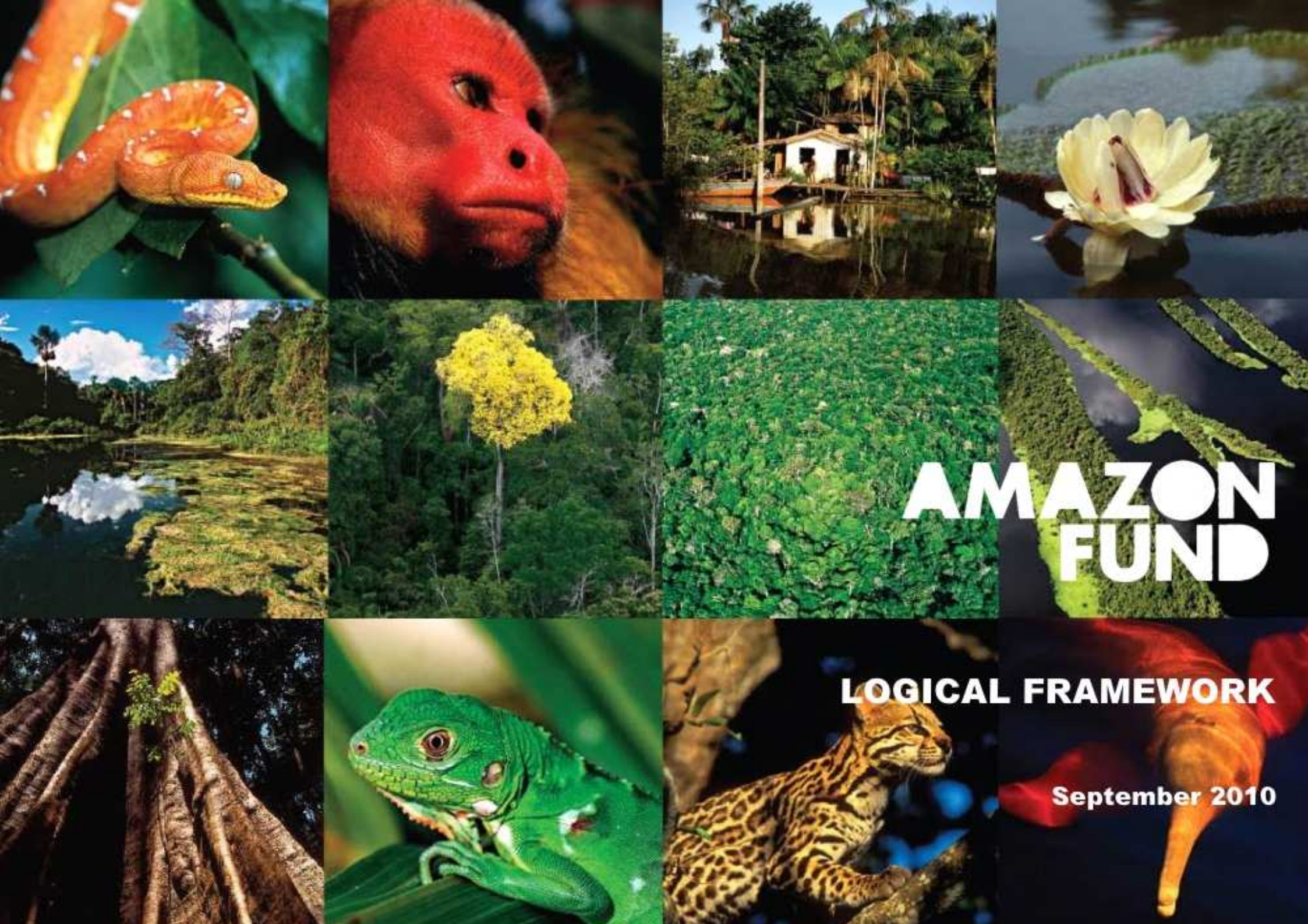

AMAZON FUND

LOGICAL FRAMEWORK

September 2010

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LOGICAL FRAMEWORK OF THE AMAZON FUND

PRESENTATION

In its ten chapters, this present paper aims at presenting the main topics covered throughout the elaboration of the Amazon Fund Logical Framework.

The Logical Framework, also known as Logical or Results Matrix, is a management tool used to ensure that supported efforts contribute to the overall objective of a program and is quite useful to monitor the impacts of its activities.

This document, the first version for full disclosure, was prepared by staff from different areas of the BNDES, and has undergone commentary and critiquing by several experts from different institutions. Among the outside parties consulted, the following may be mentioned: the technical cooperation agency of Norway (NORAD), the technical cooperation agency of Germany (GTZ), the Brazilian Forest Service (FCS), the Ministry of the Environment (MMA) and the Brazilian Institute of Geography and Statistics (IBGE).

The introduction provides a brief diagnosis of the problem-situation, based on an analysis of the Amazon's human occupation and its deforestation dynamics. Chapter 2, "The Amazon Fund and the Logical Framework Methodology," presents the methodology of this tool, which has been increasingly used by various institutions in monitoring the achievement of objectives and goals.

After the methodology presentation, Chapter 3 highlights some important considerations to contextualize the Amazon Fund Logical Framework, including the difficulty in establishing indicators, the need to conduct field research to evaluate the impacts of the Amazon Fund, which, in the end, is just one among several initiatives - public and private - that have impact on the Amazon reality.

The Logical Framework itself is presented as of Chapter 4 which contains the definition of its Strategic Target, in which the topic is narrowed down to a proposition that is brief and focused on the Amazon Biome, notwithstanding the Amazon Fund's authorization to operate by supporting monitoring activities in other biomes.

Chapter 5, "Amazon Fund Objectives," is followed by Chapter 6, "Amazon Fund Results and Indicators", in which, for each of the four components of the objective, an Objective-Result intervention logic was put together.

Chapter 7, "Inclusion of Projects in the Amazon Fund Logical Framework," covers the monitoring of projects. After general characterization of the Logical Framework, Chapter 8 attempts to identify risks since it is important to take into account aspects that go beyond the project's management capacity, but which are important for the achievement of the desired objectives and the maintenance of the obtained results.

Monitoring of the Amazon Fund's projects (Chapter 9) will comply with all applicable BNDES' internal standards, and the impacts of each supported project will be subject to monitoring by means of a specific Logical Framework for each operation. Impact monitoring will also include monitoring the Amazon Fund Logical Framework as a whole from the perspective of its cumulative impacts.

The last chapter of the document concludes that the monitoring of the Amazon Fund will be consolidated periodically, and that some of its indicators must be reviewed. Finally, the Monitoring Plan of the Amazon Fund Logical Framework is presented in tables in the annex.

It is important to emphasize that this Amazon Fund Logical Framework will be refined as more appropriate indicators emerge to follow-up on its results, including those stemming from experience with analysis and follow-up of the Amazon Fund projects.

Finally, the construction of a Logical Framework requires the broad participation of those interested in contributing to its improvement. Criticism and suggestions are welcome and should be forwarded to the BNDES for evaluation by the Working Group responsible for preparing and monitoring the Amazon Fund Logical Framework.

Thanks to everyone who contributed to the construction of the Amazon Fund Logical Framework.

1. INTRODUCTION

Deemed the largest reserve of biodiversity in the world, the Amazon is also the largest Brazilian biome in extension, taking up almost half the national territory (49.29%).

The Amazon basin occupies two-fifths of South America and 5% of the world's land surface. Its area is approximately 7 million square kilometers, home to the largest river system on the planet, through which flows about one-fifth of the fresh water volume on the world's surface. Sixty percent of the Amazon basin is within Brazilian territory, where the Amazon Biome takes up five federation states (Acre, Amapá, Amazonas, Pará and Roraima), a large portion of Rondônia (98.8%), more than half of Mato Grosso (54%), in addition to part of Maranhão (34%) and Tocantins (9%).1

Deforestation in the Brazilian Amazon is associated with the occupation process, especially as of the second half of the twentieth century, when the opening of highways through the woods took place.

The Brazilian government, through active colonization policies, has attracted a significant number of immigrants from other parts of the country to the region, who were looking for better living conditions.

In the terms of the diagnostic that integrates the Sustainable Amazon Plan, released in May 2008, "cities have grown, new cities have emerged, the population has multiplied and new spaces have been effectively incorporated into national society. But this process did not occur in a harmonic, balanced and sustainable way."

[1] Source: Brazilian Institute of Geography and Statistics (IBGE - Instituto Brasileiro de Geografia e Estatística)

In fact there was an economic expansion of the Brazilian Amazon, but this economic growth was based mainly on the supply of raw materials with low aggregate value. Its population today reaches close to 25 million inhabitants2, against 3.8 million in 1950.

