of COFA in 2018

# Federal Government

#### MINISTRY OF THE ENVIRONMENT

Thiago de Araújo Mendes Jair Schmitt

#### MINISTRY OF INDUSTRY, TRADE AND SERVICES

Gustavo Saboia Fontenele e Silva Antônio José Juliani

#### MINISTRY OF FOREIGN AFFAIRS

Reinaldo José de Almeida Salgado Paulo José Chiarelli Vicente de Azevedo

#### MINISTRY OF AGRICULTURE, LIVESTOCK AND SUPPLY

José Rodrigues Pinheiro Dória Pedro Alves Corrêa Neto

#### MINISTRY OF SCIENCE, TECHNOLOGY, INNOVATIONS AND COMMUNICATIONS

Álvaro Toubes Prata Fabio Donato Soares Larotonda

#### MINISTRY OF JUSTICE - NATIONAL INDIAN FOUNDATION

Rodrigo Paranhos Faleiro Juan Felipe Negret Scalia

#### OFFICE OF THE CHIEF OF STAFF OF THE PRESIDENT OF THE REPUBLIC

Bruno Silva Dalcolmo Marta Maria Marques de Magalhães

## BRAZILIAN SOCIAL AND ECONOMIC DEVELOPMENT BANK

Marcos Adolfo Ribeiro Ferrari Gabriel Rangel Visconti

# Amazon states

## ACRE

Carlos Edegard de Deus Magaly da Fonseca e Silva Tavares de Medeiros

#### AMAPÁ

Bernardino Nogueira dos Santos Eduardo Corrêa Tavares

#### AMAZONAS

Marcelo José de Lima Dutra Christina Fischer

#### MARANHÃO

Marcelo de Araújo Costa Coelho Diego Lima Matos

#### MATO GROSSO

André Luis Torres Baby Railda Assis dos Santos

#### PARÁ

Thales Samuel Matos Belo Maria Gertrudes Oliveira

#### RONDÔNIA

Vilson de Salles Machado Francisco de Sales Oliveira dos Santos

#### RORAIMA

Gilberto Uemura Rarison Francisco Rodrigues

#### TOCANTINS

Leonardo Tette Cintra Rubens Pereira Brito

# **Civil society**

#### NATIONAL CONFEDERATION OF INDUSTRY (CNI)

Mário Augusto de Campos Cardoso Adelaide de Fátima Gonçalvez de Oliveira

# COORDINATION OF INDIGENOUS ORGANIZATIONS OF THE BRAZILIAN AMAZON (COIAB)

Mario Nicacio Angela Amanakwa Kaxuyana

#### NATIONAL CONFEDERATION OF AGRICULTURAL WORKERS (CONTAG)

Carlos Augusto Santos Silva Rosmari Barbosa Malheiros

#### BRAZILIAN FORUM OF NGOS AND SOCIAL MOVEMENTS FOR THE ENVIRONMENT (FBOMS)

Maria Jocicleide Lima de Aguiar Ivaneide Bandeira Cardozo

#### NATIONAL FORUM OF FOREST-BASED ACTIVITIES (FNABF)

Geraldo Bento Valdinei Bento dos Santos

#### BRAZILIAN SOCIETY FOR THE PROGRESS OF SCIENCE (SBPC)

Adalberto Luis Val Ennio Candotti

# During 2018, the following members were also active:

# Federal Government

#### MINISTRY OF FOREIGN AFFAIRS

José Antônio Marcondes de Carvalho Regular until 10.19.2018

#### MINISTRY OF SCIENCE, TECHNOLOGY, INNOVATIONS AND COMMUNICATIONS

Jailson Bittencourt de Andrade Regular until 10.22.2018

#### OFFICE OF THE CHIEF OF STAFF OF THE PRESIDENT OF THE REPUBLIC

Fabiana Cardoso Martins de Souza Regular until 10.11.2018 Milena Souto Maior de Medeiros Substitute until 10.11.2018

#### MINISTRY OF JUSTICE - NATIONAL INDIAN FOUNDATION

Máximo Oliveira de Souza Substitute until 11.8.2018

# Amazon states

### AMAPÁ

Marcelo Ivan Pantoja Creão Regular until 10.22.2018 Robério Aleixo Anselmo Nobre Substitute until 10.22.2018

#### AMAZONAS

Adilson Coelho Cordeiro Substitute until 10.19.2018

#### MARANHÃO

Adelmo de Andrade Soares Substitute until 10.26.2018

#### PARÁ

Luiz Fernandes da Rocha Regular until 5.30.2018 Justiniano de Queiroz Netto Substitute until 5.30.2018

