Effectiveness evaluation of project supported by the Amazon Fund

Importance of Forest Environmental Assets

VAAF ACRE

MAY 2023

Effectiveness Evaluation Report of the Acre Forest Environmental Asset Valuation Project – VAAF

This report presents the results of the ex-post effectiveness evaluation of the Importance of Forest Environmental Assets – VAAF. This evaluation was carried out by independent consultants under the coordination of technical cooperation between the BNDES and *Cooperação Brasil-Alemanha para o Desenvolvimento Sustentável* (German Cooperation for Sustainable Development) through Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. The opinions expressed here are
the sole responsibility of the authors, not necessarily reflecting the position of GIZ or BNDES. The recommendations presented are neither prescriptive nor mandatory.

Evaluation Team:
Gabriel de Lima Ferreira (independent consultant)
Ronaldo Weigand Jr. (Independent consultant)

Coordination Team (GIZ):
Juliana Pinto
Alicia Spengler
Nikolas Bozzolo

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Trato Design

cooperação alemã DEUTSCHE ZUSAMMENARBEIT
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SUMMARY

RETURN TO THE SUMMARY AT ANY TIME! JUST CLICK ON THE ICON

LIST OF ABBREVIATIONS AND ACRONYMS

ANA	National Water Agency
Anater	National Agency for Technical Assistance and Rural Extension
PAs	Protected Areas
ARIE	Areas of Relevant Ecological Interest
ATER	Technical Assistance and Rural Extension
IDB	Inter-American Development Bank
BNDES	Brazilian Development Bank
Capes	Coordination for the Improvement of Higher Education Personnel
CAR	Rural Environmental Registry
CBM	Military Fire Department
CDRU	Concession of the Real Right of Use
COFA	Amazon Fund Steering Committee
STI	- Science, Technology and Innovation
ST&IE	Science, Innovation and Economic Instruments
Embrapa	Brazilian Agricultural Research Corporation
FA	Amazon Fund
FES	State Forest
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
IMAC	Acre Environment Institute
INPE	National Institute for Space Research
ITERACRE	Land Institute of the State of Acre
MAP	Ministry of Agriculture, Livestock and Supply
MMA	Ministry of the Environment
MPE	State Public Prosecutor's Office
OGU	General Budget of the Federal Government
LTM	Local Land-use Planning
PAA	Food Purchase Program
PCPS	Sustainable Property Certification Plan
IDP	Research, Development and Innovation
PDSA	Sustainable Development Program of the State of Acre and Sustainable Development Plan of the Settlements (depending on the context)
Planaveg	National Plan for the Recovery of Native Vegetation
PMFSC	Community Sustainable Forest Management Plan
PNAE	National School Meals Program
PNGATI	National Policy for Territorial and Environmental Management of Indigenous Lands
PNMC	National Climate Change Policy
PPCDAm	Plan for the Prevention and Control of Deforestation in the Brazilian Amazon
PPCDQ	Plan for the Prevention and Control of Deforestation and Burning
PPCDs	State Plans to Combat Deforestation

RETURN TO THE SUMMARY AT ANY TIME! JUST CLICK ON THE ICON

PRA	Environmental Regularization Program
Prodes	Project for Monitoring Deforestation in the Brazilian Amazon by Satellite
OECD	Organization for Economic Cooperation and Development
OGU	General Budget of the Federal Government
LTM	Local Land-use Planning
PSA	Payments for Environmental Services
RAT	Quarterly Monitoring Report
REDD+	Reducing Emissions from Deforestation and Forest Degradation in Developing Countries, and the Role of Conservation, Sustainable Management of Forests, and Enhancement of Forest Carbon Stocks in Developing Countries
REM	REDD+ Early Movers
SAFs	Agroforestry Systems
Sedens	Secretariat of Forest Development, Industry, Trade and Sustainable Services
Sefaz	State Finance Secretariat
SEMMAs	Municipal Environment and Sustainability Secretariats
Seplan	Planning Secretariat
SISA	Environmental Services Incentive System
STR	Union of Workers and Rural Workers
UCGEO	Central Geoprocessing Unit of the State of Acre
CUs	Conservation Units
Ufac	Federal University of Acre
UFPR	Federal University of Paraná
UNFCCC	United Nations Framework Convention on Climate Change
ZAP	Priority Service Zone
ZEE	Economic-Ecological Zoning

LIST OF FIGURES

LIST OF TABLES

EXECUTIVE SUMMARY

The Importance of Forest Environmental Assets (VAAF) project aimed to foster sustainable practices to reduce deforestation, with payment for environmental services (PSA), valuing environmental and forest assets to consolidate a clean, fair and competitive economy, based on the Economic and Ecological Zoning (ZEE) of the State of Acre.

The VAAF Project was coordinated by the Planning Secretariat (Seplan) and was initially executed in a decentralized manner by several state agencies, having been structured into four components: 1) Sustainable Production, 2) Monitoring and Control, 3) Land-use Planning and 4) Science, Innovation and Economic Instruments.

The VAAF Project was conceived as a *key initiative* to strengthen the policy of the "Forest Government" of Acre to include important themes for the execution of the Rural Property Certification Program, aiming at adapting to the Forest Code and other standards for the sustainable use of the state's forest and environmental assets. The strategy to promote the valorization of these assets was the integration of sustainable production into land-use planning, the strengthening of monitoring and control actions and the generation of technologies to improve the productivity and profitability of production systems.

The VAAF Project was signed on November 19, 2010 and the execution ended on 08.29.2018, with the total value disbursed of R$59,654,981.64, with the contribution of the Amazon Fund totaling R$52,930,867.68.

As established by the Amazon Fund, this *ex-post* evaluation was carried out to evaluate the effectiveness of the actions developed and to broaden the understanding of the results achieved by the VAAF Project. The evaluation methodology was based on the Terms of Reference and involved two independent consultants, supported by the GIZ team, who carried out an extensive document review and interviews with key actors who worked on the VAAF Project, with field visits, in addition to other activities.

This document evaluating the effectiveness of the VAAF Project was preceded by the presentation of the preliminary version for discussion and consensus among the stakeholders at an in-person and virtual meeting held at the BNDES premises in Brasilia. The contributions were considered for this final version. Chapter 2 details the methodology used. Chapter 3 presents the evaluation itself, based on the elements of the Organization for Economic Cooperation and Development (OECD): relevance,

efficacy, efficiency, impact and sustainability. In Chapter 4, the theories of change elaborated by component to guide the evaluation are presented in an updated form, and graphically summarize the evaluation.

In Chapter 5, the conclusions are presented. Regarding relevance, the planned outputs and services, although not fully achieved, are relevant and continue to be adequate to what was foreseen, especially regarding their strategic link with other policies. The VAAF Project had variable efficacy per component analyzed. In the Sustainable Production Component, the efficacy in the implementation activities of agroforestry systems (SAFs) was average, with good quantitative performance in relation to what was planned, but it had low performance in technical assistance and rural extension (ATER) and in the monitoring of plantations. On the other hand, in the area of sustainable community forest management and wood processing, the efficacy was low, with studies, plans and the purchase of machinery, but without strengthening the grassroots organizations and the materialization of forest management.

In the Monitoring and Control Component, the efficacy of actions and results are evident in the strengthening of the Acre Environment Institute (IMAC) to play its role in environmental control. It also demonstrated the efficacy in structuring and strengthening the Central Geoprocessing Unit of the State of Acre (UCGEO) to provide services in support of the work of IMAC and the demands of society.

In the Land-use Planning Component, despite the efforts in the elaboration of the Municipal Plans for the Prevention and Control of Deforestation and Burning (PPCDQm) and Local Land-use Planning (LTM), these instruments were not appropriated by the municipal governments and the efficacy was low. In the case of actions with indigenous associations, the efficacy was high.

In the Science, Technology and Economic Instruments component, the Biofactory was implemented and is operational, but its efficacy was considered average due to low seedling production. Overall, several factors contributed to the average efficacy of the VAAF project, including the lack of structured and dedicated coordination at Seplan to manage the VAAF project with the best project management tools. Another decisive factor was the discontinuity of policies with interruptions and delay in the execution of activities.

All in all, the conclusion is: The VAAF project had an average efficacy. In the efficiency dimension, the data are insufficient to conclude whether the benefits were maximized by minimizing costs, due to the lack of measurable indicators for outputs and services. The evaluation of the impact of the VAAF Project focused on the main indicator, which is the state's deforestation rate.

Regarding the dynamics of deforestation, during the execution of the project, the annual rates varied between 200 and 427 km², increasing only from 2019, when it has already reached 707 km² (Prodes/INPE), leading to the conclusion of the positive effect of the VAAF project in keeping deforestation under control and largely licensed by IMAC. Based on the analyses conducted, the project contributed to the reduction of deforestation (although the rates are increasing, they could have been higher) and

to the recovery of native vegetation, which can be explained by the improvement in environmental governance. The resources of the Amazon Fund were of fundamental importance to enable this governance, since Acre is much better equipped in terms of physical infrastructure, logistics, computer systems, equipment and, above all, a technical team trained to exercise governance over the management of its territory, being able to promote the recovery of deforested areas for economic purposes (SAFs), manage forest areas for wood production in a sustainable and legal way, register, license, monitor and supervise activities that use natural resources following the provisions of the Economic and Ecological Zoning (ZEE) and current legislation.

It is possible to conclude that Acre's governance of environmental monitoring and control, coupled with secondary vegetation recovery and growth actions, contributed to these factors during the implementation of the VAAF project. Thus, it can be concluded that the positive impacts of the VAAF project were significant in terms of the net balance of deforestation during the period, with the reduction of the area that could have been deforested and the partial compensation of this deforestation by the growth of secondary vegetation.

The evaluation also concluded that the actions and results of the VAAF Project are sustainable if they depend on the governance structure built with the Amazon Fund's support, the technical team of the State and society leaders, the flow of donation resources, the sale of carbon credits and loans for environmental and forest management. What depends on political will, on the other hand, has low sustainability and the possibility of reversal will depend on the awareness of governments regarding the viability of sustainable production, environmental monitoring and control and land-use planning for the generation of work, income and revenue for Acre.

However, the field mission found that the project had low sustainability, except for the monitoring and control component and the activities on indigenous lands. The lack of public and continuous ATER, due to the choice of the Project for outsourcing, left the SAFs unattended. The forest management actions were discontinued, the community actions did not progress, and the watershed restoration actions were discontinued and incorporated into the Environmental Regularization Program (PRA). Despite this, the problems faced in the management of the Project are associated with the unprecedented complexity of the VAAF Project, both for BNDES and for the Government of Acre. However, this did not compromise the effectiveness of the execution of the VAAF Project.

In Chapter 6, challenges, positive points and recommendations are presented. The VAAF Project faced several challenges during its execution, according to the evaluation carried out. The discontinuity of the environmental and forest valuation policy and the teams was identified, due to the political transition and the loss of space from forest management to agricultural production. It was also pointed out that the weakness in the management and administration of the project by Seplan made it difficult to monitor and evaluate the implementation of the project. The slowness in the bidding processes and the outsourcing of activities were also problems identified, as well as the delays in the preparation of accountability reports to BNDES and the inadequacy of

the outputs prepared. Furthermore, the low availability of financial resources affected the implementation of the support component for indigenous associations. The lack of seedlings for planting SAF was an obstacle to overcome.

The positive points identified by the evaluation include the strengthening of Acre's environmental and territorial governance, the demonstration that it is possible to recover deforested areas with the implementation of SAFs, the creation of a methodology for the recovery of permanent water protection areas, the development of an environmental monitoring structure, the strengthening of environmental control institutions to produce 100% certified wood and the support to indigenous associations in the surveillance and defense of their lands, in addition to production for food security and income generation.

Some of the lessons learned in the Project include: a) the importance of avoiding political manipulation of the distribution of benefits; b) the short-term return of poultry and the medium and long-term return of fruit and timber; c) ensuring market access and fair prices for SAFs; d) dealing with bottlenecks related to the supply and transportation of seedlings, e) synchronizing ATER services, seedling delivery and planting season; f) ensuring follow-up for at least six years; g) opt for public ATER or based on producer associations; h) involve municipalities in ATER; i) simplify forest management; j) have management plans for conservation units in projects involving logging in these places; k) take advantage of UCGEO as an instrument for remote inspection and reduction of deforestation; l) ensure the institutionalization of structures and instruments of municipal environmental management; m) value the robust methodology and the strong social basis of territorial and environmental management of indigenous lands; and n) focus on the production of forest species and trees in the Biofactory.

In this summary, we highlight key recommendations for projects of similar scope and value, not all of which apply to smaller projects submitted by non-governmental organizations. The evaluation recommends that the Amazon Fund, when evaluating project proposals submitted by governments, condition approval on the existence of a minimum team of effective public servants to maintain the capacity acquired and transmit the knowledge and memory of the project, as well as continue to support projects to strengthen the management capacity of state and municipal environmental agencies. It is also necessary to present a resource sustainability strategy for recurring activities and to reinforce the importance of accuracy in performance reporting. It is also recommended that a library of project information be maintained and that external monitoring be considered as a means of ensuring homogeneity of information over time.

In the case of large projects presented by state governments, the Amazon Fund may require the presentation of a monitoring plan for the proposed project and better performance indicators, in addition to conditioning the release of the first installment of funds on the creation of a social control body with representatives of the project beneficiaries. For all projects, it is necessary to improve the quality of results indicators and to require beneficiaries to demonstrate the establishment of a Project Management Unit with a qualified technical team and a specific management system for project

management and monitoring.

The Amazon Fund Council (COFA) could prioritize projects prepared in a participatory manner, favoring innovations in sustainable production, monitoring and control, land-use planning, science, innovation and economic instruments. It could also condition institutional support and team training to the existence of stable teams capable of using the structure supported by the Project. It is important to note that supported projects involving SAF and forest management could have a minimum duration of six to eight years. The technical cooperation support contracted by the Amazon Fund can be an important measure to increase effectiveness, as well as include remote surveillance by satellite image, drones and other geotechnologies in projects to strengthen environmental governance. Finally, the COFA could demand that state projects articulate with the federal government and neighboring states to avoid displacement from deforestation and increase mutual learning.

It is suggested that the Federal Government articulate the projects of the state governments with the federal efforts to prevent and combat deforestation, offering support to the state governments, promoting the exchange of experiences and articulating the part of the Federal Government with ICMBio and FUNAI. In addition, it is suggested to develop regional studies by area of deforestation in the Amazon to generate recommendations for priorities and actions for project development.

Recommendations to state governments submitting projects to the Amazon Fund include: clearly presenting the context in which the project will be implemented and its relationship to other projects being implemented by the state government; properly recording project activities and results through well-documented reports; developing systems for maintaining and transmitting the institutional memory of the project; conducting socio-economic diagnostics of the area before intervention; considering contingency plans for possible delays or difficulties in the delivery of seedlings; properly sizing the effort of staff in project management; and involving beneficiaries in all phases of the project. It is important to emphasize the logical chain of activities, consider a longer time frame for bids and be aware of international agreements and safeguards in the process of selecting beneficiaries and beneficiaries.

1. Background

In response to a peak in the deforestation rate in 2004, the federal government prepared, in a participatory and integrated manner, the Plan for the Prevention and Control of Deforestation in the Brazilian Amazon (PPCDAm), with the objective of continuously and consistently reducing deforestation and creating conditions for sustainable development in the Brazilian Amazon. The actions for its implementation are based on four thematic areas: Land and Land-use Planning, Environmental Monitoring and Control, Promotion of Sustainable Productive Activities and Economic and Normative Instruments. For the first time, public policy sought to integrate the fight against deforestation (command and control activities) with the promotion of productive activities. As a result, the PPCDAm managed to reduce deforestation, which fell from more than 27,000 square kilometers in 2004 to less than 5,000 in 2012 (a reduction of about 85%). However, since 2012, deforestation has grown, reaching 15,400 square kilometers in 2022, an increase of 342%. Compared to 2004 levels, 57%.

In Acre, the first major result of policies to reduce deforestation and promote sustainable development was the elaboration of the Economic and Ecological Zoning (ZEE), the basis for Acre's Land-use Planning and Sustainable Development Plan, with the forest as the object of generating work and income. From this Plan, programs and projects were derived that received financial support from the Inter-American Development Bank (IDB), the World Bank, the Brazilian Development Bank (BNDES), the German Development Bank – KfW and the Amazon Fund itself.

To maintain its forest cover (86.03% of its territory, according to MapBiomas, 2021), in 2008 Acre launched the Forest Environmental Asset Valuation Policy, in the context of the implementation of the ZEE, in order to establish a set of sustainable public policies aimed at improving the state's environmental quality. The Environmental Asset Valuation Policy had in its scope relevant programs, projects and themes. The Project Importance of Forest Environmental Assets (VAAF) would represent the application of the ZEE guidelines and the concept of landscape integration, prioritizing altered areas of private and public properties observed in the Acre ZEE[1].

Thus, the Project Importance of Forest Environmental Assets (PVAAF) aimed at the regularization of forest environmental liabilities and the certification of sustainable production units with a Sustainable Property Certification Plan (PCPS), including Payment for Environmental Services (PSA) and recovery of areas with increased forest coverage through the regularization of property and multiple use management practices. As mentioned, these initiatives were supported with the State's own resources, the Inter-American Development Bank (IDB) and BNDES (GIZ, 2022).

With the opportunity of the Amazon Fund, established by Decree No. 6.527 of August 1, 2008, which made non-refundable resources available for investments in actions

1. GIZ. Terms of Reference (ToR): Effectiveness Evaluation of the Forest Environmental Asset Valuation (VAAF) project in the State of Acre/ Project: Cooperation with the Amazon Fund/BNDES, PN: 15.2132.7-002.00. Rio de Janeiro: GIZ, 2022.

to prevent, monitor and combat deforestation, promote conservation and sustainable use of the Brazilian Amazon, Acre presented the Forest Environmental Asset Valuation Project for support.

Approved in November 2010, the Acre VAAF Project aimed to "foster sustainable practices to reduce deforestation, with payment for environmental services (PSA), valuing the environmental and forestry assets to consolidate a clean, fair and competitive economy, based on the ZEE" (Effectiveness Evaluation Report, 2020). Table 1 summarizes the VAAF Project information.

Table 1: Basic details of the VAAF Project

Project Title:	Importance of Forest Environmental Assets
Organization responsible:	Government of Acre
Project Period:	11/19/2013 to 08/29/2018
Territorial Scope:	State of Acre
Beneficiaries:	Government institutions, forest managers, extractivists, indigenous people, small farmers, technicians and others.
Objective:	Foster sustainable practices to reduce deforestation, with payment for environmental services (PSA), valuing the environmental and forest assets to consolidate a clean, fair and competitive economy, based on Economic and Ecological Zoning (ZEE).
Total project value:	R$59,654,981.64
Value of support from the Amazon Fund:	R$52,930,867.68
Implementation period:	81 months (from date of hire)
Contract Date:	11/19/2010
Completion date	08/29/2018

Source: Evaluation Report, 2020.

2. Introduction

As established by the Amazon Fund, all financed projects undergo an ex-post evaluation to evaluate the effectiveness of the actions developed, and broaden the understanding of the results achieved by projects supported by the Amazon Fund. These evaluations are based on the *Conceptual Framework for Effectiveness Evaluation of Projects Supported by the Amazon Fund* to ensure a minimum standard to be applied in the evaluations of individual projects, establishing an institutional procedure that ensures a certain degree of comparability between the evaluations carried out.

The last external evaluations by the Amazon Fund were carried out in thematic blocks following the *Addendum to the Conceptual Framework Regarding Thematic Evaluations.* However, given the complexity of the Importance of Forest Environmental Assets, with four relevant themes, it was decided to carry out the individual evaluation of the VAAF Project.

The VAAF Project was coordinated by the State Planning Secretariat (Seplan), also responsible for the budgetary and financial management process, monitoring and evaluation, preparation of accountability, reporting and institutional relationship with the Amazon Fund.

The execution of the Project was decentralized with the State institutions and had the participation of the Executive Technical Assistance and Production Guarantee Secretariat (SEATER-GP), the Forest Secretariat (SEF) and the State Agroforestry Extension and Family Production Secretariat (Seaprof) in the Sustainable Production Component, the Environment Secretariat (SEMA), the Acre Technology Foundation (Funtac), the Acre Environment Institute (IMAC), and the Military Fire Department in the Monitoring and Control Component, Seplan and SEMA itself in the actions of the Land-use Planning Component and Funtac in the Science, Technology and Economic Instruments Component.

Throughout the execution of the Project, these executors received new names, SEMA became Semapi, SEF and Seaprof became the State Secretariat for Forest Development, Industry, Trade and Sustainable Trade (Sedens) and Seater became the State Secretariat for Agricultural Production (SEPA, currently Seprod), however, without prejudice to participation in the VAAF Project.

The Project proposed to simultaneously execute the four components of the Amazon Fund – 1) Sustainable Production, 2) Monitoring and Control, 3) Land-use Planning and 4) Science, Innovation and Economic Instruments – with the following specific objectives:

- *Component 1.* ***Sustainable Production****: economic activities of sustainable use of the forest and biodiversity identified and developed in the municipalities of Tarauacá, Feijó and Manoel Urbano; expanded managerial and technical capacity in the state of Acre for the implementation of agroforestry systems (SAFs), forest management activities, agro-extractive production, and processing of agroforestry products.*
- *Component 2.* ***Monitoring and Control:*** *Acre's environmental control, monitoring and accountability institutions structured and modernized.*
- *Component 3.* ***Land-use Planning:*** *strengthened management in 15 Indigenous Lands (ILs) in the municipalities of Santa Rosa do Purus, Feijó, Tarauacá, Cruzeiro do Sul and Mâncio Lima; Local Land-use Planning (LTM) implemented in six municipalities along BR-364 in Acre.*
- ***Component 4.*** *Science, Innovation and Economic Instruments (ST&IE): knowledge and technologies in seedling production of superior individuals of Amazonian species for reforestation purposes produced and disseminated.*

Figure 1 shows the Project objectives tree, which aimed at the following main impacts:

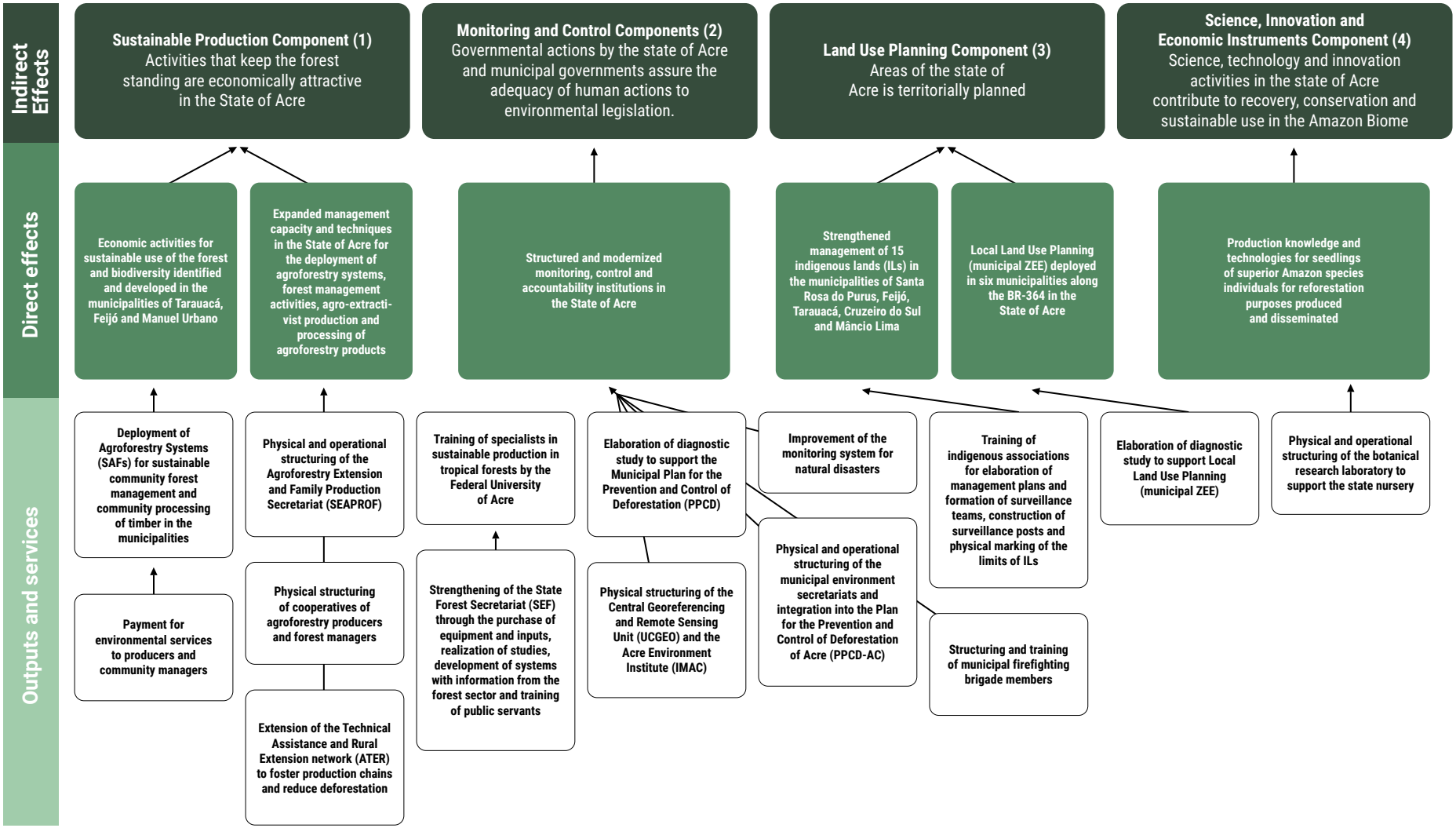
(i) Activities that keep the forest standing are economically attractive in the state of Acre.

(ii) Actions by the state government and municipalities ensure the adequacy of human activities to environmental legislation.

(iii) Area of the state of Acre is territorially planned.

(iv) ST&IE activities contributed to the recovery, conservation and sustainable use of the Amazon biome.

Figure 1: Components, direct and indirect effects and outputs and services of the VAAF Project. Source



Prepared by Bernardo Anache/GIZ with information from the Amazon Fund website. Available at http://www.fundoamazonia.gov.br/pt/Projeto/Valorizacao-do-Ativo-Ambiental-Florestal/

With its four components, the project is linked to several public policies, such as the National Climate Change Policy (PNMC), the National Plan for the Recovery of Native Vegetation (Planaveg), the Sectoral Plan for Adaptation to Climate Change and Low Carbon Emissions in Agriculture for Sustainable Development (ABC+), the Acre Sustainable Development Plan, and other national and regional policies for the Amazon.

The evaluation of the VAAF Project aims to measure the results achieved, their effects and the sustainability of the changes generated by their implementation. The strategic objective of the evaluation will be to provide subsidies for the institutional learning of the executors and the Amazon Fund itself, contributing to improve the quality of the projects and the prioritization of investments, subsidizing decision-making, as well as providing the learning of the institution executing the projects; recommend possible opportunities for strengthening the theme of monitoring and control; and verify the alignment of the Project with the Plan for the Prevention and Control of Deforestation in the Brazilian Amazon (PPCDAm) and the State Plan for Deforestation and Burning Prevention and Control in Acre (PPCDQ).

Another objective will be to assist the Amazon Fund in reporting to its donors on the type of project supported and its effects, to verify compliance by the project supported by the Amazon Fund with the Cancun Safeguards agreed under the United Nations Framework Convention on Climate Change (UNFCCC) for actions for Reducing Emissions from Deforestation and Forest Degradation in Developing Countries, and the Role of Conservation, Sustainable Management of Forests, and Enhancement of Forest Carbon Stocks in Developing Countries (REDD+), and to analyze to what extent the impact of the Project was relevant and sustainable, and whether the Project was effective and efficient.

3. Methodology

The methodology used in the evaluation was based on the Logical Framework of the Project and on the criteria and objectives contained in the document *Effectiveness Evaluation of Projects Supported by the Amazon Fund – Conceptual Framework*, prepared by the cooperation between GIZ and the Amazon Fund in 2016.

The methodology applied to implement the evaluation was divided into three stages: 1) preparation, 2) field visit and 3) report writing.

In the preparation phase, data from secondary sources (documents such as project performance reports) were collected in a non-reactive manner, including institutional information, in a systematic manner. Guiding questions were also developed, based on the elaboration of theories of change of each component of the Project, which sought to identify possible impacts of the Project based on its logic expressed in the objectives tree.

At this stage, the evaluation design proposal was prepared and presented to the technical teams of GIZ and BNDES, which were fully approved and guided the next stage of the evaluation.

As planned in the Project Design, the field visit stage, in Acre, lasted 10 days (January 18 to 27, 2023) with interviews with managers and beneficiaries of the VAAF Project in three municipalities of BR-364 (Bujari, Feijó and Tarauacá), a municipality of BR-317 (Plácido de Castro) and the Capital (Rio Branco).

The interviews in this evaluation presented an additional challenge, which was the time elapsed between the project's activities and this evaluation, given that the project began in 2011, focused its activities from 2013 to 2015, and ended its activities in 2018. Therefore, there was a space of 5 years, with change of government.

Throughout the interviews, information that could prove or disprove the information given in the reports and other informants was probed, in a procedure of "triangulation" and information verification. 46 people were interviewed (Annex 7.3), 16 women and 30 men. Responses were systematized and analyzed and were the basis for evaluating the efficacy of the VAAF Project.

Based on the collection of secondary data and the information gathered in the interviews and analyses carried out, the preliminary project evaluation report was prepared to receive the suggestions and interventions collected in the consultation round of this evaluation, and the contributions have been incorporated in this version of the final report.

This report was prepared in accordance with the structure previously agreed with GIZ, with reference to *the Conceptual Framework for the Effectiveness Evaluation of Projects Supported by the Amazon Fund* (2016).

4. Results Achieved

Tables 2 and 3 present a summary of the results of the VAAF Project according to each year, based on the performance reports (RED) of the Project (see the Summary section of the Performance Reports, in Annex).

Table 2: Project timeline based on reports submitted, from 2013 to 2015[2].

