Effectiveness Evaluation of
Projects focused on the

Amazon Fund / BNDES Sustainable Productive Activities

- Use of Social Technologies to Reduce Deforestation (ADAI)
- Sustainable Settlements in the Amazon (IPAM)
- Portal Seeds Phase II (IOV)
- Amazon's Nectar (Paebiru)

July, 2024

EFFECTIVENESS EVALUATION OF PROJECTS FOCUSED ON THE AMAZON FUND/BNDES SUSTAINABLE PRODUCTIVE ACTIVITIES

PRELIMINARY EVALUATION REPORT

Projects evaluated

Sustainable Settlements in the Amazon
Portal Seeds Phase II
Amazon's Nectar
Use of Social Technologies to Reduce Deforestation

Evaluators

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July, 2024

Report on the Effectiveness Evaluation of Projects focused on the Amazon Fund/BNDES Sustainable Productive Activities

This report presents the ex post effectiveness evaluation results of the Amazon Fund/BNDES Sustainable Productive Activities. The referred to evaluation was performed by a team of women, who are independent consultants, under the coordination of the German Cooperation for Sustainable Development through *Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH* (GIZ), as part of the technical cooperation with BNDES on the Amazon Fund. All opinions expressed herein are the sole responsibility of the authors, and do not necessarily reflect the position of GIZ and BNDES.

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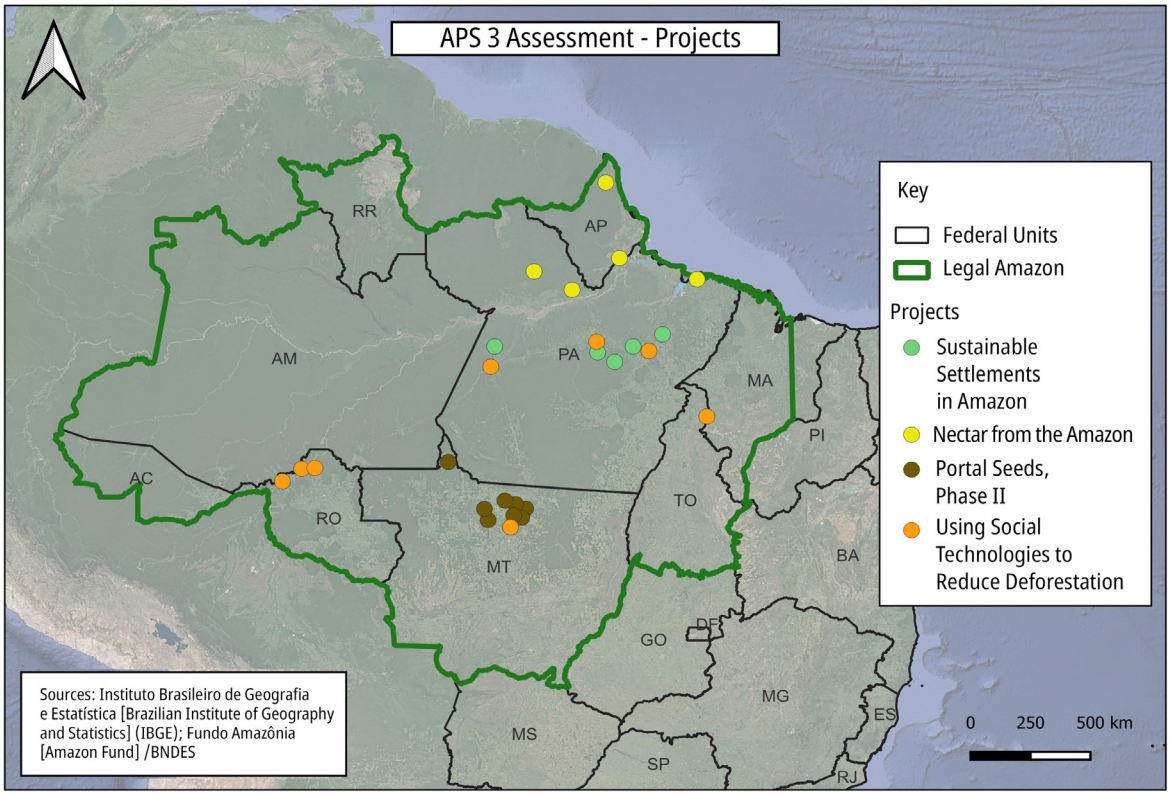
Acronyms