#### TOCANTINS

Luzimeire Ribeiro de Moura Carreira Regular until 10.18.2018

# **Civil society**

#### COORDINATION OF INDIGENOUS ORGANIZATIONS OF THE BRAZILIAN AMAZON (COIAB)

Kleber Luiz Santos dos Santos Regular until 10.30.2018

#### BRAZILIAN FORUM OF NGOS AND SOCIAL MOVEMENTS FOR THE ENVIRONMENT (FBOMS)

João Bosco Campos dos Santos Regular until 11.28.2018 Adriana de Carvalho Barbosa Ramos Barretto Substitute until 11.28.2018

#### BRAZILIAN SOCIETY FOR THE PROGRESS OF SCIENCE (SBPC)

Maria Olívia de Albuquerque Ribeiro Simão Regular until 10.10.2018

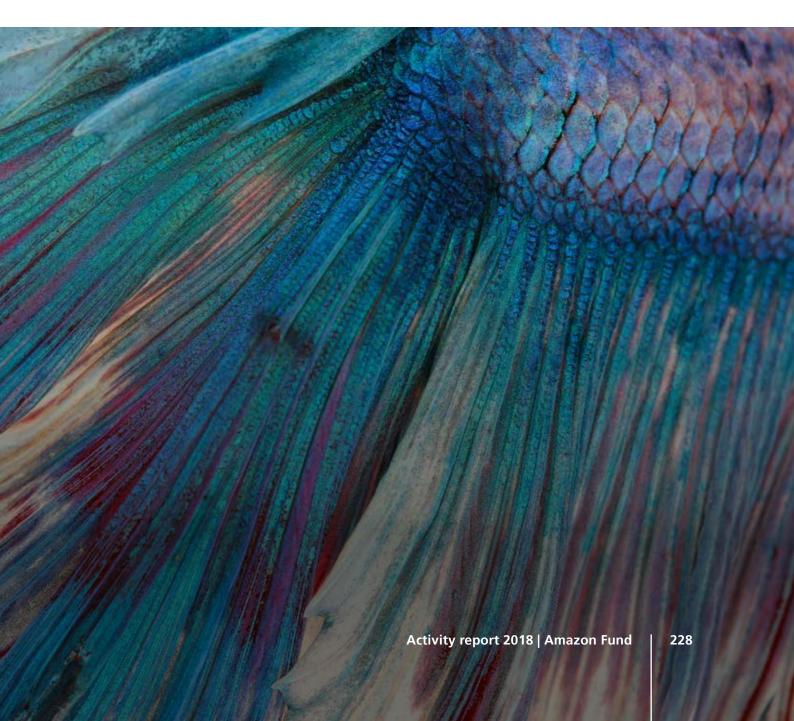
# ANNEX 5 – Cancellations, changes in the value of support and supplementation

CANCELED PROJECTS				
Project	Project management	Value of the support (R\$)	Year of cancellation	
S.O.S. Cumaru do Norte	Municipality of Cumaru do Norte (PA)	755,299.70	2012	
Sustainable Porto de Moz	Municipality of Porto de Moz (PA)	337,206.46	2014	
Anapu Towards the Green Seal	Municipality of Anapu (PA)	431,940.00	2014	
Sustainable Maranhão	State of Maranhão	20,036,000.00	2016	
Roraima's Firefighters	State of Roraima	12,800,000.00	2016	
Forest Income	Vale Association for the Sustainable Development – Vale Fund	35,000,000.00	2017	
Agroforestry Businesses	Jari Foundation	2,838,549.00	2017	
Sepror Agroecology	State of Amazonas	14,900,000.00	2018	
Indigenous Territorial Sustainable Management	State of Amazonas	16,465,000.00	2018	
Forest Management and Production Chains Boosting	State of Amapá	40,304,200.00	2018	
Fruits from the Forest	Brazilian Union of Education and Teaching (Ubee)	4,053,734.00	2018	
Total	-	147,921,929.16	-	