2013 RED 1	Modernization of the Central Geoprocessing and Remote Sensing Unit (UCGEO) and strengthening of the IMAC (information technology and computer equipment
	Forestry residency program qualifies 39 forest engineers
	Acquisition of six portable sawmills
	Diagnostics of 18 municipalities for the Municipal Plans for Prevention and Control of Deforestation and Burning (PPCDQm) were in the final stages of preparation
	Firefighting equipment, and trained 1,054 rural producers and brigade members
	Structuring of municipal departments with equipment and vehicles for the 22 municipalities.
	Nine Municipal Environmental Councils were created or reactivated
	Review of Local Land-use Planning of the municipality of Plácido de Castro
	Study and diagnostic to support the local land-use planning (municipal ZEE) of Feijó and Manoel Urbano
	ARIE Japiim Pentecost Management Plan under preparation
	Water Resources Notebook
	Recovery of 146 hectares of PPAs in the Acre River basin
	60 trained riverside dwellers and rural producers
	17 telemetric hydrometeorological stations
	Forest Management Plan and the Antimary State Forest Management Plan revised
	ATER to 2,080 growers
	156 properties (7.5%) were certified and received the certification bonus
	Seven workshops for training in surveillance and inspection of 17 indigenous lands
	492 families of community managers received bonuses
	Seedling Biofactory
	R$37.8 million executed
	Requested to extend the Project until December 19, 2014
2014 RED 2	3,677 hectares of areas for the planting of grain and fruit crops recovered with 1,750 family farmers served
	703 bonuses were paid to rural producers
	Community Forest Management Dissemination Workshops
	Handler Bonus Payment for 493 Families
	Workshops to equip ILs
	93% of resources used
	Extended execution deadline until December 2015

2. Signing of the R$60 million Contract, with a term of 36 months, on 11/19/2010.

2015 RED 3	Expansion of the target of families served from 2,080 to 2,560 4,679 hectares have been recovered Certification of 1,681 family properties (80% of the Terms of Membership) Suspension of ATER activities by service providers Prepared plans for prevention, control of deforestation, fires and forest fires in 16 municipalities Six regional workshops, a state seminar attended by representatives of various Indigenous Lands Reduction of the Biofactory's seedling production target, from 1 million to 500 thousand seedlings per year
2016 RED 4	1,521 family producers benefited directly from development actions Payment of 715 certification bonuses to family farmers 379 families living in public forests participating in the Community Forest Management Program received the bonus 19 PPCDQm ready Four regional workshops in different indigenous lands Project was extended again until December 19, 2017
2017 RED 5	Workshop on sustainable rural production held in the BR-364 Priority Assistance Zone (ZAP) Promotional actions for 1,500 family farmers Payment of 715 certification bonuses to family farmers Hired a consultancy to update the PPCDQs in 19 municipalities and prepare the last 3 municipal plans, in addition to updating the state's PPCDQ Regional surveillance and inspection workshop in the Regional Indigenous Lands of Jordão Preparation of the Realities, Strategies and Surveillance Learning in the Indigenous Lands of the State of Acre Booklet Biofactory's production was 41,478 seedlings, below the target of 100,000 seedlings
2018 RED 6	Payment of certification bonuses to 161 producers Prepared and validated by the State Commission for Environmental Risk Management – CEGdRA, the PPCDQm of the 22 municipalities 60 indigenous representatives from two Indigenous Lands were trained in territorial protection 153,200 pineapple and banana seedlings produced at the Biofactory

Source: Own elaboration.

4.1. RELEVANCE EVALUATION

The OECD relevance criterion evaluates the coherence of project objectives according to the demands of beneficiaries and the political priorities of target groups, the recipient and donors. This evaluation criterion is guided by the following questions:

- To what extent are the objectives of the project still valid at the time of its completion?
- Are the project activities and immediate results consistent with the achievement of the objectives defined for the project?
- Are the project activities and immediate results consistent with the achievement of the objectives defined for the project?

By helping to reduce deforestation and restore secondary vegetation in synergy with current federal policies, other state government projects and programs, and civil society organizations, the project made a critical contribution to several public policy goals, including:

- Ensuring a balanced environment (Federal Constitution).
- Reduction of emissions resulting from deforestation, zero net deforestation and recovery of native vegetation (NDC do Brasil).

The objectives of the Project remain valid. The consistency of the activities and immediate results of the Project with the achievement of the objective is evaluated in Table 4, below.

Table 3: Consistency of activities and results with the Project's objective.

RESULT/ACTIVITY	CONSISTENCY WITH THE OBJECTIVE
SUSTAINABLE PRODUCTION	
Implementation of Agroforestry Systems (SAFs), sustainable community forest management and community wood processing in municipalities	Yes. The activities are consistent with the objective, since they reduce predatory pressure on the forest and create economic interest in its conservation. However, agroforestry systems are not reclaimed forests. In the format in which they were fostered, they constitute orchards and small crops. The species are not native to Acre, with seedlings even coming from outside the state.
Payment for environmental services to producers and community managers.	
Physical structuring of cooperatives of agroforestry producers and forest managers	Yes. Producer and manager cooperatives are important for realizing the economic benefits of activities supported through processing and marketing.
Training of specialists in sustainable production in tropical forests by the Federal University of Acre	Yes. Without quality professionals with specialized training and training, the field of forest management could not develop.
Expansion of the services of the Technical Assistance and Rural Extension network (ATER)	The expansion of ATER services is fundamental for the success of the other actions of the Sustainable Production component, also assisting in Monitoring and Control. However, the services were temporarily expanded based on the hiring of service providers. This impacts sustainability, since the services were interrupted at the end of the Project. Even during the Project, when there was an audit, the services were interrupted.
Physical and operational structuring of the Secretariat of Agroforestry Extension and Family Production (SEAPROF)	The physical and operational structuring of SEAPROF is important to support and monitor the rural extension efforts contracted by the Project.
Strengthening of the State Forest Secretariat (SEF)	The strengthening of SEF played the same role as the strengthening of SEAPROF. Likewise, the services provided in forestry development were interrupted.
MONITORING AND CONTROL	
Physical and operational structuring of the Central Georeferencing and Remote Sensing Unit (UCGEO) and the Acre Environment Institute (IMAC)	Fundamental action to achieve state environmental governance, and probably the main action to reduce deforestation and increase the recovery of secondary vegetation in Acre.
Structuring and training of community municipal firefighting brigades	Important action to reduce fires. Fires were not among the expected impact indicators of the Project.

LAND-USE PLANNING	
Management plans for areas of relevant ecological interest (ARIE) and State Forests	The ARIE Japiim Pentecost Management Plan, although necessary, was not fundamental to reduce deforestation in Acre, since ARIE has very low deforestation rates, only presenting deforestation in 2021, on 79 hectares of its 25,000 hectares. State forests, on the other hand, present greater pressure and management plans are fundamental for the legalization of logging through forest management plans.
Strengthened management of 15 ILs in the municipalities of Santa Rosa do Purus, Feijó, Tarauacá, Cruzeiro do Sul and Mâncio Lima (this action was extended to all ILs)	ILs are very effective for forest protection, they are the least deforested designated areas in the Amazon, so strengthening management is very consistent with the Project's objectives.
Local Land-use Planning (OTLs) implemented in six municipalities along the BR-364 in the State of Acre, (in addition to PPCDQs prepared and implemented, and strengthened management in all municipalities in the State.	The elaboration of municipal plans, with diagnostics and prospecting of orderly occupation, is the first stage towards the decentralization of municipal management, but the action was not institutionalized in the form of law. The state government promoted training for municipal environmental management. These actions are consistent, but not sufficient, with the objectives of the Project.
Knowledge and technologies in seedling production of superior individuals of Amazonian species for reforestation purposes produced and disseminated	The activity, if it had been carried out, would be consistent with the objectives of the Project.

Source: Own elaboration.

In general, the activities and results are consistent with the achievement of the Project's objective, showing its relevance. The Efficacy section assesses how these activities have or have not achieved their goals.

4.2. EFFICACY EVALUATION

The Efficacy Criterion assesses the extent to which direct project objectives were achieved and what factors were important, with the following guiding questions:

- Were the direct (specific) objectives of the project met?
- What are the main factors influencing whether or not the direct objectives are met?

To answer these questions, the evaluation uses the indicators reported in the Performance Reports, the Final Evaluation Report and the Monitoring Plan, as well as the results of the interviews conducted during the evaluation team's field visit.

4.2.1. SUSTAINABLE PRODUCTION COMPONENT

Regarding the Sustainable Production Component, most of the people interviewed reported that the implementation activities of Agroforestry Systems took place within a strategy for the environmental certification of rural properties in Acre. The process followed a step-by-step approach and, at each stage in the evolution towards sustainable land use and environmental regularization, the producer was awarded a financial bonus, as a form of payment for the environmental services provided.

One difficulty in evaluating this component was the lack of structuring of a long-term monitoring program, given that the effects of the actions take several years to become

apparent. There was only monitoring during the implementation of the SAFs by the contractor itself, despite the monitoring of SEAPROF and SEF.

According to the Project Evaluation Report, in the Sustainable Production component, most of the targets for the indicators were achieved or exceeded (Table 5).

Table 4: Indicators and targets according to the Monitoring Plan of the Land-use Planning component (Source: Project Evaluation Report).

Intervention Logic	Indicator	Goal	Initial value	Final value
Economic activities of sustainable use of the forest and biodiversity identified and developed	Revenue obtained from economic activities of sustainable use (R$/year)	10.000	?	49.012,27
	Implementation of SAFs, sustainable community forest management and community wood processing in municipalities			
	Number of rural properties benefited from the implementation of SAFs, sustainable community forest management and community wood processing in municipalities	919	0	3.151
	Area recovered and used for economic purposes (ha)	6.370	0	5.657
Payment for environmental services to producers and community managers	Number of families benefiting from the payment of environmental services:	2,080 smallholder families 780 families of community managers		2,198 families of small producers 953 families of community managers
Expanded managerial and technical capacities for the implementation of agroforestry systems, forest management activities, agro-extractive production and processing of agroforestry products	Number of individuals trained to implement agroforestry systems, forest management activities, agro-extractivist production and processing of agroforestry products effectively using the knowledge acquired	2.280	0	2.280
Physical structuring of cooperatives of agroforestry producers and forest managers	List of goods and equipment purchased	Not shown	0	Presented in Performance Reports (REDs)
Training of specialists in sustainable production in tropical forests by the Federal University of Acre (Ufac)	Number of sustainable production specialists trained	40	0	36
Physical and operational structuring of SEAPROF	Number of public seminars at rural events on sustainable practices and reduction of environmental liabilities held	5	0	0

Expansion of ATER network services to promote production chains and reduce deforestation	Number of families with agroforestry and forestry production served by the ATER NETWORK	2.860		2.361
	Number of Sustainable Property Certification Plans prepared	2.860	0	2.860
	Number of community organizations strengthened	8		8
	Number of workshops on sustainable practices and reduction of environmental liabilities	5	0	3

Source: Project evaluation report.

The following results are discussed one by one:

4.2.1.1. IMPLEMENTATION OF AGROFORESTRY SYSTEMS (SAFS) IN THE MUNICIPALITIES

The implementation of one hectare of SAFs per producer was supported in Tarauacá, Feijó and Manuel Urbano, according to the Project (and in Bujari and Sena Madureira according to the interviews). The support consisted of technical assistance and provision of clearing and tilling services, seedlings of banana, pineapple and forest essences for planting the prepared area, materials and tools for cultural treatment services, chicks and materials for building a chicken coop, as well as support for fish farming (weirs and fingerlings). The Project promoted fire-free management with Mucuna pruriens, which helped prevent forest fires. The benefits package varied according to the interest of producers.

The number of rural properties benefiting from the implementation of SAF, sustainable community forest management and community wood processing in the municipalities was 3,151 (above the target of 919). However, the area recovered and used for economic purposes was 5,657 hectares, below the target of 6,370 hectares, but still significant. In the reports, the composition of the benefited properties is not clear, as they may include both management and recovery areas, and this may be the reason for meeting the target for benefited properties, but not for the recovered area.

The revenue obtained from economic activities of sustainable use (R$/year) is reported as R$49,012.27 per year, but it is not clear whether this revenue refers to SAFs or forest management, and whether it is the average or maximum revenue. The interview reports confirm that there was an increase in income, but not always in monetary income, as several activities contributed more to subsistence than to income generation. No capacity to monitor the revenue obtained by the government was observed. Success stories such as increasing corn productivity from 500 kg to 2,000 kg/ha were shared during the interviews.

During the field visit, due to the time of year (rainy) and the time elapsed after the interventions, evidence of the success of the SAFs could only be found in plots close to cities and with access during the rainy season. Açaí was the preferred species, since it has a local market and exports to other states. However, where access is more difficult, the income generated is not expected to be significant, as the interruption of access

during the rainy season makes commercialization impossible. Nevertheless, interviews with former extension workers confirm that the producers of Feijó and Tarauacá have benefited from the Amazon Fund's support and have noticed an improvement in their quality of life and environmental awareness. Although there is no monitoring, the interviews suggest that about 40% abandoned the SAFs, in some cases because they did not reach the commercialization of the outputs, due to lack of agribusiness and the difficulty in the disposal in the municipalities served.

Some of the benefited properties, with an area of between two and seven hectares, were located in the "agroforestry poles" that have been part of the state's agrarian reform policy since 1998. The focus was on water conservation and the productive recovery of permanent protection areas (PPAs), in agreement with IMAC on how the environmental regularization of the property would take place (before Law No. 12.651/2012).

There was little support from the Forest Nursery and the Biofactory (Science, Innovation and Economic Instruments Component), which led to the acquisition of seedlings from commercial suppliers outside Acre. While services were being expanded, political interests distorted the action in some cases, targeting people who did not meet the criteria.

4.2.1.2. IMPLEMENTATION OF SUSTAINABLE COMMUNITY FOREST MANAGEMENT AND COMMUNITY WOOD PROCESSING IN MUNICIPALITIES

Regarding investments in sustainable community forest management actions, managers and managers and beneficiaries highlighted the volume of investments of the VAAF Project to carry out studies, forest inventories, community forest management plans, forest exploitation operational plan and the training of personnel to operate in the production chain of wood and non-timber products, including the acquisition of portable sawmills for the processing of raw materials by community managers.

To improve the income of families residing in the state forests of Antimary and the Gregório River Complex, the Project sought to support local communities in the exploitation of timber resources. The indicators and targets do not clearly identify forest managers separately from producers who have received support for the implementation of SAFs.

The state government received advice from Imaflora, an NGO specialized in forest certification, with direct contracting by the government. The first stage was to license the associations' projects with the IMAC, which involved a process perceived as long and bureaucratic, due to the regulation for analysis and approval of forest management plans. An example of licensing difficulties is that the Project planned to provide portable sawmills, which were purchased, but had to be treated as fixed sawmills to receive the license, considering that the license depends on certification with a location permit.

Another difficulty was that, in the Gregório River Complex, there were five producer associations that needed to be financially remedied, with the support of government technicians. The SEFs also needed to prepare their management plans before obtaining the Management Plan license.

At FES Antimary, a corporate forest management was implemented, with a process of certification and training of people from the communities. The company managed the lots of people from the communities with the Concession of the Real Right of Use (CDRU). According to the government of Acre, FES Antimary is surrounded by deforestation, which is smaller inside the State Forest because the income from the sale of wood and nuts promotes the maintenance of the standing forest. However, the rent paid by the loggers to the managers for the sale of the wood was not monitored.

Currently, there is still a mobile sawmill in the Gregório Complex that supports local wood consumption. There was no full implementation of the forest management proposal in this area, as there was a change in state management.

4.2.1.3. TECHNICAL ASSISTANCE AND RURAL EXTENSION (ATER)

ATER was instrumental in the implementation of SAFs by the Project. Initially, joint efforts were promoted by SEAPROF, involving 14 technicians and technicians in the field, preparing the "production unit plans". The extension involved not only individual visits, but also community visits. Meetings were held presenting this Project action, the rules to be followed and the bonus advantage, and producers were free to join or not. At first, ATER was concentrated in the closest areas due to the possibility of monitoring by the SEAPROF team, which only had 14 people.

The resources of the FA allowed the expansion of the action to BR-364, which served to comply with the environmental safeguard for the completion of the paving of BR-364, financed by the World Bank.

Between 2014 and 2016, ATER was outsourced. Organizations with an affinity with the action to be developed were hired and the contracts were established by service goal. Each property was to receive four to five visits per year. Each extension worker visited four properties a day. Considering the distances, the conditions of the roads and branches, and that the visits were made in pairs, each visit was too short to effectively guide the families.

Furthermore, the outsourced ATER interrupted ATER's official relationship with producers and producers. Extensionists of the public network became contract inspectors, with less interaction with producers, who, at the end of the outsourcing contracts, were left unattended. Another problem was that the undercapitalized ATER companies had difficulty waiting for government payments, which took a few months.

There were also meetings in the communities, where there was more space and time for interaction and questions, in addition to the exchange of experiences and partnership with the Military Fire Department in the orientation for fire control. There was also ATER support to indigenous people made by a specialized nucleus of SEAPROF itself and with the support of indigenous agroforestry agents. The same benefits offered to small producers were offered to indigenous people involved. An example of the result of this support was the access of indigenous people to the PAA (Food Acquisition Program) and the PNAE (National School Meals Program) by a village in Tarauacá (Colony 27), which supplied cassava, banana and beans to these programs.

The workforce in rural extension was also strengthened by other programs, and even included 90 technicians and techniques. Later, when the project ended, Tarauacá continued its support with ATER and seedlings for some producers. Municipalities can be important for the sustainability of actions, supporting with CAR, ATER and seedlings. However, the Project implemented the actions of the Sustainable Production component without cooperation with the city halls, compromising the sustainability of the actions.

One problem was that ATER did not always coincide with the delivery period of the seedlings, which did not always happen at the most favorable time for planting. Finding the best season is also a challenge in Acre. Planting must be done in the rainy season, but transportation must be done in the dry season. The ideal would be to distribute at the end of the drought and plant at the beginning of the rainy season, but some procurement processes have been delayed, with delivery occurring during the rainy season when distribution on plots becomes more difficult. The "Amazon winter" (rainy season) is a challenge for ATER, due to the deterioration of access conditions during this period.

An important aspect of rural extension was the facilitation of access to the Food Acquisition Program (PAA) and the National School Meals Program (PNAE), which released the production of some SAF outputs.

It was not possible to assess information on increased income, since follow-up activities ceased with the end of ATER services. The improvement in family income was noticeable by extension workers from the observation of the acquisition of consumer goods. Based on their observation of the acquisition of consumer goods by the beneficiary families, the extension workers interviewed assumed that there was a significant increase in income. This contrasts with the very accurate annual income information communicated in the final Project report.

4.2.1.4. SAFS AND ATER IN INDIGENOUS LANDS

Some of the indigenous people interviewed reported that they had received benefits from the project in the sustainable production component: seedlings, day-old chicks, materials for chicken coops. The cultural inappropriateness of support in poultry farming was pointed out, as chicken coops are generally not adopted by indigenous people. The fish farming activity was successful due to the presence of a dam and the use of fingerlings and feed to feed the fish. Furthermore, the community continues to feed fish with local resources. It is important to note that the government offered support in the construction of the dam.

In Feijó, it was reported that each village has at least one or more agroforestry agents, and this seems to be a very successful ATER model because it has continuity and the agents emphasize the demands of the communities, with knowledge effectively disseminated and communities mobilized to implement SAFs and other innovations.

4.2.1.5. PAYMENT FOR ENVIRONMENTAL SERVICES TO PRODUCERS, MANAGERS AND COMMUNITY MANAGERS

An existing environmental certification program for payment for environmental services was expanded to the five municipalities with Project support. The certification involved signing a commitment agreement and monitoring it with the support of UCGEO.

The implementation of the bonus payment encountered several bureaucratic challenges. The first was the lack of documentation of beneficiaries and beneficiaries. The second was that the beneficiaries did not have a checking account. In SEAPROF's joint efforts, these two aspects were addressed, in cooperation with Caixa Econômica Federal. The rural workers' unions (STR) attested that the families lived in a tenure area.

The bonuses had contradictory effects. If, on the one hand, they could encourage and improve the lives of families, on the other hand, some used it to buy drinks, cattle, chainsaws, etc. Not all producers received all the stages, as they often did not meet the conditions and were suspended.

4.2.1.6. PHYSICAL STRUCTURING OF COOPERATIVES OF AGROFORESTRY PRODUCERS AND FOREST MANAGERS

The indicator of the structuring of cooperatives (list of items purchased) was not appropriate, as it expresses investment and not result. For this item, there is no goal or report of activities in the REDs or in the evaluation report sent to BNDES. In the field visit or in the performance reports, no evidence of the physical structuring of cooperatives of agroforestry producers and forest managers was found.

The Government of Acre informed BNDES that, with the support of the project, eight community organizations of forest managers were strengthened through meetings and workshops to carry out the following activities: review of the three management plans of the Gregório River forest complex and its management programs; land regularization; technical assistance; bonus payments to managers; storage and transportation of agroforestry products; planning and implementation of community forest management; implementation of forest certification.

However, the activities focused only on clarification and planning meetings, without developing into activities that strengthen organizations through training, improvement of facilities, equipment and working capital.

4.2.1.7. TRAINING OF SPECIALISTS IN SUSTAINABLE PRODUCTION IN TROPICAL FORESTS BY THE FEDERAL UNIVERSITY OF ACRE

The Residency program, of a class of 40 people, trained 36 professionals at the postgraduate level in Tropical Forest Management. The course was structured with the hiring of the Federal University of Paraná (UFPR) and the Federal University of Acre (Ufac) for extension. Students received scholarships, life insurance and transportation allowance. There was a public notice for the selection of students, who were assigned to the private and public sectors. On the Internet, evidence of this Program is scarce,

showing very old and previous references to the Project. The evaluation failed to identify whether professionals develop activities in this field.

4.2.1.8. PHYSICAL AND OPERATIONAL STRUCTURING OF SEAPROF AND SEF

As a result of the institutional strengthening of SEAPROF, a more equipped ATER service with better logistics structure remained, however, limited by less availability of technical personnel, considering that the outsourced ATER contracts did not continue with the completion of the VAAF Project.

The managers interviewed also indicated that the VAAF Project greatly strengthened the Forests Secretariat with equipment (GPS, IT, etc.), vehicles, furniture and training to operate in the wood and non-timber product production chain. However, with the political dynamics, SEF lost importance in public management until it was extinguished. The governments that followed did not treat the issue of forest assets with the same strategy as the previous ones, weakening community-based forest management. Proof of this is that the VAAF Project did not invest anything in cooperatives as foreseen in the budget.

4.2.1.9. CONCLUSION ON THE EFFICACY OF THE SUSTAINABLE PRODUCTION COMPONENT

Thus, in the implementation of agroforestry systems, the efficacy was average: the area and the number of beneficiaries and beneficiaries was reached, but it could have been greater if there had been synchronization between the supply of inputs (especially seedlings), ATER and environmental conditions, and if there had been continuity of ATER.

For sustainable community forest management activities, despite the effort to produce the technical tools to carry out the management, the lack of capacity to mobilize, organize and strengthen forest-based organizations compromised the expected result and efficacy was evaluated with low.

4.2.2. MONITORING AND CONTROL COMPONENT

Table 6 shows the indicators for the Monitoring and Control Component, which has achieved and exceeded all targets, according to the Project Evaluation Report.

Table 5: Indicators and targets according to the Monitoring and Control component Monitoring Plan (Source: Project Evaluation Report).

Intervention Logic	Indicator	Goal	Initial value	Final value (2018)
Structured and modernized environmental monitoring, control and accountability institutions	Total number of regional units of the Environment Agency	6	0	6
	Number of environmental permits or licenses granted by the State of Acre annually	-	-	7,247 (2013 to 2018)
	Increase in the annual budget executed by the environmental monitoring, control and accountability institutions supported by the project	-	-	28.60% reduction (2018/2019)
	Number of public servants trained effectively using the knowledge acquired	120	0	132
	Number of municipalities in the State of Acre with PPCDQm elaborated and with the respective operational structures implemented	22	0	22
Physical and operational structuring of UCGEO and IMAC	No. of trained public servants	25		30
	Structuring and training of community municipal firefighting brigades			
	Number of individuals trained to fight forest fires	1,000		1,054
	Improvement of the natural disaster monitoring system			
	Number of hydrometeorological stations installed	4		4
Preparation of study and diagnostics to support the PPCDQm	Study and diagnostics to support the PPCDQm prepared	22		22
	Physical and operational structuring of the municipal departments of the environment and their integration into the PPCDQ of Acre			
	Number of trained public servants	186		228
Strengthened management of 15 ILs in the municipalities of Santa Rosa do Purus, Tarauacá, Cruzeiro do Sul and Mâncio Lima	IT area with control of its territory strengthened	1,485,384		2,293,675
	Training of indigenous associations for the preparation of management plans and training of surveillance teams; construction of surveillance posts and physical marking of ILs			
	Number of trained individuals	40		360
	Area of Indigenous Lands (ILs) with physical marking performed	94,914		2,293,675

Source: VAAF Project Monitoring Matrix.

The following results are discussed one by one:

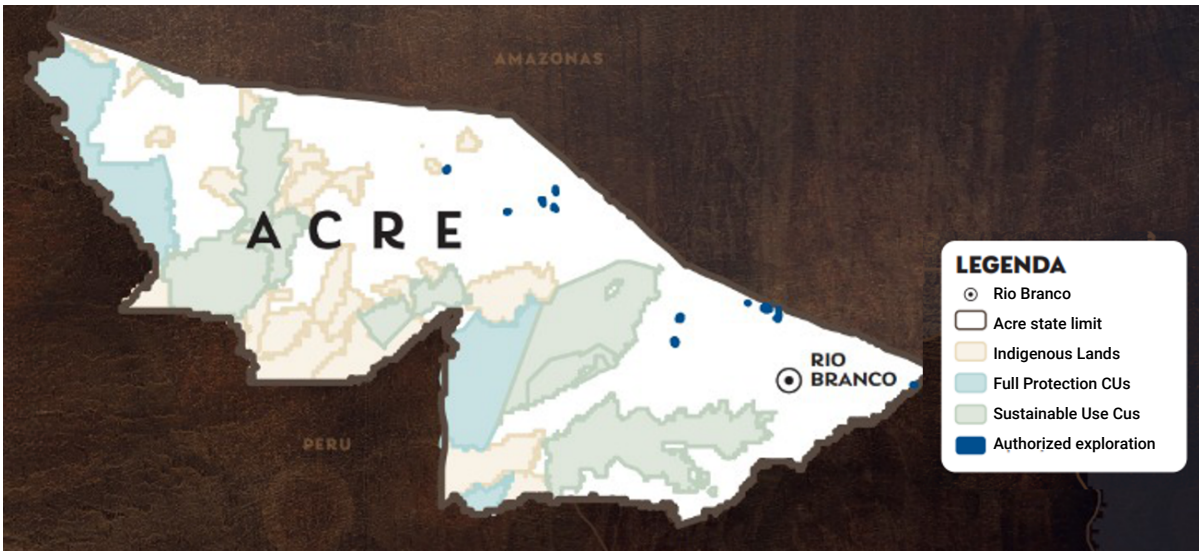
4.2.2.1. STRUCTURED AND MODERNIZED ENVIRONMENTAL MONITORING, CONTROL AND ACCOUNTABILITY INSTITUTIONS

The environmental monitoring, control and accountability institutions were structured and modernized, and this was one of the main success factors of the Project.

The IMAC was strengthened with a computerized management system with module of origin and control of forest resources. However, there were no targets for the number of environmental permits or licenses issued annually by the State of Acre (there could have been a target for the processing of licenses or the reduction of the backlog), nor for the increase in the annual budget executed by the environmental monitoring, control and accountability institutions supported by the project (which was actually reduced by 28.60%). Without goals, the evaluation is difficult, but the perception is that licensing could be faster and less bureaucratic, despite improvements.

As an example of this improvement, a recent Imazon study showed that of the 10,896 hectares to be logged in Acre between August 2020 and July 2021, all were approved by IMAC. This same efficacy was confirmed for soybean and livestock projects in the state (Figure 2).

Figure 2: Acre Timber Exploitation Monitoring System (Source: adapted from IMAZON, 2023[3],



The Project also bought equipment for the Military Fire Department (CBM), which then started to have its own project. CBM participated in the Project by training both producers in the Sustainable Production component and municipal fire brigades.

One of the main actions of the Project, in terms of effectiveness, was the strengthening of UCGEO, since 2020 integrated with the Integrated Center for Geoprocessing and Environmental Monitoring (Cigma)[4], together with the Technical Office FOR the Management of the Rural Environmental Registry (CAR) and the Environmental Regularization Program (PRA), the Hydrometeorological Monitoring Situation Room

3. http://www.imazon.org.br .
4. http://semapi.acre.gov.br/cigma/.

and the IMAC Geoprocessing Division[5]. UCGEO was established before Law No. 12.651/2012, and had the purpose of supporting the implementation of CAR and rural environmental licensing.

To support the PSA of the Climate Change Institute (IMC), UCGEO supported the quantification of carbon in FES Antimary, with an inventory of forest biomass prepared through the Lidar (*Light Detection and Ranging*) sensor[6], supervised by the Scientific Committee of the IMC of Acre. UCGEO also started to monitor the occurrence of fires and forest fires and became a research unit, with the production of scientific articles and the participation of its team in congresses and seminars. It is clear that the team was valued and its specialization was encouraged during the execution of the Project.

IMAC did not make proper use of the data produced by Cigma, as it would have been possible, even during the project, to carry out a remote inspection using satellite surveillance, including notification of offenders, without the need for an on-site inspection.

The Hydrometeorological Monitoring Situation Room had four weather stations of the National Water Agency (Ana). In 2012, there were frequent flooding processes and it was found that it would not be possible to cover the entire state. The Project then acquired stations and the Situation Room received 25 stations from ANA, using resources from the Amazon Fund also for maintenance. According to the interviews, thanks to the monitoring of the floods, carried out by the Civil Defense, there were no more deaths. The Situation Room started to be used throughout the year, both in the dry and rainy periods. The investment in the stations, which was not foreseen in the initial project proposal, can be justified with arguments of adaptation and cooperation for the proper functioning of the Situation Room.

The government of Acre received data from the Project for Monitoring Deforestation in the Brazilian Amazon by Satellite (PRODES) to report deforestation, but used data from UCGEO to strategically guide the State, as they provided a more detailed analysis, with a resolution of 0.54 hectares. In 2017, the government began to have access to data with a resolution of 1 hectare from Prodes, through Terra Brasilis[7], and UCGEO started to use INPE data, as they are more accurate.

UCGEO advanced with resources from the Amazon Fund. Created in 2008, it was a shared management between SEMA and Funtac. The Project leveraged the physical structuring (equipment, servers, powerful geoprocessing machines, etc.), which allowed the monitoring of deforestation detailing PRODES data, which was necessary because a large proportion of deforestation was in smaller areas that PRODES resolution allowed to analyze.