ADAI	Interstate Agricultural Development Association
ANATER	National Agency for Technical Assistance and Rural Extension
APP	Permanent Preservation Area
APS	Sustainable Productive Activities
ATER	Technical Assistance and Rural Extension
BNDES	Brazilian National Bank for Economic and Social Development
FA	Amazon Fund
GIZ	*Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH*
INCRA	Brazilian National Institute of Colonization and Agrarian Reform
IOV	*Ouro Verde* Institute
IPAM	Amazon Environmental Research Institute
MAB	Movement of People Affected by Dams
MMA	Brazilian Ministry of Environment and Climate Change
OECD	Organisation for Economic Co-operation and Development
PA	Settlement Project
PAA	Food Acquisition Program
PAB	*Alimenta Brasil* Program
PAS	Sustainable Settlements Project
PNAE	Brazilian National School Feeding Program
PPCDAM	Action Plan for the Prevention and Control of Deforestation in the Legal Amazon
PSA	Payment for Environmental Services
QL	Logical Framework
RAE	Effectiveness Evaluation Report
REDD+	Reducing Emissions from Deforestation and Forest Degradation (+ conservation, sustainable management of forests, and enhancement of forest carbon stocks in developing countries)
RSPA	Amazon Portal Seeds Network
SAFS	Agroforestry Systems
SISCOS	Solidarity Marketing System
SSP	Silvopastoral System
TDR	Terms of Reference
UFMT	Federal University of Mato Grosso
UNEMAT	State University of Mato Grosso
UNFCCC	United Nations Framework Convention on Climate Change

1. Executive Summary

The Thematic Effectiveness Evaluation of the "Sustainable Productive Activities" projects, which fall under the Amazon Fund's Sustainable Production Components, provided both individual and aggregate analyses of four projects covering a complex composition of territories, social groups, products, chains, and land use, as shown in Figure 1.

Figure 1 Short representation of the projects evaluated



Project		Region	Beneficiaries	APS
Use of Social Technologies to Reduce Deforestation (ADAI)	2017 to 2021 BRL 9 Million	Mato Grosso, Pará, Rondônia and Tocantins	Riverine families and those affected by hydroelectric projects	Agroecological vegetables and poultry
Amazon's Nectar (Peabiru)	2014 to 2022 BRL 2 Million	Pará and Amapá	Rural quilombola, Indigenous Peoples, riverine, and extractive communities	Honey from native bees
Sustainable Settlements Project (IPAM)	2012 to 2022 BRL 23 Million	Pará: Transamazônica and Tapajós	Incra agrarian reform settlers	Agroecological vegetables, SAF cocoa, and forest management
Portal Seeds – Phase II (IOV)	2013 to 2022 BRL 16 Million	Mato Grosso: Amazon Portal	Family farmers	Agroecological vegetables, SAF, silvopastoral livestock, forest seeds

Source: Own elaboration.

The projects were evaluated following the Organisation for Economic Co-operation and Development (OECD) criteria, and the following results were presented:

RELEVANCE

The four projects evaluated were highly relevant in terms of diversity of the sustainable productive activities supported. These included the production of agroecological vegetables, forest seeds, fruit, honey from native bees, as well as timber and non-timber forest management. The production models developed also contribute to forest restoration and recovery of degraded areas, through direct sowing (muvuca), silvopasture, integrated animal and plant production systems, mechanization, and agroforestry systems (SAFs).

Although it is not possible to directly measure the impact of the projects on the reduction of deforestation in the target territories, the Amazon Environmental Research Institute (IPAM) identified that, during the implementation of the *Sustainable Settlements in the Amazon* (PAS) project, the number of plots benefiting from technical assistance and rural extension (ATER) decreased by 76% and the number of plots receiving payments for environmental services (PSA) decreased by 83%. The work of the *Portal Seeds Phase II*, *Use of Social Technologies to Reduce Deforestation* (*Social Technologies*), and *Sustainable Settlements* projects has also been fundamental in combating the violation of rights and strengthening the resilience of families against the pressure to lease family farming areas.

EFFECTIVENESS

The goals of the projects were achieved:

(i) families continue to adopt more sustainable and productive production systems;

(ii)) forestry and agroforestry products continue to be produced and sold, leading to a significant increase in family income;

(iii) the capacities developed have made it possible for families and their partners to maintain production systems and commercial strategies with considerable autonomy. As for the *Portal Seeds* (Ouro Verde Institute – IOV) and the PAS (IPAM) projects, which achieved more significant results in terms of marketing, an intense and consistent process of technical assistance, training, and governance was found to be the difference. In the *Social Technologies* project (Interstate Agricultural Development Association – ADAI), the differ-

ence lays on the commitment of the executing organization to the beneficiary families beyond the project implementation. As to Nectar da Amazônia (Peabiru Institute), it has introduced a new chain of sustainable use through the beekeeping of Melipona bees;

(iv) the restored and recovered areas continue to develop, with effective changes in the landscape.