PROJECTS FOR PROJECTS WITH CHANGES IN THE VALUE OF SUPPORT					
Project	Project management	Value of the support (R\$)	Original value of the support (R\$)	Value of the change <sup>*</sup> (R\$)	
Forest Assistance Program	Sustainable Amazon Foundation (FAS)	19,107,547.89	19,169,087.00	(61,539.11)	
Protected Areas in the Amazon (Arpa) – Phase 2	Brazilian Biodiversity Fund (Funbio)	19,949,058.91	20,000,000.00	(50,941.09)	
Portal Seeds	Ouro Verde Institute (IOV)	5,397,778.87	5,433,450.00	(35,671.13)	
Preserving Porto dos Gaúchos	Municipality of Porto dos Gaúchos (MT)	120,655.00	133,890.00	(13,235.00)	
Recovering Marcelândia	Municipality of Marcelândia	551,556.98	669,126.00	(117,569.02)	
Dema Fund	Federation of Organs for Social and Educational Assistance (Fase)	7,615,854.00	9,347,384.00	(1,731,530.00)	
CAR: Legal Tocantins	State of Tocantins	26,800,000.00	40,504,400.00	(13,704,400.00)	
Importance of Forest Environmental Assets	State of Acre	57,057,461.00	60,000,000.00	(2,942,539.00)	
Public Policy Incubator in the Amazon	Federal University of State of Pará (UFPA)	2,660,567.23	2,704,084.90	(43,517.67)	
South of Amazonas State Reforestation	State of Amazonas	(18,345,000.00)	20,000,000.00	(1,655,000.00)	
Jacundá, Green Municipality Economy	Municipality of Jacundá	199,352.05	792,200.00	(592,847.95)	
Forest Firefighters of Mato Grosso	State of Mato Grosso	12,518,230.09	12,625,000.00	(106,769.91)	
Banco do Brasil Foundation – Amazon Fund	Banco do Brasil Foundation	14,515,520.43	15,000,000.00	(484,479.57)	
Integrated Environmental Socioeconomic Development	State of Rondônia	31,227,392.40	32,659,602.00	(1,432,209.60)	
Amazon Water Springs – Phase 2	Municipality of Alta Floresta	7,146,563.54	7,182,970.00	(36,406.46)	
Green Municipalities	State of Pará	75,296,569.12	82,378,560.00	(7,081,990.88)	
CAR Roraima	State of Roraima	3,075,205.25	10,820,500.00	(7,745,294.75)	
Amazon Bioactive Composts	UFPA	1,352,368.48	1,352,336.00	32.48	
Buriti Springs	Municipality of Carlinda	1,875,500.94	1,870,581.50	4,919.44	
The State of Acre: Zero Forest Fires	State of Acre	13,280,709.56	13,280,700.00	9.56	
Total		318,092,891.74	355,923,871.40	(37,830,979.66)	

\* The last three projects in the table had an increase in value due to the fact that their financial support contracts anticipated the adjustment of inflation to their values.

	PROJECTS WITH SUPPLEMENTATION					
Project	Project management	Value of the support (R\$)	Original value of the support (R\$)	Value of the supplementation (R\$)	Year of the supplementation's approval	
Knowing to Preserve	Amazon Museum (Musa)	9,984,629.00	8,454,421.00	1,530,208.00	2015	
Materialize	Association of Small Agro- farmers in the Reca Project	6,422,748.00	4,751,520.00	1,671,228.00	2015	
Total		16,407,377.00	13,205,941.00	3,201,436.00		