As part of the UCGEO action, community municipal brigades were created in the municipalities of Acre, with the distribution of equipment and training by SEMA,

5. Decree No. 6,843, of September 22, 2020, which creates the Integrated Center for Geoprocessing and Environmental Monitoring – CIGMA, regulates its operation and makes other provisions.

6. According to the INPE's Remote Sensing Division, Lidar is an active remote sensor that emits laser beams in the near-infrared band and is capable of modeling the terrain surface three-dimensionally. It allows generating outputs such as the Digital Terrain Model and the Digital Surface Model, used for topographic surveys, characterization of vegetation structure and volumetry of buildings in urban environments.

7. Terra Brasilis is a digital platform created by the National Institute for Space Research (INPE) with the objective of providing information on land use and land cover in the country. The platform uses satellite data and geospatial information to produce maps and analyses on the use and occupation of Brazilian land.

IMAC and CBM. As voluntary actions, these brigades still exist and participate in the campaigns promoted by Ibama and ICMBio within Prevfogo, with a scholarship for the members of the brigade during the period of greatest risk of forest fires.

The Project also acquired hydrological monitoring stations in the Acre River, which are important for disaster prevention, although they were not initially planned. However, they are not used to reduce deforestation or forest recovery, either directly or indirectly. Within the Project's logic, this acquisition is justified to complement Acre's environmental monitoring structure, as the Monitoring Center was integrated.

The Acre River Basin Recovery Program was one of the first actions implemented by the Project, with greater intensity in 2012 and 2013, based on the State Water Resources Plan, prepared before the Project, which defined the Acre River basin as a priority for recovery.

Producers in the basin were already looking for solutions to the situation due to water shortages. Thus, this Program had the voluntary adhesion of producers in the region. The forest nursery supplied the seedlings, but the supply was insufficient. Temporary nurseries were created to rusticize the seedlings before taking them to the field, since the seedlings in tubes were very fragile, despite being practical for transport.

UFAC offered support with information collected through its register of seed collectors, mainly legumes, for the production of seedlings.

The project had two or four comprehensive courses in environmental education, recovery, dissemination and training in SAFs. The State Prosecutor's Office (MPE) was also involved in the initiative. The objective was to convince producers to plant species with no economic value (with only an environmental focus) in some areas, but in other areas, SAFs were implemented to meet the economic demands of producers. The lack of seedlings was one of the main challenges faced.

The program was extended to the seven municipalities along the Acre River and began implementation in 2012, following the identification of liabilities on the riverbanks and springs in 2011. Model areas were chosen at polo sites and thousands of seedlings were lost to flooding in 2012. The program included training of teachers and students in some cities, and the students adopted the seedlings. Ibama brigade members in Epitaciolândia adopted three specific areas. The entire SEMA group has been dedicated to the program and has been directly involved in rural extension, despite the challenges of producing seedlings.

The producers received a technical project, materials for fence construction (wire and poles) and fuel for mowing. Through bidding, a company was selected and was responsible for preparing the project, supplying the inputs and hiring the labor. SEMA was in charge of monitoring the program. Thus, it can be seen that the implementation model chosen by SEMA for this program, with a single company responsible for inputs and services, avoids the problems of lack of synchronization between technical assistance, seedlings and services that were observed in the implementation model of SAFs in the Sustainable Production Component.

With Law No. 12.651/2012, Program participants had priority in CAR and PRA, in addition to allowing the recovery of PPA to be done with agroforestry consortia. However, SEMA did not accept that the projects were only 5 meters wide, as required by law, because this width does not effectively protect water resources.

Unfortunately, the reclaimed areas along the Acre River took a heavy hit from the extreme floods of 2013. However, in the sub-basins and springs, the results of the recovery still remain.

4.2.2.2. PREPARATION OF A STUDY AND DIAGNOSTICS TO SUPPORT MUNICIPAL DEFORESTATION PREVENTION AND CONTROL PLANS (PPCDQS)

All municipalities in the State of Acre had their PPCDQs prepared and with the respective operational structures implemented with the support of the project. The studies and diagnostics to support the PPCDQs were elaborated and are praised as sources of information, generating benefits in other areas. The elaboration of the PPCDQs followed a participatory approach, with broad participation of the government and society at the municipal level. The plans are considered to be of good quality.

However, there was no institutionalization of these plans or operational structures. As a result, little remains of the extensive participatory efforts to generate PPCDQs and support the structuring of municipal environmental secretariats and councils. As such, there was a lack of incentive and the requirement of a greater commitment as a counterpart to the Project.

This result also included the physical and operational structuring of the municipal environmental secretariats and their integration into the PPCDQ-AC. There were many meetings and training activities involving city halls and local civil society aimed at structuring the secretariats and municipal environmental councils. Eighteen municipalities even formed, structured and formalized the councils. However, these councils were not maintained, since the municipal environmental teams were not maintained and most of the councils did not reach formalization or, with the changes in municipal management, were not called. Civil society is no longer as active in Acre and work has been lost.

The lack of technical staff and the high turnover in municipal teams hampered the results of the training. Few municipalities have any memory of what was done and municipal environmental management, if any, is being rebuilt practically from scratch. Currently, a small part of the environmental licensing is with the city halls, corresponding to the use of urban land (such as gas stations, pruning, etc.). Only Cruzeiro do Sul and Rio Branco took on broader licensing tasks.

In addition to the lack of institutionalization, the change of mayors and discontinuity of city hall teams made most municipalities forget the PPCDQs. An exception is Cruzeiro do Sul, which has a more structured municipal management, as a hub city in the Juruá River basin, which is monitored. Tarauacá is an example of how environmental management is being rebuilt from the ground up. The Municipal Council for the Environment was recently formed, with representatives of resident associations, Rural Workers' Unions

(STRs), IMAC, Instituto de Terras do Acre (Iteracre) and Banco do Brasil, among other organizations, and members of the Municipal Council of Education (to create synergies in environmental education). As the Municipal Environment Secretariat does not have inspectors in its structure (it only has a secretary and an advisor), it does not do the licensing. There is a municipal seedling nursery, established with resources from the city hall and support from Funtac.

Once again, institutionalization was lacking, in this case with the hiring of a permanent team for the secretariats and incentives to maintain the formalized and active councils.

4.2.2.3. STRENGTHENED MANAGEMENT OF 15 INDIGENOUS LANDS (ILS) IN THE MUNICIPALITIES OF SANTA ROSA DO PURUS, TARAUACÁ, CRUZEIRO DO SUL AND MÂNCIO LIMA

Initially, the project included actions to financially and technically support three indigenous lands. However, at the request of the indigenous peoples, support was extended to 17 indigenous lands near BR-364, with a focus on protecting these lands from invasion, forest fires, and the predatory activities of third parties.

The main activities included workshops on monitoring and surveillance, distribution of equipment, and improvements to the demarcation of indigenous lands. Both the reports and the interviews with public servants and indigenous leaders indicate that the activities were very participatory and effective, multiplying the effect of the resources that had been diluted in a greater number of ILs than initially planned. The focus on the participation and involvement of local agroforestry agents was fundamental to ensure the consistency of the activities and their sustainability in the post-project period.

4.2.2.4. CONCLUSION ON THE EFFICACY OF MONITORING AND CONTROL

The Project has been very effective in strengthening monitoring and control institutions, although IMAC has been criticized for its bureaucracy and for not using UCGEO data to monitor environmental crimes in rural areas. The establishment of this type of remote inspection should have been one of the goals of UCGEO and IMAC, as it has been practiced in Mato Grosso since the 2000s. It is not yet in place in Acre, and if it were, it could be more effective in slowing the advance of deforestation, since it is difficult to have inspectors in the field with the same effectiveness as remote inspection. As we will see later, in the section on impact, only a small part of unauthorized deforestation is inspected.

Acre's technical capacity in geoprocessing also provides important support for certification and payment programs for environmental services.

The hydrological monitoring of the Acre River is not an action that can be expected to reduce deforestation, but it has helped to plan actions to assist the victims of the occasional flooding of the Acre River. The recovery program of the Acre River basin had its efficacy impaired by the great floods that killed the seedlings in the areas located along the river channel, but in the streams and springs, the result remains. In addition to the areas under recovery, environmental education work was also important to sensitize producers about the recovery and protection of springs and permanent protection areas on the banks of rivers and streams.

In the indigenous lands, the focus on the participatory process, the high level of ownership of the action by the indigenous people and partner organizations, and the support of indigenous agroforestry agents, who are quite institutionalized in Acre, made the work very effective and consistent. For this Component, the efficacy can be considered high.

4.2.3. LAND-USE PLANNING COMPONENT

Table 7 presents the indicators and goals of the Land-use Planning Component, showing the achievement of the Project's goals. However, if quantitative indicators have been achieved, it is important to analyze the quality of implementation.

Table 6: Indicators and targets according to the Monitoring Plan of the Land-use Planning component (Source: Project Evaluation Report).

Intervention Logic	Indicator	Goal	Initial value	Final value
Local Land-use Planning (municipal ZEE) implemented in six municipalities along BR-364 in the State of Acre	Land areas with territory organization defined through Local Land-use Planning (municipal ZEE) (ha)	Feijó, Manoel Urbano (3,857,856.30)		3,857,856
Preparation of a study and diagnostics to support Local Spatial Planning (municipal ZEE)	Study and diagnostics to support Local Spatial Planning (municipal ZEE) prepared	2		2

Source: Project evaluation report.

As discussed in the analysis of the Monitoring and Control Component, investment in municipalities would be a necessary step towards the decentralization of environmental management in Acre, reducing the overload of licensing and inspection on the IMAC. The idea implicit in the Project was to have the ZEE and the PPCDQ as integrators of the Government of Acre with city halls and other actors (producers, indigenous people, etc.), with state and municipal institutional strengthening for integrated land-use planning. Municipal environmental management was supported with the supply of equipment, vehicles and training. At the same time, municipalities received support for the planning of Local Land-use Planning (LTM).

Twelve of the 22 municipalities in Acre have OTLs (three with support from the Amazon Fund[8] and the others from the World Bank and the Inter-American Development Bank (IDB)). The elaboration of the OTLs and plans was done with participatory methodologies, which involved the definition of zones with the support of UCGEO, with broad involvement of local society, but generally without the protagonism of the city halls, which participated, but did not lead the OTLs. Exception was the municipality of Rio Branco, where the LTM was prepared by the city hall itself. This municipal zoning effort was not used or supported in the planning of actions to promote the Sustainable Production component.

The plans were carried out with the support of a company, accompanied by the SEMA team. The diagnostics have become quite rich and have been used by municipal administrations in fundraising for other areas, in addition to the environmental one. However, these plans were not institutionalized in the form of law or regulation, despite

8. Brasileia, Manoel Urbano e Feijó.

the participation of the City Councils, so they cannot be considered implemented, as indicated in Table 7 above, and by the Evaluation Report, as implementation of the LTM should be, at least, its institutionalization in the form of law.

Thus, the lack of this institutionalization caused most of the effort to be lost. During the field visit and the interviews with local managers, no references were observed on the use of the instruments as inputs in municipal planning, most were totally unaware of the PPCDQm and the LTM, with no physical memory or policy of the proposals for local planning and control of deforestation and fires.

Regarding the analysis of the Efficacy of the Land-use Planning Component in the VAAF Project, the finding is of low effectiveness.

4.2.4. SCIENCE, INNOVATION AND ECONOMIC INSTRUMENTS COMPONENT

The indicators of Science, Innovation and Economic Instruments do not allow an evaluation of their efficacy because, instead of results or actions, they deal with inputs: researchers and researchers, facilities, investment (Table 8).

Table 7: Indicators and targets according to the Monitoring Plan of the Science, Innovation and Economic Instruments component (Source: Project Evaluation Report).

Intervention Logic	Indicator	Goal	Initial value	Final value
Knowledge and technologies in seedling production of superior individuals of Amazonian species for reforestation purposes and disseminated	Number of participations in integrative events (seminars and forums) aiming to disseminate the knowledge produced	2		2
	Number of researchers and technicians involved in IDP activities[9] established in the region	10		10
	Physical and operational structuring of the botanical research laboratory to support the state nursery			
	Value invested in CTI infrastructure[10]	2.881.556		2.881.556
	Laboratory area built, expanded or modernized (m2)	180		291

Source: Project evaluation report.

The objective of the Biofactory was to meet the demands for quality seedlings, improved and free of phytopathology – which proved to be a challenge. The VAAF Project fully supported the construction of infrastructure, equipment, acquisition of species for cloning and training of personnel. With the demand to start the formation of SAF, Biofactory was and is still working with banana and pineapple seedlings, but due to limited financial and human resources, it was unable to meet the demand and produced below schedule.

9. Research, development and innovation
10. Science, technology and innovation

However, during the visit to the project, it was possible to observe the proper management of the Biofactory and the enormous potential it has to expand its activities and meet the technological requirements for the production of seedlings of forest essences for reforestation, afforestation and recovery of degraded areas.

Despite being an important and well-managed investment, its efficacy is debatable, as despite the inputs placed, the Biofactory did not produce the necessary seedlings, never reaching the proposed goal, which was even reduced during the Project. Despite this, the Biofactory provided fruit seedlings that contributed to increasing the agricultural production area of Acre, reducing the pressure on the remaining forests, which may indicate a possible link between this fruit growing and the reduction of deforestation. Thus, it can be said that this component had an average efficacy.

4.3. EFFICIENCY EVALUATION

The Efficiency Evaluation measures the cost-benefit of the results, whether the financial resource was invested more economically and whether the results were achieved satisfactorily. It also deals with the contribution of procedures, management arrangement, works, equipment and other inputs to the actions of the Project[11].

4.3.1. SUSTAINABLE PRODUCTION COMPONENT

The main challenge of evaluating efficiency in the execution of the Sustainable Production Component was the weakness of financial reporting, where costs were informed by outputs and services. This allowed some conclusions to be drawn, but did not allow a precise assessment of the cost-benefit ratio of the product or service due to insufficient information on the benefits of the services provided.

4.3.1.1. IMPLEMENTATION OF AGROFORESTRY SYSTEMS FOR 2,080 FAMILIES OF RURAL PRODUCERS.

A possible indicator to measure the efficiency of the implementation of SAFs is the cost of implementation per hectare. The cost of implementation involved detachment and harrowing services, R$8,429,048.16; the implementation of the fields, R$5,988,503.90, and technical assistance, R$14,998,255.21. Regarding this value, R$13,671,657.21 was invested in hiring specialized technical services to support ATER and the rest in equipment and vehicles. The payment of bonuses to beneficiaries amounted to R$2,276,250.00. The total sum of these expenses was R$30,365,459.27 – which implies an average expense of R$5,367.76 per hectare, which is within usual values, if calculated without the costs of technical assistance, PSA, and labor. For example, considering the total costs, the company Belterra spends on the implementation of agroforestry from R$10,000 to R$25,000 per hectare[12]. Another estimate, based on SAFs with cocoa and mahogany in the Amazon, estimates the costs of the first year at R$4,130.00, but comes close to R$20,000 considering 10 years[13]. In the Atlantic Forest,

11. If efficacy is the relationship between action and result, efficiency is the relationship between input and action, and effectiveness is the combination of efficacy and efficiency: it is the relationship between result and input, or between efficacy and efficiency.

12. https://plenamata.eco/2021/10/28/empresa-ajuda-a-construir-negocios-sustentaveis-na-amazonia/

13. PARAENSE, Vinicius; MENDES, Fernando Antonio; FREITAS, Alessandra, Avaliação econômica de sistemas agroflorestais de cacau e mogno na transamazônica: um estudo de caso. Enciclopédia biosfera, v. 9, n. 16, 2013.

the cost of one hectare of biodiverse SAF reached R$28,164.60[14].

In terms of efficiency per family, the cost reached R$ 14,598.78, and considering the information that the annual income of a family benefiting from the VAAF project increased from R$ 10,000.00 to R$ 49,012.27 per year, it can be concluded that the beneficiary producer had a return of R$ 2.67 in its annual income for each real invested by the VAAF project, a very significant return, indicating the efficiency of the project in terms of increase in gross annual income, especially since the income from SAFs tends to increase over time. Furthermore, if there had been no delay in the delivery of inputs, low frequency in ATER services for monitoring and technical support for the development of SAFs and discontinuity in the payment of environmental services, the effect on income could have been greater.

Thus, the Project had efficiency in the execution of the actions, but as these were not effective, the effectiveness was lower than it could be.

4.3.1.2. IMPLEMENTATION OF SUSTAINABLE COMMUNITY FOREST MANAGEMENT AND COMMUNITY WOOD PROCESSING IN THE MUNICIPALITY

For the implementation of these services, expenses of R$ 7,995,862.78 have been identified for the elaboration of community sustainable forest management plans (PMFSC), the realization of forest inventories, the elaboration of operational plans for the State Forest, the acquisition of mobile portable sawmills, among others. These services and outputs were intended to serve beneficiaries of the community management of State Forests.

However, technical, bureaucratic and political problems did not enable the materialization of operational plans and forest management by communities. For example, the Sustainable Community Forest Management Plans and Operational Plans, funded by the VAAF Project, were not approved by the IMAC due to inadequacy, frustrating forest managers due to lack of continuity.

Except for the payment of the bonus, no manager or manager received a return on the VAAF Project's investment in forest management activity, demonstrating a negative relationship between the cost and benefit of investments, confirming the low efficiency in the execution of outputs and services.

4.3.1.3. PAYMENT FOR ENVIRONMENTAL SERVICES TO PRODUCERS AND MANAGERS

Within the scope of the PMFCS, 919 families benefited from bonuses totaling R$1,694,600.00 in order to avoid deforestation in protected and sustainable use areas.

Although a cooperative of forest managers that uses the Gregório River FES area to extract non-timber forest products was identified, it was not possible to compare the impact on the income of managers from the activity.

As shown below in the impact section, even though deforestation in state forests was controlled during the VAAF project, the area of deforestation increased after the

14. OLIVEIRA, Gabriel Cardoso. ***Custos de implantação de um sistema agroflorestal biodiverso.*** 2022.

project ended. This may indicate the efficiency of the bonus payment for managers as a protection strategy for Acre's EF. A brief exercise illustrates the possible contribution if the Project had continued and been effective in containing deforestation in the SEFs: Between 2010 and 2018, the state forests benefiting from the Project had, together, an average of 8,000 hectares of deforestation per year. In 2019, this average was increased by 9,875 hectares. In 2020, 9,690 hectares. In 2021, 20,875 hectares. Together, these 40.4 thousand hectares resulted in an emission of 4,852,920 tons of carbon which, using the value standards of the Amazon Fund, result in a loss of US$24,264,600.00, or R$121,323,000.00 (twice the total value of the Project) in three years.

4.3.1.4. PHYSICAL STRUCTURING OF SEAPROF

For the physical structuring of Seaprof, as usual in cooperation projects, resources were invested for the acquisition of goods and services. In the case of the VAAF Project, these resources totaled R$3,144,917.00 in office equipment (desks, cabinets, air conditioners, vehicles, etc.). They are equipment intended for routine services and there is no way to calculate the cost-benefit ratio without measuring the quality and quantity of the services provided by the Secretariat. The poor performance can be seen in the difficulties in carrying out the acquisitions, reported in several interviews, as a result of inadequate planning and the low quality of the terms of reference and notices.

However, much of the equipment and vehicles purchased by the VAAF Project remain on the Secretariat's equity with their cost being diluted over time, suggesting average efficiency.

4.3.1.5. PHYSICAL STRUCTURING OF FOREST MANAGERS' COOPERATIVES

No outputs and services related to this activity or corresponding expenses were identified, either in interviews or in reports, indicating that there was no excution..

4.3.1.6. EXPANSION OF ATER SERVICES TO PROMOTE PRODUCTION CHAINS AND REDUCE DEFORESTATION

As mentioned in the section on the implementation of SAFs, R$ 13,671,657.21 was invested in hiring specialized technical services to support ATER, through private institutions and the third sector. The processes of contracting and providing ATER services were compromised by the lack of monitoring and supervision, with low frequency of visits, short visits and discontinuity of services. If 2,080 families were served, with 5 visits per family per year, in two years, the cost of each visit was R$657.00, which would be quite reasonable, since the services of meetings, field days and other group activities are embedded therein (Table 9 shows the maximum values of a bid promoted by the National Agency for Technical Assistance and Rural Extension – Anater, in Acre, in 2021). The problem is that, in the contracted format, these visits had a short duration, insufficient for quality service to beneficiaries.

Table 8: Maximum value per ATER activity in Acre (Source: ANATER 2021[15])

No.	Goal Description	Type	Unit Value
1	Family mobilization meeting	Collective	R$7,942,000
2	Settlement Diagnostics	Collective	R$9,750,000
3	UFPA Registration	Individual	R$330,650
4	Meeting to prepare the Collective ATER project	Collective	R$4,246.410
5	Elaboration of the Individual ATER Project	Individual	R$342,000
6	Preparation of the Sustainable Settlement Development Plan (PDSA)	Collective	R$13,462,000
7	ATER Collective Service for Interest Groups	Collective	R$2,485,000
8	Collective ATER assistance through mediation	Collective	R$501,000
9	Individual attendance of ATER	Individual	R$2,492,000
10	CAR Preparation Visit 01	Individual	R$320,750
11	CAR Preparation Visit 02	Individual	R$320,750
12	Remote ATER activity	Institutional	R$843,000
13	Results evaluation reports	Institutional	R$627,000

Source: ANATER 2021

4.3.1.6.1. TRAINING OF SPECIALISTS IN SUSTAINABLE PRODUCTION IN TROPICAL FORESTS.

The training of specialists in sustainable production in tropical forests took place through forest residencies initially with 40 participants with training in the area of forest engineering. The costs were diluted in the strengthening of the SEF and it was possible to identify investments totaling R$ 2,302,197.05 for this training. The monthly value paid for 24 months for each graduate was R$2,524.00, a cost equivalent to the current value of the master's scholarships for the Coordination for the Improvement of Higher Education Personnel (Capes) of R$2,100.00. Most of the 40 professionals have completed their training and are in the labor market.

4.3.1.7. STRENGTHENING OF THE STATE FOREST SECRETARIAT (SEF)

For the institutional strengthening of SEF, R$1,526,528.00 was invested, concentrated in the acquisition of materials and support equipment for the routine operation of the Secretariat. It was not possible to calculate the cost-benefit ratio of the activities, as the increase in services offered by the SEF was not monitored in relation to the investment made by the VAAF project.

However, part of the equipment and vehicles acquired by the VAAF Project continue to be used at the Secretariat and their cost has been diluted over time, suggesting an average efficiency.

15. Ater Public Call Notice 001/2021 - Public Call for Selection of Ater Executing Organizations for the Settlement Consolidation Program - Produzir Brasil – Brazilian Amazon – Brasília: June/2021

4.3.1.8. CONCLUSIONS ON THE EFFICIENCY OF THE SUSTAINABLE PRODUCTION COMPONENT

Based on the information contained in the reports and the observations of managers, managers, beneficiaries and beneficiaries, as discussed above, we can infer that the Sustainable Production component had average efficiency, as shown in Table 10.

Table 9: Efficiency of the Sustainable Production component

Actions	Efficiency Evaluation
Implementation of Agroforestry Systems	Average
Implementation of Community Sustainable Forest Management and Wood Processing	Low
Payment for environmental services to producers and managers	Average
Physical structuring of forest managers' cooperatives;	No result
Expansion of ATER services to promote production chains and reduce deforestation	Average
Training of specialists in sustainable production in tropical forests.	High
Strengthening of the State Forest Secretariat (SEF)	Average

Source: Own elaboration.

4.3.2. MONITORING AND CONTROL COMPONENT.

The Monitoring and Control component had its investments concentrated for the structuring and expansion of UCGEO, with the application of R$2,790,096.08, of which R$2,268,522.08 for the transfer of information technology and computer equipment. The rest of the resources were invested in office equipment and training in geotechnologies for UCEGEO's technical team.

The services are not priced to make it possible to evaluate the cost-benefit ratio of the services provided to the State and the community. However, they are essential services for the State to monitor and control the impacting activities and users of natural resources. In this sense, it is possible to infer that the VAAF Project was efficient in structuring UCGEO.

Another investment pointed out in the VAAF Project was the strengthening of the IMAC to fulfill its mission in the environmental control of Acre. IMAC invested resources totaling R$3,183,909.00 for the acquisition of information technologies, computer equipment, specialized technical services, training of personnel, equipment, support and operational material, in addition to the Institute's physical infrastructure. The resources were essential for the IMAC to have control of the impacting activities on the forest, such as forest degradation, deforestation and illegal fires.

As the amounts collected by IMAC with fines, licenses, etc. were not informed, it was not possible to calculate the return on investments of the VAAF Project.

Due to lack of planning and technical capacity, the flow of expenses was inefficient, causing significant delays in the acquisition of goods and services and impairing the fulfillment of the commitments assumed with BNDES.

Another activity supported by this Component was the performance of studies for the elaboration of PPCDQs in the municipalities and LTM. For these services, companies were hired at a total cost of R$7,812,530.13, most of which (R$4,367,272.61) were

invested in specialized technical services. Another part (R$3,186,705.50) was invested in the acquisition of computer equipment and training of personnel, in addition to operational and support materials.

The time taken to prepare the PPCDQs and OTLs went far beyond what was foreseen, implying extensions in the deadline for the execution of the VAAF Project due to a delay in the rendering of accounts.

This indicates weaknesses in Project planning and management tools with low efficiency of financial resources, time and people factors. Thus, mainly due to deficiencies in planning, we can infer that the Monitoring and Control Component had average efficiency.

4.3.3. LAND-USE PLANNING COMPONENT

The resources invested in the Component for activities to support indigenous communities totaled R$3,517,338.46, most of which (R$1,694,600.00) for the payment of bonuses to 919 participating families (average of R$1,844.00 per family). The second expense of R$1,405.00.00, was allocated to the acquisition of support equipment and materials, including boats, GPS, camera, brush cutters, etc. The remainder was used to train 17 indigenous communities in community surveillance. The cost of the project was only R$1.53 per hectare. Expenses with the realization of the Local Land-use Planning plans totaled R$95,0000.00, an insignificant value in relation to the total of the Component.

The problems were the recurring delays in deliveries due to the lack of planning and quality of the execution processes.

4.3.4. SCIENCE, INNOVATION AND ECONOMIC INSTRUMENTS COMPONENT

Investments in the Biofactory, with the objective of enabling the production of seedlings of quality forest essences and free of phytopathology, totaled R$3,137,833.62, with greater emphasis on hiring specialized technical services that cost R$1,481,209.92.

The annual production of seedlings was much lower than expected, increasing the cost in relation to the investment. The problems were delays in acquisitions due to lack of planning and lack of quality in the acquisition processes with repercussions on the deadline for the execution of the Project. In addition, the seedlings were of pineapple and banana and not of forest essences for the restoration of vegetation in deforested areas.

4.3.5. PROJECT MANAGEMENT AND MONITORING

The Government of Acre has stood out for the quality of its state public policy formulation teams focused on development with economic, environmental and social sustainability. Likewise, these teams demonstrate great capacity in proposing strategic projects to raise funds from the General Budget of the Federal Government (OGU), development

banks and funds, whether these funds are from donations (non-refundable) or loans (reimbursable).

The process of formulation, elaboration, negotiation, approval, contracting, coordination and management is under the responsibility of the State Planning Secretariat, which has a qualified technical team on the permanent staff and with the hiring of companies to support the management of the projects. This was the case for the management of contracts signed with the IDB and the World Bank, with satisfactory results in the execution of the projects.

Another characteristic of the Government of Acre is the simultaneous execution of several projects, implying integration, complementarity, but also the overlapping of activities. During the period of execution of the VAAF Project, the projects supported by the World Bank were also executed, with a component for the development of communities (PDC); the second phase of the Sustainable Development Program of the State of Acre (PDSA), a project financed by the IDB, with components similar to those of the VAAF Project. There were also other projects financed by BNDES, KfW and the Amazon Fund itself, all housed in SEPLAN's structure.

In the case of the VAAF Project, the entire process of formulation, preparation, approval, contracting, coordination, monitoring and evaluation was conducted by the Planning Secretariat, which also controlled the resources of the Project budget.

Based on their demands, the executors presented annual cost estimates for the execution of the activities for approval by SEPLAN. Upon approval, the executing agency started the selection process for contracting the services and outputs for the execution of the activities. After the execution was completed, the rendering of accounts was sent to prove expenses and send the financial execution report to BNDES.

Unlike other projects, when in the early years there is a learning curve that delays execution, the VAAF Project was very efficient in the early years, with significant disbursement of resources.

However, this efficiency came at the expense of the lack of clear rules for the execution of projects with resources from the Amazon Fund, defined by BNDES. This lack of reference allowed the executors to opt for more simplified and agile processes, with reflections on the quality of accountability and approval of financial reports by BNDES, implying the need for extensions of the execution period of the VAAF Project.

Thus, the central role of the Planning Secretariat in the Project was to guarantee the budget requested by the executors, prepare reports, render accounts and interact with BNDES. According to the people interviewed, there was no coordination and monitoring of the execution cycle of the VAAF Project, which compromised the quality and effectiveness of the activities.

According to the reports and interviews, the use of tools for the management and monitoring of the VAAF Project was not identified, although there were expenses for this purpose in the executors. Strategic planning, annual operating plan (AOP), terms of reference, notices, contracts, outputs and services were not managed or monitored

throughout the execution of the Project. This was reflected in the low quality of the reports and the lack of technical criteria to monitor the indicators of the VAAF Project Logical Framework.

Thus, it can be inferred that these problems generated difficulties in justifying expenses with the BNDES, so the Project underwent extensions and was only effectively closed in 2020, ten years after contracting.

The justification for this long execution time, given by the interviewees, was that, as it was the first project of the Amazon Fund with this complexity (4 Components) and this volume of resources (R$60 million), BNDES still did not have well-defined rules and flows to guide SEPLAN and the executors, and the experience was a pilot for the definition of the FA 's *modus operandi*.