According to a diagnosis in the Sustainable Amazon Plan, services provided by the State were unable to accompany the fast pace of growth in the region, and this lack has contributed to the fact that this region presents some of the lowest socio-economic indicators in the country.3

As informed in the Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAM), 2nd Phase (2009-2011), "concerning the strictly environmental aspect, a significant portion of the natural heritage making up the forest has been affected. Estimates from the National Institute for Spatial Research (INPE) derived from the Program to Calculate Deforestation in the Amazon (PRODES) show that about 18% of the Legal Amazon forests have been removed. This percentage is concentrated especially in an area called the Deforestation Belt (or, under another perspective, Condensed Settlement Belt), which extends from the western part of the state of Maranhão, going through Tocantins, part of Pará and Mato Grosso, the entire state of Rondônia and the south of Amazonas, all the way to Acre".

Deforestation has many negative effects, among which the following are highlighted: (a) greenhouse gas emissions; (b) climate imbalances associated with the water cycle (reduction of evapo-transpiration4 of the forest); (c) loss of biodiversity; and (d) reduction of the territories belonging to populations that historically inhabit the forest.

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[2] According to IBGE, the Legal Amazon population was of 24,256,129 inhabitants in 2008.

[3] Chapter 1 of Sustainable Amazon Plan Diagnosis (PAS) from May 2008.

[4] The combined phenomenon of soil water and liquid surfaces evaporation and vegetable transpiration.

In order to combat deforestation, the Brazilian federal government developed, among other initiatives, the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAM). This plan makes the diagnosis on the extent of the deforestation problem, analyzes its dynamics and its varying aspects, as well as establishes several guidelines to deal with this challenge.

Despite recent improvements – which resulted in a reduction of about 75% in the deforestation rate between the year 2003 (25,396 km2) and 2009 (7,464 km2), in which the creation of conservation units and the approval of indigenous lands are also highlighted – the reduction of the deforested area continues an urgent task to be undertaken by facing its major causes.

Among the main reasons behind deforestation, cattle-raising stands out, and this activity is held responsible for most of the Legal Amazon deforestation. Estimates suggest that cattle-raising occupies around 75% of the lands subjected to deforestation between 1990 and 2005.

Regarding cattle-raising, the PPCDAM, 2nd Phase (2009-2011), reports that "especially in setting up grazing pastures, the early years provided a good yield. However, as nutrients have decreased over the years, the areas lost vigor and their recovery now involves proper treatment of the soil with fertilizers, use of machinery and equipment, chemicals and appropriate technical assistance. Because of these difficulties and market prices, owners prefer more clearing or acquiring new areas, thereby advancing deforestation." It is estimated that about 25% of the total deforested area in the Amazon region is at different stages of degradation.

The illegal appropriation of public land and its association with deforestation is still a serious problem, which, in turn, is related to the government’s inadequate supervision of notary publics and frailty in the verification processes of land-title legitimacy.

The frailty of the environmental agencies in comparison with the huge challenge represented by the surveillance of the Brazilian Amazon, considering its vastness, results in poor control of environmental crimes. In this context, there is illegal logging, including the opening of illegal roads by loggers in isolated areas of the Amazon.

Settlements, in their different forms, have received a wide range of families in the Brazilian Amazon. However, settlements are also causes of deforestation.

Several factors contribute to the incipient exploration of sustainable economic activities in the region: poor knowledge on the benefits of forest management; a limited supply of skilled labor; incipient technical assistance for forest management, agro-extractive production and implementation of agro-forestry and agro-ecology systems; low aggregate value of agro-extractive products; a lack of structuring in supply chains; and limited logistic infrastructure.

Permeating all these problems to a greater or lesser extent is the inadequacy of the research and innovation system in the Brazilian Amazon, whose further development will result not only in answers to the problems posed today, but also to the discovery of new opportunities, especially on account of the unknown riches related to the region's extraordinary biodiversity. The Amazon is considered one of the largest genetic banks on the planet.

The challenge is not trivial; however, this is a unique natural and human heritage, unique in size, with vast horizons and rivers, containing diverse ecosystems on its plains, plateaus and mountains. Taking a humanistic view, many indigenous people inhabit the Amazon, some of them living in areas that are still inaccessible. It is known that forest people have extensive knowledge about their environment, including the active ingredients of many plants, which they use as medicine.

There are also quilombola communities there, consisting of descendents of Negro slaves, living side by side with rubber tappers, riverside populations, tenant farmers, miners, large farmers, ranchers and loggers, in addition to large cities like Manaus and Belém, both important industrial and service centers.

The Amazon also has natural gas as well as oil reserves and is, today, one of the major mineral regions in the world. Its majestic hydrography and nature attract tourists from everywhere. The population is fed with the plethora of fish from its rivers. Its known natural riches are countless.

In short, it is in this context that the challenge to combat deforestation in the Brazilian Amazon is posed, along with the promotion of its sustainable development. The Amazon Fund is one of the programs that comprise the Brazilian government's strategy to meet this challenge head-on.

2. THE AMAZON FUND AND THE LOGICAL FRAMEWORK METHODOLOGY

The Amazon Fund is managed by the Brazilian Development Bank (BNDES) as authorized in Decree Nº. 6,527, of August 1, 2008.

The BNDES is authorized to receive cash donations to make non-reimbursable investments into efforts to prevent, monitor and combat deforestation and to foster the conservation and sustainable use of the Amazon biome. It may also earmark up to 20% of resources to develop deforestation monitoring and control systems in other Brazilian biomes and other tropical countries.

The efforts supported by the Amazon Fund must comply with: (a) the provisions of Decree Nº. 6,527/2008; (b) the guidelines for the Sustainable Amazon Plan - PAS; (c) Plan for Prevention and Control of Deforestation in the Legal Amazon (PPCDAM) and (d) Guidelines and Criteria for use of the Amazon Fund, established by the Guidance Committee of the Amazon Fund (COFA) as well as the BNDES' Operational Policies.

According to the BNDES' Operational Policies, the following entities can obtain non-reimbursable financial support from the Amazon Fund: NGOs (non-governmental organizations), civil society organizations in the public's interest, cooperatives, government and university research centers, scientific and technological institutes, foundations for the support of research, federal, state and municipal direct and indirect public administration, as well as private companies. This means that, when presenting a project to obtain financial support from the Amazon Fund, applicants must be organized under one of the legal forms mentioned above or must be associated with an eligible benefiter of the Fund's resources.

It is important to note that the Guidance Committee of the Amazon Fund has established, in the case of economically oriented projects, specific support rules, highlighting in particular that its results must be of collective or public use.

Building a Logical Framework for the Amazon Fund is aimed at adding one more instrument to its management, as well as contributing to its monitoring and the consolidation of its results through an aggregate analysis of supported projects and their impact indicators.

The Logical Framework is a widely used methodology which ensures that funded efforts contribute to the overall objective of a program, and it can be defined as a matrix which includes, in an organized and operational manner, the strategic decisions concerning the investment of resources in a program, explaining the aim (objectives) and what it plans to do (how).

Below is a template that describes the structure of the Logical Framework approach:

	Intervention Logic	Objectively Verifiable Indicators	Evidence Sources	Risks
Strategic Target	**Impacts**	**Effectiveness indicators**	**Sources of verification for effectiveness indicators**	**External factors to ensure permanence**
Objective	**Outcome**	**Effectiveness indicators**	**Sources of verification for effectiveness indicators**	**External factors to ensure the Strategic Target**
Results	**Output**	**Monitoring indicators**	**Sources of verification for monitoring indicators**	**External factors to ensure the Objective**
Activities	**Project Activities**	**Monitoring indicators**	**Sources of verification for monitoring indicators**	**External factors to ensure the Results**

This instrument is organized into two axes, referred to here as the vertical and horizontal logic. They explain aspects of the construction of a Logical Framework detailed below.

I - vertical logic, where the following is explained:

a) the reasons the project was conceived; and

b) the means by which it will be carried out (main objective or strategic target, objective of the operation, expected results and activities).