# ANNEX 6 – Result's framework model

Objectives (direct effects)	1.1 Economic activities for the sustainable use of the forest and biodiversity identified and developed – "sustainable production"	1.2 Expansion of the added value of the agroforestry and biodiversity production chains – "sustainable production" component	1.3 Expansion of managerial and technical capabilities for the development of economic activities for the sustainable use of the forest and biodiversity – "sustainable production" component	1.4 Recovery of deforested and degraded areas and their use for economic purposes and ecological conservation – "sustainable production" component
		"Sustainable production"	component	
What is the amount of funding allocated to each objective?	R\$ – thousand	R\$ – thousand	R\$ – thousand	R\$ – thousand
	Rural properties with sustainable production projects implemented (number of properties)	Processing units for family farming and extractive products expanded or renovated (number of units)	Practical training courses on the management of sustainable economic activities provided – total (number of people)	Area with completed actions to recover vegetation cover with native species – planting, enrichment or densification (hectares)
	Rural properties that received technical assistance (number of properties)	Infrastructure built for sustainable production and recovery of vegetation – nurseries/seed houses/sheds (number of units)	Practical and managemen training for sustainable economic activities – women (number of women)	Area with completed actions to recover vegetation cover with native species – management of natural regeneration (hectares)
	Demonstration units implemented – agroforestry systems (SAF)/sustainable livestock farming/crop-livestock- forest integration (number of demonstration units)	Transportation equipment purchased for sustainable production activities – boats/cars/trucks/tractors and motorcycles (number of pieces of equipment)	Practical and management training for sustainable economic activities – indigenous peoples (number of individuals)	Area with completed actions to recover vegetation cover with native species – agroforestry system (SAF) (hectares)
How can deliveries (effectiveness) associated with each objective be measured?	Infrastructure built for sustainable production and recovery of vegetation – nurseries/seed houses/sheds (number of units)	Sustainable production studies conducted – diagnostics/business plans/communication plans (number of studies)	Small projects supported by cooperative entities – projects up to R\$ 150,000 (number of projects)	Infrastructure built for sustainable production and recovery of vegetation – nurseries/seed houses/sheds (number of units)
	Transportation equipment purchased for sustainable production activities – boats/ cars/trucks/tractors and motorcycles (number of pieces of equipment)	Small projects supported by cooperative entities – projects up to R\$ 150,000 (number of projects)	Medium and large projects supported by cooperative entities – projects above R\$ 150,000 (number of projects)	Transportation equipment purchased for sustainable production activities – boats/cars/trucks/tractors and motorcycles (number of pieces of equipment)
	Sustainable production studies conducted – diagnostics/business plans/ communication plans (number of studies)	Medium– and large-sized projects supported by cooperative entities – projects above R\$ 150,000 (number of projects)	Sustainable production integrating events – seminars/workshops held (number of events)	Small-sized projects supported by cooperative entities – projects up to R\$ 150,000 (number of projects)
	Small-sized projects supported by cooperative entities – projects up to R\$ 150,000 (number of projects)	Sustainable production integrating events – seminars/workshops held (number of events)	Training publications or media produced for sustainable production purposes (number of publications)	Medium- and large-sized projects supported by cooperative entities – projects above R\$ 150,000 (number of projects)

(Continued)

1 / Recovery of

Objectives (direct effects)	1.1 Economic activities for the sustainable use of the forest and biodiversity identified and developed – "sustainable production"	1.2 Expansion of the added value of the agroforestry and biodiversity production chains – "sustainable production" component	1.3 Expansion of managerial and technical capabilities for the development of economic activities for the sustainable use of the forest and biodiversity – "sustainable production" component	1.4 Recovery of deforested and degraded areas and their use for economic purposes and ecological conservation – "sustainable production" component
		"Sustainable production"	component	
	Medium- and large-sized projects supported by cooperative entities – projects above R\$ 150,000 (number of projects)	Training publications or media produced for sustainable production purposes (number of publications)	Individuals directly benefited by the project – sustainable production (number of individuals)	Sustainable production integrating events – seminars/workshops held (number of events)
	Sustainable production integrating events – seminars/workshops held (number of events)	Individuals directly benefited by the project – sustainable production (number of individuals)	Women directly benefited by the project – sustainable production (number of individuals)	Training publications or media produced for sustainable production purposes (number of publications)
How can	Training publications or media produced for sustainable production purposes (number of publications)	Women directly benefited by the project – sustainable production (number of individuals)	Indigenous people directly benefited by the project – sustainable production (number of individuals)	Individuals directly benefited by the project – sustainable production (number of individuals)
deliveries (effectiveness) associated with each objective be measured?	Individuals directly benefited by the project – sustainable production (number of individuals)	Indigenous people directly benefited by the project – sustainable production (number of individuals)	Institutions indirectly supported – associated/ partnership public calls (number of institutions)	Women directly benefited by the project – sustainable production (number of individuals)
be measured :	Women directly benefited by the project – sustainable production (number of individuals)	Institutions indirectly supported – associated/ partnership public calls (number of institutions)		Indigenous people directly benefited by the project – sustainable production (number of individuals)
	Indigenous people directly benefited by the project – sustainable production (number of individuals)			Institutions indirectly supported – associated/ partnership public calls (number of institutions)
	Institutions indirectly supported – associated/ partnership public calls (number of institutions)			
	Annual income from sustainable economic activities – <i>in natura</i> products (R\$ 1,000)	Annual income from sustainable economic activities – processed products (R\$ 1,000)	Individuals trained in the practice and management of sustainable economic activities that effectively apply the acquired knowledge – total (number of individuals)	Recovered area used for economic purposes (hectares)
How can the expected effects (effectiveness) of projects' deliveries be measured?	Area of forest directly managed (hectares)	Area of forest directly managed (hectares)	Individuals trained in the practice and management of sustainable economic activities that effectively apply the acquired knowledge – women (number of individuals)	Area recovered for environmental conservation and/or regularization – ongoing recovery (hectares)
	Third sector organizations that have advanced in management and governance (number of organizations)	Third sector organizations that have advanced in management and governance (number of organizations)	Individuals trained in the practice and management of sustainable economic activities that effectively apply the acquired knowledge – indigenous peoples (number of individuals)	Third sector organizations that have advanced in management and governance (number of organizations)
			Third sector organizations that have advanced in management and governance (number of organizations)	