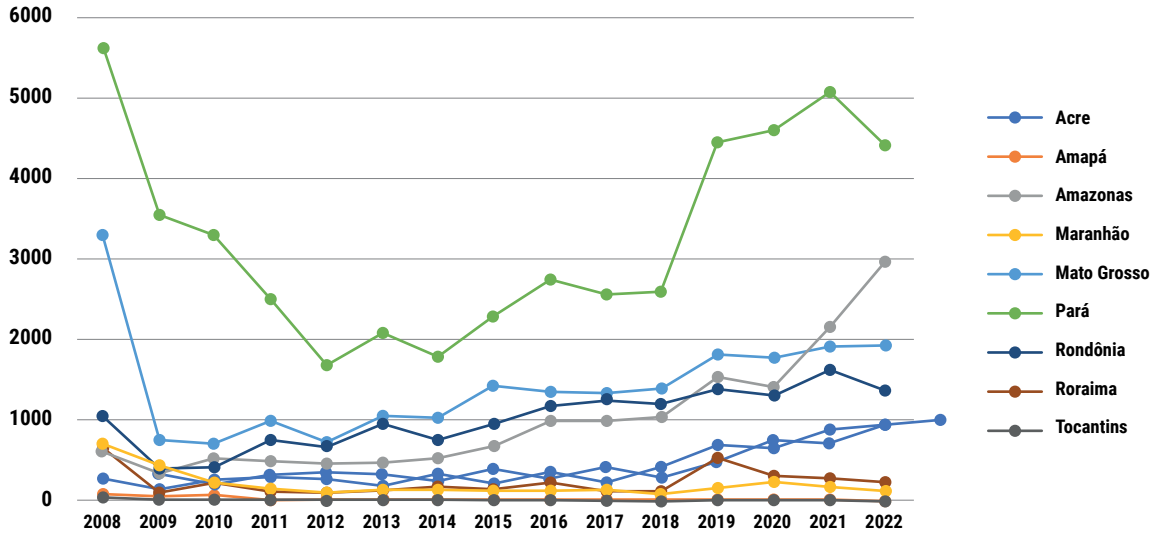
The challenge for projects of this complexity and volume of resources is the establishment of a Project Management Unit – PMU, with qualified personnel, specialists in project management, bidding, monitoring and evaluation to support the executors and optimize administrative, financial and technical flows and thus ensure effectiveness in the execution of the project.

4.4. IMPACT EVALUATION

The impact criterion evaluates the positive and negative changes resulting from the project, directly or indirectly, intentional or involuntary, and is related in the Theory of Change to the direct and indirect effects of the projects' outputs, which have their indicators defined by the Logical Framework at the levels of General Objective and Specific Objectives.

At the General Objective level, the main expected impact of the Project was the reduction of deforestation with sustainable development in the Brazilian Amazon and the main indicator was the reduction of annual deforestation in the State of Acre, measured by the Project for Monitoring the Deforestation of the Brazilian Amazon Forest by Satellite (PRODES), of the National Institute for Space Research (INPE). Figure 3 shows the annual deforestation rates in the states of the Legal Amazon.

Figure 3: Annual deforestation of the States of the Legal Amazon (Source: Prodes/INPE)



Source: Prodes/INPE

It can be noted that deforestation in the State of Acre was stable until 2017, when it began to show a growth trend, detaching itself from the levels of other states that, like Acre, historically had low rates (Amapá, Maranhão, Roraima and Tocantins). This growth trend can also be observed in Pará (very intensely) and Amazonas (very marked from 2020). Mato Grosso and Rondônia maintained their high annual rates, in a less marked but constant growth, when observing the longest period since 2009 (year of greatest reduction in the deforestation rate). Thus, it can be noted that the upward trend in deforestation in Acre from 2017 onwards is a movement that anticipates the increase in deforestation in the other states in the following years.

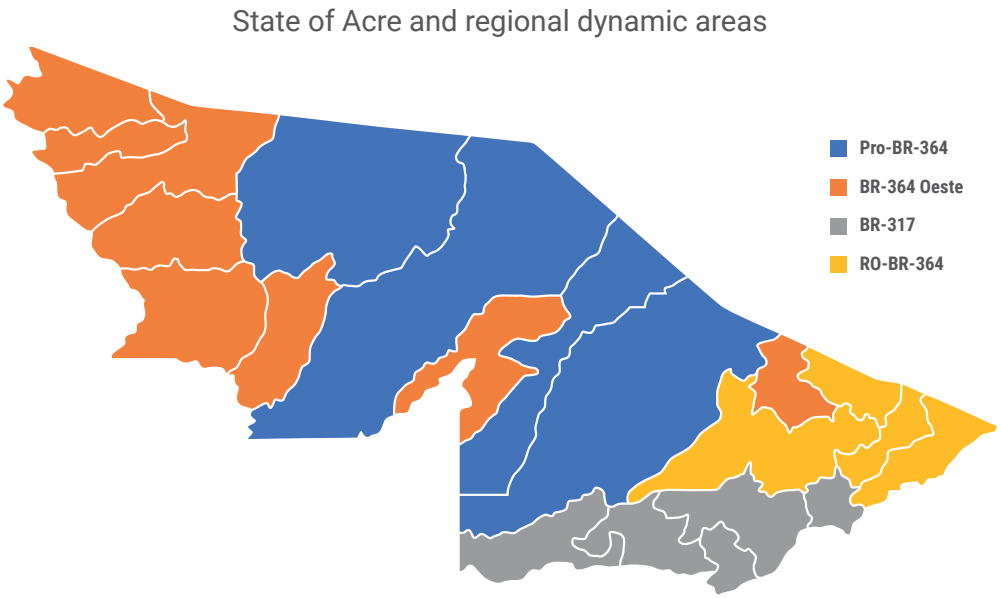
Within the State of Acre, the municipalities can be divided into four regional dynamics: along BR-364, west of Rio Branco, a) Pro-BR-364, with the municipalities served directly by Component 1 of the Project along BR-364 and b) BR-364 West, with the other municipalities west of Rio Branco; south of Rio Branco, c) the BR-317 axis, and east of Rio Branco, d) the BR-364 axis, west of Rio Branco (Table 11).

Table 10: Areas of regional dynamics (own elaboration).

Pro-BR-364	BR-364 West	BR-317	RO-BR-364
Feijó	Cruzeiro do Sul Bujari	Assis Brasil	Acrelândia
Manoel Urbano	Jordão	Brasiléia	Plácido de Castro
Tarauacá	Mâncio Lima		
Sena Madureira.	Santa Rosa do Purus	Capixaba	Porto Acre
	Marechal Thaumaturgo	Epitacio-lândia	Rio Branco
	Porto Walter	Xapuri	Senador Guiomard
	Rodrigues Alves		

Source: Own elaboration.

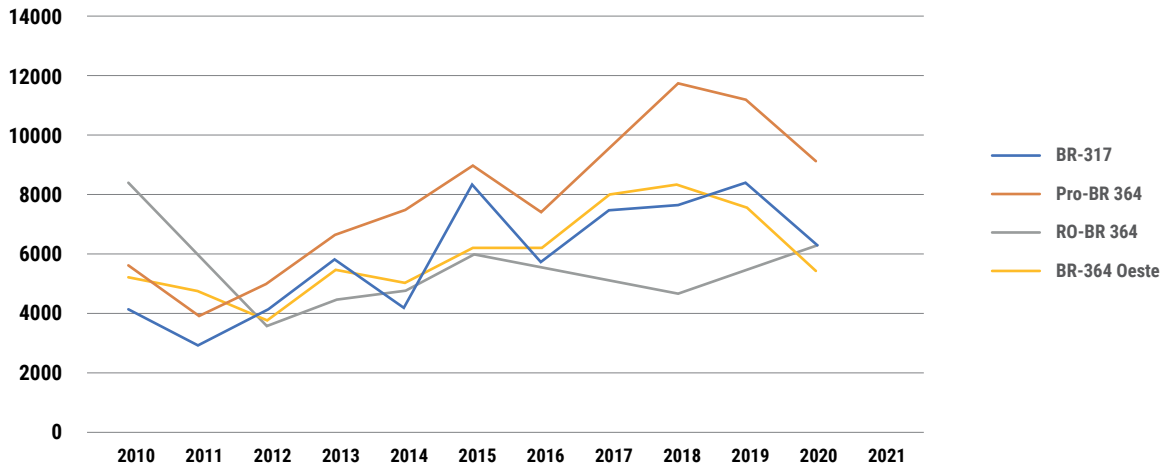
Figure 4: Areas of regional dynamics (own elaboration)



Source: Own elaboration.

It can be noted that deforestation increases during and after the Project, precisely in the municipalities of BR-364 west of Rio Branco, with or without Project support in Component 1 (Figure 5)..

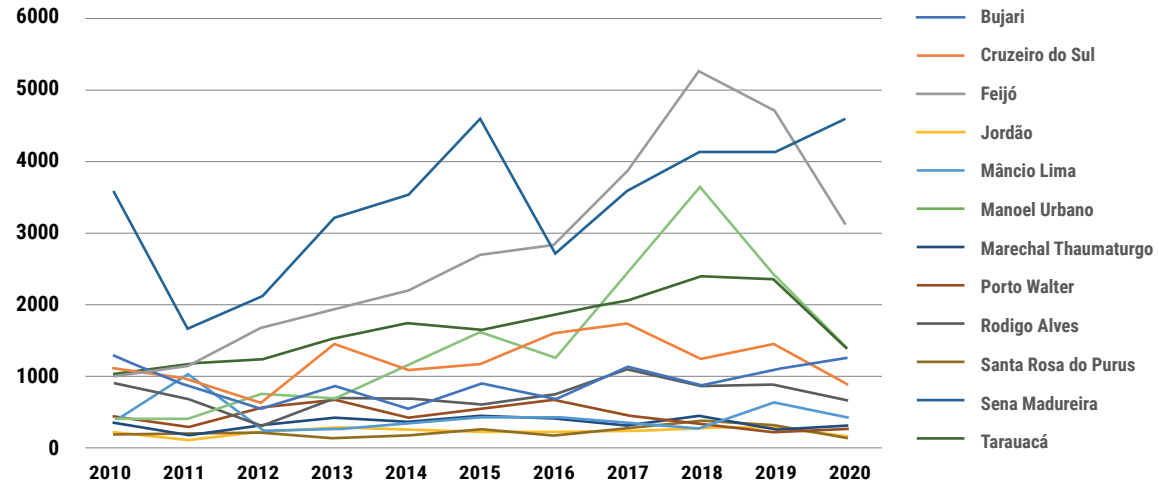
Figure 5: Deforestation in the four areas: Pro-BR-364, BR-364 West, BR-317 and RO-BR-364 (Source: Mapbiomas).



Source: Mapbiomas.

However, when examining the dynamics of deforestation, it appears that not all municipalities on the BR-364 axis west of Rio Branco had this significant increase (Figure 6).

Figure 6: Deforestation in the municipalities of BR-364 west of Rio Branco

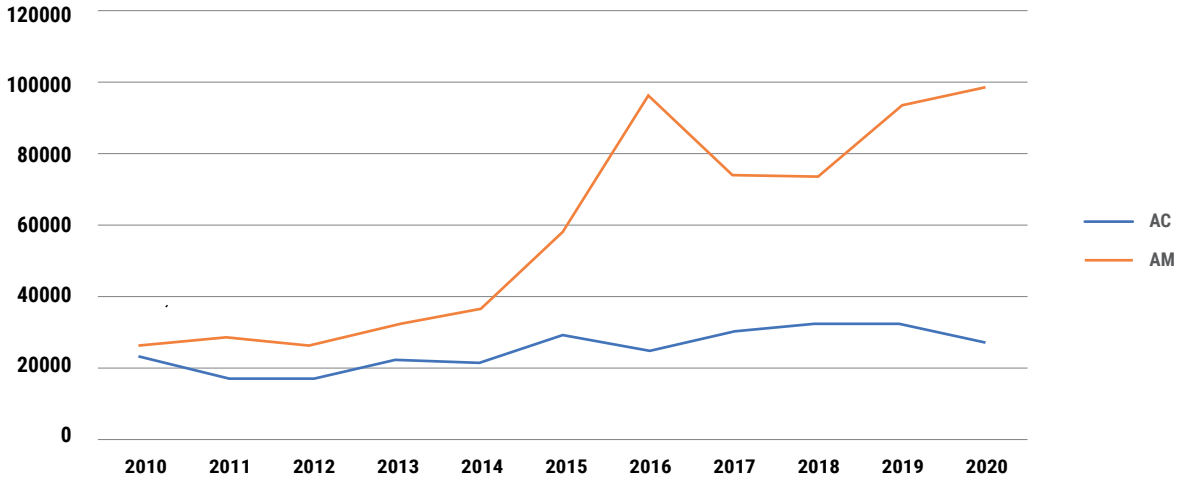


Source: Mapbiomas

Feijó was the municipality with the largest increase, in a dynamic that had been going on since 2011 and intensified after the end of the Project, only to be controlled again after 2018 – which was surprising, considering that, from 2019, deforestation in the Amazon accelerated. Another municipality with accelerated deforestation during the Project, which accelerated from 2016 and reduced after 2018, was Manoel Urbano. The other municipalities supported by Component 1 had the same tendency to reduce deforestation after the Project. This result is intriguing considering that the general trend of the Amazon was a high rate of deforestation in this period after the Project.

Examining these Acre results in isolation, it does not appear that the Project was effective in reducing deforestation. However, comparing the dynamics of deforestation in the Project area with the dynamics in southern Amazonas, it can be seen that deforestation increased sharply from 2014 in southern Amazonas, while in Acre, the increase was much smaller (Figure 7).

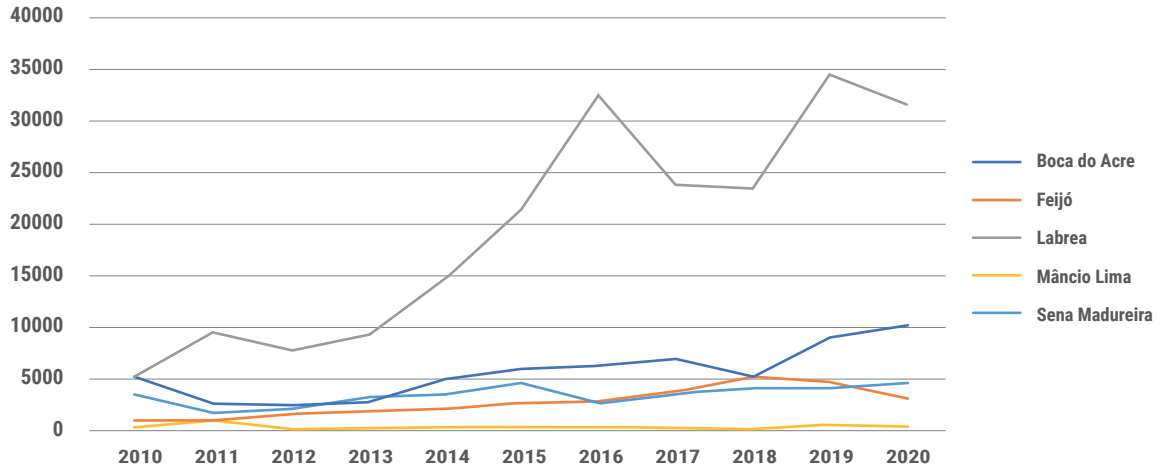
Figure 7: Deforestation in Acre and Southern Amazonas



Source: Mapbiomas

Factors other than the Project may have influenced these differences. An illustrative selection of municipalities in the Project area in Acre and Southern Amazonas reveals that local situations can have a great influence, since the municipality of Lábrea alone greatly influences the data (Figure 8).

Figure 8: Illustrative selection of deforestation rates of municipalities in the Project area in Acre and Southern Amazonas

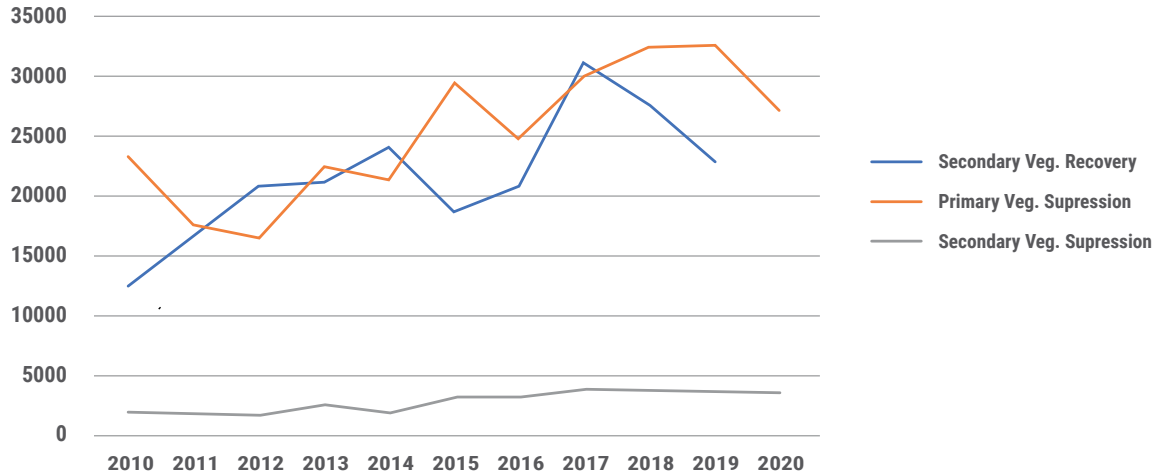


Source: Mapbiomas.

Thus, the Project's impact on Acre's deforestation rates is not obvious. However, the movement to expand the agricultural frontier coming from Rondônia in the 2010s had two paths to follow: the BR-319 or Acre. In Acre, although increasing, deforestation was less intense (Figures 6 and 7, above), which may have to do with the improvement of environmental governance in the State, with the implementation of UCGEO, PPCDQs, the ZEE and other instruments. If this happened, it could be expected that forest recovery would have increased as a result of the Project, as irregularly deforested areas would be recovered or abandoned for regeneration.

Figure 9 shows that the recovery of secondary vegetation actually happened.

Figure 9: Deforestation and recovery of secondary vegetation in Acre

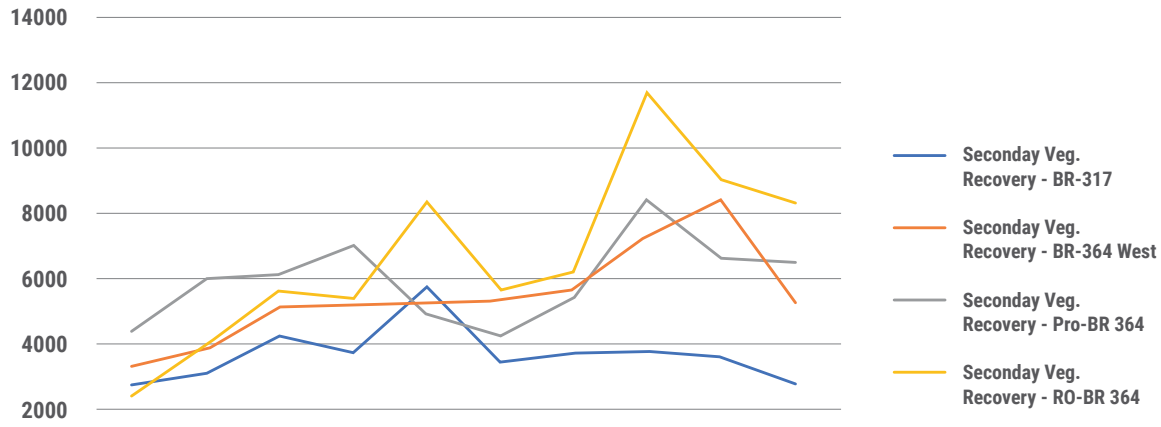


Source: Mapbiomas.

While in southern Amazonas the recovery of secondary vegetation oscillated without showing a trend, in Acre, there was a trend of recovery of native vegetation, far above the suppression of this secondary vegetation and, in some years, even above the suppression of primary vegetation (deforestation).

This movement of recovery of native recovery took place in three of the four areas, along the BR-364, from Rondônia to the West of the State (Figure 10), being the result of policies that increased environmental governance. However, the recovery of native vegetation decelerated after 2017 in all municipalities, except on the BR-364 axis served by the Sustainable Production component of the Project.

Figure 10: Recovery of native vegetation during the period with potential effect of the Project



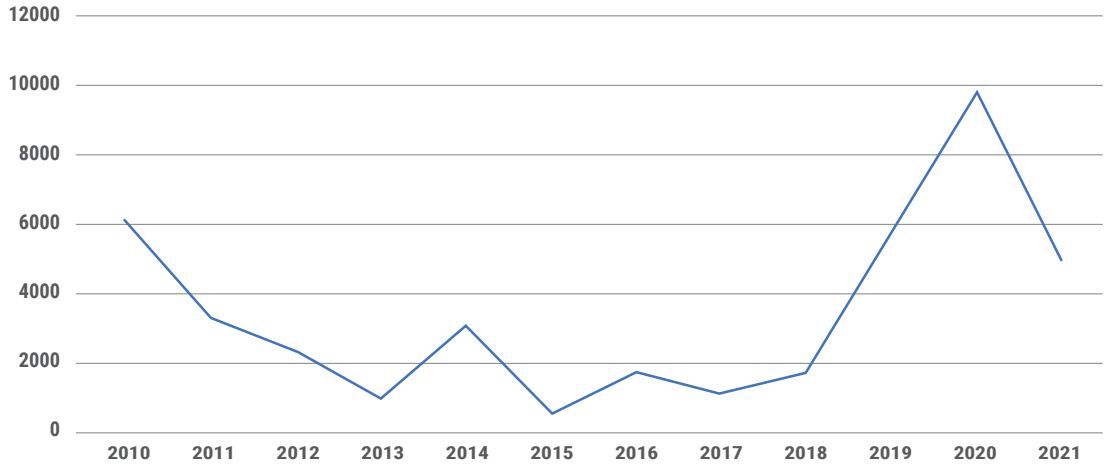
Source: MapBiomas.

While the territory with the most Project support (Pro-BR-364) recovered about 30,000 hectares of secondary vegetation, the Evaluation Report reports 5,657 hectares of "area recovered and used for economic purposes" during the Project. Thus, the direct action of the Project in the recovery of areas cannot explain the results alone, even in its priority territory, since it represents less than 19% of the recovered area.

The recovery rate of secondary vegetation, although not indicated in the Project Monitoring Plan, is what can measure the impact of the Project and other policies to reduce deforestation and sustainable development. This is an expected effect of encouraging agroforestry systems (Sustainable Production component), increasing governance (Monitoring and Control component) and improving the protection of indigenous lands (Land-use Planning component), as these measures discourage the use of illegally deforested lands for agriculture and encourage their recovery, including the use of SAFs.

In the Monitoring and Control component, where the strengthening of indigenous land management was supported, the results can be seen by the consistent reduction of deforestation by the end of the Project in 2018 (Figure 11). With the change in the federal government in 2019, the dynamics of protecting these federal lands changed, increasing deforestation from less than 2,000 ha per year to almost 10,000 ha per year.

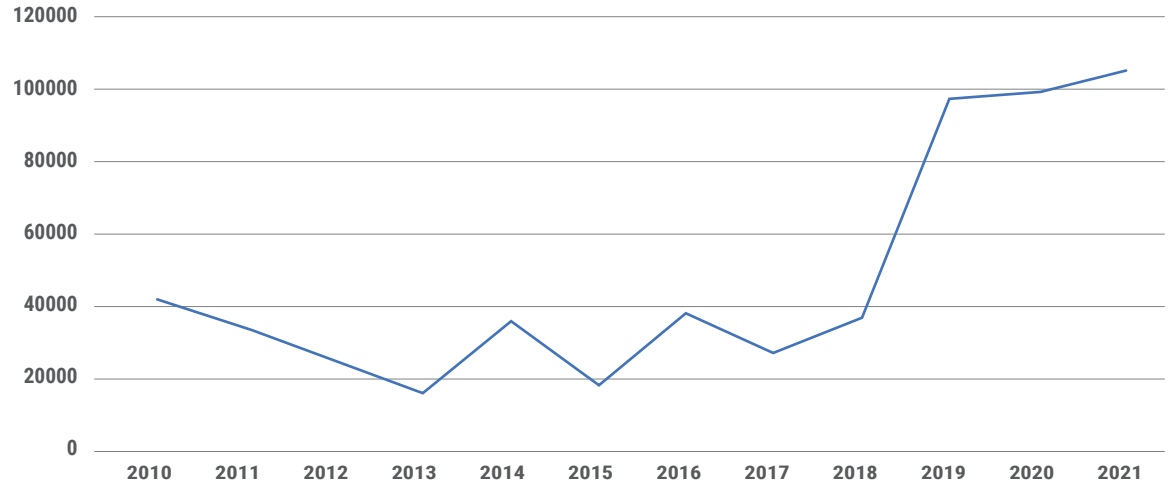
Figure 11: Annual increase in deforestation in the indigenous lands of Acre



Source: Prodes.

The same effect can be observed in federal CUs, whose deforestation increased 2.5 times after 2018 (Figure 12)..

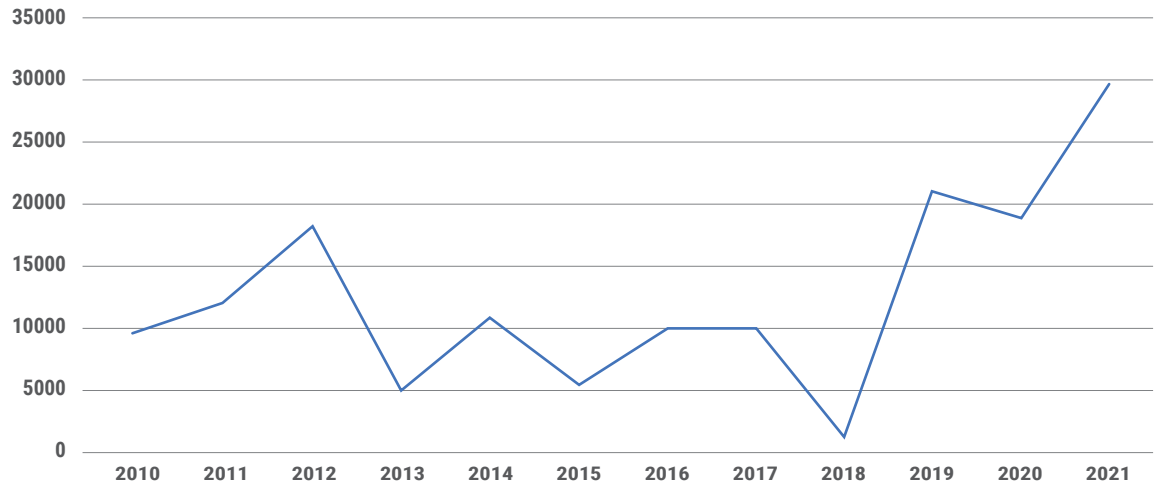
Figure 12: Annual increase in deforestation in federal Conservation Units



Source: Prodes.

In state CUs, the trend was not different, which shows a general weakening of protected areas after 2018 (Figure 13).

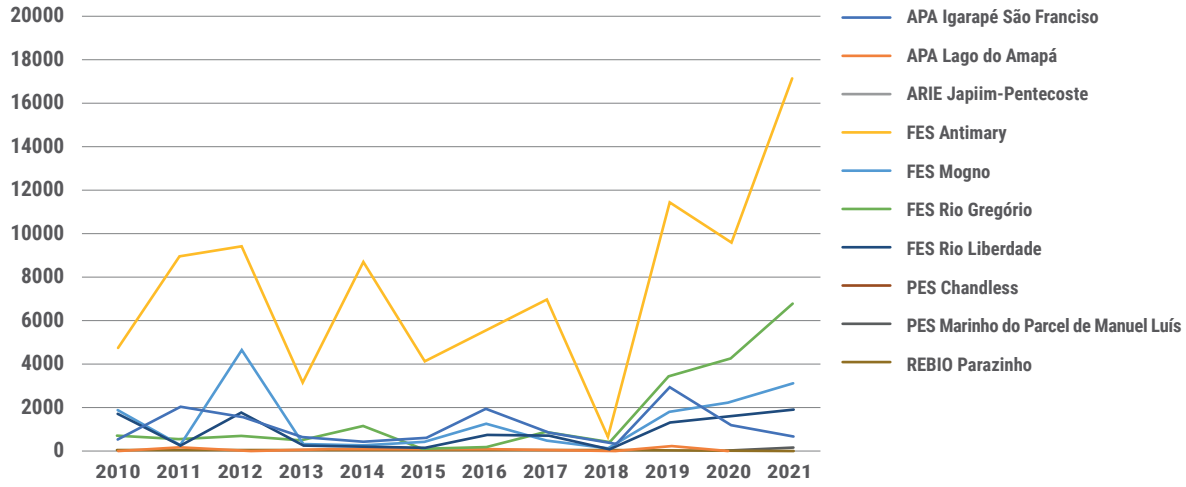
Figure 13: Annual increase in deforestation in the state UCs of Acre



Source: Prodes.

As the Project acted more strongly within some state PAs (FE do Rio Gregório, FE Antimary, ARIE JAPIIM-PENTECOSTE), it is important to observe how the deforestation rate in these units behaved (Figure 14).

Figure 14: Annual deforestation in the state UCs of Acre

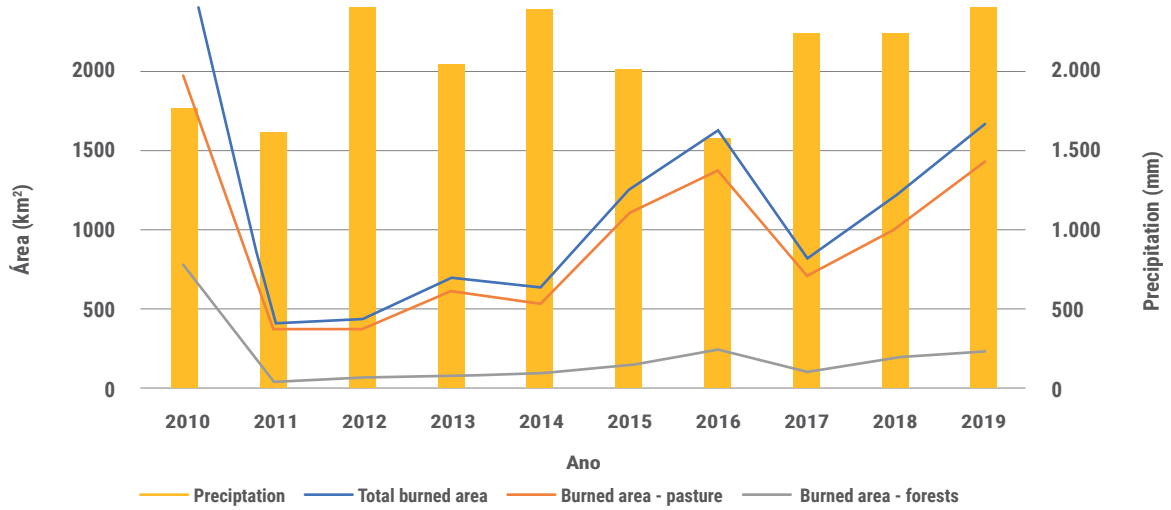


Source: Prodes.