II - horizontal logic, where the following is explained:

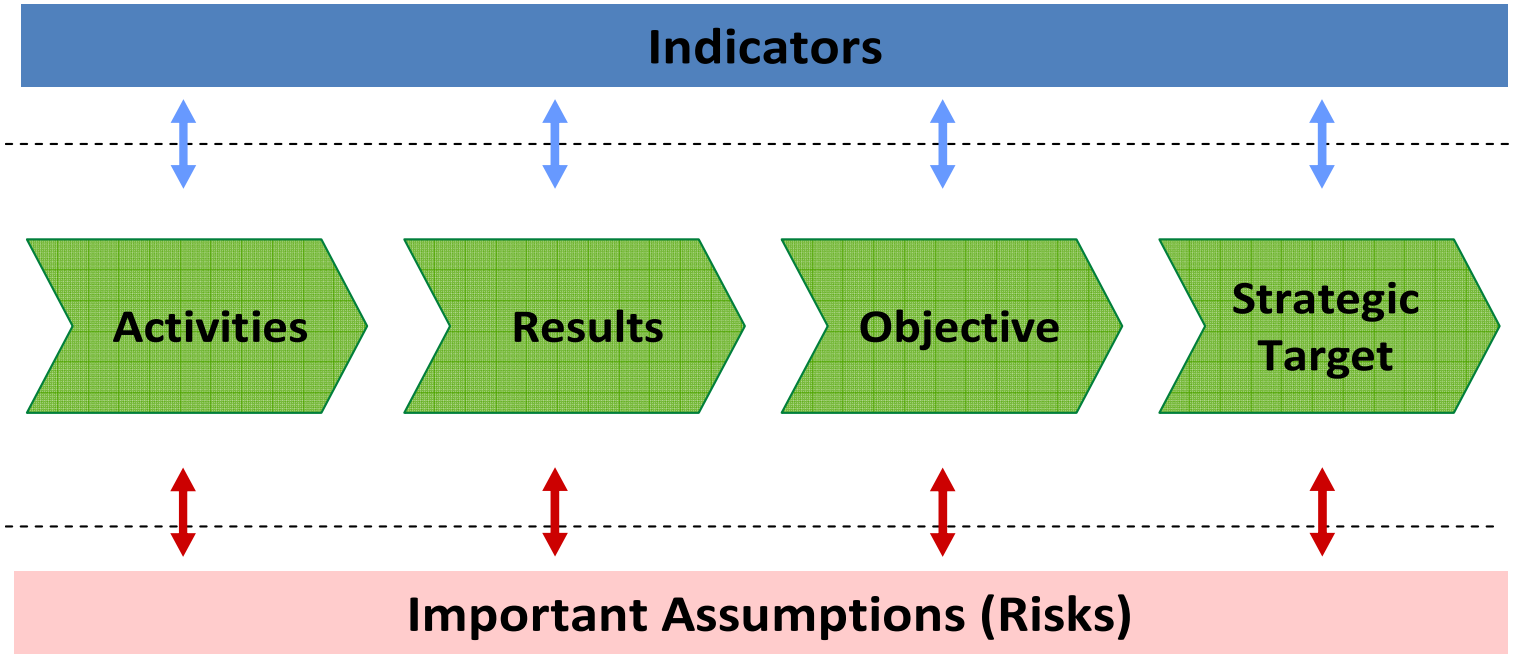
a) how the results of the project will be expressed, which should occur in a clear, realistic and verifiable way by means of indicators, with their due sources; and

b) the external conjectures which are beyond the governance of the project and should be taken into account when assessing risks and potential.

Concerning the terms used by different institutions that work with this tool, it is worth mentioning that, despite their wide variety, all are coherent with and use similar meanings to the terminology adopted by the Amazon Fund, as shown in the following chart:

LEVELS OF PERFORMANCE / ASSESSMENT	CORE CRITERIA	GTZ	CEPAL	WORLD BANK	PNUD	BID	Norad		**BNDES**
Impact (long term)	Effectiveness, Sustainability	Purpose / Top Objective	General Objective	Top Objective	Objective of Development	Purpose	RESULTS	Impact	**Strategic Target**
Effects (medium term)	Effectiveness, Efficiency	Objective of Project	Objectives of Impact	Immediate Objective	Immediate Objective	Purpose		*Outcomes*	**Objective**
Products (Short term)	Effectiveness, Efficiency	Results	Objectives of Product	Products	Products	Components		*Outputs*	**Results**
Processes (Inputs + Activities)	Efficiency, Compliance with Plan	Activities	Activities	Activities	Inputs and Activities	Activities	Activities		**Activities**

To measure the impact of the changes brought about by the project, it is necessary to determine objectively verifiable indicators and their sources. Finally, the success of a project or even a program is never guaranteed since it depends on specific factors or events that cannot be managed by the team in charge of the efforts. Therefore, it is important to identify the key conjectures concerning exogenous variables needed for successful intervention.



The previous figure illustrates the logical sequence of cause and effect of project activities up to the strategic target of a program. This sequence is also called the intervention logic.

Building and implementing a Logical Framework for the Amazon Fund will facilitate the process of ongoing assessment of the Amazon Fund, either internally by those responsible for its management, or externally, by the general public.

3. GENERAL CONSIDERATIONS ON THE LOGICAL FRAMEWORK OF THE AMAZON FUND

The Amazon Fund began operations in 2009. At that time, it received its first donation and, as the year drew to a close, the first financial support operations were approved.

When the Logical Framework of the Amazon Fund, presented below, was set up, the main aim was simplicity, especially in the selection of impact monitoring indicators.

The Amazon Fund is just one of several initiatives, public and private, which have impacts on the Amazon reality. Nevertheless, some monitoring indicators with regional coverage (systemic indicators) were also selected, at no loss to the indicators deriving directly from supported projects with the ability to assess local impact.

Whenever possible, information on social indicators will be made available not only in aggregate form, but also in a segmented form. The aim is to assess the relative level of participation when specific groups, such as members of agricultural and mining communities, settlers and indigenous people, receive such results.

The need for field surveys was also identified to assess the impacts of the Amazon Fund, and eventually the construction of new indicators which contribute to measuring defined objectives.

The relevant exogenous risks that might prevent or hinder the achievement of the objectives of the Amazon Fund were mapped out. These risks will be monitored and will integrate the monitoring process of the Amazon Fund.

Thus, building The Amazon Fund Logical Framework also means planning its monitoring. Along this vein, the individual follow-up and monitoring of supported projects has already been established throughout and subsequent to the period of disbursements for their implementation, as will be seen later.

The impact of the Amazon Fund will also be monitored under the perspective of a program, according to the terms outlined in this Logical Framework. Such monitoring will be periodic, at which time the different information collected will be integrated and interpreted, especially that from selected indicators.

This process of impact assessment will also be associated with the identification of any favorable exogenous efforts that may have significantly affected the desired goals.

4. STRATEGIC TARGET OF THE AMAZON FUND

When defining the strategic target for the Amazon Fund, there was a consensus for a summarized proposal focusing on this Biome, with no harm to the fact that the Amazon Fund is authorized to operate by supporting the development of deforestation monitoring and control systems in other biomes (Brazilian or in other tropical countries)[5].

With this, the following strategic target for the Amazon Fund is being proposed: **Reduction of Deforestation with Sustainable Development in the Amazon Region**

Strategic Target Indicators

The indicators to monitor the impact of efforts supported by the Amazon Fund, in relation to its Strategic Target, are:

- Annual Deforestation in the Amazon Biome - Source: INPE (PRODES);
- Share of GDP of the states with the presence of Amazon Biome in relation to Brazil's GDP - Source: IBGE; and
- Level of schooling of people from 7 to 14 years of age in the states with the presence of the Amazon Biome - Source: IBGE

The above indicators were chosen with the aim of complying with the two aspects of the program. In the case of the first aspect, "Reduction of Deforestation," the relationship is directly with the first indicator.

[5] The support to monitoring in other biomes is also included in the Amazon Fund Logical Framework, especially within the scope of Component 2 of its Objective, which is related to government actions aiming to ensure man-made activities comply with environmental legislation.

However, concerning the second aspect, "Sustainable Development," given the current unavailability of a more appropriate indicator to measure sustainable development, this will be measured through the joint interpretation of the three indicators. Therefore, it is important to note that the above indicators only show the extent of the accomplishment of the expected changes in the program when they are altogether successful.

5. AMAZON FUND OBJECTIVE

In establishing the Objective of the Amazon Fund, with four components presented at the end of this topic, the seven areas defined in Decree Nº. 6,527/2008 were adopted as a starting point, namely:

1. Management of public forests and protected areas;
2. Environmental control, monitoring and surveillance;
3. Sustainable forest management;
4. Economic activities developed from sustainable use of the forest;
5. Ecological and economic zoning, land-use planning and land-title regularization;
6. Conservation and sustainable use of biodiversity; and
7. Recovery of deforested areas.

As previously seen, the referred Decree also provides that up to 20% of the Amazon Fund resources may also be allocated in the development of deforestation monitoring and control systems in other Brazilian biomes and in other tropical countries. It was also specified that, in projects carried out in the Amazon, the Sustainable Amazon Plan (PAS) guidelines, as well as those in the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAM) should be followed.

In addition to these guidelines, the Guidelines and Criteria for Application of the Amazon Fund approved by the Guidance Committee of the Amazon Fund (COFA) were considered, as were, finally, the BNDES' Operational Policies for the Fund.

The specific areas of the Amazon Fund, as defined by Decree Nº. 6,527/2008, contribute to all approaches within the PPDCAM, which are the "Fostering of Sustainable Production Activities", the "Land-use and Territorial Planning" and "Environmental Monitoring and

Control", as well as contributing to the following strategic aspects of PAS: "Sustainable Production", "New Financing Model" and "Territorial Management and Planning."