EFFICIENCY

The resources made available for all projects were used to carry out the planned activities. Financial mechanisms have also been implemented to optimize resources and comply with the Amazon Fund regulations.

The *Portal Seeds* project stands out in this criterion, with a governance process structured through municipal and regional participatory bodies, with instruments and procedures for transparency and co-responsible decision-making between beneficiaries and executors.

IMPACT

The projects promoted the productive transition to more sustainable models and introduced new activities and forms of land use. It resulted in a higher level of social organization, engagement, and training among family farmers, young people, and women. The increase in processing and the strengthening of marketing channels make a significant contribution to the beneficiaries' income.

The *Social Technologies* project produced healthy food for vulnerable families during the pandemic, both in the countryside and in the city, which established a solidarity chain based on the production chain of agroecological vegetables. *Portal Seeds* has enabled changes in the landscape through the restoration and enrichment of a significant area belonging to Permanent Preservation Areas (APPs) and Agroforestry Systems (SAFs). PAS promoted a model of rural development showing that family farming is attainable in the Amazon, free from deforestation and with economic improvement, based on a system comprising Technical Assistance and Rural Extension (ATER), which has been discussed as a public policy. The *Amazon's Nectar* project has created the productive base of a new value chain for meliponiculture, which was not considered before in the target territories.

SUSTAINABILITY

The strengthening of virtually all the value chains supported by the projects continues in force. The structuring of entrepreneurial organizations and the strengthening of their marketing channels, such as fairs and loyalty sales to consumers, have been essential to this result. Although the covid-19 pandemic and the dismantling of public policies have strongly affected these marketing channels, they are gradually being resumed.

The network of partnerships created during the implementation of the projects has made it possible to continue the actions, even though the number of beneficiaries has decreased significantly. In this respect, it should be noted that in the case of the *Portal Seeds*, *Sustainable Settlements*, and *Social Technologies* projects, the sustainability of the results was ensured by the fact that the implementing organization remains active in the territories independently of the projects. In addition, the *Raiz Bank*, a bank of *Portal Seeds*, continues to make it possible to expand the restoration, with strong contributions from the research projects developed by the network of researchers created during the project.

The overall results were evaluated in relation to the direct effects foreseen in the Logical Framework of the projects. The analyses were organized according to the thematic evaluation criteria perceived as relevant to the projects as a whole, as represented in short below.

1. Adoption and adherence to APS

• The results confirm that sustainable production chains are viable and promote an increase in income, and that the social organization of communities is a key factor for these results.

• It has been shown that taking into account small producers' visions about the use of their own plots is an effective strategy for adopting and adhering to Sustainable Productive Activities (APSs). In this way, the adoption of new practices becomes a service to producers and an opportunity for desired improvements, rather than an imposition that provokes resistance.

2. Processing

• Processing strategies require organizational management to be implemented, which was not always available during the projects. For this reason, adjustments and flexibility were needed from the Amazon Fund to redesign ef-

forts and goals, with emphasis on the family agro-industries implemented by the *Sustainable Settlements* project, originally planned as collective enterprises.

• Processing structures have indeed made it possible to upgrade the production in the APS chains, expanding markets and increasing producers' incomes.

3. Marketing

• Marketing was effectively expanded in all the projects through channels such as fairs, institutional markets, and direct-to-consumer loyalty sales. These strategies are inclusive of different family profiles and benefit women in particular.

• Although not originally envisaged by the projects, direct-to-consumer markets have proven to be a crucial marketing channel that deserves to be considered in future APS-initiatives with a dedicated strategy.

4. Financial solutions

• The financial solutions (PSA and Community Bank) evaluated proved to be effective in promoting the adoption of APS, as they provided the necessary financial resources for an effective transition in production models, even after the projects have been completed, as in the case of Raiz Bank.

• Raiz Bank's experience has also shown that a solution geared to the needs of its beneficiaries delivers very effective results, and requires a high level of commitment and dedication on the part of the beneficiaries.

• Longer-term payments may guarantee more effective conservation of the areas. It has been noted that in addition to payments, the continued provision of technical assistance is also crucial, albeit in a mixed form and at greater intervals, to guide producers towards best practices to ensure an income that is not tied to deforestation.

5. ATER

• The permanent adoption rate of sustainable production models is directly related to the provision of ATER services. The more frequent and longer-lasting the service, the greater the chances of the new production system being maintained, while at the same time reducing the chances of deforestation.