In the Antimary State Forest, where the Project not only supported sustainable management activities but also paid managers for environmental services, deforestation tended to zero in 2018, despite a great oscillation. In the forests of the Gregório River (Rio Liberdade State Forest, Mahogany State Forest and Gregório River State Forest), as shown in Figure 13, the same downward trend is observed until 2018, but this is reversed from 2019. Thus, the impact on reducing deforestation in these areas was not sustainable.

Finally, as the Project also supported actions against forest fires, it is important to verify their occurrence in Acre. Figure 15 shows the burned area in Acre.

Figure 15: Area burned annually in Acre



Source: Mapbiomas[16] and Souza[17], based on data from INMET, 2019.

It can be noted that most of the burned area in Acre is pasture and that the increase in burned area in 2015 and 2016 seems associated with a decrease in total annual precipitation in these years. However, in 2018 and 2019, the burned area increased even with greater rainfall, which coincides with the end of the Project and the change in federal management.

In the Science, Innovation and Economic Instruments component, the monitoring plan points out that the "indirect contribution of the Project to the Amazon Fund's objectives will be monitored by regional indicators within its monitoring and evaluation system". This is not resumed in the other reports or in the evaluation report, thus, as there is no impact indicator for this component, the evaluation remains at the level of impacts related to the Amazon Fund's objectives, that is, in the annual deforestation rate.

The Theory of Change, however, points out that, through the activities developed (seedling production), the Sustainable Production component is contributed, where the impact has already been discussed above (Item 3.3.1).

16. Mapbiomas Brasil disponível em: https://mapbiomas.org/. Acesso em: 27 fev. 2023.
17. DE SOUSA, Jorge Washington, Características climáticas do município de Rio Branco, Acre, período de 1990-2019. ***Scientia Naturalis***, v. 2, n. 2, 2020.

4.5. SUSTAINABILITY EVALUATION

The OECD sustainability criterion assesses whether the benefits of the project continue to occur after its completion, with an emphasis on social, economic and environmental aspects. Refers to the continuity of the direct and indirect effects of the Project's outputs and services.

As discussed in the previous section, the results were achieved mainly by improving environmental governance, which needs constant maintenance, as licensing, monitoring and inspection are recurring activities. Although weakened in recent years, this maintenance is quite institutionalized, with the implementation of the CAR at the federal level, with the implementation of the Early Movers REDD Program (REM) in Acre, which supports the monitoring of properties, and with the announced resumption of policies to combat deforestation from the new federal management, such as the PPCDAm.

Activities to support the participatory protection of indigenous lands were continued by civil society, but despite this, deforestation increased in the ILs after the closure of the Project, as well as in other protected areas. When observing the same effect after 2018 in the PAs supported by the Project and in the unsupported ones, both at the state and federal levels, the loss of the protection capacity of the ILs was not isolated and could be explained by an increase in the specific pressure on these areas. Thus, the impact was not sustainable in the face of the challenges presented by the new context after the 2018 elections.

The results of the productive recovery of about 5,000 hectares of SAFs are already shown on the properties, as the team can observe in the field. The reports point out that income generation from SAFs has quadrupled, despite their delay in starting production, and that there was not and there is not an effective policy to support the flow and marketing of production: rural roads are precarious and production is not absorbed by the local market (for a period, PAA and PNAE were important in this regard). The sustainability of the immediate results of the project is evaluated in Table 12 below:

Table 11: Sustainability of activities and results for the purpose of the Project.

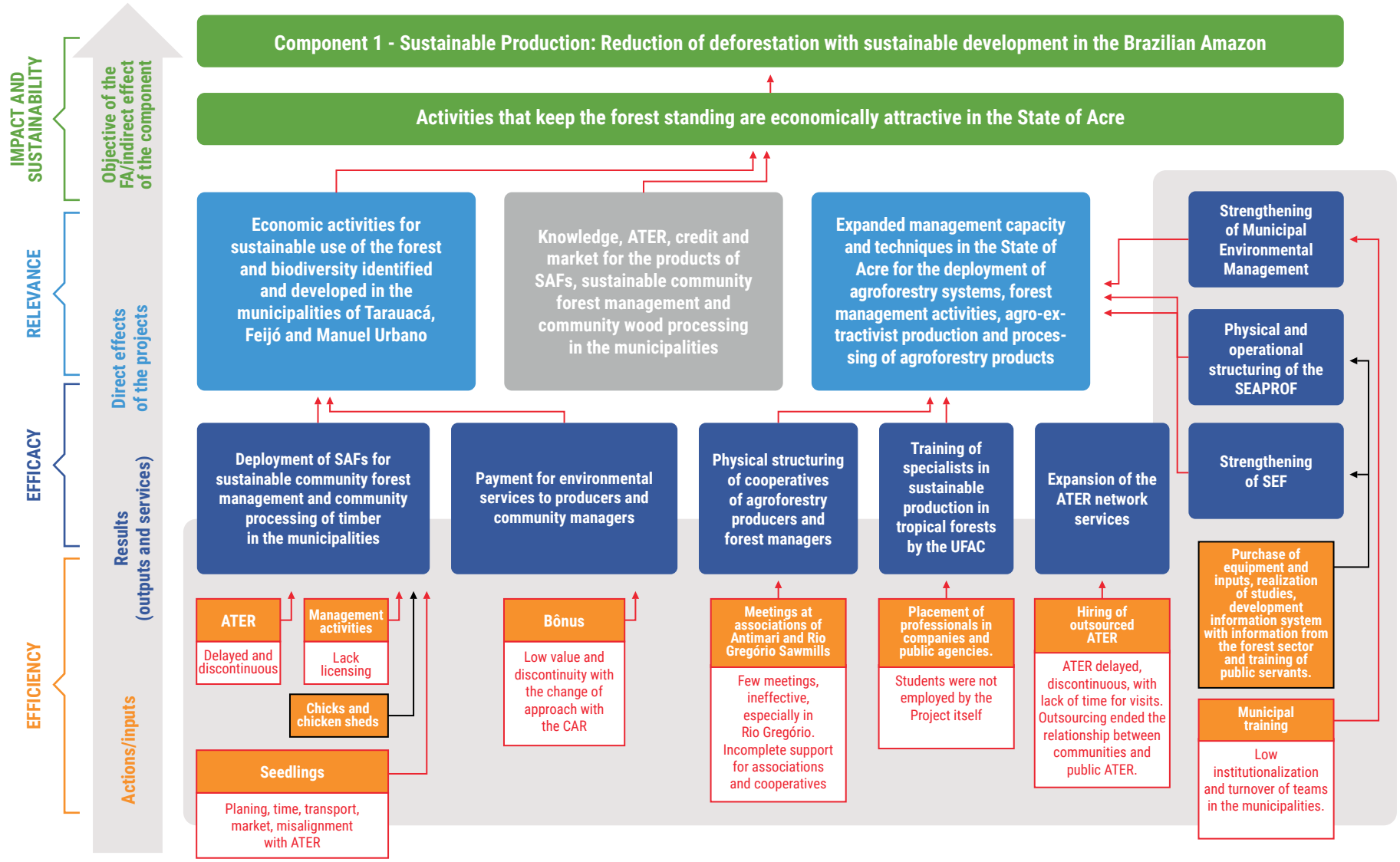
Result/activity	Sustainability
Sustainable Production	
Implementation of SAFs, sustainable community forest management and community wood processing in municipalities	Partial. Sustainability was partial, as it would depend on ATER support, outflow (depending on roads) and access to markets (with local processing and marketing through cooperatives), which was not guaranteed. Where the municipality took over ATER, as in Tarauacá, there seems to have been greater sustainability.
Payment for environmental services to producers, producers, managers and community managers.	Unsustainable. Payments were interrupted and were not institutionalized permanently. Income alternatives did not take effect before the end of payments.
Physical structuring of agroforestry production and forest management cooperatives	It did not take place.
Training of specialists in sustainable production in tropical forests by the Federal University of Acre	Sustainable. Technicians and technicians continue in their careers as the labor market demands.
Expansion of ATER network services	Unsustainable. The services were temporarily expanded based on the hiring of service providers. This impacts sustainability, since the services were interrupted at the end of the Project. Even during the Project, when there was an audit, the services were interrupted.
SEAPROF physical and operational structuring	Sustainable. Seaprof maintains a good structure, despite not having built a public ATER service.
Strengthening of SEF	Sustainable. SEF maintains good structure.
Monitoring and control	
Physical and operational structuring of UCGEO and IMAC	Sustainable. It remains operational and provides services to Acre.
Structuring and training of community municipal firefighting brigades	Unsustainable. In the interviews, it was reported that the brigades still exist in only some municipalities, showing that the activity was not sustainable.
Land-use Planning	
ARIE and State Forest Management Plans	Sustainable, although it is usual to review it every five years.
Strengthened management of 15 Indigenous Lands in the municipalities of Santa Rosa do Purus, Feijó, Tarauacá, Cruzeiro do Sul and Mâncio Lima (this action was extended to all Indigenous Lands in Acre)	Sustainable, as it continues through civil society. However, the impact was unsustainable as deforestation accelerated, as discussed in the impact section.
Local Land-use Planning implemented in six municipalities along BR-364 in the State of Acre (PPCDQs prepared and implemented, and strengthened management in all municipalities in the State)	Unsustainable. All municipal memory of capacity building actions and plans was lost, as discussed in the section on impact.
Science, Innovation and Economic Instruments	
Knowledge and technologies in seedling production of superior individuals of Amazonian species for reforestation purposes produced and disseminated	Sustainable, but the impact was not relevant.

Source: Own elaboration.

5. Theories of Change

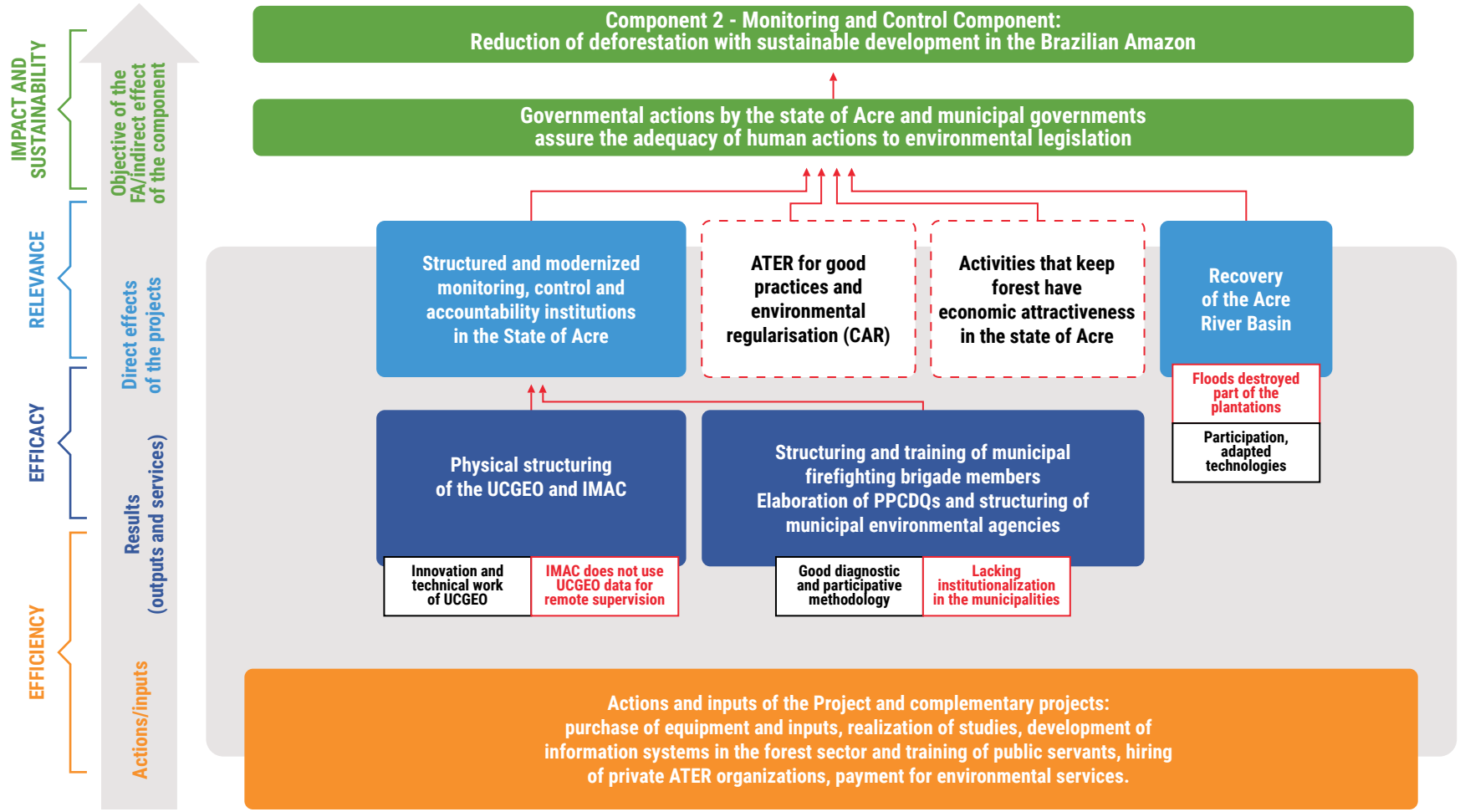
Component theories of change were updated after evaluation and are presented below (Figures 16, 17, 18 and 19). The red outlines indicate that the activities were not effective, that the results were not maximized, or that the impacts were not effective or sustainable. The black outlines confirm the logic of the Project. The dotted outlines express relationships that were not explicit in the Project objectives tree. And the gray outlines are not in the Project objectives tree and are implicit

Figure 16: Updated Theory of Change for the Sustainable Production Component. Source.



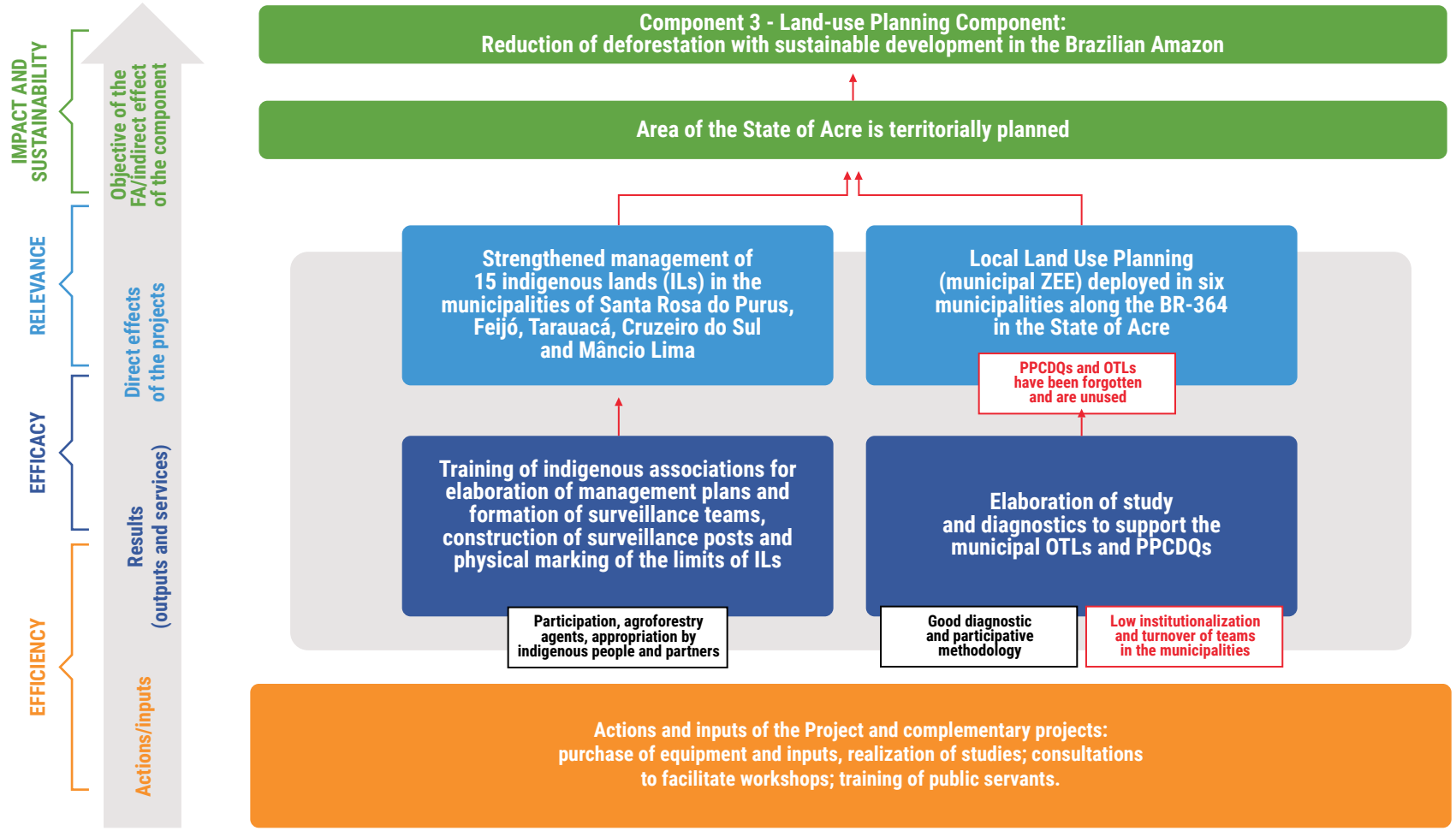
Source: Own elaboration.

Figure 17: Updated Theory of Change for the Monitoring and Control Component.



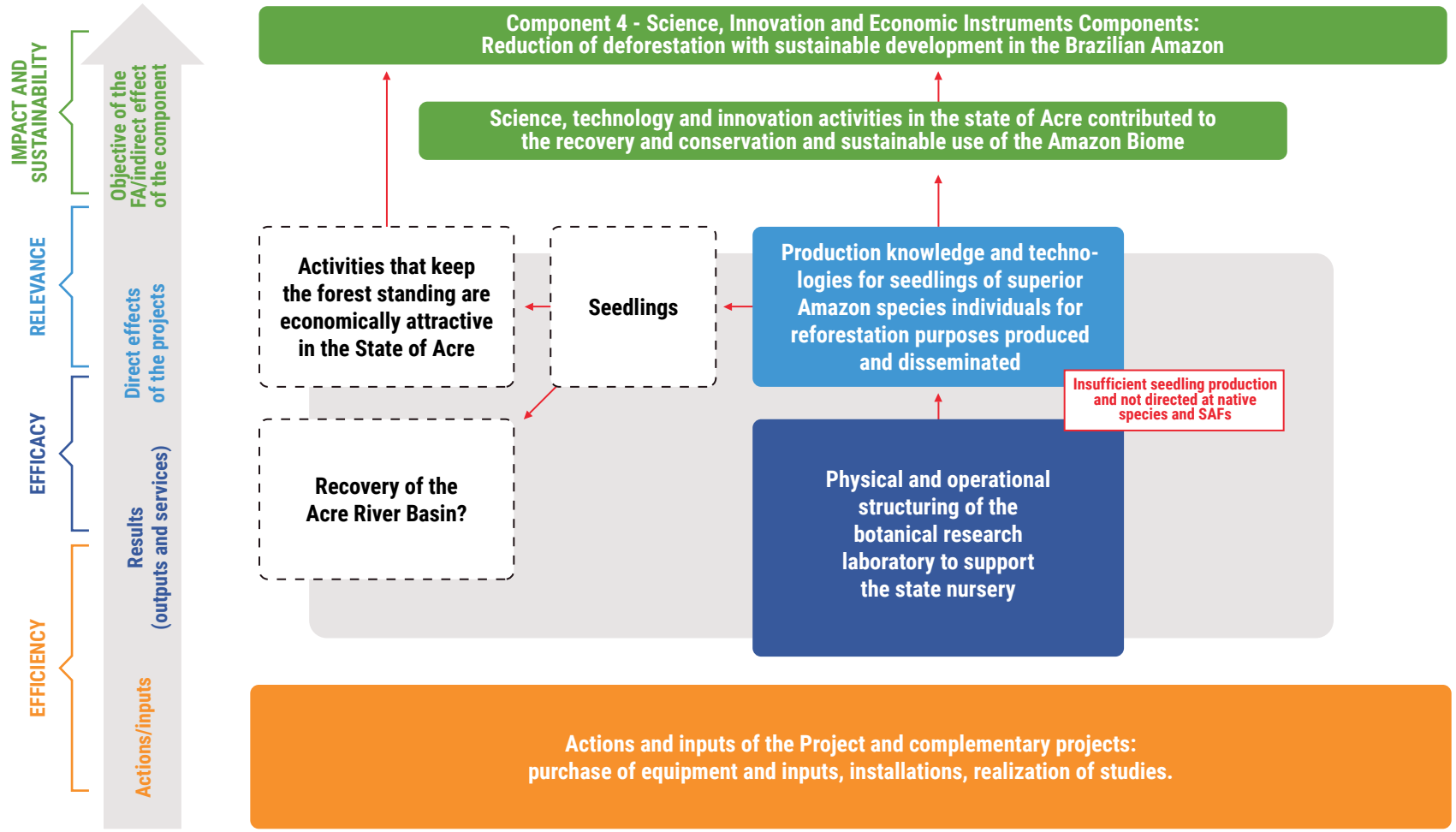
Source: Own elaboration.

Figure 18: Updated Theory of Change for the Land-use Planning Component.



Source: Own elaboration.

Figure 19: Updated Theory of Change for the Science, Innovation and Economic Instruments Component.



Source: Own elaboration.

6. Conclusions

The conclusions presented below reflect a set of observations on the results of the actions carried out by the VAAF Project, which were specified in the Performance Reports and in the visits and interviews carried out in the area of execution of the VAAF Project, focusing on the following evaluation criteria: Relevance, Efficiency, Efficacy, Impact and Sustainability.

Regarding relevance, the planned outputs and services, although not fully achieved, are relevant and continue to be adequate to what was foreseen, especially regarding their strategic link with other policies. The VAAF project was strategically linked to the Amazon Fund's objectives, the PPCDAm, the National Climate Change Policy (PNMC), the National Plan for the Recovery of Native Vegetation (Planaveg), the Sectoral Plan for Adaptation to Climate Change and Low Carbon Emissions in Agriculture for Sustainable Development (ABC+), the Acre Sustainable Development Plan, and other national and regional policies for the Amazon. This aspect also proves the Project's compliance with the Cancun safeguard "Actions complementary or consistent with the objectives of national forest programs and other relevant international conventions and agreements". Therefore, it is possible to conclude that the VAAF Project was relevant to Acre and its purpose remains highly relevant to the Amazon.

To show the degree of achievement of the outputs and services provided for in the VAAF Project, regardless of operational costs incurred, in addition to reading the reports, a series of interviews were carried out with key people to collect accumulated knowledge about the execution of the Project. Thus, it is possible to conclude that the VAAF Project had variable efficacy by Component analyzed:

- Sustainable Production Component: the efficacy in the SAF implementation activities was average, with good quantitative performance in relation to what was planned, but it had low performance in ATER and in the monitoring of plantations. On the other hand, in the area of sustainable community forest management and wood processing, the efficacy was low, with studies, plans and the purchase of machinery, but without strengthening the grassroots organizations and the materialization of forest management.
- Monitoring and Control Component: the efficacy of actions and results are evident in the strengthening of the IMAC to play its role in environmental control – registration, licensing and inspection and the improvement of services provided. For environmental monitoring, the efficacy in structuring and strengthening UCGEO for the provision of services in support of the work of IMAC and the demands of society was also demonstrated.
- Land-use Planning Component: despite the efforts in the elaboration of the studies, PPCDQm and LTM, these instruments were not appropriated by the municipal governments and the efficacy was low. Exception to actions with indigenous associations whose efficacy criterion was high.
- Component of Science, Technology and Economic Instruments: the Biofactory was implemented and is in operation, but, due to the low production of seedlings, its efficacy was considered average.

In general, some factors contributed to the average efficacy of the VAAF Project, including the absence of structured and dedicated coordination at SEPLAN, with the objective of managing the VAAF Project with the best project management tools. Another decisive factor was the discontinuity of policies with interruptions and delay in the execution of activities. All in all, the conclusion is: The VAAF project had an average efficacy.

The cost analysis focused on the Outputs and Services reported in the Final Report prepared by SEPLAN in 2018. The data are insufficient to conclude whether the benefits of minimizing costs were maximized, due to the lack of measurable indicators for outputs and services. As previously informed (item 3.3 Efficiency), it was possible to make an inference for some actions due to the absence of data in the reports or lack of parameters, however, it is not possible to affirm that the efficiency was high in the execution of the VAAF Project, in terms of cost versus actions.

Furthermore, the low efficiency in the management of the Project compromised the quality of services and outputs, reflecting the execution deadlines and the need for constant budgetary arrangements and extension in the final execution period, indicating a low efficiency. Signed in 2010, expected to end in 2013, the VAAF Project was only considered closed in 2020.

The evaluation of the impact of the VAAF Project focused on the governance of the State to execute its Environmental and Forest Asset Valuation Policy, on the dynamics of deforestation in the area of operation of the Project and a similar area in the South of Amazonas.

From the analyses carried out, it is possible to conclude that Acre is much better equipped in terms of physical infrastructure, logistics, computer systems, equipment and, above all, a technical team trained to exercise governance over the management of its territory, being able to promote the recovery of deforested areas for economic purposes (SAFs), manage forest areas for the production of wood in a sustainable and legal way, register, license, monitor and supervise activities that use natural resources following the provisions of the ZEE and current legislation. The resources of the Amazon Fund were of fundamental importance to enable this governance.

Regarding the dynamics of deforestation, during the execution of the project, the annual rates varied between 200 and 427 km², increasing only from 2019, when it has already reached 707 km2 (Prodes/INPE), leading to the conclusion of the positive effect of the VAAF project in keeping deforestation under control and largely licensed by IMAC.

It is possible to conclude that Acre's governance of environmental monitoring and control, coupled with secondary vegetation recovery and growth actions, contributed to these factors during the implementation of the VAAF project.

Thus, it can be concluded that the positive impacts of the VAAF project were significant in terms of the net balance of deforestation during the period, with the reduction of the area that could have been deforested and the partial compensation of this deforestation by the growth of secondary vegetation. Another positive impact was the creation of a critical mass of technical staff in Acre with sufficient knowledge to carry out the environmental and forest management of assets related to forest land use in the state.

The most important factors to ensure the sustainability of the successful results of a project are: governance structure, qualified and committed technical team, financial resources and political will of governments. Regarding these factors, it was possible to observe during the visits and interviews that Acre, at the state level, has a robust governance structure capable of responding to the demands of sustainable production, environmental monitoring and control, land-use planning and promotion and appropriation of science, technology and economic instruments. This cannot be said about the municipal sphere, which was the target of the Project, without great progress or sustainability.

Likewise, the quality of technicians interviewed in terms of training and knowledge about the issues associated with the VAAF Project was evident, with excellence in the policy formulation and elaboration teams, and a good level of executors, whether from the State team or social organizations. Therefore, there is sufficient critical mass to propose, elaborate and execute VAAF public policies.

Although the fiscal situation and budgetary priorities in the Federal Government and the State are very limited, due to its credibility and negotiating capacity, Acre has been able to access and maintain a reasonable flow of resources to keep its environmental governance structure functioning, with enormous potential to expand access to these resources if it establishes a carbon market entry policy.

The understanding of the importance of valuing environmental and forestry assets by governments is sensitive to changes and less sustainable, due to sudden changes in electoral preferences that manifest themselves in each election. This political will was cooled from 2018 as a reflection of the change in national and state policy, with the exchange of parties in power and the respective public policy proposals.

Therefore, from this discussion, it is possible to conclude that the actions and results of the VAAF Project are sustainable if they depend on the governance structure built with the Amazon Fund's support, the technical team of the State and society leaders, the flow of donation resources, the sale of carbon credits and loans for environmental and forest management.

The political will has low sustainability and the possibility of reversal will be the awareness of governments regarding the feasibility of sustainable production, environmental monitoring and control and land-use planning for the generation of work, income and revenue for Acre.

However, the field mission found that the project had low sustainability, except for the monitoring and control component and the activities on indigenous lands. The lack of public and continuous ATER, due to the choice of the Project for outsourcing, left the SAFs unattended. The forest management actions were not continued, the actions in the municipalities served by the Project left no progress and the watershed recovery actions were discontinued and incorporated into the PRA.

Thus, Table 13 indicates the evaluators' perceptions for each OECD item according to the analysis presented in this report.

Table 12: Effectiveness evaluation according to OECD dimensions

Components	Outputs and services	DIMENSIONS				
		Relevance	Efficacy	Efficiency	Impact	Sustainability
Sustainable production	Deployment of SAFs					
	Sustainable community forest management					
	Payment for environmental services					
	Physical and operational structuring of SEAPROF					
	Physical structuring of producer and manager cooperatives					
	Expansion of the ATER service network					
	Training of tropical forest specialists					
	Strengthening the Forest Secretariat					
Monitoring and control	Preparation of study and diagnostics for PPCDQm					
	Physical and operational structuring of UCGEO and IMAC					
	Improvement of the natural disaster monitoring system					
	Physical and operational structure of the SEMMAs to implement the municipal PPCDQ					
	Structuring and training of municipal firefighting brigades					
Land-use Planning	Training of indigenous associations for the surveillance of ILs					
	Preparation of studies for LTM – municipal ZEE					
Science, innovation and economic instruments	Physical and operational structuring of the Biofactory					

Caption:

High Average Low

7. Recommendations and Lessons Learned

Regarding the challenges in relation to the Project, the following were identified by the evaluation:

7.1. CHALLENGES

- **Discontinuity of the environmental and forestry valuation policy and teams throughout the execution of the Project:** There was a transition arising from political succession and, in this process, forest management lost space for agricultural production, causing a break in continuity in forest policy with the transition from SEF to Sedens.
- **Project management and weakness management:** SEPLAN did not assume the management of the VAAF Project in the same way that it acted in projects financed by the IDB and the World Bank, limiting itself to providing a budget. This caused major losses in the quality of the monitoring and evaluation of the execution of the Project, with an imbalance in the execution of the components.
- **Slowness of Proceedings:** Delay in the processing of bidding processes, due to management deficiency, lack of guidance and low quality of the terms of reference, notices, etc.
- **Outsourcing of activities:** In the case of technical assistance to producers, companies and outsourced services were contracted, maintaining the low quality of the services provided. In the preparation of the PPCQDm and LTM, the process was repeated with consulting companies that had little capacity to involve city halls and municipal leaders to conduct the process of execution of the technical instruments produced.
- **Continued delays in the preparation of accountability reports to BNDES:** Delays in accountability and inability to prove expenses prolonged the implementation of the Project for much longer than expected.
- **Inadequacy of the outputs prepared:** Sustainable Community Forest Management Plans and Operational Plans, funded by the VAAF Project, were not approved by IMAC due to inadequacy, frustrating forest managers due to lack of continuity.
- **Low availability of financial resources:** The low availability of financial resources was one of the risk factors that impacted the implementation of the support component for indigenous associations, with delays in the decentralization of resources, which resulted in the postponement of the purchasing, contracting and other activities planned in the component's schedule.
- **Lack of seedlings for planting SAFs:** There was not enough seedling production in Acre to supply the Project, leading to the acquisition of seedlings in other states. The project also had problems in providing the seedlings at the appropriate time and in transporting the seedlings to the rural properties.