On the other hand, the BNDES' Operational Policies, when dealing with the Amazon Fund, establish that the Bank will operate in four operational modalities: (a) Public Forests and Protected Areas; (b) Sustainable Production Activities; (c) Scientific and Technological Development applied to the sustainable use of biodiversity; and (d) Institutional Development and improvement of control mechanisms.

These four operational modalities make up the seven specific areas established in Decree Nº. 6,527/2008, as well as the forecast of the Amazon Fund's support to develop deforestation monitoring and control systems in other Brazilian biomes and in other tropical countries.

Given the sheer magnitude of the Amazon Fund's operating areas, its Logical Framework was structured into four sub-programs, in keeping with the following figure, called Components 1, 2, 3 and 4, which result in four Logical Frameworks all with the same Strategic Target. It is worth mentioning that emphasis was given to the issue of science, technology and innovation in the development of the Logical Framework, considering that it is strategic and encompasses all intervention logics in the Amazon Fund.

Intervention Logic

Strategic Target	Reduction of deforestation with sustainable development in the Amazon region			
Objective	**Component 1** Activities that maintain the forest standing are economically attractive in the Amazon Biome	**Component 2** Government efforts ensure compliance of human activities with environmental legislation	**Component 3** The Amazon Biome area is territorially organized	**Component 4** Scientific, technologic and innovational activities contribute to the recovery, conservation and sustainable use of the Amazon Biome

BNDES FUNDO AMAZONIA

The chart below outlines the relationship between the four Components in the Logical Framework and the seven specific areas referred to in Decree Nº. 6,527/2008.

Lógica de Intervenção

Strategic Target	**Reduction of deforestation with sustainable development in the Amazon region**			
Obejtive	**Component 1** **Activities that maintain the forest standing are economically attractive in the Amazon Biome**	**Component 2** **Government efforts ensure compliance of human activities with environmental legislation**	**Component 3** **The Amazon Biome area is territorially organized**	**Component 4** **Scientific, technologic and innovational activities contribute to the recovery, conservation and sustainable use of the Amazon Biome**
Thematic areas that correspond to Decree nº 6.527/2008	Sustainable forest management; Economic activities developed from sustainable use of the forest; Conservation and sustainable use of biodiversity; Recovery of deforested areas.	Environmental control, monitoring and surveillance	Management of public forests and protected areas; Ecological and economic zoning, land-use planning and land-title regularization	Management of public forests and protected areas; Environmental control, monitoring and surveillance; Sustainable forest management; Economic activities developed from sustainable use of the forest; Ecological and economic zoning, land-use planning and land-title regularization.

It is worth mentioning that the existence of seven specific areas in Decree Nº. 6,527/2008 does not imply they will automatically be adopted as seven objectives of the Amazon Fund. This is due to the methodology of the Logical Framework, which is based on the analysis of the chain of impacts from a particular project or program.

For example, the forecasts in sections III and IV of Article 1 of the Decree, "III - sustainable forest management" and "IV - economic activities developed from sustainable use of the forest" as two of the seven operational areas of the Amazon Fund, does not necessarily imply that these have autonomous causal logics since sustainable forest management is only one of several economic activities that can be developed through the sustainable use of the forest.

In practice, it can be inferred that the Decree sought to emphasize the convenience of the Amazon Fund's support for sustainable forest management, dismissing, in this case, greater logical precision in favor of more transparency concerning the scope of the Amazon Fund's operations.

This example also shows that these two topics are implicitly inserted into Component 1: "Activities that maintain the forest standing are economically attractive to the Amazon Biome". This becomes especially clear when perusing the Results that work together to the achievement of Component 1 (see section 6 below). This same line of reasoning applies to other specific areas provided for in Decree Nº. 6,527/2008, which are all addressed in the intervention logic presented above.

6. AMAZON FUND RESULTS AND INDICATORS

In the tables that follow are the objectives of each of the Amazon Fund's four components, with their Results and Indicators.

Component 1: Objective, Results, Indicators and Sources

	Intervention Logic	Indicators	Sources of Evidence
Strategic Target	Reduction of deforestation with sustainable development in the Amazon region	Annual Deforestation in the Amazon Biome	INPE (PRODES)
		Share of GDP of the states with the presence of Amazon Biome in relation to Brazil's GDP	IBGE
		Level of schooling of people from 7 to 14 years of age in the states with the presence of the Amazon Biome	IBGE
Objective Component 1	Activities that maintain the forest standing are economically attractive in the Amazon Biome	Production from Vegetal Extraction and Forestry in the states with the presence of the Amazon Biome	IBGE
Results	1.1 - Identified and developed economic activities for sustainable use of the forest and the biodiversity	Revenue obtained from economically sustainable activities	Supported projects
	1.2 - Forest product sectors with higher added value		
	1.3 - Increased management and technical capacity for the implementation of agricultural and forest systems, forest management activities and agro-extractivist production	Number of qualified individuals	Supported projects
	1.4 - Deforested and degraded areas have been recovered and are used for economic and ecological conservation purposes	Reforested areas	Supported projects
		Areas recovered and used for economic purposes	Supported projects

* When the sources of evidence are the supported projects, the means for verification will be conducted via technical and monitoring reports

Component 1: “Activities that maintain the forest standing are economically attractive in the Amazon Biome”.

The indicator currently available for this component aims at monitoring the evolution of the production of plant extraction and forestry in states in the Amazon Biome. Taking into consideration that the IBGE conceptualizes the variable "plant extraction" as the process of exploring native vegetal resources which involves picking or harvesting products such as wood, latex, seeds, fibers, fruits and roots, among others, in a rational manner, which is aimed at sustained production over time, or in a primitive and itinerant way, which usually allows only one production, this indicator does not exclusively represent sustainable forest production. Therefore, as soon as an indicator becomes available that fosters better monitoring of forest production resulting from activities that effectively maintain the forest standing, this new indicator will be adopted to replace the current, available one, namely:

- Plant Extraction and Forestry Production in states in the Amazon Biome - Source IBGE

  This identifies the value of plant extraction and forestry production, according to the main products. Among the products that are monitored can be mentioned the following: rubber, non-elastic gums, waxes, fibers, tanning extracts, oilseeds, foodstuff, aromatic herbs, medicinal plants, dyes, wood form vegetal extraction and forestry timber. The IBGE considers forestry the activity that deals with the establishment, development and reproduction of forests, aiming at multiple applications, such as: the production of wood, charcoal, resins, environmental protection etc.

Within Component 1, find below its four planned Results, as well as their indicators.

Result 1.1: “Identified and developed economic activities for sustainable use of the forest and the biodiversity" and Result 1.2: " Forest product sectors with higher added value”. The indicator for these items identifies the ability to generate income from economic activities with sustainable use. The higher the income obtained from the sustainable use of forests and biodiversity, the greater the interest in maintaining them.

- Revenue obtained from economically sustainable activities - Source: Supported projects.

  This identifies the final value obtained from sustainable use activities.

Result 1.3: " Increased management and technical capacity for the implementation of agricultural and forest systems, forest management activities and agro-extractivist production". The indicator of this item seeks to evaluate the qualification at managerial and technical levels for the sustainable production activities listed. The public to be monitored comprises leaders from the public and business sectors, as well as from community groups, such as technicians and farmers.

- Number of qualified individuals- Source: Supported projects

  This identifies the number of skilled individuals to implement agro-forestry, forest management activities and agro-extraction production systems.

Result 1.4: " Deforested and degraded areas have been recovered and are used for economic and ecological conservation purposes". The indicators of this item aim at assessing the evolution of the recovery of deforested and degraded areas:

- Reforested areas- Source: Supported projects

  Measurement of the total area that was reforested as a result of supported projects.

- Areas recovered and used for economic purposes - Source: Supported projects

  Measurement of total area recovered and used for economic purposes. The recovery of these areas for economic purposes, with appropriate monitoring, prevents farmers from seeking new areas to practice agriculture. It can also contribute to the formation of forest protection belts (regions) against new invaders.

Component 2: Objective, Results, Indicators and Sources

	Intervention Logic	Indicators	Sources of Evidence
Strategic Target	Reduction of deforestation with sustainable development in the Amazon region	Annual Deforestation in the Amazon Biome	INPE (PRODES)
		Share of GDP of the states with the presence of Amazon Biome in relation to Brazil's GDP	IBGE
		Level of schooling of people from 7 to 14 years of age in the states with the presence of the Amazon Biome	IBGE
Objective Component 2	Government efforts ensure compliance of human activities with environmental legislation	Number of cities with Environmental Municipal Board that have held meetings in the last 12 months	IBGE
		Number of granted authorizations or environmental licenses	Environmental State Departments
		Number of Environmental State Agencies' outposts	Environmental State Departments
Results	2.1 - Structured and modernized institutions for environmental monitoring, control and accountability	Volume of resources applied by the monitoring, control and environmental accountability institutes	Supported projects
		Number of qualified workers	Supported projects
		Areas monitored in other Brazilian biomes and other tropical countries	Supported projects
	2.2 - Expanded access of the rural producers to the environmental regularization of their properties	Number of properties with prepared geo-referenced mapping able for Rural Environmental Registering (CAR) purposes	Supported projects
		Number of properties that protocoled their request to enroll in CAR	Supported projects

Component 2 - "Government efforts ensure compliance of human activities with environmental legislation". The indicators of this component seek to measure both the ability to verify compliance with environmental legislation and the capacity to execute the formal procedures necessary to ensure that man-made activities conform to the environmental legislation.