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#### (Continuation)

Objectives (direct effects)	2.1 Monitoring, control and environmental accountability institutions structured and modernized – "monitoring and control" component	2.2 Increased access of rural producers to environmental regularization of their properties – "monitoring and control" component
	"Monitoring and control" con	nponent
What is the amount of funding allocated to each objective?	R\$ – thousand	R\$ – thousand
	Training in environmental management or deforestation monitoring technologies – total (number of individuals)	Rural properties registered in the Rural Environmental Registry (CAR) – protocol (number of properties)
	Training in environmental management or deforestation monitoring technologies – women (number of women)	Area of rural properties registered in the CAR – protocol (number of properties)
	Training in environmental management or deforestation monitoring technologies – public servants (number of individuals)	Transportation equipment purchased for environmental monitoring, control and regularization purposes – boats/cars/trucks/motorcycles (number of pieces of equipment)
	Training in environmental management or deforestation monitoring technologies – female public servants (number of individuals)	Rural properties submitted to register verification (number of properties)
	Transportation equipment purchased for environmental monitoring, control and regularization purposes – boats/cars/trucks/motorcycles (number of pieces of equipment)	Area of rural properties submitted to register verification (hectares)
	Equipment purchased to combat forest fires and unauthorized burnings – aircraft/pickup truck/boat/tank semi-trailer/forest tank truck (number of pieces of equipment)	Projects elaborated for the recovery of degraded or altered areas (Prada) (number of projects)
	Vehicles rented for environmental inspection actions (number of vehicles)	Area of properties with projects elaborated for the recovery of degraded or altered areas (Prada) (hectares)
How can deliveries (effectiveness) associated with	Flight hours in environmental inspection actions (number of hours)	Area with completed actions to recover vegetation cover with native species – planting, enrichment or densification (hectares)
each objective be measured?	Environmental inspection missions carried out (number of missions)	Area with completed actions to recover vegetation cover with native species – management of natural regeneration (hectares)
	Training in firefighting techniques for the creation of civilian fire brigades – total (number of individuals)	Area with completed actions to recover vegetation cover – agroforestry systems (SAF) (hectares)
	Training in firefighting techniques for the creation of civilian fire brigades – women (number of individuals)	Environmental monitoring, control and regulariation integrating events – seminars/workshops (number of events)
	Electronic systems for environmental monitoring and control implemented, improved and/or integrated (number of systems)	Training publications or media produced for environmental monitoring, control or regularization (number of publications)
	Integrating events for environmental monitoring, control or regularization – seminars/workshops (number of events)	Infrastructure built for recovery of vegetation – nurseries/seed houses/sheds (number of units)
	Training publications or media produced for environmental monitoring, control or regularization (number of publications)	
	Area mapped with georeferencing for monitoring and control purposes (hectares)	
	Environmental agencies strengthened (number of institutions)	
	Training in prevention and combat of forest fires and unauthorized burnings or integrated fire management – public servants (number of individuals)	