7.2. POSITIVE POINTS

- The Government of Acre has structured and strengthened its governance to carry out the environmental and land-use planning of the state, with technical and operational institutions and instruments, with a qualified base team to carry out the activities inherent to sustainable production (SAF), forest management, environmental monitoring and control and land-use planning.
- The Project made it possible to demonstrate that it is possible to recover deforested areas for economic purposes and reduce the pressure on primary forests with the implementation of SAFs that improve the income of rural producers.
- The Project created a methodology for the recovery of permanent protection areas (PPA) with the recovery of areas in the Acre River basin and springs in rural properties.
- With the support of the VAAF Project, it was possible to create an environmental monitoring structure capable of subsidizing the demands of the Government and society regarding the use of natural resources in an adequate way to the ZEE and the planning of the use of the territory.
- The strengthening of environmental control institutions has ensured that Acre produces wood from 100% certified forest management for the market.
- The Project made it possible to prove that indigenous associations, when trained and supported, can be responsible for the surveillance and defense of their lands, avoiding invasions, occupations, deforestation, hunting and illegal fishing, as well as production aimed at food security and income generation.

7.3. LESSONS LEARNED

- Poultry production provides short-term returns, while fruit and timber companies provide medium and long-term returns.
- The implementation of SAFs should be associated with actions that promote market access and price improvement.
- The supply of seedlings and their transport to the field can be bottlenecks for the success of SAFs and native vegetation recovery actions. Local production of seedlings or nurseries for hardening of seedlings on site can be interesting solutions.
- The synchrony between ATER services, the delivery of seedlings and the favorable season for planting is a challenge for the success of SAFs.
- The implementation of SAFs involves several years and should be followed up (at least six years).
- The outsourced ATER model adopted was not effective or sustainable, and also made it difficult for the Government to monitor the beneficiaries. It would be better to have a public ATER or based on the associations of producers.
- The support of the municipalities in ATER can be very effective, with the supervision of the extension by the municipal departments of agriculture and the hiring of local technical teams to favor the sustainability of the actions.
- Simplifying forest management can avoid licensing difficulties
- Management plans for conservation units must be a prerequisite in order not to make management unfeasible in the areas served by the Project.
- The support to UCGEO resulted in benefits in the other components of the Project and helped prevent a further increase in deforestation in Acre.
- The IMAC was to use the UCGEO data for remote surveillance associated with the CAR to reduce deforestation.
- It is necessary to ensure the institutionalization of the structure and instruments through law and teams, as well as formalized agreements with the state government or donors, to strengthen municipalities.
- All actions to strengthen municipal environmental management should have a municipal role, being led by city halls and not by the state government or contracted organizations.
- The strengthening of the territorial and environmental management of indigenous lands has a robust methodology and a strong social base, which guarantees its sustainability.
- The Biofactory should focus on forest species and tree species for SAFs in order to contribute to the recovery of tree vegetation and reduce deforestation.

7.4. RECOMMENDATIONS

The following recommendations are presented for projects with similar scope and value, not all of which are valid for smaller projects and presented by non-governmental organizations. Some recommendations repeat recommendations given in the evaluations of other projects supported by the Amazon Fund with state execution, such as the SEMAS Pará and Reforestation Projects in the South of the State of Amazonas, showing the importance of sharing experiences and the moment of learning from the Amazon Fund with this type of project.

7.4.1. RECOMMENDATIONS TO THE AMAZON FUND

In evaluating project proposals, the Amazon Fund should:

- Study the possibility, in projects presented by governments, of having a minimum team of effective public servants capable of retaining the acquired capacities and transmitting knowledge and the memory of the project, including for the cases of municipalities that receive benefits from projects executed by state governments[18].
- Continue to support projects to strengthen the management capacity of state and municipal environmental agencies[19] , but the decentralization of environmental management should be institutionalized in the form of law and stable teams in city halls.

18. See also the evaluation of the Semas Pará and Reforestation Projects in southern Amazonas.
19. Idem

- Emphasize the need to present a resource sustainability strategy for recurring actions, such as ATER and municipal environmental management[20].
- Reinforce the importance of accuracy in performance reports, which must go beyond proforma project documentation, a protocol delivery obligation, since these reports are official sources of information that assist institutions in decision-making throughout the execution of the project and are the main input for evaluations [21].
- Encourage the maintenance of a project information library (preferably digital) that gathers information easily, quickly and reliably [22].
- Consider external monitoring (by non-profit institutions, universities or international bodies that support the project) as a way to ensure the homogeneity of information over time[23].

In large projects, presented by state governments:

- Suggest, as a prerequisite, together with the consultation letter, the presentation of a monitoring plan for the proposed project, based on the indicators of the logical framework, indicating focal points and necessary resources.
- Demand improvement in the quality of result indicators, avoiding using inputs and actions as result indicators. Require, in the guidelines and in the process of adjusting the proposals, indicators that go beyond the purchase lists of equipment and other items and that express the achievement of the outputs and achievement of the objectives [24].
- Dialogue with beneficiaries of the Amazon Fund, so that, before the first disbursement, they prove the installation of a project management unit, with a qualified technical team and a specific management system for the management and monitoring of the project.
- Suggest the creation of an social control body with representatives of beneficiaries and beneficiaries of the project for the release of the first installment of the resources of the Amazon Fund.
- Suggest that performance reports be presented, discussed and approved by this social control body (previous item) before being sent to BNDES, being a condition for the release of subsequent installments.
- In general, projects should avoid supporting institutions' routine actions and focus on innovations in sustainable production, monitoring and control, land-use planning, science, innovation and economic instruments.
- Along with the consultation letter, propose the presentation of a baseline study (ground zero) of the indicators of the proposed project, or present this as the first stage of the project.
- Develop mechanisms that provoke greater commitment from the executors with the proposed goals and the resources received.

7.4.2. RECOMMENDATIONS TO COFA

The Amazon Fund Advisory Board (COFA) should consider the following recommendations:

- All projects submitted to the Amazon Fund must be prepared in a participatory manner with the endorsement and commitment of representatives of beneficiaries and beneficiaries.
- Supported projects involving SAFs and forest management must have a minimum duration of 6 to 8 years of execution to enable technical assistance, maturation and monitoring of results.
- The projects must have the support of technical cooperation contracted by the Amazon Fund.
- In the case of a Project to strengthen state or federal environmental governance, including inspection, the project must include remote inspection by satellite image, drones and other geotechnologies, in its context or in its actions.
- Demand that state projects articulate with the federal government and neighboring states, when possible, to avoid displacement from deforestation and increase mutual learning.

7.4.3. RECOMMENDATIONS TO THE FEDERAL GOVERNMENT

The Federal Government should consider the following recommendations:

- Articulate state government projects with federal efforts to prevent and combat deforestation, offering support to state

20. Idem
21. Idem
22. Idem
23. Idem
24. Idem

governments, promoting the exchange of experiences, and articulating the part of the Federal Government with ICMBio and FUNAI, since protected areas of federal jurisdiction (federal conservation units and indigenous lands) are essential to achieve impacts by state government projects.

- Develop regional studies by area of deforestation in the Amazon and generate recommendations for priorities and actions for the development of projects.

7.4.3.1. RECOMMENDATIONS TO STATE GOVERNMENTS WHEN SUBMITTING PROJECTS TO THE AMAZON FUND

- Clearly present the context of the project execution, relating it to other projects being executed by the state government.
- Maintain a good record of project activities and results, preparing and submitting well-documented reports so as not to lose the memory of the execution.
- Develop systems for maintaining and transmitting the institutional memory of the project, through a system of records and reports, the training activities themselves and strategies that reduce team turnover[25] .
- Reinforce the importance of performance reports and other follow-up reports, not as proforma mechanisms, but as project memory and the proper recording of evidence [26].
- Carry out the socioeconomic diagnostics of the area (preferably participatory) before the intervention, outlining specific strategies for the territories if necessary [27].
- Have a plan in case of team changes, so that the learning stays in the institution and not just in people's memories [28].
- Document reports and best practices [29].
- Be aware of international agreements and safeguards in the selection process of beneficiaries [30]. Furthermore, have a focus on territorial development in the choice of areas, promoting greater integration between beneficiaries.
- Emphasize the logical chain of project activities[31] , considering greater integration of components in space and time.
- Consider a longer time window for bids[32] , with potential delays, which are relatively common and almost predictable.
- Include a prior study of production and delivery logistics and an action plan with contingency factors in case of production delays or delivery difficulties in the bidding process for the supply of seedlings, considering local production or nurseries as a difference in the score of the selected companies. [33]. Employ the lessons of the Acre River Basin Restoration Program team, with nurseries for local acclimatization of seedlings, which came out of tubes to be grown longer in bags already close to the planting site.
- Ensure that there is an adequate dimensioning of the effort that employees will have in the management of the project in view of the other demands of their capacity or position[34] .
- Strengthen the participation of beneficiaries throughout the project cycle, from its conception, as well as in the implementation and evaluation[35].

25. See also the evaluation of the Semas Pará and Reforestation Projects in southern Amazonas.
26. Idem
27. Idem
28. Idem
29. Idem
30. Idem
31. Idem
32. Idem
33. Idem
34. Idem
35. Idem

APPENDIX I
CANCUN SAFEGUARDS (REDD+)

Table 13 presents the analysis of compliance with the Cancun Safeguards in the VAAF Project.

Safeguard/issue	Complies[36]	Note
1. Actions complementary to or consistent with the objectives of national forestry programs and other relevant international conventions and agreements.	Yes	
Was the project aligned with the PPCDAm and the state plans for deforestation prevention and control?	Yes	All Project objectives and actions were aligned with the PPCDAm.
To what other federal public policies or international agreements has the project demonstrated alignment? In which aspects?	Yes	The Project supports the implementation of the Forest Code and the fulfillment of Brazil's commitments before the UNFCCC. Furthermore, the project is linked to several public policies, such as the National Climate Change Policy (PNMC), the National Plan for the Recovery of Native Vegetation (Planaveg), the Sectoral Plan for Adaptation to Climate Change and Low Carbon Emissions in Agriculture for Sustainable Development (ABC+), the Acre Sustainable Development Plan, and other national and regional policies for the Amazon.
Did the project contribute or have the potential to contribute directly or indirectly to reducing emissions from deforestation and forest degradation? In what way?	Yes	The Project contributed to preventing the advance of deforestation in Acre and provided the basis for the State System of Incentives for Environmental Services (SISA)
2. Transparent and effective national forest governance structures, with a view to national sovereignty and national legislation.	Yes	
To what extent did the project promote the articulation between various actors (public sector, private sector, third sector or local communities)?	Yes	The Project promoted the participation of society in municipal environmental management and protected areas.
To what extent did the project contribute to strengthening public instruments and processes for forest and land management?	Yes	The Project strengthened the infrastructure necessary for the implementation of these instruments and trained the technical staff.
3. Respect for the knowledge and rights of indigenous peoples and members of local communities, considering relevant international obligations, national circumstances and laws and noting that the UN General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples.	Yes	
To what extent did the project influence the constitutional rights associated with the possession and formal destination of land in its area of operation?	Yes	The Project strengthened the participatory management by indigenous peoples of their lands, in accordance with the National Policy for the Environmental and Land-use Planning of Indigenous Lands (PNGATI)
To what extent did the project influence the sustainable use of natural resources in its area of operation?	Yes	It strengthened governance instruments, disseminated good practices and paid for environmental services.

36. These safeguards were not required of projects at the time of submission, so the project may not have developed specific strategies to meet them..

If the project had as direct beneficiaries indigenous peoples, traditional communities or family farmers: were their sociocultural systems and traditional knowledge considered and respected throughout the project?	Yes	The Project used participatory and respectful approaches with the knowledge of indigenous peoples, traditional communities or family farmers
Are there effects that interfere with the traditional way of life of these groups? What kind of effects: on social, economic organization or the use of available spaces and resources? How do they interfere: positively, negatively, or both?	Yes	There was a positive interference, with the strengthening of indigenous leaders and their representation.
4. Full and effective participation of stakeholders, in particular indigenous peoples and local communities, in the actions referred to in paragraphs 70 and 72 of Decision 1/CP 16.	Yes, for the most part	
How did the project ensure prior consent and the local or traditional way of choosing representatives of its beneficiaries (especially indigenous peoples and traditional communities)?	Yes	With indigenous peoples, the Project adopted a participatory methodology that involved many meetings and consents. With family farmers, it ensured that the membership was voluntary.
What participatory planning and management instruments did the project apply during planning and decision making?	Yes	With indigenous peoples, the Project adopted PNGATI as a reference.
In the case of projects with economic purposes: were any benefits arising from the project accessed in a fair, transparent and equitable manner by the beneficiaries, avoiding a concentration of resources?	Yes	The Project made payment for environmental services. Generally, access was transparent and democratic, equally for women and men, with few deviations.
To what extent has the project provided the general public and its beneficiaries with free access and easy understanding of information related to the project's actions?	Yes	The Project held many meetings and community mobilizations
Was the project able to put together a good system for monitoring results and impacts? Did it systematically monitor and disseminate the results achieved and their effects?	No	The Project failed to set up a good system for monitoring results and impacts, nor did it systematically monitor and disseminate the results achieved and their effects.
5. Actions consistent with the conservation of natural forests and biological diversity, ensuring that the actions referred to in paragraph 70 Decision 1/CP 1611 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 enhance other social and environmental benefits.	Yes	
How did the project contribute to the expansion or consolidation of protected areas?	Yes	The Project supported the preparation of management plans and the monitoring of conservation units. It also supported improved management of indigenous lands.
How did the project contribute to the recovery of deforested or degraded areas?	Yes	Yes, native species were prioritized for restoration in the Acre River Basin. For SAFs, although native species were used, the seedlings often came from outside Acre and species that do not occur in Acre were used, such as the açaí palm (*Euterpe oleracea*), native to eastern Amazonia
To what extent did the projects contribute to establishing recovery models with an emphasis on economic use?	Yes	The project supported the implementation of SAFs that can act as recovery models

6. Actions to address the risks of reversals in REDD+ results.	Yes	
What factors pose risks to the permanence of REDD+ results? How did the project address these?	Yes, partly	The Project supported the construction of a monitoring system that may be important for deforestation control. However, it is necessary to use it for remote inspection, for example.
7. Actions to reduce the displacement of carbon emissions to other areas.	Yes	
Was there a shift of emissions avoided by the project actions to other areas?	Sim	Although the project, in combination with other measures, was very effective in reducing deforestation in Acre, deforestation increased in the neighboring state of Amazonas. It cannot be said that this is an oversight, but neither can it be denied.

Source: Own elaboration.

APPENDIX II
TRANSVERSAL CRITERIA

Table 14 presents the results of the analysis for the poverty reduction transversal criterion

Poverty reduction

Transversal Criterion/question	Complies[37]	Note
Poverty reduction	**Yes**	
To what extent did the project effectively contribute to economic alternatives that value the standing forest and the sustainable use of natural resources?	Yes	The Project precisely supported these economic alternatives, in the Sustainable Production component
To what extent has the project positively influenced poverty reduction, social inclusion and improvement of the living conditions of beneficiaries (mainly: traditional communities, settlers and family farmers) living in your area of activity?	Yes	By supporting economic alternatives and involving indigenous peoples and family farmers in a participatory manner, with a significant result of increased income, the project contributed to poverty reduction and social inclusion and improved the living conditions of the beneficiaries.
Was the project able to promote and increase the production in value chains of timber and non-timber forest products, originated in sustainable management?	Yes	The outputs were even marketed in local markets, especially through PAA and PNAE.
In the case of a project with a scientific and technological development component, did it contribute to the construction of a development model appropriate to the region?	Yes	The project contributed to the production of improved banana and pineapple seedlings, which benefit the region's economy and can be used in SAFs

Source: Own elaboration.

Table 15 presents the results of the analysis for the transversal criterion of gender equity.

Gender Equity

Transversal Criterion/question	Complies[38]	Note
Gender Equity	**Partially**	
Was the project able to integrate gender issues into its strategies and interventions or did it address the issue in isolation? How?	No	The Project did not have a gender-specific approach, but this aspect emerged at different times during its implementation, according to opportunity and need. At first, there was no explicit concern about the gender issue, and the person entering the PSA program had their name on the card to receive the benefits. Then (on a date not specified by the interviewees) the selection was made, looking for women who were much more interested in SAF than men.
Was there gender separation in data collection for project planning and monitoring?	No	

37. The transversal criteria were not required for projects at the time of submission, so the project may not have developed specific strategies to meet them.

38. The transversal criteria were not required for projects at the time of submission, so the project may not have developed specific strategies to meet them.

How did the project contribute to gender equity?	Yes	With the payment of the bonus, registered in the name of the women. Furthermore, there was a recognition by informants that women were treated fairly in work teams, even without a specific approach.

Source: Own elaboration.

APPENDIX III
GUIDING QUESTIONS

The guiding questions were organized by product and services performed by the VAAF Project:

Outputs and Services 1: Implementation of the Agroforestry System – SAF, community forest management plans and support for community processing of managed wood

As for SAFs:

a) What are the criteria used to select beneficiaries of SAF? Were any gender criteria used? What is the ratio of men to women selected?

b) How was the field activity planned? Were women involved in the planning?

c) What type of input did the beneficiaries receive? Were the inputs distributed equally between women and men?

d) On average, each beneficiary planted what area? Is there a difference in the area planted by women and men?

e) Which species?

f) How much did the total area add up to?

g) Was there bank financing, such as the National Program for the Strengthening of Family Agriculture (PRONAF), for the activity? Did men and women have equal access to funding?

h) For how long was the forest ATER provided? Did men and women have equal access to ATER?

i) Who was provided it? Were there men and women in the provision of ATER?

j) Were crop treatments monitored?

k) Evaluation of losses?

l) Was the income of the SAF calculated? Was there a difference in the income of SAFs planted by men and women?

m) Did the growers who planted receive the PSA? Was there a difference in PSA between men and women?

n) What are these SAFs like today?

o) Is it possible to scale between men and women in access to policies, management, productivity or income with the implementation of SAFs?

p) Any criticisms or suggestions for the implementation of SAF?

Regarding Community Forest Management Plans:

a) How did communities organize themselves to carry out community management? Did women participate?

b) Were the managers trained to carry out community management? Did women participate?

c) Who prepared the management plans? Did women participate?

d) Who approved the management plans? Did women participate?

e) In what areas were they performed?

f) Was there monitoring of timber extraction and transportation?

g) What is the average income for each manager? Is there a difference in average income between women and men?

h) Does the activity continue to this day?

i) If so, who supports, monitors, supervises? Is there participation of women?

j) How unsuccessful were the Projects supported? Is it possible to verify differences between men and women?

k) What is the main reason for the failure of the beneficiaries? Is gender an important factor? Did more men or women fail?

l) What are the suggestions for improving projects of this type in the future?

Regarding timber processing:

a) Did all the beneficiaries of community forest management plans receive equipment to process timber? Was there a qualitative or quantitative difference in the equipment received by men and women?

b) Were they trained to use the equipment? What is the ratio between empowered women and men?

c) Was the equipment functional? Did men and women enjoy the use of the equipment in the same way/intensity?

d) Was there maintenance of the equipment? Who did the maintenance? Was there a difference in the maintenance of equipment intended for men and women?

e) Was the benefited wood for own use or sale? Was there a difference in use between men and women?

f) Was there a significant price difference in the sale of the processed wood? Was this difference the same for men and women?

g) What are the suggestions for improvement? How can gender be considered in this improvement?

About the VAAF Project:

a) What are the strengths of the VAAF Project?

b) What about weaknesses?

c) What are main difficulties and obstacles?

d) Lessons learned?

e) Did the Project reach men and women in a balanced way?

Outputs and Services 2: Payments for environmental services to producers and community managers

a) What are the criteria for selecting PSA beneficiaries and beneficiaries? Was there a gender criterion for selection?

b) What are the counterparts of the beneficiaries and the beneficiaries? Was there a difference in the counterpart between men and women?

c) Was the property of the beneficiaries mapped? Were differences found between male and female properties?

d) What is the value paid to the beneficiaries? What about the frequency? Was there a difference in value and frequency between men and women?

e) Was the contract formalized? For how long? Was there a difference between women and men regarding contracts?

f) Were women benefited? In what proportion?

g) Did the beneficiaries receive technical assistance? Did women and men receive equal assistance?

h) Was there demand greater than supply? Was there a difference in demand between men and women?

i) Why did the PSA end?

j) What are the recommendations for new PSA projects? How to consider the issue of gender?

About the VAAF Project:

a) a) What are the strengths of the VAAF Project?

b) What about weaknesses?

c) What are main difficulties and obstacles?

d) Lessons learned?

e) Did the Project reach men and women in a balanced way?

Outputs and Services 3: Physical structuring of cooperatives of agro-extractive producers and forest managers

a) How many cooperatives have been structured with the support of the Acre VAAF Project?

b) What is the participation of women in these cooperatives? Were there women's cooperatives? Did women have decision-making power?

c) What did this structuring consist of? Was there a difference in support for men and women?

d) What improved in the cooperatives with the support of the Project? Was there a difference in the perception of improvement related to gender issues?

e) How many structured cooperatives are in operation? How is the participation of women?

f) What failed in the Project?

g) Any suggestions to improve upcoming actions to support cooperatives in Acre? How can gender issues be considered in these improvements?

Outputs and Services 4: Institutional strengthening of SEF with studies and Information System of the forest sector

a) Which studies were carried out with the support of the VAAF Project? Did women participate in these studies? With what responsibilities and activities?

b) What is the usefulness of the studies for Acre's forest policy?

c) Was the Forest Sector Information System developed and implemented?

d) If so, who operates the system today? Is there participation of women?

e) Any suggestions to improve similar actions? How can gender aspects be considered in this improvement?

Outputs and Services 5: Training of specialists in sustainable production of tropical forests at the Federal University of Acre (UFAC)

a) How many professionals were trained? Were women also empowered? In what proportion?

b) What are the selection criteria? Was gender a selection criterion? Were women selected in equal proportion to men? What were the gender barriers?

c) Was there monitoring of participation in the course? Do men and women have equal participation, both quantitatively and qualitatively?

d) Did they undertake internships under the VAAF Project? Was the participation of women in the internships proportional to that of men?

e) Were any written final papers (TCC) written? Did men and women perform equally? What are the gender obstacles to delivering the TCCs?

f) Did they map where they are operating? Was there gender consideration in the mapping? What is the proportion of men and women working?

g) Suggestions for new training? How to consider gender aspects in the future?

Outputs and Services 6: Expansion of ATER services to promote production chains and reduce deforestation

a) What are the production chains fostered with ATER services? What is the participation of women in these chains?

b) How many beneficiaries of the VAAF Project did the ATER services attend? Were men and women treated in equal proportion?

c) What is the ATER methodology applied? Did the methodology consider gender aspects?

d) Was there monitoring of income, productivity, production indicators? Was there a difference in the results of these indicators for men and women?

e) Did they support registration in the CAR? Was there a difference between men and women in CAR enrollment?

f) Did they guide the recovery of PPA and Legal Reserve liabilities? Were men and women mentored equally? What proportion of men and women are mentored?

g) Were the beneficiaries of the PSA been monitored for the criteria? Were gender aspects considered in the monitoring? What about the criteria?

h) Was deforestation on the property been monitored? Was there a difference in deforestation between male and female properties?

i) Was the occurrence of wildfires and forest fires monitored? Were gender aspects considered?

j) Suggestions to improve ATER in future projects? How to consider gender aspects?

Outputs and Services 7: Support the botanical research laboratory (Biofactory)

a) How many people are on the Biofactory technical team? How many women and how many men? What positions are held by women?

b) What support did the Biofactory receive from the Project? Were gender aspects considered in this support?

c) What is the line of research regarding the valuation of Acre's forest environmental asset?

d) What forest essences were worked on?

e) Did they achieve any significant results?

f) Were any patents been filed?

g) Do they interact with the Forest Nursery?

h) Suggestions to improve actions in future projects? How to consider gender aspects?

Outputs and Services 8: Training of indigenous associations for surveillance, Indigenous Territorial Environmental Management Plan, surveillance posts and foreign exchange revival

a) How many ethnic groups benefited from the training?

b) What was the total of indigenous people? How many men and how many women trained?

c) Who did the training? Were men and women involved in the training team?

d) How many Indigenous Land Environmental Management Plans (PGATI) were drawn up?

e) How many checkpoints have been built? Are there women working at the checkpoints?

f) How many areas had the borders revived?

g) Were indigenous lands invaded?

h) Where there conflicts with loggers or hunters? Were women involved in these conflicts?

i) Did forest fires occur?

j) Any suggestions for new skills? How to consider gender aspects?

Outputs and Services 9: preparation of studies and diagnostics to support Local Land-use Planning – LTM

a) How many municipalities have developed LTM?

b) What was the methodology used? Did this methodology consider gender aspects?

c) Did the technical team of the city hall participate? How many men and how many women?

d) Did the community participate? Was there a quantitative and qualitative difference in women's participation?

e) Was there any municipal law approving the LTM proposal? Did this law consider gender aspects?

f) Does the city identify any impact of the LTM for the municipality? Are there differences in impacts for men and women?

g) Are there suggestions for LTM? How to consider gender aspects in the future?

Outputs and Services 10: Structuring of the Central Geoprocessing Unit (UCGEO) and the IMAC

a) What is the UCGEO technical team? What is the proportion of men and women?

b) What kind of support did the VAAF Project provide? Were gender aspects considered in this support?

c) What outputs does UCGEO offer?

d) Who are the customers?

e) Does UCGEO monitor deforestation?

f) How often?

g) Does UCGEO feed the process of monitoring hot spots and forest fires?

h) Does UCGEO monitor SAFs, forest management plans and forest restoration?

i) Does UCGEO monitor the progress of grain and sugarcane crops?

j) Does UCGEO monitor pasture expansion?

k) Is UCGEO integrated with environmental control bodies?

l) Any suggestions or criticisms regarding the VAAF Project?

Outputs and Services 11: Structuring and training of municipal firefighting brigades

a) Are you familiar with the VAAF Project?

b) Was there support for the formation of fire brigades in the municipalities? What is the proportion of men and women in the supported brigades? Do women have the same responsibilities/activities as men?

c) Which municipalities?

d) How were the brigades formed? Were gender criteria considered in the training?

e) Is it volunteer work? Do men and women sign up in equal proportion? What are the barriers to women's participation?

f) Was there training? Did the training sessions reach men and women?

g) Was personal protective equipment (PPE) distributed?

h) Was firefighting material been distributed?

i) Is there information on occurrences in the municipalities?

j) Is the brigade operational? What is the current proportion of men and women?

k) Any suggestions or criticisms regarding the VAAF Project? How to incorporate gender aspects to ensure women's participation in the brigades?

Outputs and Services 12: Implementation of Natural Disaster Monitoring System

a) Are you familiar with the actions of the VAAF Project?

b) What was the support that the Project gave to the elaboration and implementation of the natural disaster monitoring system? Were gender aspects considered in the elaboration and implementation?

c) Is the natural disaster monitoring system operating?

d) Was there training of technicians and technicians? What is the proportion of men and women trained?

e) What are the main results? Is there a qualitative and quantitative difference in the results of women and men?

f) Any suggestions or criticisms? How to incorporate the gender aspect in the future?

Outputs and Services 13. Preparation of studies and diagnostics to support the Deforestation Prevention and Control Plans in the Municipalities – PPCDQ

a) How many municipalities prepared the PPCDQs? Was there participation of women in the preparation of the plans? To what extent and with what responsibilities?

b) What methodology was adopted? Were gender aspects considered in the methodology?

c) Was any support given to the participating municipalities in addition to the inputs for preparation? Like training, equipment, etc.? If there was training, did men and women participate? In what proportion?

d) Did the plans limit the advance of deforestation?

e) Was management delegated to municipalities such as licensing, enforcement of fines etc.?

f) Any other suggestions? How to consider gender aspects in the elaboration of these plans?

Outputs and Services 14: Structuring of municipal environmental secretariats and their integration with the PPCDQ Acre

a) Which municipal departments were structured? Were there women in the secretariats? In what proportion and occupying what positions?

b) What type of product or service was offered? Were gender aspects considered in the offer of outputs and services?

c) What is the counterpart of the City Hall?

d) Did this process consolidate the decentralization of environmental management?

e) Do City Halls continue to be active in environmental management?