The following are the indicators to monitor the efforts supported by the Amazon Fund, regarding the Objective in Component 2:

- Number of cities with Environmental Municipal Board that have held meetings in the last 12 months - Source: IBGE

  This is intended to verify the amount of Environmental Municipal Councils in the Amazon Biome with activities in the last 12 months, in which public agencies, business and political sectors, as well as civil society organizations took part. The importance of this indicator lies in the fact that Councils are democratic spaces that bring together representatives of local society to manage conflicts and build proposals for the environmental management of these municipalities.

- Number of granted authorizations or environmental licenses - Source: Environment State Agencies

  This indicator seeks to monitor the improvement in the processing of requests that are made to the State Environmental Secretariats.

- Number of Environmental State Agencies' outposts - Source: Environment State Agencies

  Administrative decentralization by implementing outposts of Environmental State Agencies within states provides these institutions with a broader scope, facilitating the population's access to services and, consequently, contributing to the process of environmental regularization of activities that require this licensing and that are subject to inspection.

Within Component 2 of the Amazon Fund Objective, below are the following indicators proposed for its two Results:

Result 2.1 - "Structured and modernized institutions for environmental monitoring, control and accountability". The indicators of this component seek to measure government agencies' capacity to verify compliance with environmental legislation. To this end, the three indicators below are established:

- Volume of resources applied by the monitoring, control and environmental accountability institutions - Source: Supported projects

  By means of this indicator, the volume of funds earmarked by the Amazon Fund for environmental monitoring, control and responsibility institutions will be measured.

- Number of qualified workers - Source: Supported projects

  This indicator enables efforts to be associated so as to verify the strengthening of the institutional capacity of local governments.

- Areas monitored in other Brazilian biomes and other tropical countries - Source: Supported projects

  This indicator aims at measuring the contribution of the Amazon Fund to the expansion of the monitoring of tropical forests in Brazil and worldwide.

Result 2.2 - "Expanded access of the rural producers to the environmental regularization of their properties". The indicators of this component seek to measure the participation of farmers in complying with environmental legislation. To this end, the three indicators below were selected:

- Number of properties with prepared geo-referenced mapping able for Rural Environmental Registering (CAR) purposes - Source: Supported projects
- Number of properties that filed their request to enroll in CAR- Source: Supported projects

The owners of rural properties that apply for CAR, among other obligations, must prepare a technical project for geo-referenced mapping of the property, indicating both the size and location of their Permanent Protected Areas (PPA) and Legal Reserves. The aim of CAR, therefore, for the government, is to improve the control of both territory and deforestation, and, for farmers, is to allow environmental regularization of the area, as well as access to environmental licensing and to financing lines for production.

The first indicator aims at measuring how many properties have already completed the aforementioned activities so that farmers can apply for CAR. The second indicator measures how many farms have actually filed an application for CAR at the State Environmental Authority.

Component 3: Objective, Results, Indicators and Sources

Intervention Logic		Indicators	Sources of Evidence
Strategic Target	Reduction of deforestation with sustainable development in the Amazon region	Annual Deforestation in the Amazon Biome	INPE (PRODES)
		Share of GDP of the states with the presence of Amazon Biome in relation to Brazil's GDP	IBGE
		Level of schooling of people from 7 to 14 years of age in the states with the presence of the Amazon Biome	IBGE
Objective Component 3	The Amazon Biome area is territorially organized	Areas in states with the presence of the Amazon Biome with Ecological-Economic Zoning (ZEE) in scale 1:250,000 (or larger) with the first three phases of the ZEE process concluded*	Ministry of the Environment (MMA)
		Areas in states with the presence of the Amazon Biome with Ecological-Economic Zoning (ZEE) in scale 1:250,000 (or larger) with all phases concluded*	Ministry of the Environment (MMA)
Results	3.1 – Public forests and protected areas expanded	Public forest areas and implemented protected areas	Supported projects
	3.2 - Consolidated management of public forests and protected areas	Public forest and protected lands areas with consolidated management	Supported projects
		Number of individuals qualified for activities related to the management of public forests and protected areas	Supported projects
	3.3 - Expanded land areas with regularized property titles	Rural property areas with regularized property titles	Supported projects
		Rural property areas with the property title regularization process underway	Supported projects
	3.4 – Expanded areas in lands with territorial organization defined through the ZEE	Areas in lands with territorial organization defined through the ZEE	Supported projects

* Phases of the ZEE process: Planning, Diagnostic, Prognostic, Normatization, Federal Validation and Implementation

Component 3 – “The Amazon Biome area is territorially organized”.

The indicator of this component aims at measuring the effectiveness of territorial planning and management. The scope of this component, in addition to contributing directly to the strategic target, will bring about several changes: it will ensure the sustainability of the economic activity in the Amazon area; the decrease in land conflicts; it will grant more legality in business relationships that are backed by real estate; and it will contribute to the growth of the demarcation and the consolidation of management of conservation units and public forests.

The indicators to monitor the efforts supported by the Amazon Fund, regarding their Objective in Component 3, are the following:

- Areas in states with the presence of the Amazon Biome with Ecological-Economic Zoning (ZEE) in scale 1:250,000 (or larger) with the first three phases of the ZEE process concluded - Source: Ministry of the Environment

  The ZEE is an important means for territorial planning. According to Decree Nº. 4,297, of July 10, 2002, the ZEE is an instrument for territorial organization that establishes measures and standards for environmental protection and whose general objective is to organize the decisions of public and private agents concerning plans, programs, projects and activities that directly or indirectly use natural resources, ensuring the full maintenance of capital and environmental services in ecosystems.

  The first three stages of the ZEE process, which is referenced in the indicator, are the following: Planning, Diagnosis and Prognosis. These three phases encompass: institutional coordination, preparation of the project’s Term of Reference, basic studies and surveys to assess the current situation of the area to be zoned, and the preparation of future scenarios and the proposition of efforts for the established planning units.

- Areas in states with the presence of the Amazon Biome with Ecological-Economic Zoning (ZEE) in scale 1:250,000 (or larger) with all phases concluded - Source: Ministry of the Environment

  The logic for this indicator is the same as that in the immediately preceding item; however, it seeks to measure the Amazon Biome area with fully completed ZEE. For purposes of this Logical Framework, completed ZEE is understood as that which has not only completed the first three aforementioned phases, but also the three subsequent phases, namely: Standardization, Federal Validation and Implementation. These three phases encompass: establishing specific legislation, the Federal Government's acceptance of ZEE's recommendations, and, if it legislates over the legal reserve, reception by the National Environmental Council (CONAMA), as well as public efforts to implement ZEE's recommendations and its monitoring.

Within Component 3 of the Amazon Fund Objective, below are the following indicators proposed for its four forecast Results:

Result 3.1 - "Public forests and protected areas expanded".

- Implemented public forest area and protected areas - Source: Supported projects

  The indicator for this item intends to measure the supported projects' effective expansion of public forests and protected areas.

Result 3.2 - "Consolidated management of public forests and protected areas"

- Public forest area and protected land with consolidated management - Source: Supported projects
- Number of individuals skilled in activities related to the management of public forests and protected areas - Source: Supported projects

The indicators for this item aim to measure the area of public forests and protected areas with a management structure in place, including the formation of a guidance committee with the participation of the local community for each of the management structures, as well as the capacity-building for individuals in activities related to public forest and protected area management:

Result 3.3 - "Expanded land areas with regularized property titles".

- Area of rural property with regularized land-title (documents in order) - Source: Supported projects
- Area of rural property that have begun the process of regularizing their land-title (documents in order) - Source: Supported projects

The above indicators are important in the strategy to verify and quantify the support efforts for land-title regularization in the region.

Result 3.4 - "Expanded land areas with territorial organization defined through the ZEE".

- Areas of land with territorial organization as defined by ZEE - Source: Supported projects

This aims to measure the achievement of planning activities undertaken within the territory through the Ecological-Economic Zoning (ZEE).