#### (Continuation)

Objectives (direct effects)	2.1 Monitoring, control and environmental accountability institutions structured and modernized – "monitoring and control" component	2.2 Increased access of rural producers to environmental regularization of their properties – "monitoring and control" component
	"Monitoring and control" con	nponent
	Training publications or media produced for environmental monitoring, control or regularization (number of publications)	
	Area mapped with georeferencing for monitoring and control purposes (hectares)	
How can deliveries	Environmental agencies strengthened (number of institutions)	
(effectiveness) associated with each objective be	Training in prevention and combat of forest fires and unauthorized burnings or integrated fire management – public servants (number of individuals)	
measured?	Operations to combat forest fires and unauthorized burnings carried out by the Military Fire Brigade in partnership with other Military Fire Brigades (number of joint operations)	
	Military Fire Brigade actions to support environmental inspection carried out by other competent state and federal agencies (number of actions)	
	Area monitored in the Brazilian Amazon region (hectares)	Properties registered in the CAR with verified and regular register (number of properties)
	Area monitored in Brazil outside the Brazilian Amazon region (hectares)	Area of properties registered in the CAR with verified and regular register (number of properties)
	Area monitored area in other tropical countries (hectares)	Recovery projects for degraded or altered areas (Prada) approved by the environmental agency (number of projects)
	Notice of violation for infractions against the flora (number of cases)	Area of properties with recovery projects for degraded or altered areas (Prada) approved by the environmental agency (hectares)
	Fines imposed for infractions against flora (R\$ 1,000)	Recovered area in use for economic purposes (hectares)
How can the expected effects (effectiveness) of	Individuals trained in environmental management and deforestation monitoring technologies that effectively apply the acquired knowledge – total (number of individuals)	Area recovered for environmental conservation and/or regularization – ongoing recovery (hectares)
projects' deliveries be measured?	Individuals trained in environmental management and deforestation monitoring technologies that effectively apply the acquired knowledge – women (number of individuals)	
	Individuals trained in environmental management and deforestation monitoring technologies that effectively apply the acquired knowledge – public servants (number of individuals)	
	Individuals trained in environmental management and deforestation monitoring technologies that effectively apply the acquired knowledge – female public servants (number of individuals)	
	Individuals trained in firefighting techniques for the creation of civilian fire brigades that effectively apply the acquired knowledge – total (number of individuals)	

#### (Continuation)

Objectives (direct effects)	2.1 Monitoring, control and environmental accountability institutions structured and modernized – "monitoring and control" component	2.2 Increased access of rural producers to environmental regularization of their properties – "monitoring and control" component						
	"Monitoring and control" component							
	Women trained in firefighting techniques for the creation of civilian fire brigades that effectively apply the acquired knowledge – women (number of individuals)							
	Heat sources – the first measurement is the average number of heat sources in the five years prior to the implementation of the project (number of heat sources)							
	Heat sources verified by Fire Brigade field operations (number of heat sources)							
	Forest fires or unauthorized burnings fought by the Fire Brigade (number of fires)							
How can the	Individuals trained in prevention and combat of forest fires and unauthorized burnings or in integrated fire management that effectively apply the acquired knowledge – public servants (number of individuals)							
expected effects (effectiveness) of projects' deliveries be measured?	Individuals trained in prevention and combat of forest fires and unauthorized burnings or in integrated fire management that effectively apply the acquired knowledge – female public servants (number of individuals)							
	Individuals trained in techniques of controlled burnings and prevention of forest fires or in alternative nonburning techniques that effectively apply the acquired knowledge – total (number of individuals)							
	Individuals trained in techniques of controlled burnings and prevention of forest fires or in alternative nonburning techniques that effectively apply the acquired knowledge – women (number of individuals)							
	Access to electronic systems implemented or integrated for environmental monitoring and control (number of accesses)							
	Organizations using electronic systems implemented or integrated for environmental monitoring and control (number of organizations)							

(Continuation)				
Objectives (direct effects)	3.1. Expansion of public forests and protected areas – "land-use planning" component	3.2 Protected areas with infrastructure, territorial protection and consolidated management – "land-use planning" component	3.3 Expansion of areas with regularized land titles – "land-use planning" component	3.4 Expansion of areas with their territorial organization established by ecological- economic zoning (EEZ)
		, "Land-use planning" co	mponent	
What is the amount of funding allocated to each objective?	R\$ – thousand	R\$ – thousand	R\$ -thousand	R\$ – thousand
	Studies conducted to identify priority areas for the creation of PAs or for the legal recognition of indigenous lands (TI) completed (number of studies)	Territorial management plans drawn up or revised (number of plans)	Rural properties with georeferencing implemented for land regularization purposes (number of properties)	Planning and/or diagnosis and/or prognosis studies for implementing EEZ (number of studies)
	Transportation equipment purchased for land-use planning purposes – boats/cars/ trucks/tractors and motorcycles (number of pieces of equipment)	Transportation equipment purchased for land-use planning purposes – boats/cars/trucks/tractors and motorcycles (number of pieces of equipment)	Transportation equipment purchased for land-use planning purposes – boats/cars/trucks/tractors and motorcycles (number of pieces of equipment)	Area mapped with georeferencing for land-use planning purposes (hectares)
How can	Land-use planning integrating events – seminars/workshops held (number of events)	Land-use planning integrating events – seminars/workshops held (number of events)	Land-use planning integrating events – seminars/workshops held (number of events)	Geographic Databases (GDB) structured and fed with the geoinformation used to elaborate the EEZ (number of databases)
deliveries (effectiveness) associated with each objective be measured?	Training publications or media produced for land-use planning purposes (number of publications)	Training publications or media produced for land-use planning purposes (number of publications)	Training publications or media produced for land- use planning purposes (number of publications)	Transportation equipment purchased for land-use planning purposes – boats/ cars/trucks/tractors and motorcycles (number of pieces of equipment)
incusureu.	Area mapped with georeferencing for land-use planning purposes (hectares)	Territorial surveillance missions carried out (number of missions)	Digitized documents for land management purposes (number of documents)	Public events of discussion and validation of EEZ carried out (number of events)
	Individuals directly benefited by the project – land-use planning (number of individuals)	Training in management or territorial protection of protected areas – total (number of individuals)	Area of rural properties mapped with georeferencing for land-title regularization purposes (hectares)	Training publications or media produced for land-use planning purposes (number of publications)
	Women directly benefited by the project – land-use planning (number of individuals)	Training in management or territorial protection of protected areas – women (number of individuals)	Individuals directly benefited by the project – land-use planning (number of individuals)	
	Indigenous people directly benefited by the project – land-use planning (number of individuals)	Training in management or territorial protection of protected areas – indigenous peoples (number of individuals)	Women directly benefited by the project – land-use planning (number of individuals)	