• For future experiences, it would be interesting if the ATER service offering were to provide for a transition to a self-financing model in the me-

dium and long term, so that the service could be continued even after the projects have been completed.

6. Community management/training

• Mobilization and training are essential when working on projects related to sustainable production chains, both because of cultural issues and the high level of articulation and social organization needed to organize marketing on a large scale.

• In scenarios of low availability of resources to carry out ATER services, community effort has proved to be an efficient way out, capable of maintaining the mobilization and engagement of beneficiaries and the exchange of knowledge between technicians and communities.

7. Recovery of areas

• The *Portal Seeds* and *Sustainable Settlements* projects developed and implemented models for recovering degraded areas for both ecological and economic purposes. They show that restoration and recovery must take place in the context of family farming, using several technologies and models associated with production/income generation.

• These two projects also show the importance of financial solutions, such as PSA and microcredit, for the effectiveness and sustainability of the results.

8. Environmental regularization

• Environmental regularization was approached in all the projects in this evaluation through measures to obtain environmental licensing for the production areas and processing structures of the value chains approached. Licenses have become a key part of the marketing strategy for these projects.

• The *Portal Seeds* and *Sustainable Settlements* projects also provided support to producers for the registration of the Rural Environmental Registry (CAR). The registration of settlement plots carried out in the *Sustainable Settlements* project was one of the pioneering works in the state and with its lessons learned and expertise developed, has contributed to the consolidation of the CAR registration process for settlers throughout the country.

9. Scientific research

• Of the four projects evaluated, *Portal Seeds* was the only one approaching this topic, establishing a network of national and international research-

ers that allows producers to propose the research needed to improve their production, participate in the modeling and implementation of the research, and benefit from the results in an agile way.

• This model of cooperation between researchers and producers is scalable to other regions of the Amazon and could speed up the implementation of sustainable production chains throughout the region.

CROSS-CUTTING CRITERIA

(i) Poverty Reduction

• The four projects evaluated enabled the effective adoption of production systems that value the standing forest and the sustainable use of natural resources, with a marketing promotion, which contributes to family incomes.

• All the projects resulted in an increase in income for their beneficiaries, either by increasing and diversifying production, by adding value to products through processing, or by directly supporting marketing.

• Through community governance training and leadership support, the projects also promoted community advocacy, which led to various achievements for the territorial development of settlers and family farmers, such as the paving of streets and roads, the installation of electricity, access to water, and the construction of schools and health centers

(ii) Gender Equality

• The mobilization of women to participate in the projects initiated by the Amazon Fund was relevant and fundamental to raising the issue internally in the executing organizations and promoting actions that ensured their inclusion in training, co-construction processes, technical assistance activities, and promotion of marketing and leadership training.

• Although the projects made it possible for women to take part in training activities, meetings and workshops, it became clear that the exercise of formal leadership, through occupying spaces and positions of power, encountered cultural constraints, often related to the division of reproductive labor.

• The concept of the indicator used in the monitoring plans mentions the number of "benefited" women, which should actually be translated as participants in the activities, as it does not guarantee direct benefits for the women.

2. Background

This document presents the thematic and individual evaluation of projects focused on Sustainable Productive Activities (APS), mostly allocated to the "Sustainable Production" Component, with some contributions to the "Monitoring and Control" and "Science, Innovation, and Economic Instruments" Components provided for in the Amazon Fund's Logical Framework. The four projects that form the basis of the evaluation were carried out between 2012 and 2022.

The Amazon Fund's implementation components were developed based on Public Policies considered to be guiding principles for the construction of its Logical Framework, namely: the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAm) at the federal level and its ramifications at the state level, as well as the National REDD+ Strategy (ENREDD+).

The fifth phase of PPCDAm (2023–2027) sets the goal of zero deforestation by 2030 and presents, as a path towards this goal, a composition between indispensable elements of command and control and approaches to encourage and foster the viability of alternative activities to the main economic drivers of deforestation. To this end, it establishes "fostering sustainable productive activities" as one of its four implementation strategies. Thus, it is especially in the Sustainable Production Component of the Amazon Fund that expectations are concentrated in relation to increasing the economic attractiveness of activities that maintain the standing forest, defined as the overall indirect effect of the projects.

The Amazon Fund Mid-Term Evaluation Report[1], carried out in 2019, considers that the projects completed so far have made contributions in terms of reducing deforestation in the areas covered by the projects, improving quality of life and increasing income, but also highlights the weakness of the information available on their social and economic impacts. Therefore, understanding the effectiveness and contributions of the projects allocated to the Sustainable Production Components continues to be a demand and necessity in the Amazon Fund's programmatic context, and these are the main lines of reflection to which this evaluation aims to contribute.