Component 4: Objective, Results, Indicators and Sources

	Intervention Logic	Indicators	Sources of Evidence
Strategic Target	Reduction of deforestation with sustainable development in the Amazon region	Annual Deforestation in the Amazon Biome	INPE (PRODES)
		Share of GDP of the states with the presence of Amazon Biome in relation to Brazil's GDP	IBGE
		Level of schooling of people from 7 to 14 years of age in the states with the presence of the Amazon Biome	IBGE
Objective Component 4	Science, technology and innovation activities (ST&I) contribute to the recovery, conservation and sustainable use of the Amazon Biome	Level of the institutional strength of the regional innovation system	Field research
Results	4.1 - Knowledge and technologies focusing on the recovery, conservation and sustainable use of the Amazon Biome produced and disseminated	Number of patents requested or deposited	Supported projects
		Number of theses and scientific works published	Supported projects
		Number of pedagogic or informative publications	Supported projects
	4.2 - RD&I Infrastructure focusing on the recovery, conservation and sustainable use of the Amazon Biome expanded and updated	Amounts invested in RD&I infrastructure	Supported projects
	4.3 - Human Resources for RD&I activities related to the recovery, conservation and sustainable use of the Amazon Biome qualified and locally fixated	Number of researchers and technicians involved in activities of RD&I locally fixated	Supported projects
		Number of individuals that were qualified in the communities	Supported projects
	4.4 - Strengthened networks of information, communication and research related to the recovery, conservation and sustainable use of the Amazon Biome	Number of integrating events (seminars and forums)	Supported projects
		Number of supported networks	Supported projects

Component 4: " Scientific, technologic and innovational activities contribute to the recovery, conservation and sustainable use of the Amazon Biome".

The gains in terms of recovered area, conservation area or an increase in the sustainable use of the biome can only be seen after the developed technologies are effectively applied, which quite often will happen after the research project has been completed.

It is worth noting that one important result of the science and technology activities is related to the accumulation of knowledge on the part of researchers and local technological institutions. This accumulated knowledge will allow for future innovations that may not even be part of the scope of supported projects.

The ST&I activities to be supported by the Amazon Fund should primarily be of an applicable nature.

With regard to its Objective in Component 4, the indicator is:

- Level of the institutional strength of the regional innovation system - Source: Field research

  This indicator will be built from a field survey, through which the aim is to identify and, if possible, measure the situation of the ST&I sector in the Amazon region under different perspectives: existing infrastructure and information networks, human resources available, as well as knowledge and technologies that are produced and disseminated.

Within Component 4 of the Amazon Fund’s Objective, below are the indicators proposed for its four Results:

Result 4.1. "Knowledge and technologies focusing on the recovery, conservation and sustainable use of the Amazon Biome produced and disseminated".

- Number of patents requested or deposited - Source: Supported projects
- Number of theses and scientific works published - Source: Supported projects
- Number of pedagogic or informative publications - Source: Supported projects

The indicators above aim at measuring the production and dissemination of knowledge, as well as the new technology focused on the recovery, conservation and sustainable use of the Amazon Biome.

Result 4.2. " RD&I Infrastructure focusing on the recovery, conservation and sustainable use of the Amazon Biome expanded and updated".

- Amounts invested in RD&I infrastructure - Source: Supported projects

This indicator will measure the volume of funds invested in RD&I infrastructure for the recovery, conservation and sustainable use of the Amazon Biome.

Result 4.3: "Human Resources for RD&I activities related to the recovery, conservation and sustainable use of the Amazon Biome qualified and locally fixated ".

- Number of researchers and technicians involved in activities of RD&I locally fixated - Source: Supported projects
- Number of individuals that were qualified in the communities - Source: Supported projects

These two indicators aim at quantifying the number of researchers and technicians involved in supported projects with research activities per se, as well as the number of people building their skills in a variety of ways in the dissemination of the produced scientific knowledge. “Locally fixated,” for all purposes herein, means those researchers and technicians that reside in the states in the Amazon Biome while conducting the research projects.

Result 4.4. "Strengthened networks of information, communication and research related to the recovery, conservation and sustainable use of the Amazon Biome ".

- Number of integrating events (seminars and forums) - Source: Supported projects
- Number of supported networks - Source: Supported projects

The above indicators aim at assessing the exchange of information and experience on the part of researchers and research institutions.

7. PROJECT INCLUSION IN THE LOGICAL FRAMEWORK OF THE AMAZON FUND

Both the Logical Framework of the Amazon Fund and the Logical Frameworks of the projects financed by the Fund follow the same structure: Results or Products lead to Objectives which, in turn, collaborate through their outcomes to achieve the Strategic Target.

The only difference lies in the hierarchical level, given that projects undertake actions while the program undertakes lines of action. Thus, the Objective of each project is to keep its relation with one of the lines of action (Results) of the Amazon Fund to be supported (see Figure 1 below).

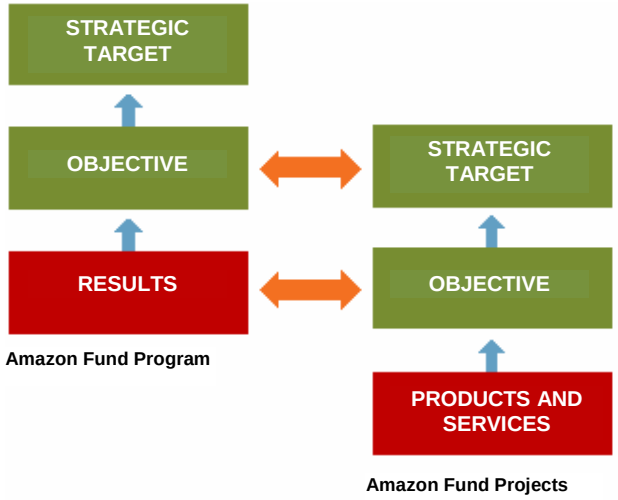


Figure 1 - Correspondence between the Logical Framework of a program with that of one of its projects. Adapted from PFEIFFER, Peter. *O Quadro Lógico: um método para planejar e gerenciar mudanças* (Logical Framework:: a method to plan and manage changes). Revista do Serviço Público. 2000. p. 110.

8. RISKS

For an intervention, it is also necessary to take into account aspects that go beyond the capacity of project management, but which are important for the correct achievement of the desired objectives. Whether they are risks or assumptions, these points may be determining factors in achieving what is desired. The Logical Framework of the Amazon Fund takes into account the main risks that can affect its success.

The risks considered were subjected to two processes of analysis: The first is an algorithm that determines the significance of risks, and the second is an exercise of the Logical Framework's own consistency, called diagonal logic.

The algorithm has three major steps:

Step 1 – to determine whether the risk is external to the project. If it is internal, it should be included in the project and be mitigated.

Step 2 – to determine whether the risk is relevant to the designed logic. If not, it should be disregarded.

Step 3 – to determine the likelihood of the risk occurring. If the likelihood is insignificant, it should be disregarded. If probability is high, the strategy should be altered as the project runs a high risk of being unsuccessful. Relevant risks that should be included in the Logical Framework are those with a reasonable plausibility of occurrence.

Only relevant risks to the success of the intervention or the program will be monitored. These relevant risks should be incorporated into the matrix of the Logical Framework so they can be monitored together with indicators of the intervention logic.

To verify the consistency of highlighted risks, the diagonal logic should be used, which allows for a change from one intervention logic level to a higher one only if the risk of the same level does not occur.

The risks incorporated in the Amazon Fund Logical Framework are presented in Charts A, B, C and D below, which can be read according to the diagonal logic.

Chart A:

Intervention Logic		Risks
Strategic Target	Reduction of deforestation with sustainable development in the Amazon region	Abnormal migratory inflow to the Amazon Region that could cause stress on the environment and the services supplied by the state. Changes to Brazil's environmental legislation which could reduce forest protection Climate changes that result in prolonged droughts and forest fires
Objective Component 1	Activities that maintain the forest standing are economically attractive in the Amazon Biome	Deterioration of the economic framework harms the development of the economy that relies on the sustainable forest
Results	1.1 - Identified and developed economic activities for sustainable use of the forest and the biodiversity	Phytosanitary and public health problems related to agricultural and forest products impair their insertion into the market
	1.2 - Forest product sectors with higher added value	
	1.3 - Increased management and technical capacity for the implementation of agricultural and forest systems, forest management activities and agro-extractivist production	
	1.4 - Deforested and degraded areas have been recovered and are used for economic and ecological conservation purposes	

* When the sources of evidence are the supported projects, the means for verification will be conducted via technical and monitoring reports

Chart B:

Intervention Logic		Risks
Strategic Target	Reduction of deforestation with sustainable development in the Amazon region	Abnormal migratory inflow to the Amazon Region that could cause stress on the environment and the services supplied by the state. Changes to Brazil's environmental legislation which could reduce forest protection Climate changes that result in prolonged droughts and forest fires
Objective Component 2	Government efforts ensure compliance of human activities with environmental legislation	New Land Reform Policy not aligned with the Environmental Policy Migration of the work force employed in illegal deforestation to other illegal activities
Results	2.1 - Structured and modernized institutions for environmental monitoring, control and accountability	Migration of qualified civil servants to other activities inside and outside the government
	2.2 - Expanded access of the rural producers to the environmental regularization of their properties	