(Continuation)

Objectives (direct effects)	3.1. Expansion of public forests and protected areas – "land-use planning" component	3.2 Protected areas with infrastructure, territorial protection and consolidated management – "land-use planning" component	3.3 Expansion of areas with regularized land titles – "land-use planning" component	3.4 Expansion of areas with their territorial organization established by ecological- economic zoning (EEZ)
		"Land-use planning" co	mponent	
		Training in management or territorial protection of protected areas – public servants (number of individuals) Training in management	Indigenous people directly benefited by the project – land-use planning (number of individuals)	
		or territorial protection of protected areas – female public servants (number of individuals)		
		Area mapped with georeferencing for land-use planning purposes (hectares)		
		Area with completed actions to recover vegetation cover with native species – planting, enrichment or densification (hectares)		
		Area with completed actions to recover vegetation cover with native species – management of natural regeneration (hectares)		
How can deliveries (effectiveness) associated		Area with completed actions to recover vegetation cover – agroforestry systems (SAF) (hectares)		
with each objective be measured?		Small-sized projects supported by cooperative entities – projects up to R\$ 150,000 (number of projects)		
		Medium- and large-sized projects supported by cooperative entities – projects above R\$ 150,000 (number of projects)		
		Individuals directly benefited by the project – land-use planning (number of individuals)		
		Women directly benefited by the project – land-use planning (number of individuals)		
		Indigenous people directly benefited by the project – land-use planning (number of individuals)		
		Institutions indirectly supported – associated/ partnership public calls (number of institutions)		

#### (Continuation)

(Continuation) Objectives (direct effects)	3.1. Expansion of public forests and protected areas – "land-use planning" component	3.2 Protected areas with infrastructure, territorial protection and consolidated management – "land-use planning" component	3.3 Expansion of areas with regularized land titles – "land-use planning" component	3.4 Expansion of areas with their territorial organization established by ecological- economic zoning (EEZ)				
	"Land-use planning" component							
	Area of protected areas created (hectares)	Protected areas (PA) with environmental and territorial management tool under implementation (number of PA)	Rural properties with regularized land titles (number of properties)	Area with territorial organization established through EEZ (hectares)				
	Area of indigenous lands (TIs) recognized (hectares)	Area of protected areas (PA) with environmental and territorial management tool under implementation (number of PA)	Area of rural properties with regularized land titles (number of properties)					
		Tls with environmental and territorial management tool under implementation (number of Tls)						
		Area of TIs with environmental and territorial management tool under implementation (hectares)						
		Individuals trained in the management and monitoring of protected areas that effectively apply the acquired knowledge – total (number of individuals)						
How can the expected effects (effectiveness)		Women trained in the management and monitoring of protected areas that effectively apply the acquired knowledge – (number of individuals)						
of projects' deliveries be measured?		Indigenous people trained in the management and monitoring of protected areas that effectively apply the acquired knowledge – (number of individuals)						
		Public servants trained in the management and monitoring of protected areas that effectively apply the acquired knowledge – (number of individuals)						
		Public servants trained in the management and monitoring of protected areas that effectively apply the acquired knowledge – women (number of individuals)						
		Area recovered in use for economic purposes (hectares)						
		Area recovered for environmental conservation and/or regularization – ongoing recovery (hectares)						
		Third sector organizations that have advanced in management and governance (number of organizations)						