APPENDIX IV
LIST OF INTERVIEWEES

Name	Position/Institution
Ademar de Oliveira Mourão	Beneficiary producer of the Dom Moacir Complex, Bujari
Alexandre Tostes	SEPLAN
Aloísio Detomini	SEPLAN
Antonio (Branco)	Rural producer of the Maytenus, Settlement Project in Bujari.
Antônio Bane	Agroforestry Agent of the Kaxinawá Nova Olinda IL and beneficiary of the project
Antonio Leite (BR-364-Mamoré)	Former president of the association of forest managers of the FE of the Gregório River
Antônio Sérgio	Former Funtac President
Ayany Kaxinawá	Inhabitant of the Kaxinawá IL
Carlos Brandão	Indigenous leadership of the Katukina Kaxinawá Indigenous Land and FUNAI public servant
Carlos Edegard de Deus	Secretary of State for the Environment of Acre at the time
Claudio Roberto da Silva Cavalcante	SEMAPI/CIGMA Coordinator
Conceição Souza Rebouças	SEMAPI at the time of the project
Deugilson do Nascimento Silva	Secretary of the Environment Tarauacá
Edineia	General Secretary CAET Tarauacá
Edvan Azevedo	Former SEPROD Secretary
Éllen Abud	SEPROD technician
Eufran Ferreira do Amaral	Embrapa
Fernando Lima	Former President of FUNTAC
Flávia Dinah	SEMAPI
Gilberto Siqueira	Secretary of Planning at the time
Jhon Leno	Director of SEMMA
João Carlos do Nascimento Souza	Technical Agriculture Secretariat of Tarauacá
João Paulo Mastrângelo	Former secretary of the SEF and Prof. Federal University of Acre
José Claudio Araujo Bonfim	Former Secretary of the Environment of Feijó
José Luis Tche	SEPROD Secretary
Joseíth	Employee of the Municipal Agriculture Secretariat of Plácido de Castro and rural producer
Jota	Director of Coopercintra, forest manager
Julie Messias	SEMAPI Secretary
Lourival Marques	Production Secretary at the time, today at SEPROD
Magaly Medeiros	Chief Executive Officer of the Institute for Climate Change and Regulation of Services
Manoel Gomes - Maná Kaxinawá	Leadership of IL Colony 27 - Huni Kuin (Kaxinawá)
Manoel Gomes Caíra	Producer benefited from Tarauacá
Maria Antônia	SEMAPI Technician and works with water resources in Acre
Maria de Fátima Rocha Alves e Silva	Secretary of Agriculture of Plácido de Castro
Maria Lucinéia (Néia) Jesus	Mayor of Tarauacá
Marky Brito	SEPLAN
Marlene Jardim	EMATER employee
Marli Ferreira	Former Component Coordinator

Name	Position/Institution
Mirna Caniso	SEMAPI at the time of the project
Narcélio Bayma	Secretary of Agriculture of Tarauacá (Coordinator of SEAPROF at the time)
Nixon	Technical Director of FUNTAC
Pacífico	Director of Coopermogno, manager of the Gregório River FE.
Reynaldo Santos	President of EMATER
Ricardo	Biofactory Technician
Ricardo Brandão	SEPLAN Secretary
Roberto (Tupi)	IMAC
Roger Recco	SEPLAN (now SEPROD)
Roney Santana	EMATER technician
Socorro	President CAET
Suhelen Alves	SEPROD technician
Tayna Neri	Biofactory - Head of Forestry Dep.
Teresinha Soares de Oliveira	Producer benefited from Tarauacá
Venilson Ferreira	Municipal Secretary of the Environment of Plácido de Castro
Vera Lucia Reis Brown	Former SEMAPI/CIGMA
Wagno Ashaninka	Indigenous Ashaninka interviewed at the Feijó Fish Market
Wally Oliveira	EMATER technician
Zequinha	Trade Union

APPENDIX V
EVALUATION SCHEDULE

	Activities	Responsibility	Days	Deadlines	Outputs
1	Disseminate ToR on the Brazilian Monitoring and Evaluation Network and on GIZ Brasil's LinkedIn channel	GIZ (responsible for hiring)	10	08/15/2022-08/30/2022	Proposals from consultants received organized.
2	Request the hiring of selected consultants and form an evaluation team (consultants + GIZ)	GIZ	30	10/31/2022	Consultants hired and team trained
3	- Prepare initial meeting of the team with the Amazon Fund - Contact the institutions responsible for the project to be evaluated - Review relevant documents - Consolidate evaluation methodology prepared and proposed by external consultants - Consolidate proposed Effectiveness Evaluation Design Report - Deliver Effectiveness Evaluation Design Report to the BNDES - Submit Report to BNDES	GIZ	15	14/11/2022	Proposed Effectiveness Evaluation Design Report
4	Comment on the proposed Effectiveness Evaluation Design Report	GEMAV/BNDES DEMAF/BNDES	3	11/18/2022	Proposed Effectiveness Evaluation Design Report with comments
5	Review Effectiveness Evaluation Design Report	Evaluation team	3	23/11/2022	Revised Effectiveness Evaluation Design Report
6	Approve revised report	GEMAV/BNDES DEMAF/BNDES	3	11/28/2022	Effectiveness Evaluation Design Report (final)
7	Implement evaluation: - Collect and analyze secondary data and - Carry out field mission	Evaluation team	35	01/18-27/2023	Project data collected and analyzed
8	Prepare and deliver Preliminary Effectiveness Evaluation Report	Evaluation team	10	02/28/2023	Preliminary Effectiveness Evaluation Report
9	Present results (Consultation Round)	Evaluation team	1	03/28/2023	Preliminary Effectiveness Evaluation Report with considerations reported in the Consultation Round
10	Comment on the Preliminary Effectiveness Evaluation Report	GEMAV/BNDES DEMAF/BNDES Organizations responsible for the project	5	04/05/2023	Preliminary Effectiveness Evaluation Report with comments sent after the Consultation Round
11	Prepare final evaluation report	Evaluation team	5	04/13/2023	Effectiveness Evaluation Report
12	Incorporate the complementary presentation, preface and final review contents into the Effectiveness Evaluation Report	Evaluation team	3	04/18/2023	Effectiveness Evaluation Report (final)

	Activities	Responsibility	Days	Deadlines	Outputs
13	Deliver Final Effectiveness Evaluation Report	Evaluation team	1	04/27/2023	Effectiveness Evaluation Report
14	Diagram and translate the Final Effectiveness Evaluation Report and its annexes (version 1: Portuguese; version 2: English)	Designer, Translator, Evaluation Team	15	05/12/2023	Effectiveness Evaluation Report diagrammed in format for dissemination (Portuguese and English)
15	Disclose and distribute the Effectiveness Evaluation Report	Amazon Fund Team	-	-	Upload on the website of the Amazon Fund/BNDES

ANNEXE I
OECD CRITERIA, REDD+SAFEGUARDS, TRANSVERSAL THEMES AND EVALUATION ISSUES

Five evaluation criteria defined by the OECD

This evaluation was based on the OECD criteria of relevance, efficacy, efficiency, impact and sustainability (Chart 15), defined in 1991 through its Development Assistance Committee (DAC).

Criteria	Short definition (based on CAD/OECD)	Relationship with the Theory of Change
Relevância *(Relevance)*	Evaluates the coherence of project objectives according to the demands of beneficiaries and the political priorities of target groups, the recipient and donors.	Relationship of the direct and indirect effects of the project with the indirect effect of the component and with the general objective of the Amazon Fund.
Eficácia *(Effectiveness)*	Evaluates the extent to which direct project objectives have been achieved or are expected to be achieved and what factors were important.	Contribution of actions to the generation of project outputs.
Eficiência *(Efficiency)*	It measures the cost-benefit of the results, whether the financial resource was invested more economically and whether the results were achieved satisfactorily.	Contribution of procedures, management arrangement, works, equipment and other inputs to the project actions.
Impacto *(Impact)*	Evaluates positive and negative changes arising from the project, directly or indirectly, intentional or involuntary.	Direct and indirect effects of the project outputs.
Sustentabilidade *(Sustainability)*	It assesses whether the benefits of the project continue to occur after its completion, with emphasis on social, economic and environmental aspects.	Continuity of the direct and indirect effects of the project outputs.

Source: Ex Post Effectiveness Evaluation Report of SEMAS Pará and Reforestation Projects in the South of the State of Amazonas

Cancun Safeguards (REDD+)

Cancun Safeguards (REDD+) (Source: Annex I of Decision 1/CP.16 of the United Nations Framework Convention on Climate Change, as cited by the Amazon Fund[39].

Safeguard
1. Actions complementary to or consistent with the objectives of national forestry programs and other relevant international conventions and agreements.
2. Transparent and effective national forest governance structures, with a view to national sovereignty and national legislatioń.
3. Respect for the knowledge and rights of indigenous peoples and members of local communities, considering relevant international obligations, national circumstances and laws and noting that the UN General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples.

39. REDD+ safeguards (fundoamazonia.gov.br).

Safeguard	
4.	Full and effective participation of stakeholders, in particular indigenous peoples and local communities, in the actions referred to in paragraphs 70 and 72 of Decision 1/CP 16.
5.	Actions consistent with the conservation of natural forests and biological diversity, ensuring that the actions referred to in paragraph 70 Decision 1/CP 1611 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 enhance other social and environmental benefits.
6.	Actions to address the risks of reversals in REDD+ results.
7.	Actions to reduce the displacement of carbon emissions to other areas.

Source: Cancun Safeguards (REDD+) (Source: Annex I of Decision 1/CP.16 of the United Nations Framework Convention on Climate Change, as cited by the Amazon Fund40

Transversal criteria

Transversal criteria of *poverty reduction and gender equity* applied to the evaluated projects.

Transversal Criterion/question	
Poverty reduction	
1.	Contributes to poverty reduction
2.	Empowers the poorest people
Gender Equity	
1.	Has gender strategy
2.	Empowers women

40. REDD+ safeguards (fundoamazonia.gov.br)..

ANNEXE II
TERMS OF REFERENCE

Project:	Cooperation with the Amazon Fund/BNDES
PN:	15.2132.7-002.00
Output + activity:	3 + 3.5
Technician responsible:	Juliana Pinto
Objective:	Evaluate the effectiveness of the Importance of Forest Environmental Assets project under the Amazon Fund/BNDES

Effectiveness Evaluation of the Importance of Forest Environmental Assets project in the State of Acre

1. INTRODUCTION

Within the scope of the cooperation project between Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) and the Brazilian Development Bank (BNDES)/Amazon Fund, one of the actions supported by GIZ is the evaluation of the ex-post effectiveness of the projects, with the objective of giving or

The evaluation of completed projects is also a demand from donors and national and international cooperation actors for measures to monitor, evaluate and improve the performance of all those involved in project-based change processes. Therefore, these evaluations are conducted through an external and independent evaluation.

To date, evaluations have been carried out on 28 completed projects whose results are publicly available on the Amazon Fund's website[41]. Furthermore, in 2019, a mid-term effectiveness evaluation by the Amazon Fund was carried out[42] , covering the period from 2008 to 2018. The evaluation was carried out by a team of independent consultants, with the technical coordination of the United Nations Economic Commission for Latin America and the Caribbean (ECLAC). Concomitant to the evaluation, two complementary thematic studies were prepared, which served as subsidies for the evaluation, being one study dedicated to the distribution of benefits from the Amazon Fund and another, dedicated to the Rural Environmental Registry (CAR) projects supported by the Amazon Fund.

The project to be evaluated, object of this Terms of Reference (ToR), "Importance of Forest Environmental Assets", was implemented by the State of Acre and falls within all the support components of the Fund. This evaluation is necessary to understand the results and impacts achieved and to identify possible ways to improve the efficiency of projects implemented by the States.

The effectiveness evaluation of this project is relevant in the context of initiatives that sought to support the physical structuring of state and municipal environmental

41. http://www.fundoamazonia.gov.br/pt/monitoramento-e-avaliacao/avaliacoes-externas/
42. http://www.fundoamazonia.gov.br/pt/monitoramento-e-avaliacao/avaliacoes-externas/

agencies, promote sustainable production with economic attractiveness and maintain the standing forest, in addition to strengthening environmental management.

1.1. PROJECT CONTEXT

Acre has about 164,173 km², with an estimated population of almost 907,000 inhabitants[43], corresponding to 4% of the Amazonian territory. The development of the state is initially linked to the culture of the syringe, highlighting the rubber boom in 1940 and the implementation of road infrastructure from the 1950s onwards in the government of Juscelino Kubitschek. Among the federal highways planned and implemented was Brasília/DF-Porto Velho/RO-Rio Branco/AC (BR-029), currently Brasília-Acre (BR-364).

In the field of agriculture, the growth of the total area of establishments focused on agriculture is remarkable: between 1970 and 2017, there was an increase of 150% in the Amazon, reaching 1.3 million km² last year[44]. Acre is responsible for 43,000 km² of this total.

The strength of the traditional population, together with social movements and civil society organizations, contributed to the fact that, especially since the late 1990s, the state began to consider environmental sustainability as a principle for the development of public policies. The Acre Environment Institute (IMAC) was created in 1986, and the Environment Secretariat (SEMA) was created in 1997. The Forest Secretariat (SEF) was also created in 1999 and the Acre Land Institute (ITERACRE) in 2001, adding to the IMAC, which in 2007 was separated from SEMA and the Institute of Climate Change (IMC). The productive activities are coordinated by the Secretariat for Agroforestry Extension and Family Production (SEAPROF). It stands out as a legal framework in this period (GIZ/ECLAC/IPEA. 2013):

- Law 1.426/2001: State System of Protected Natural Areas and State Forestry Council
- Law 1.492/2003: Indigenous State Council
- Law 1.500/2003: State Water Resources Policy
- Law 1.530/2004: Green ICMS
- Law 1.787/2006: Grant of Real Rights of Use in State Public Forests
- Law 1.904/2007: Ecological and Economic Zoning
- Law 2.025/2008: State Program for Certification of Family Productive Units
- Law 2.308/2010: Environmental Services Incentive System

In the early 2000s, the state resumed efforts to structure environmental agencies, but despite all the legal and technical frameworks, the main obstacles were the availability of financial resources for priority actions and the recruitment of human resources. Such barriers have been partially overcome over the course of the decade.

It can be noted that, from the beginning of the information made available by the Project

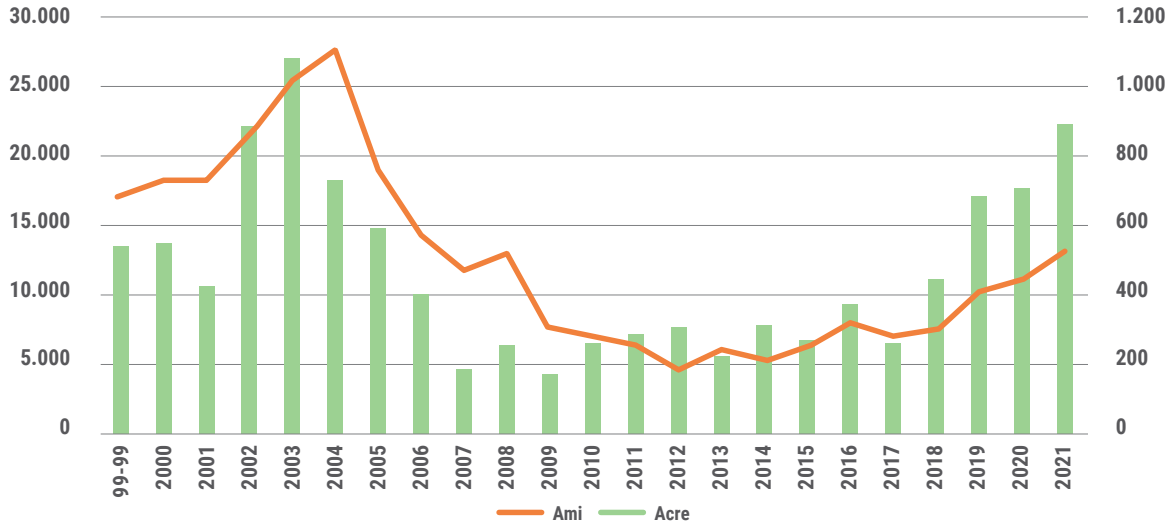
43. Cities and states. Brazilian Institute of Geography and Statistics (IBGE). More information at: https://www.ibge.gov.br/cidades-e-estados/ac/.html

44. Source: Sidra/IBGE, Table 263 - Number of establishments and Area of agricultural establishments by groups of total area - historical series (1920/2006) and Table 6878 - Number of agricultural establishments and Area of agricultural establishments, by typology, groups of economic activity, sex of the producer, age class of the producer and condition of the producer in relation to the land.

for Monitoring Deforestation in the Brazilian Amazon by Satellite (Prodes/Inpe) in 1988 until 1999, the average deforestation in the state was 536 km², being below the average for the other states of the Brazilian Amazon (AmL), with the highest value being in Mato Grosso with 5,892 km².

Between 2004 and 2009, there were constant decreases in the deforestation rate in Acre, following the other states of AmL. During this period, the average was 387.16 km², equivalent to 2.49% of total deforestation for the Brazilian Amazon. Between 2011 and 2017, there is a stability in the index with few changes, both in decline and growth, with an average of 286.85 km².

As of 2018, there was a steady growth in deforestation in Acre and the Brazilian Amazon as a whole, following the opposite trend of previous years, with averages of 680.25 km² and 10,448 km² respectively (Graph 1).



Graph 1. Deforestation trends in the state and Brazilian Amazon. Own elaboration. Source: Prodes/Inpe.

In 2008, the state launched the Forest Environmental Asset Valuation Policy in the context of the implementation of its Economic and Ecological Zoning (ZEE), in order to establish a set of sustainable public policies aimed at improving the state's environmental quality. The policy of valuing the environmental asset had in its scope relevant programs, projects and themes, as can be seen in the figure below. .

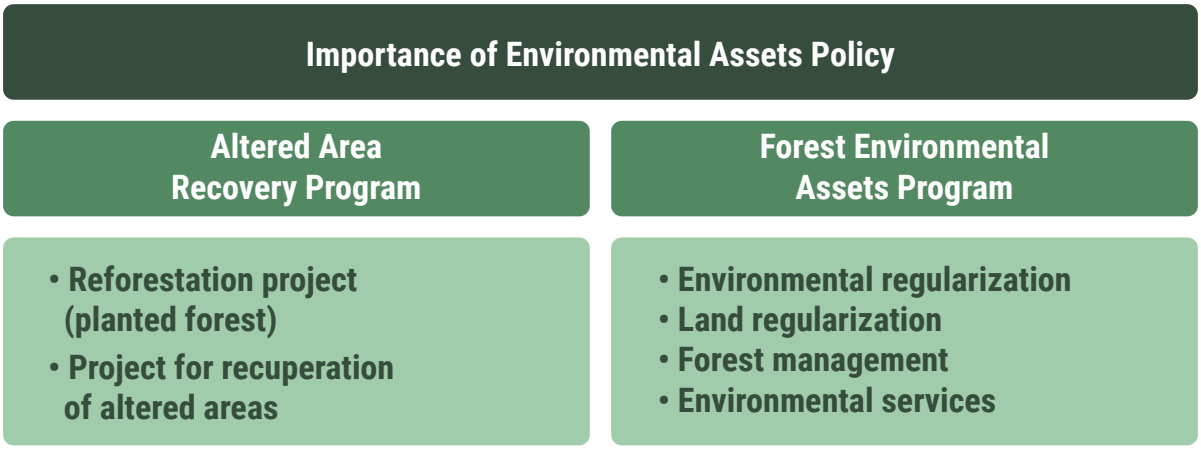


Figure 1. E. Summary scheme of the environmental asset valuation policy. Own elaboration. Source. SISA Presentation. Novo Acre. Magaly Medeiros. 2016. Available at: https://www2.camara.leg.br/atividade-legislativa/comissoes/comissoes-permanentes/cindra/arquivos/magaly-imc

The VAAF Program would represent the application of the ZEE guidelines and the concept of landscape integration, prioritizing altered areas of private and public properties observed in the Acre ZEE. According to Costa et. al. (2012)[45]:

> *"The government of Acre redefines its strategies for implementing the ZEE, instituting the policy of valuing the forest environmental asset in September 2008. (...). (...). This policy comprises the Program for the Recovery of Altered Areas (PRAA) and the Project Importance of Forest Environmental Assets (PVAAF), with the following legal framework: a) Decree No. 3.414 of September 12, 2008, which provides for forest restoration; b) Decree No. 3.416 of September 12, 2008, which regulates art.*

Thus, the Project Importance of Forest Environmental Assets (PVAAF) aimed at the regularization of forest environmental liabilities and the certification of sustainable production units with a Sustainable Property Certification Plan (PCPS), including Payment for Environmental Services (PSA) and recovery of areas with increased forest coverage through the regularization of property and multiple use management practices. These initiatives were supported with the state's own resources, the Inter-American Development Bank (IDB) and BNDES.

Within this historical context, the Importance of Forest Environmental Assets project supported by the Amazon Fund/BNDES and executed by the State of Acre is presented. The project aimed to "foster sustainable practices to reduce deforestation, with payment for environmental services (PSA), valuing the environmental and forest assets to consolidate a clean, fair and competitive economy, based on Economic and Ecological Zoning (ZEE)" (Amazon Fund[46]).

45. COSTA, et. al. Inventory of anthropogenic emissions and sinks of greenhouse gases in the State of Acre: base year 2012. 2012.

46. Available at: http://www.fundoamazonia.gov.br/pt/projeto/Valorizacao-do-Ativo-Ambiental-Florestal/

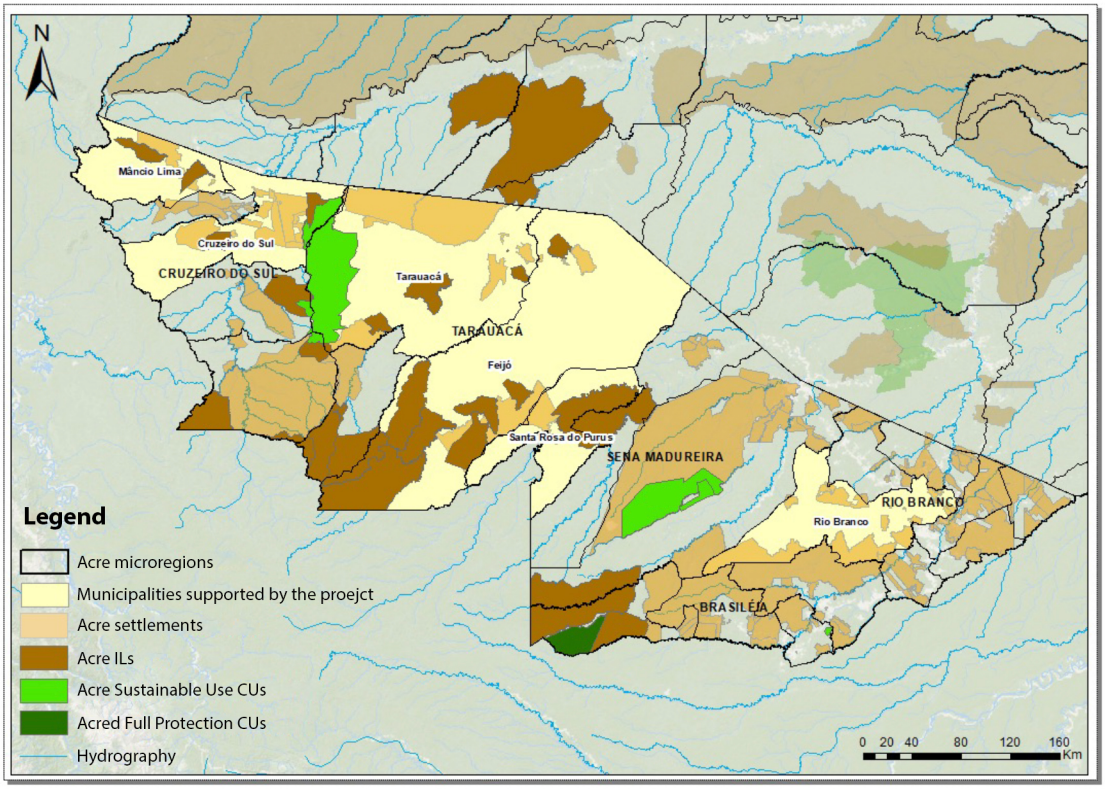


Figure 2. Area of operation of the project. Own elaboration. Source: IBGE, FUNAI and CNUNC/MMA.

The project was executed between November 2010 and February 2022, and had financial support of R$52.9 million from the Amazon Fund, while the state contributed R$6.5 million. The main beneficiaries would be settlers and family farmers in the state.

In the context of the activities carried out, the project highlighted in its evaluation of results that its implementation was guided by two areas that fed the four components of the logical framework of the project (see topic 3.2) with the Fund: (i) integrated land-use planning and (ii) promotion and incentives for agroforestry production chains and environmental services. Through them, the following were carried out:

Area ii. The project's actions aimed to structure the state and municipalities to carry out activities to support management, prevention with controlled use of fire, monitoring and inspection of Among the achievements, the following stood out:

- Renovation of the IMAC headquarters, acquisition of geographic software, information technology equipment and furniture.
- Development of modules of the State Environmental Information System (SEIAM).
- Support for the creation of Municipal Environmental Councils, as well as the structuring and physical adequacy of Municipal Secretaríats, with the acquisition of equipment and vehicles.
- Support for the formulation of Municipal Plans for the Prevention and Control of Deforestation and Burning (PPCDQs).
- Support in the formulation of Local Land-use Planning (LTM) plans for three municipalities (Manoel Urbano, Feijó and Plácido de Castro).
- Installation and maintenance of 46 hydro-meteorological data collection platforms (PCD) aimed at structuring the alert system.
- Training highlighted in the area:

- Postgraduate degree (lato sensu) in Forest Management from the Federal University of Paraná (UFPR) in partnership with the Federal University of Acre (UFAC) for forestry engineers.
- Improvement in high-resolution satellite and radar image analysis for UCGEO employees.
- Training of brigade members, including 18 participatory workshops for prevention and control of deforestation and fires.
- Key executing partners:
- Central Geoprocessing and Remote Sensing Unit (UCGEO).
- Acre Environment Institute (IMAC).
- Forest Development, Industry, Trade and Sustainable Services Secretariat (SEDENS).
- City Halls and their integration into the Acre Deforestation Prevention and Control Plan (PPCD-AC).
- UFPR in partnership with UFAC.

Area ii. The actions were aimed at consolidating sustainable production practices, including support for forest management and carbon sequestration initiatives through the recovery of degraded areas. Among the achievements, the following stood out:

- Technical assistance and rural extension (ATER) to family farmers and extractivists involved in community forest management.
- Support in the implementation of agroforestry systems (SAFs) and the development of management plans, including forest inventories.
- Payment of bonuses to small producers, in order to encourage the reduction of emissions from deforestation in areas of threatened forests.
- Training of indigenous people for the preparation of management plans and training of surveillance teams, including the implementation of surveillance actions, the physical marking of the boundaries of these lands and the construction of stations. Furthermore, workshops and acquisition of equipment and support material, such as engines and boats, and personal protective materials were carried out.
- Support for the installation of the "Biofactory - Laboratory for Genetic Improvement and Clones of the Forest Nursery" with Embrapa.

2. EVALUATION OBJECTIVE

The main objective of this effectiveness evaluation is to measure the results and impacts achieved by the project and its effects, considering the relevance, efficiency, efficacy and sustainability of the changes generated by the project supported by the Amazon Fund/BNDES.

The projects supported by the Amazon Fund follow an individualized logical framework in which results (outputs and services to be delivered or outputs), direct effects of the intervention (specific objectives or outcomes) and indirect effects (general objectives or impacts) to be achieved are defined. This is the project's intervention logic, also called theory of change, because it represents a model of thinking that explains how the project is expected to bring about a desired change. The logical framework of the project can be viewed in topic 3.2 or on the **Amazon Fund** website

The specific objectives of this evaluation are to:

- Assist the Amazon Fund in reporting to its donors on the type of project supported and its effects.
- Enable the institutional learning of the Fund itself, contributing to improving the quality of projects and the prioritization of investments, thus subsidizing decision-making.
- Verify compliance by projects supported by the Amazon Fund with the Cancun safeguards agreed under the United Nations Framework Convention on Climate Change (UNFCCC) for REDD+ actions.

- Analyze the strengths and weaknesses of the project intervention.
- Find out to what extent the project is relevant, efficient, effective, sustainable and generates impacts.
- Evaluate the effectiveness of support from the Amazon Fund in relation to support for state public projects.
- Identify challenges and lessons learned, which can even serve for national and international dissemination.

The effectiveness evaluation of the VAAF will comply with the guidelines and criteria specified in the document **Effectiveness Evaluation of Projects Supported by the Amazon Fund - Conceptual Framework**. The criteria are based on the Organization for Economic Cooperation and Development (OECD) and the safeguards for Reducing Emissions from Deforestation and Forest Degradation (REDD+), which were defined by the Framework Convention (in Annex I of Decision 1/CP 1641 and the guidelines of Decision 12/CP 17), and on the selected transversal criteria.

2.1. TASK DESCRIPTION: OBJECT AND FOCUS OF THE EVALUATION

To achieve the objectives identified in the previous topic, the evaluation team must apply the methodologies provided for in the evaluation, observing the areas of intervention of the project, focusing on its direct and indirect effects presented in the objectives diagram in topic 3.2, as well as updating its monitoring plan and project responses to the REDD+ criteria.

Thus, in response to the logical framework of the project, the following results should be observed:

Economic activities developed and capacities expanded

a) Expansion of ATER services, implementation of agroforestry systems (SAFs), recovery of degraded areas and payment for environmental services in municipalities targeted by the project.

b) Expansion of managerial and technical capacities for the implementation of SAFs, forest management activities, agro-extractivist production and processing

.

Structured and modernized environmental monitoring, control and accountability institutions in the State of Acre

c) Influence of the project in the municipalities supported for the elaboration of Deforestation and Burning Prevention and Control Plans (PPCDQs).

d) Physical and operational structuring of state and municipal environmental agencies, including community municipal firefighting brigades.

e) Strengthening of state and municipal environmental management.

f) Training of public servants in the themes briefly described in area i of item 1.1 of these ToR (p. 5- 6).

Strengthening indigenous land management and planning support

g) Support in the preparation of territorial and environmental management plans, training of surveillance teams and construction of stations.

h) Influence of the project in the municipalities supported for the elaboration of local land-use planning (LTM) plans, including surrounding municipalities.

Knowledge and technologies in seedling production for reforestation purposes

i) Support in the physical and operational structuring of the botanical research laboratory to support the state nursery.

2.2. INTERVENTION LOGIC

The logical framework of the VAAF project gives rise to the respective objectives tree, which presents the indirect, direct effects and outputs and services, facilitating visualization for monitoring and evaluation.