Chart C:

Intervention Logic		Risks
Strategic Target	Reduction of deforestation with sustainable development in the Amazon region	Abnormal migratory inflow to the Amazon Region that could cause stress on the environment and the services supplied by the state. Changes to Brazil's environmental legislation which could reduce forest protection Climate changes that result in prolonged droughts and forest fires
Objective Comp	The Amazon Biome area is territorially organized	Increase in the demand for illegal wood
Results	3.1 – Public forests and protected areas expanded	Discontinuity of the demarcation policy and homologation of new protected areas
	3.2 - Consolidated management of public forests and protected areas	Discontinuity of the funding from other financiers for public forest management and protected land activities
	3.3 - Expanded land areas with regularized property titles	
	3.4 – Expanded areas in lands with territorial organization defined through the ZEE	

* Phases of the ZEE process: Planning, Diagnostic, Prognostic, Normatization, Federal Validation and Implementation

Chart D:

Intervention Logic		Risks
Strategic Target	Reduction of deforestation with sustainable development in the Amazon region	Abnormal migratory inflow to the Amazon Region that could cause stress on the environment and the services supplied by the state. Changes to Brazil's environmental legislation which could reduce forest protection
Objective Component 4	Scientific, technologic and innovational activities contribute to the recovery, conservation and sustainable use of the Amazon Biome	
Results	4.1 - Produced and disseminated knowledge and technologies focusing on the recovery, conservation and sustainable use of the Amazon Biome	Departure of qualified technical staff and researchers from the region
	4.2 - RD&I Infrastructure focusing on the recovery, conservation and sustainable use of the Amazon Biome expanded and updated	
	4.3 - Qualified and locally fixated Human Resources for RD&I activities related to the recovery, conservation and sustainable use of the Amazon Biome	
	4.4 - Strengthened networks of information, communication and research related to the recovery, conservation and sustainable use of the Amazon Biome	

9. FOLLOW-UP AND MONITORING OF THE AMAZON FUND

The follow-up of the Amazon Fund's operations will comply with all BNDES' internal rules for monitoring operations, aimed at preventing or resolving situations that jeopardize the implementation of supported projects.

In addition to this set of follow-up norms, summarized below, the impacts of each supported project will be monitored through a specific Logical Framework for each operation.

The Amazon Fund Logical Framework, presented in this document, will also be monitored by the technical team of the BNDES.

In short, besides the traditional project follow-up, and with no effect on individual monitoring of the impact of each project and its consolidation by the monitoring teams, an assessment of the impacts of the Amazon Fund will be conducted periodically using the Logical Framework presented in this document.

FOLLOW-UP NORMS FOR OPERATIONS

The period to monitor the performance of each operation ranges from the signature of the contractual instrument to the completion of the obligations assumed therein. The minimum frequency to monitor the implementation of each project is six months.

The Monitoring Report is the main internal instrument used by the BNDES to record the findings, activities and recommendations arising from such monitoring. It is prepared by the Bank's technical team.

Monitoring the operation includes, among others, the following activities:

- verification of physical and financial performance of the project through visits to the project site when necessary;
- analysis of the Beneficiary's financial data;
- verification of compliance with the conditions set forth in the contractual instrument;
- adhering to recommendations for follow-up, which are in the operation Analysis Report and in the previous Monitoring Report, and
- recommendations for further monitoring when necessary.

Each disbursement of resources is subject to verification of compliance, by the Beneficiary of the financial support, with the relevant norms and contractual terms. At the BNDES' discretion, a follow-up visit will be held prior to the disbursement and the Beneficiary must also be on schedule with the physical and financial performance of the project as well as the Performance Report.

The delivery deadline of the Performance Report is established by the BNDES in a letter and must include the following information:

- a summary of major events that occurred in the stipulated period;
- financial statements of the beneficiary and, at the BNDES' discretion, the other companies of the group, or consolidated financial statements;
- a chart outlining uses and sources of the project, indicating the total paid during the period and accumulated;
- a chart showing the physical performance of the project;
- a budget for the new fiscal year, detailing the main objectives and targets;
- minutes of general and extraordinary board meetings;
- a chart showing the capital stock composition and another outlining the capital stock control whenever there are changes; and
- proof, by means of respective documents, that the company is up-to-date with its tax and labor obligations.

At the end of the period for use of the operation funds, it is the Beneficiary's obligation to send to the BNDES a final Performance Report that has, in addition to the usual data provided, the following information:

- a chart showing the completion of the project's physical performance;
- a chart showing the completion of the project's financial performance;
- a final chart for uses and sources of the project; and
- the Beneficiary's assessment of the project.

MONITORING THE IMPACTS OF THE AMAZON FUND OPERATIONS

BUILDING THE LOGICAL FRAMEWORK FOR EACH AMAZON FUND PROJECT

Impact indicators applied to the Amazon Fund projects are negotiated together with the party requesting financial support at the analysis phase of each operation.

The step in which indicators are defined is key and takes into consideration several variables, such as:

- details of the indicator, describing the objective of the indicator;
- calculation methodology;
- collection method, identifying the form and sources of the data to be collected;
- frequency in which the measurement of the indicator will be carried out; and
- responsibility, which may be of one or more entities.

The definition process for indicators, together with the party requesting financial support, contributes to verifying, among others, the following conditions:

- alignment with project objectives and, consequently, the Amazon Fund; and
- the feasibility of collecting data for measurement.

Whenever possible in monitoring the impacts of the projects, assessment will include the level of relative participation, when receiving results, of women and specific social groups, such as members of agricultural and mining communities, settlers and indigenous people.

In the analysis phase, a survey of the risks that may negatively affect the project is also conducted. At this stage, risks are identified in detail, efforts are selected to mitigate them, and monitoring methods are also established.

This analysis identifies the need for any adjustments to the project's intervention logic, in addition to aligning expectations in terms of expected results.

MONITORING IMPACTS OF THE AMAZON FUND'S PROJECTS

The party beneficiary of financial support must submit indicator data, together with the Performance Report, within the agreed timeframe as part of project monitoring.

In the monitoring process, meetings are held with the party beneficiary of financial support when the project's results are discussed and potential risks are assessed, in addition to other outside scenarios, not previously identified before, which might impact it.

In the case of deviation from expected results, the internal and external conditions that led to the situation will be verified. From there, possible corrective actions required will be assessed and agreed upon, while indicators and project risks will be updated.

The entire project monitoring cycle will be documented, and its results can be used not only to disseminate the acquired knowledge, but also to improve experiences within and outside the Amazon Fund.

This individualized follow-up will extend beyond its implementation stage, also including an *ex post* assessment within approximately two years after the completion of investments supported through financial assistance from the Amazon Fund.

MONITORING IMPACTS OF THE AMAZON FUND

In the process of discussing and developing the Logical Framework for the Amazon Fund, besides the use of indicators based on project data and existing external sources, emphasis was placed on the need for coordination with partner institutions to provide data and, eventually, the construction of new indicators for the measurement of the defined objectives.

The possible development of new indicators aims at covering an existing gap of statistical data with emphasis on sustainability relative to the Amazon region. Indeed, this is a universal shortage, not exclusive to that region. These new indicators would be useful in monitoring the results obtained through the Amazon Fund and better knowledge of the reality in the region.

This will be a task that will imply coordination with a variety of entities. These indicators should be based on solid methodologies, as well as disclosed by reputable and consolidated institutions.

Nevertheless, some of the indicators identified to monitor the regional impacts of the Amazon Fund already exist or can be built exclusively from existing indicators disseminated by official institutions of the Brazilian State, namely:

- Annual Deforestation in the Amazon Biome, disclosed by INPE - National Institute of Spatial Research; and

- Share of GDP of the states with the presence of Amazon Biome in relation to Brazil's GDP; Level of schooling of people from 7 to 14 years of age in the states with the presence of the Amazon Biome; Production from Vegetal Extraction and Forestry in the states with the presence of the Amazon Biome; all obtained by considering the indicators disclosed by IBGE - Brazilian Institute of Geography and Statistics.

10. CONCLUSION

As previously mentioned, the monitoring of the Amazon Fund will be consolidated periodically when its performance indicators will be verified and the risks that threaten the success of its initiatives along with other relevant facts that have influenced the Amazon region will be assessed. At this time, a technical analysis will be conducted to integrate and interpret this information.

Within the scope of the projects, monitoring the impacts of their activities will take place concurrently with the follow-up of their implementation and will also include an *ex post* assessment, within approximately two years after the completion of investments supported by the Amazon Fund's financial assistance.