#### (Continuation)

Objectives (direct effects)	4.1 Knowledge and technologies for biodiversity conservation and sustainable use, deforestation monitoring and control and land-use planning developed, disseminated and applied – "science, innovation and economic instruments" component	4.2 Economic instruments for biodiversity conservation and sustainable use, deforestation monitoring and control and land-use planning developed, disseminated and applied – "science, innovation and economic instruments" component				
	"Science, innovation and economic instruments" component					
What is the amount of funding allocated toR\$ – thousandR\$ – thousandeach objective?		R\$ – thousand				
	Studies carried on (number of studies)	Solidarity finance platforms structured to support socio-biodiversity production chains projects (number of platforms)				
	Laboratories built or renovated (number of laboratories)	Amount paid for environmental services (R\$ 1,000)				
	Area of laboratories built or renovated (square meters)	Subsidies granted to extractive producers and small farmers for the promotion of socio-biodiversity production chains (R\$ 1,000)				
	Transportation equipment purchased for scientific and innovation purposes – boats/cars/trucks/ motorcycles (number of pieces of equipment)	Amount paid for governmental purchases (R\$ 1,000)				
How can deliveries	Electronic systems developed and/or improved for environmental monitoring and control purposes (number of systems)	Rural properties benefiting from payment for environmental services (number of properties)				
(effectiveness) associated with each objective be measured?	Science and innovation integrating events – seminars/workshops held (number of events)	Transportation equipment purchased for economic instruments implementation – boats/cars/trucks/ motorcycles (number of pieces of equipment)				
	Area mapped with georeferencing for monitoring and control purposes (hectares)	Integrating events for economic instruments implementation – seminars/workshops held (number of events)				
	Area mapped with georeferencing for monitoring and control purposes (hectares)	Training publications or media produced for economic instruments implementation (number of publications)				
	Researchers and technicians involved in scientific and technological research activities residing in the Amazon region for the execution of the project – total (number of individuals)	Mapping of social- and environmental-oriented business opportunities carried out (number of mapping activities)				
	Female researchers and technicians involved in scientific and technological research activities residing in the Amazon region for the execution of the project (number of individuals)					
	Scientific publications produced (number of publications)	Solidarity finance operations carried out (working capital, endorsement, etc.) to foster sustainable production activities (number of operations)				
How can the expected	New products or technologies developed (number of products)	Amount of support provided (working capital, endorsement, etc.) through solidarity finance platform instruments (R\$ 1,000)				
effects (effectiveness) of projects' deliveries be measured?	Patent applications filed with the National Institute of Industrial Property (INPI) (number of patents)	Financial default of solidarity finance operations (working capital, endorsement, etc.) to foster sustainable productive activities (R\$ 1,000)				
	Geospatial information on land use and coverage generated by technologies developed or improved – alerts/maps/reports (number of pieces of information)	Area with vegetation cover benefitting from environmental services payment (hectares)				

#### (Continuation)

Objectives (direct effects)	4.1 Knowledge and technologies for biodiversity conservation and sustainable use, deforestation monitoring and control and land-use planning developed, disseminated and applied – "science, innovation and economic instruments" component	4.2 Economic instruments for biodiversity conservation and sustainable use, deforestation monitoring and control and land-use planning developed, disseminated and applied – "science, innovation and economic instruments" component		
"Science, innovation and economic instruments" component				
How can the expected effects (effectiveness) of projects' deliveries be measured?		Production entities that have sold products under government programs (number of entities)		
		Individuals that have sold products under government programs (number of individuals)		
		Production entities benefited by grants for the promotion of products of socio-biodiversity (number of organizations)		
		Individuals benefited by grants for the promotion of products of socio-biodiversity (number of individuals)		
		Amount disbursed by investment fund in social- and environmental-oriented businesses with co-investment of the Amazon Fund		
		Annual income from sustainable economic activities of community organizations – in natura products (R\$ 1,000)		
		Annual income from sustainable economic activities of community organizations – processed products and services (R\$ 1,000)		

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# Credits

(composition of positions in December 31, 2018)

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EDITED BY BNDES' Publishing and Memory Division

> PUBLISHING COORDINATION Gabriel Canedo

COORDINATION AND TEXTS Gerência de Relações Institucionais do Fundo Amazônia

> **DESIGN** Refinaria Design

EDITORIAL PRODUCTION Expressão Editorial

DRAWINGS Refinaria Design e Shutterstock

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EDITED BY THE COMMUNICATION DEPARTMENT OF THE COMMUNICATION DIVISON OF BNDES JUNE 2019

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