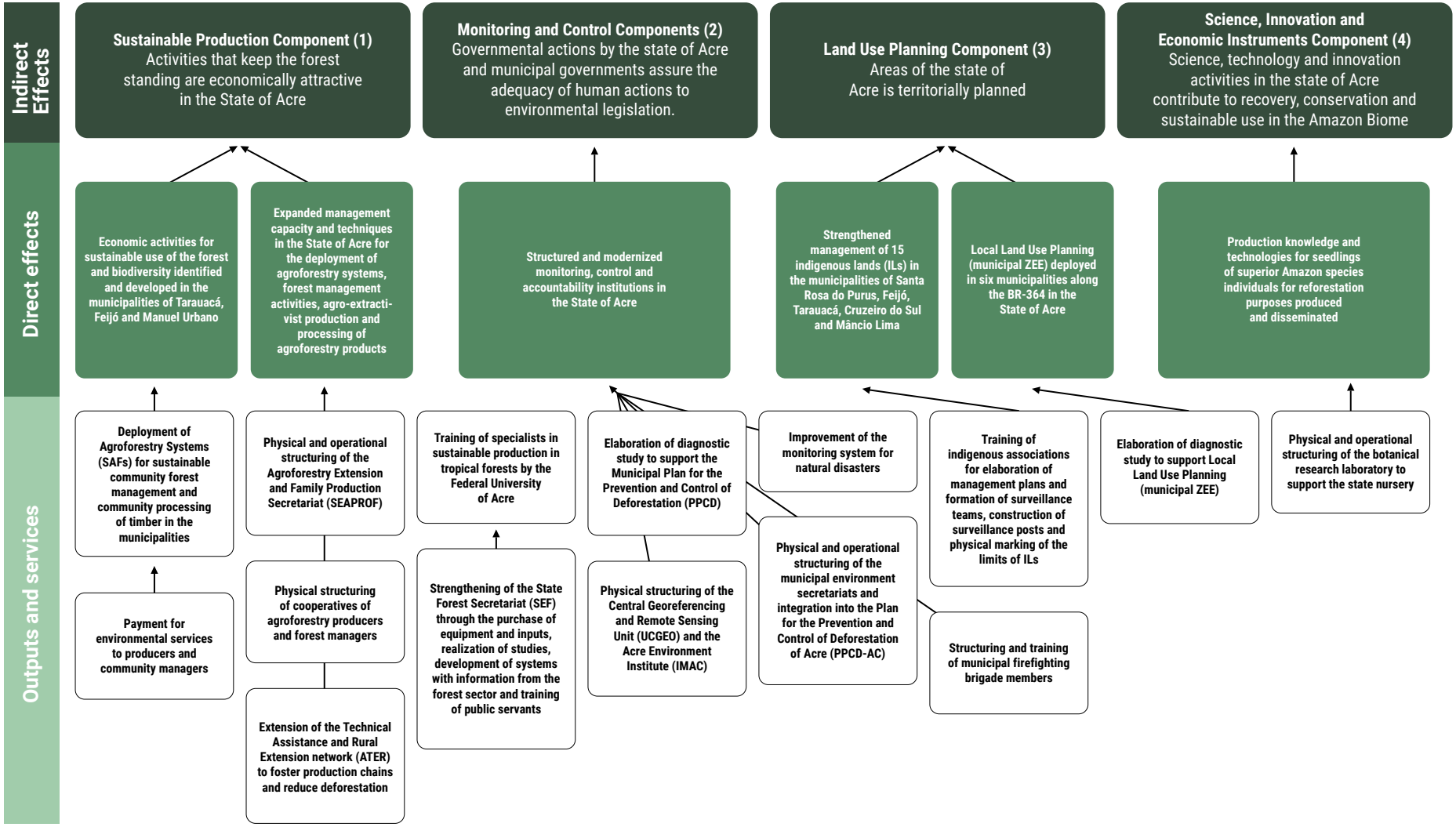


Figure 3. Objective Tree of the Logical Framework of the evaluated project. Own elaboration with information from the Amazon Fund website. Available at: http://www.fundoamazonia.gov.br/pt/projeto/Valorizacao-do-Ativo-Ambiental-Florestal/

2.3. KEY QUESTIONS AND EVALUATION CRITERIA

For each criterion listed at the beginning of this section, a basic script of guiding questions to be used in the evaluation is adopted and should be supplemented in the Effectiveness Evaluation Design Report as the evaluation team deems necessary. This evaluation will select guiding questions that are appropriate to the project objectives and may be supplemented by specific questions as needed.

2.3.1. OECD CRITERIA, TRANSVERSAL THEMES AND EVALUATION ISSUES

Criteria	Guiding questions
Relevance	• To what extent are the objectives of the project still valid at the time of its completion? • Are the project activities and immediate results consistent with the achievement of the objectives defined for the project? • Are the project activities and immediate results consistent with the achievement of the objectives defined for the project?
Efficacy	• Have the direct (specific) objectives of the project been or will they be met? • What are the main factors influencing whether or not the direct objectives are met?
Efficiency	• What is the cost-benefit ratio of the activities carried out? • Are the means applied in a reasonable relationship with the results obtained? • Were the objectives achieved on time? • Are there alternative ways to achieve the same results with less cost/means?
Impact	• What were the main changes generated as a result of the project? • What were the main effects achieved that contributed to the achievement of the objective? • What actions or events external to the project contributed to the achievement of the observed changes? • Did the project make any difference to the beneficiaries? • Does the project have scale in the region or influence other initiatives?
Sustainability	• To what extent do the benefits of the project last after the end of funding from the Amazon Fund? • What were the main factors that influenced the achievement or not of the sustainability of the project? • What risks should be monitored to ensure the sustainability achieved?
Transversal criteria	
Poverty reduction	• To what extent did the project effectively contribute to economic alternatives that value the standing forest and the sustainable use of natural resources? • To what extent did the project positively influence poverty reduction, social inclusion and improvement of living conditions of beneficiaries living in your area of operation? • Was the project able to promote and increase the production in value chains of timber and non-timber forest products, originated in sustainable management?
Gender equity	• Was the project able to integrate gender issues into its strategies and interventions or did it address the issue in isolation? How? • Was there gender separation in data collection for project planning and monitoring? • How did the project contribute to gender equity?

2.3.2. REDD+ SAFEGUARDS AND EVALUATION ISSUES

Criteria	Guiding questions
1. Actions complementary to or consistent with the objectives of national forestry programs and other relevant international conventions and agreements.	• Did the project show to be aligned with the Plan for the Prevention and Control of Deforestation in the Brazilian Amazon (PPCDAm) and the state plan for the prevention and control of deforestation? • To what other federal public policies or international agreements has the project demonstrated alignment? In which aspects? • Did the project contribute or have the potential to contribute directly or indirectly to reducing emissions from deforestation and forest degradation? In what way?
2. Transparent and effective national forest governance structures in view of national sovereignty and legislation.	• To what extent did the project promote the articulation between various actors (public sector, private sector, third sector or local communities)? Were shared governance bodies used? Which ones? • To what extent did the project contribute to strengthening public instruments and processes for forest and land management?
3. Respect for the knowledge and rights of indigenous peoples and members of local communities, considering relevant international obligations, national circumstances and laws and noting that the UN General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples.	• To what extent did the project influence the constitutional rights associated with the possession and formal destination of land in its area of operation? • To what extent did the project influence the sustainable use of natural resources in its area of operation? • If the project has indigenous peoples, traditional communities or family farmers as direct beneficiaries, were their sociocultural systems and traditional knowledge considered and respected throughout the project? • Are there effects that interfere with the traditional way of life of these groups? What kind of effects: on social, economic organization or the use of available spaces and resources? How do they interfere: positively, negatively, or both?
4. Full and effective participation of stakeholders, in particular indigenous peoples and local communities, in the actions referred to in paragraphs 70 and 72 of Decision 1/CP 16.	• How did the project ensure prior, free and informed consent, and the local or traditional way of choosing the representatives of its beneficiaries (especially indigenous peoples and traditional communities)? • What participatory planning and management tools did the project apply during decision making? • In case of projects with economic purposes: were any benefits arising from the projects accessed in a fair, transparent and equitable manner by the beneficiaries, avoiding a concentration of resources? • To what extent has the project provided the general public and its beneficiaries with free access and easy understanding of information related to project actions? • Was the project able to put together a good system for monitoring results and impacts? Did the project systematically monitor and disseminate the results achieved and their effects?
5. Actions consistent with the conservation of natural forests and biological diversity, ensuring that the actions referred to in paragraph 70, Decision 1/CP 16[47] 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 enhance other social and environmental benefits.	• How did the project contribute to the expansion or consolidation of protected areas? • How did the project contribute to the conservation of natural forests and biodiversity? • Were the investments in income generation projects proportional to the increase in areas under management and, effectively, contributed to avoiding deforestation? • Did the project contribute to the recovery of deforested or degraded areas? • In the case of restoration and reforestation activities, did the methodologies used prioritize native species? • To what extent did the projects contribute to establishing recovery models with an emphasis on economic use?
6. Actions to address the risks of reversals in REDD+ results.	• What factors pose risks to the permanence of REDD+ results? How did the project address these? Is there a continuous monitoring strategy for these results?
7. Actions to reduce the displacement of carbon emissions to other areas.	• Was there a shift of emissions avoided by the project actions to other areas?

47. Decision 1/CP 16: Reduction of emissions from deforestation; reduction of emissions from forest degradation; conservation of forest carbon stocks; sustainable management of forests and increase of carbon stocks.

4. METHODOLOGY

The methodology applied in the evaluation must be based on the criteria and objectives contained in the conceptual framework, as already mentioned in item 3. It is expected that the following outputs will be produced: the Evaluation Design Report and the Project Effectiveness Evaluation Report and, as an intermediate stage, a Preliminary Effectiveness Evaluation Report, a product to be used in the Consultation Round.

Below is the methodology proposed for each phase and its respective stages:

4.1. PREPARATION PHASE

In this phase, the objectives are defined and the project evaluation planning is prepared. After the preparation of the ToR and the hiring of the team of evaluators, the key documents of the evaluation must be organized. As such, the documents, data and reports that will be used to carry out the evaluation must be identified with the BNDES and the organization responsible for the execution of the project. The evaluation team will systematically collect data from secondary sources, which aims to compose a "memorandum" that will serve as a source of reference, leveling and memory help for all information related to the project.

4.2. IMPLEMENTATION PHASE

Evaluation design and tools. The Effectiveness Evaluation Design Report to be prepared by the evaluation team must present the evaluation work script, the detailed methodology, the description of the field areas to be visited and the tools that will be used during the evaluation. This report shall have the following roadmap:

a) Basic details of the projects;

b) Introduction

c) Analysis of the ToR

d) Division of tasks, work plan and logistics

e) Design/Methodology. In this regard, it is necessary to consider the specificities of the geographical areas in which the project operates, since it operates in different areas, as well as the ethnic diversity of the populations served, respecting the customs and values of each population.

f) Annexes. The specifics of the project should be considered, possibly with specific guiding questions and survey methods.

4.2.1. DATA COLLECTION AND ANALYSIS

The methodology to be developed must have a diversified format, using three forms of data collection:

i) **Non-reactive** (secondary sources: project documentation, public and scientific data available in the area of operation of the project, in addition to the key documents already organized in the preparation phase).

ii) **Poll** (field research: application of standardized quantitative/qualitative questionnaires, conducting qualitative interviews with individuals or groups, use of situational analysis tools) and

iii) **Observation** (during visits, participatory or individual; a counterfactual approach may be used, i.e. comparing with similar cases outside the project).

This is the first phase of data analysis, whose objective is to analyze the intervention logic, the outputs and services performed by the project and the results achieved. In this stage, it is important to raise the doubts and questions that need to be answered by the executors and beneficiaries and that will serve as input for the next stage, the field mission.

For the counterfactual analysis, the observation of areas that did not have the support of the Fund and that did not undergo interventions or support from other initiatives should be considered. With this analysis, it is expected to determine the differences between similar cases outside the project.

4.2.2. FIELD MISSION (OR VIRTUAL DATA COLLECTION)[48]

It aims to carry out part of the data collection, in person, in a representative sample of the universe of operation of the project, visiting its region of operation and surroundings. The mission will take place through field visits, by the evaluation team, for the time deemed necessary (should be detailed in the Effectiveness Evaluation Design Report), up to the limit of 15 days. During these visits, in addition to observing the results and physical benefits of the project, technicians who worked directly with the project in the evaluation reference period may also be interviewed. If public health indicators indicate an aggravation of the medical contingency caused by the new coronavirus, the on-site field mission may not occur, and the interviews are conducted virtually. If necessary, a team or local consultant may be hired to carry out field visits in the areas of operation of the evaluated project and verification of any on-site results.

4.2.3. PRELIMINARY REPORT

After the information collection, the evaluation team should complement the analysis of the collected data. As such, the Preliminary Effectiveness Evaluation Report of the project must be prepared. This report should also include an analysis of the results achieved, in addition to the impacts achieved by the project, in order to generate

48. If public health indicators indicate an aggravation of the medical contingency caused by the new coronavirus, the on-site field mission may not be carried out and for this virtual interviews will be carried out as an alternative way. In addition, there is also the possibility of hiring local consultants who can carry out possible visits to the project sites to be evaluated.

recommendations. The division of duties and tasks of each member of the evaluation team shall be detailed in the Effectiveness Evaluation Design Report.

4.2.4. CONSULTATION ROUND

At this stage, a workshop (virtual or in-person) will be held, with the participation of the team of evaluators, the team of the Amazon Fund/BNDES, representatives of the Ministry of the Environment, key people of the project and representatives of the evaluated institution, in addition to some peers, who are the specialists who hold responsibilities under issues related to those of the evaluated project. The workshop methodology should be described in the Effectiveness Evaluation Design Report.

4.3. ANALYSIS AND DISSEMINATION PHASE

Consolidation of the data analysis. Along with the complementary inputs of the Consultation Round, there will be a new analysis based on the comments and justifications presented by the participants.

Final report. The methodology and composition of the Effectiveness Evaluation Report are specified in the Conceptual Framework and addendum. The report must contain, in the main part, up to 25 pages (without considering the cover, summary, indexes of figures and tables, list of abbreviations and acronyms, executive summary and annexes).

Disclosure of results. Presentation of the results and the final report to the beneficiaries of the project. The Project Effectiveness Evaluation Report and its executive summary will be published on the Amazon Fund website

5. ACTIVITIES, OUTPUTS AND DEADLINES

The following schedule presents the basic roadmap for conducting the evaluation. The table contains the activities, services and outputs, as well as the deadlines of the process.

	Activities	Responsibility	Days	Deadlines	Outputs
1	Disseminate ToR on the Brazilian Monitoring and Evaluation Network and on GIZ Brasil's LinkedIn channel	GIZ (responsible for hiring)	10	08/15/2022-08/30/2022	Proposals from consultants received organized.
2	Request the hiring of selected consultants and form an evaluation team (consultants + GIZ)	GIZ	30	10/31/2022	Consultants hired and team trained

3	- Prepare initial meeting of the team with the Amazon Fund - Contact the institutions responsible for the project to be evaluated - Review relevant documents - Consolidate evaluation methodology prepared and proposed by external consultants **- Consolidate proposed Effectiveness Evaluation Design Report** - Deliver Effectiveness Evaluation Design Report to the BNDES - Submit Rep	GIZ	15	11/18/2022	Proposed Effectiveness Evaluation Design Report
4	Comment on the proposed Effectiveness Evaluation Design Report	GEMAV/BNDES DEMAF/BNDES	3	11/24/2022	Proposed Effectiveness Evaluation Design Report with comments
5	Review Effectiveness Evaluation Design Report	Evaluation team	3	11/28/2022	Revised Effectiveness Evaluation Design Report
6	Approve revised report	GEMAV/BNDES DEMAF/BNDES	3	12/01/2022	Effectiveness Evaluation Design Report (final)
7	Implement evaluation: - Collect and analyze secondary data and - Carry out field mission	Evaluation team	35	12/20/2023	Project data collected and analyzed
8	**Prepare and deliver Preliminary Effectiveness Evaluation Report**	Evaluation team	10	01/20/2023	Preliminary Effectiveness Evaluation Report
9	Present results (Consultation Round)	Evaluation team	1	01/25/2023	Preliminary Effectiveness Evaluation Report with considerations reported in the Consultation Round
10	Comment on the Preliminary Effectiveness Evaluation Report	GEMAV/BNDES DEMAF/BNDES Organizations responsible for the project	5	02/02/2023	Preliminary Effectiveness Evaluation Report with comments sent after the Consultation Round
11	Prepare final evaluation report	Evaluation team	5	02/08/2023	Effectiveness Evaluation Report
12	Incorporate the complementary presentation, preface and final review contents into the Effectiveness Evaluation Report	Evaluation team	3	02/13/2023	Effectiveness Evaluation Report (final)
13	**Deliver Final Effectiveness Evaluation Report**	Evaluation team	1	02/15/2023	Effectiveness Evaluation Report
14	Diagram and translate the Final Effectiveness Evaluation Report and its annexes (version 1: Portuguese; version 2: English)	Designer, Translator, Evaluation Team	15	03/15/2023	Effectiveness Evaluation Report diagrammed in format for dissemination (Portuguese and English)
15	Disclose and distribute the Effectiveness Evaluation Report	Amazon Fund Team	-	-	Upload on the website of the Amazon Fund/BNDES

6. EVALUATION TEAM

The evaluation will be carried out by a team composed of two people, 2 (two) external consultants to be hired by GIZ after a hiring call published on the Brazilian Monitoring and Evaluation Network and on GIZ Brasil's LinkedIn channel

Furthermore, there will be the monitoring of two/two technical advisors of GIZ to verify the adherence of the evaluation to that defined in the ToR and in the other published documents that govern the effectiveness evaluations of the Amazon Fund's projects.

External consultants should have the following profile:

- One (1) senior or full consultant, with knowledge of national and state public policies in the environmental context and sustainable development in the Brazilian Amazon
  - Experience in the topic of territorial and environmental management, at the municipal level and shared with other spheres and with experience in monitoring and evaluating policies in projects or programs
- One (1) senior or full consultant with knowledge of socio-environmental, indigenous and environmental management policies
  - Experience in the preparation and implementation of questionnaires and data analysis for monitoring and evaluation of public policies.

The qualifications of the team of assessors include the following requirements:

- **Technical knowledge.** Experience in local land-use planning (LTM) plans. Experience on ATER, implementation of SAFs, recovery of degraded areas and payment for environmental services.
- **Methodological knowledge.** Knowledge of the methodologies that will be used to evaluate the project, in particular, those related to data collection and analysis, measurement of the achievement of results and qualification of the effects achieved with municipal managers. Furthermore, it is important to know instruments that allow the combination of methods to triangulate data collection, in order to increase the reliability of the results.
- **Regional knowledge.** Experience with the implementation of p**rojects related to the themes dealt with in this evaluation, it is desirable that it be in the Amazon.**

The consultants hired cannot have any previous involvement or particular link with the project to be evaluated. The evaluation team will work without external interference, will have access to the project data to be evaluated and will obtain support to gather all necessary information. GIZ experts and consultants must treat all documentation of the Amazon Fund and the projects to be evaluated with confidentiality and secrecy, except for the information that must be included in the Effectiveness Evaluation Report.

7. REPORTING, COORDINATION AND RESPONSIBILITIES

Two reports will be produced during the evaluation process: the Evaluation Design Report and the Project Effectiveness Evaluation Report. The content of these reports will follow that established in topic 8.1.7 of the document Effectiveness Evaluation of Projects Supported by the Amazon Fund – Conceptual Framework.

The effectiveness evaluation will be accompanied by a project reference group, with the following composition:

a) Representatives of the Monitoring and Evaluation Management of the BNDES Planning Area;

b) Representatives of the BNDES's Amazon Fund Management Department;

c) GIZ representatives, within the framework of the cooperation project in force;

d) Representatives of the VAAF project and partners, responsible for the execution of the project to be evaluated; and

e) Members of the evaluation team.

The coordination of the evaluation work will be carried out by GIZ. The responsibilities of each party that make up the reference group are defined in topic 5.1 of the document Effectiveness Evaluation of Projects Supported by the Amazon Fund – Conceptual Framework.

8. FINAL CONSIDERATIONS

a. Copyright

All information and materials produced from the works object of this contract will have the copyright reverted to GIZ. The total or partial reproduction requires express authorization, recognizing the intellectual property. Due credits will be given for the authorship of maps, photos, films and other records that may be used to provide information about the study, at the discretion of the contracting institution.

For the publication and production of bibliographic materials in the form of articles, academic works, for congresses and scientific events, among others, produced from information subject to contracting by the consultancy and its technical team, prior authorization must be requested for GIZ.

b. Code of conduct

GIZ has policies that promote equality and opportunity regardless of gender, sexual orientation, race, ethnicity, national origin, cultural identity, health status, social class, religion and age. Such aspects are essential to ensure a healthy and respectful corporate environment. Thus, the selected consultant or company must respect these parameters and adopt appropriate conduct within the scope of the contract, whether in personal or corporate treatment. As such, the actions of the consultancy must respect the diversity present in the GIZ environment in Brazil and in the scope of action of its projects.

It is also required that the selected consultancy has knowledge and follows the institutional measures to promote equity in the corporate environment. The Workplace Anti-Harassment and Discrimination Policy (PASD) is particularly noteworthy. Furthermore, it is recommended that inclusive written, verbal and audiovisual language be used with

respect to gender representation, different ethnic/racial groups and all other relevant groups, including audiovisual publications accessible to people with visual impairments and dyslexia. In addition, it is important that the consulting teams ensure the representation of socially minority groups, such as women, LGBTQIA+ people (Lesbian, Gay, Bisexual, Transsexual and Transvestite, Queer, Intersex, Asexual and more), black and indigenous people, and people with disabilities for the services provided.

9. ANNEXES

These ToR has two annexes regarding the hiring of two consultants for evaluation:

• Annex 1 – Individual Consultancy – Consultant 1

• Annex 2 – Individual Consultancy – Consultant 2

Brasília, September 14, 2022.

Christian Lauerhass
Project Director
Cooperation with the Amazon Fund/BNDES
Biosphere Program
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbHH

ANNEX 1 – CONSULTANT/A 1
INDIVIDUAL CONSULTANCY TERMS OF REFERENCE

Call for contracts related to the ToR for Effectiveness Evaluation

1. OBJECTIVE

One (1) senior or full consultant, with knowledge of national and state public policies in the environmental context and sustainable development in the Brazilian Amazon Must have experience in the area of territorial and environmental management, at the municipal level and shared with other spheres and with experience in monitoring and evaluating policies in projects or programs.

2. ACTIVITIES OF CONSULTANT/A1

The consultant must be part of the team of evaluators of the project in question, having as activities:

Activity	Description
Design Report	Together with the team of evaluators, contribute to the design report, consolidating the wording according to the Terms of Reference.
Data collection and analysis	To collect, analyze and interpret data on the results, effects and impacts of the project on topics related to environmental policy and sustainability and, in particular, in the area of Measurement of Socioeconomic and Environmental Impacts, as well as environmental legislation.
Interviews	Conduct field interviews to evaluate the project and, if possible, a SWOT analysis workshops (Strengths, Weaknesses, Opportunities and Threats), together with the team of evaluators.
Preliminary Report	Prepare the preliminary report with the support of the team of evaluators, consolidating the wording according to the Terms of Reference. This includes the chapters related to the topics under their responsibility. Review the REDD+ questionnaire that will be attached to the preliminary evaluation report. Prepare a counterfactual study proposal together with another consultant and participate in the preparation of the study.
Consultation round	Support the organization and participate in the consultation round to present the Preliminary Effectiveness Evaluation Report.
Effectiveness Evaluation Report	Contribute to the final version of the report together with the team of evaluators

3. PERIOD OF WORK

The activities must be carried out between 10/31/2022 and 08/31/2023. The period for the field mission is scheduled for the first half of 2023.

4. OUTPUTS OF CONSULTANT/A1

Outputs	Working days	Deadline	Formats/technical specifications
Output 1 – Effectiveness Evaluation Design Report	10	11/18/2022	Word document, Font Arial 12, 1.5 spacing and in digital format.
Output 2 – Preliminary Effectiveness Evaluation Report	32	02/24/2023	Word document, Font Arial 12, 1.5 spacing and in digital format.
Output 3 – Effectiveness Evaluation Report	12	03/17/2023	Word document, Font Arial 12, 1.5 spacing and in digital format.
TOTAL	**54 days**		

5. WORKPLACE AND TRAVEL

The work will take place[49] in Rio Branco/AC and Brasília. As such, two trips are planned:

Destination	Forecast date	Travel days	Accommodation days (overnight stays)	Meal allowance
1. Rio Branco	Nov/2022	07	06	07
2. Rio Branco	Jan/2023	08	07	08
3. Brasília	Feb/2023	02	01	02
TOTAL		**17**	**14**	**17**

6. CONDITIONS FOR THE PROVISION OF SERVICES

The consultant hired shall comply with the following conditions:

- Signature of confidentiality of the data arranged for contractual analysis;
- Acceptance of the commitment agreement not to publish information about the object of analysis;
- Access and reception of prior material made available by the responsible sector;
- Development and monitoring of the work in coordination with GIZ and Amazon Fund, including with regard to the approval or request for rectification of outputs.

7. QUALIFICATION OF THE PROFESSIONAL

- 10 years or more of experience in the monitoring and evaluation of projects and/or public policies.
- Experience of working with the theme of strengthening environmental management in different public spheres (federal, state and municipal).
- Experiences in monitoring and evaluating socio-environmental programs and projects, preferably in the Brazilian Amazon region.
- Knowledge about public policies in the area of sustainable development, climate change and the environment.
- Knowledge about the regional issues of the Amazon that are dealt with within the scope of the project supported by the Amazon Fund.
- Desirable experience in ATER, implementation of SAFs, recovery of degraded areas and payment for environmental services.
- Desirable experience with Deforestation and Burning Prevention and Control plans (PPCDQs).
- Knowledge of local land-use planning (LTM) plans.

8. PAYMENT

Payments will be made after signing the contract, approval of the outputs and presentation of the Bill or Invoice.

Travel costs will be reimbursed against the presentation of proof of expenses, according to GIZ guidelines to be informed in the contract.

The technical review and approval process of the outputs includes the evaluation of the GIZ technical advisor. The final approval of the outputs and authorization for payment are the responsibility of the AV/DV of the project.

49. If it is not possible to carry out field visits due to the pandemic, the work must be done virtually, as detailed in item 3.2.2.

ANNEX 2 – CONSULTANT/A 2:
INDIVIDUAL CONSULTANCY TERMS OF REFERENCE

Call for contracts related to the ToR for Effectiveness Evaluation

1. OBJECTIVE

Hiring one (1) senior or full consultant, with knowledge in socio-environmental, indigenous and environmental management policies. Experience in the preparation and implementation of questionnaires and data analysis for monitoring and evaluation of public policies.

2. ACTIVITIES OF CONSULTANT/A2

The consultant must be part of the team of evaluators of the project in question, having as activities:

Activity	Description
Design Report	With the support of the team of evaluators, prepare the design report, consolidating the wording according to the Terms of Reference.
Data collection and analysis	To collect, analyze and interpret data on the results, effects and impacts of the project on topics related to environmental policy and sustainability and, in particular, in the area of Measurement of Socioeconomic and Environmental Impacts, as well as environmental legislation.
Interviews	Conduct field interviews to evaluate the project and, if possible, a SWOT analysis workshops (Strengths, Weaknesses, Opportunities and Threats), together with the team of evaluators.
Preliminary Report	Contribute to the preparation and consolidation of the Preliminary Effectiveness Evaluation Report as a whole, consolidating the wording in accordance with the Terms of Reference. This includes the chapters related to the topics under their responsibility. Prepare the REDD+ questionnaire that will be attached to the preliminary evaluation report. Prepare a counterfactual study proposal together with another consultant and participate in the preparation of the study.
Consultation round	Support the organization and participate in the consultation round to present the Preliminary Effectiveness Evaluation Report.
Effectiveness Evaluation Report	Consolidate the final version of the report together with the team of evaluators.

3. PERIOD OF WORK

The activities must be carried out between 10/31/2022 and 08/31/2023. The period for the field mission is scheduled for the first half of 2022.

4. OUTPUTS OF CONSULTANT/A2

Outputs	Working days	Deadline	Format/Technical Specifications
Output 1 – Effectiveness Evaluation Design Report	15	11/18/2022	Word document, Font Arial 12, 1.5 spacing and in digital format.
Output 2 – Preliminary Effectiveness Evaluation Report	32	02/24/2023	Word document, Font Arial 12, 1.5 spacing and in digital format.
Output 3 – Effectiveness Evaluation Report	7	03/17/2023	Word document, Font Arial 12, 1.5 spacing and in digital format.
TOTAL	**54 days**		

5. WORKPLACE AND TRAVEL

The work will take place[50] in Rio Branco/AC and Brasília/DF. As such, two trips are planned:

Destination	Forecast date	Travel days	Accommodation days (overnight stays)	Meal allowance
1. Rio Branco	Nov/2022	07	06	07
2. Rio Branco	Jan/2023	08	07	08
3. Brasília	Feb/2023	02	01	02
TOTAL		**17**	**14**	**17**

6. CONDITIONS FOR THE PROVISION OF SERVICES

The consultant hired shall comply with the following conditions:

- Signature of confidentiality of the data arranged for contractual analysis;
- Acceptance of the commitment agreement not to publish information about the object of analysis;
- Access and reception of prior material made available by the responsible sector;
- Development and monitoring of the work in coordination with GIZ and Amazon Fund, including with regard to the approval or request for rectification of outputs.

7. QUALIFICATION OF THE PROFESSIONAL

- 10 years or more of experience working with quantitative data collection.
- Experience in monitoring and evaluating public policies.
- Experience in evaluating socio-environmental and indigenous programs and projects in the Brazilian Amazon region.
- Knowledge about public policies in the area of sustainable development, climate change and the environment.
- Knowledge about the regional issues of the Amazon that are dealt with within the scope of the project supported by the Amazon Fund.
- Desirable experience in ATER, implementation of SAFs, recovery of degraded areas and payment for environmental services.
- Desirable experience with Deforestation and Burning Prevention and Control plans (PPCDQs).
- Desirable knowledge in local land-use planning (LTM).

50. If it is not possible to carry out field visits due to the pandemic, the work must be done virtually, as detailed in item 3.2.2.

8. PAYMENT

Payments will be made after signing the contract, approval of the outputs and presentation of the Bill or Invoice.

Travel costs will be reimbursed against the presentation of proof of expenses, according to GIZ guidelines to be informed in the contract.

The technical review and approval process of the outputs includes the evaluation of the GIZ technical advisor. The final approval of the outputs and authorization for payment are the responsibility of the AV/DV of the project.

Importance of Forest Environmental Assets

VAAF ACRE

Project Effectiveness Evaluation Supported by the Amazon Fund

MAY 2023

cooperação alemã
DEUTSCHE ZUSAMMENARBEIT

Implemented by:
giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

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