Finally, it should be noted that the Logical Framework shown is a version that will necessarily undergo adjustments throughout its lifespan in relation to its indicators. As new and more adequate indicators become available at a regional level, these should be adopted, and it is certain that the daily reality with the analysis and the project follow-up of the Amazon Fund's projects will result in the identification of new impact indicators.

Attached, in the form of tables, is the Monitoring Plan of the Logical Framework of the Amazon Fund.

Annex

MONITORING PLAN

STRATEGIC TARGET: Reduction of deforestation with sustainable development in the Amazon region			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Annual Deforestation in the Amazon Biome	Estimate of the close-cut deforestation that uses satellite images with a margin of error of about 10%	Visible on INPE site	Annual
Share of GDP of the states with the presence of Amazon Biome in relation to Brazil's GDP	Comparison of the evolution of the net production of goods and services in the Amazon Area compared to the country	Visible on IBGE site	Annual
Level of schooling of people from 7 to 14 years of age in the states with the presence of the Amazon Biome	Monitoring of the evolution of students from 7 to 14 years of age enrolled in regular school compared to the total number of people in the same age group	Visible on IBGE site	Annual

MONITORING PLAN

Component 1: Activities that maintain the forest standing are economically attractive in the Amazon Biome			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Production from Vegetal Extraction and Forestry in the states with the presence of the Amazon Biome	Measurement of the evolution of the value of vegetal extraction production and forestry	Visible on the IBGE site	Annual

Result 1.1: Identified and developed economic activities for sustainable use of the forest and the biodiversity Result 1.2: Forest product sectors with higher added value			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Revenue obtained from economically sustainable activities	Measurement of the capacity to generate income of the economic activities of the sustainable use resulting from supported projects.	Technical and follow up reports on supported projects	Annual

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MONITORING PLAN

Result 1.3: Increased management and technical capacity for the implementation of agricultural and forest systems, forest management activities and agro-extractivist production			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Number of qualified individuals	Measurement of the number of qualified individuals at technical and management levels, as well as making leaders of the public and business sectors, as well as community groups aware of the implementation activities of agro-forest systems, forest handling and agro-extractivist production resulting from supported projects.	Technical and follow up reports on supported projects	Annual

Result 1.4: Deforested and degraded areas have been recovered and are used for economic and ecological conservation purposes			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Reforested areas	Measurement of the total reforested area as a result of supported projects.	Technical and follow up reports on supported projects	Annual
Areas recovered and used for economic purposes	Measurement of the total area that was recovered and used for economic purposes as a result of supported projects.	Technical and follow up reports on supported projects	Annual

MONITORING PLAN

Component 2: Government efforts ensure compliance of human activities with environmental legislation			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Number of cities with Environmental Municipal Board that have held meetings in the last 12 months	Verification of the quantity of Environmental Municipal Boards actively operating in the last 12 months	Visible on the IBGE site	Annual, if available
Number of granted authorizations or environmental licenses	Measurement of the number of all authorizations or environmental licenses granted, renewed or corrected in a given year	Research conducted together with the Environmental State Organizations present in the Amazon Biome	Annual, if available
Number of Environmental State Agencies' outposts	Measurement of the number of all advanced stations in the Environmental State Organizations	Research conducted together with the Environmental State Organizations present in the Amazon Biome	Annual, if available

MONITORING PLAN

Result 2.1: Structured and modernized institutions for environmental monitoring, control and accountability			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Volume of resources applied by the monitoring, control and environmental accountability institutes	Measurement of the volume of resources applied by the monitoring, control and environmental accountability institutes resulting from supported projects	Technical and follow up reports on supported projects	Annual
Number of qualified workers	Measurement of the number of qualified suppliers resulting from supported projects.	Technical and follow up reports on supported projects	Annual
Areas monitored in other Brazilian biomes and other tropical countries	Measurement of the monitored area in other Brazilian biomes and other tropical countries resulting from supported projects.	Technical and follow up reports on supported projects	Annual

MONITORING PLAN

Result 2.2: Expanded access of the rural producers to the environmental regularization of their properties			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Number of properties with prepared geo-referenced mapping able for Rural Environmental Registering (CAR) purposes	Measurement of the number of properties with prepared geo-referenced mapping able for Rural Environmental Registering (CAR) purposes as a result of supported projects	Technical and follow up reports on supported projects	Annual
Number of properties that protocoled their request to enroll in CAR	Measurement of the number of properties that protocoled their request to enroll in CAR as a result of supported projects	Technical and follow up reports on supported projects	Annual

MONITORING PLAN

Component 3: The Amazon Biome area is territorially organized			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Areas in states with the presence of the Amazon Biome with Ecological-Economic Zoning (ZEE) in scale 1:250,000 (or larger) with the first three phases of the ZEE process concluded*	Measurements of areas in states present in the Amazon Biome with Ecological-Economic Zoning (ZEE) in scale 1:250,000 (or larger) with the first three phases of the ZEE process concluded as a result of supported projects*	Research conducted together with the Ministry of Environment	Annual, if available
Areas in states with the presence of the Amazon Biome with Ecological-Economic Zoning (ZEE) in scale 1:250,000 (or larger) with all phases concluded*	Measurements of areas in states present in the Amazon Biome with Ecological-Economic Zoning (ZEE) in scale 1:250,000 (or larger) with all phases concluded as a result of supported projects*	Research conducted together with the Ministry of Environment	Annual, if available

MONITORING PLAN

Result 3.1: Public forests and expanded protected areas			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Public forest areas and implemented protected areas	Measurement of the area in public forests and implemented protected areas as a result of supported projects	Technical and follow up reports on supported projects	Annual

Result 3.2: Consolidated management of public forests and protected areas			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Public forest and protected lands areas with consolidated management	Measurement of areas in public forests and implemented protected lands with consolidated management as a result of supported projects	Technical and follow up reports on supported projects	Annual
Number of individuals qualified for activities related to the management of public forests and protected areas	Measurement of the number of individuals qualified for activities related to the management of public forests and protected areas as a result of supported projects	Technical and follow up reports on supported projects	Annual

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MONITORING PLAN

Result 3.3: Expanded land areas with regularized property titles			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Rural property areas with regularized property titles	Measurement of areas in rural proprieties with regularized land title as a result of supported projects	Technical and follow up reports on supported projects	Annual
Rural property areas with the property title regularization process underway	Measurement of areas in rural proprieties with the title regularization process underway as a result of supported projects	Technical and follow up reports on supported projects	Annual

Result 3.4: Expanded areas in lands with territorial organization defined through the ZEE			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Areas in lands with territorial organization defined through the ZEE	Measurement of the areas in lands with territory organization defined through ZEE as a result of supported projects	Technical and follow up reports on supported projects	Annual

MONITORING PLAN

Component 4: Scientific, technologic and innovational activities contribute to the recovery, conservation and sustainable use of the Amazon Biome			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Level of the institutional strength of the regional innovation system	Verification of the level of the institutional strength of the regional innovation system	Field research	To be defined

MONITORING PLAN

Result 4.1: Produced and disseminated knowledge and technologies focusing on the recovery, conservation and sustainable use of the Amazon Biome			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Number of patents requested or deposited	Measurement of the number of requested or deposited patents as a result of supported projects.	Technical and follow up reports on supported projects	Annual
Number of theses and scientific works published	Measurement of the number of theses and scientific works published as a result of supported projects	Technical and follow up reports on supported projects	Annual
Number of pedagogic or informative publications	Measurement of the number of educational or informative publications as a result of supported projects	Technical and follow up reports on supported projects	Annual

MONITORING PLAN

Result 4.2: RD&I Infrastructure focusing on the recovery, conservation and sustainable use of the Amazon Biome expanded and updated			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Amounts invested in RD&I infrastructure	Measurement of the amounts invested in RD&I infrastructure as a result of supported projects	Technical and follow up reports on supported projects	Annual

Result 4.3: Qualified and locally fixated Human Resources for RD&I activities related to the recovery, conservation and sustainable use of the Amazon Biome			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Number of researchers and technicians involved in activities of RD&I established in the area	Measurement of the number of researchers and technicians involved in RD&I activities which reside in the Amazon region during the research projects as a result of supported projects	Technical and follow up reports on supported projects	Annual
Number of individuals that were qualified in communities	Measurement of the number of qualified individuals in communities as a result of supported projects.	Technical and follow up reports on supported projects	Annual

MONITORING PLAN

Result 4.4: Strengthened networks of information, communication and research related to the recovery, conservation and sustainable use of the Amazon Biome			
Indicator	**Definition**	**Data Collection Method**	**Frequency**
Number of integrating events (seminars and forums)	Measurement of the number of integrated events (seminars and forums) carried out as a result of supported projects	Technical and follow up reports on supported projects	Annual
Number of supported networks	Measurement of the number of supported networks as a result of supported projects.	Technical and follow up reports on supported projects	Annual

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