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1 See the AMAZON FUND MID-TERM EVALUATION REPORT ON EFFECTIVENESS at https://www.fundoamazonia.gov.br/export/sites/default/pt/.galleries/documentos/monitoramento-avaliacao/5.avaliacoes-externas/FA-Relatorio-Avaliacao-Meio-Termo-Fundo-Amazonia.pdf

3. Introduction

Amazon Fund defines effectiveness evaluation as a tool for analyzing the extent to which the desired results, effects, and impacts were achieved and what caused the observed impacts, whether they were foreseen or unexpected. All funded projects must undergo an *ex post* evaluation of their effectiveness.

These are the main purposes of the evaluation: **(i)** to assist the Amazon Fund in rendering accounts to its donors on the type of project supported and its effects; **(ii)** to enable the Fund's own institutional learning, contributing to improving the quality of projects and the prioritization of investments, thus supporting decision-making; **(iii)** to verify compliance of projects supported by the Amazon Fund with the Cancun Safeguards agreed under the UNFCCC for REDD+ efforts, and **(iv)** to verify the alignment of projects with the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAm) and state-level plans for the prevention and control of deforestation.

This evaluation analyzes the effectiveness of four projects funded by the Amazon Fund, approved via spontaneous demand: (I) *Use of Social Technologies to Reduce Deforestation*, from the Interstate Agricultural Development Association (Adai); (II) *Amazon's Nectar*, from the Peabiru Institute; (III) *Sustainable Settlements in the Amazon*, from the Amazon Environmental Research Institute (IPAM); and (IV) *Portal Seeds – Phase II*, from the *Ouro Verde* Institute (IOV).

The four projects were evaluated individually and together – according to their themes. The thematic evaluation also aims to provide recommendations on the basis of the evaluated projects, which should be examined by the executing agents for their feasibility, and to draw lessons for the Sustainable Production Component. These are also specific goals:

- To generate specific recommendations for sustainable production chains that could be strengthened;
- To analyze the strengths and weaknesses of project intervention;
- To evaluate the effectiveness of the Amazon Fund's support for sustainable production;
- To identify challenges and lessons learned that can also be used for national and international dissemination.

4. Method

Thematic effectiveness evaluations of projects supported by the Amazon Fund are guided by the document Effectiveness Evaluation of Projects Supported by the Amazon Fund — Conceptual Framework, prepared by the technical cooperation between the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) and the Amazon Fund/BNDES in 2016, and in the Addendum to the Conceptual Framework, prepared in 2020, which provides strategic guidelines for thematic evaluations of projects in an aggregated form[2].

The Conceptual Framework outlines that evaluations should be based on the Logical Framework of the projects, in which the results (products and services to be delivered, or outputs), direct effects of the intervention (specific objectives, or outcomes), and indirect effects (general goals or impacts) to be achieved are defined.

The Conceptual Framework also provides guidelines outlining that evaluations should be carried out through systematic analyses and based on predefined criteria, based on the methodology developed by the Organisation for Economic Co-operation and Development (OECD), which include: Relevance, Effectiveness, Efficiency, Impact, and Sustainability. Projects must also be evaluated according to the Reducing Emissions from Deforestation and Forest Degradation (REDD+) safeguards, which were defined by the Framework Convention (in Annex I of Decision 1/CP 1641 and the guidelines of Decision 12/CP 17), as well as a set of cross-cutting criteria related to promoting gender equality and contributing to poverty reduction.

The evaluation presented here was organized into the following phases: **(i)** Preparation, **(ii)** Implementation, **(iii)** Analysis and Dissemination. The methods used in each stage of the evaluation are presented below:

(i) Preparation Stage

In this phase, secondary data and reports on the monitoring of project implementation were collected: Performance Reports (RED), which focus on annual monitoring; Result Evaluation Reports (RAR), drawn up at the end of projects; and Effectiveness Evaluation Reports (RAEs), which aim to analyze the sustainability of the project's effects after it has ended. These materials

2 These and other documents are available on the Amazon Fund website https://www.fundoamazonia.gov.br/pt/monitoramento-e-avaliacao/avaliacoes-externas/.

supported the preparation of the Evaluation Design Report, defining goals and indicating the evaluation methodology used here. Also during this phase, contacts were made with the project executing institutions to align the field mission and plan the field visits to their headquarters and to partners and direct and indirect beneficiaries of the projects, and specific interview scripts were drawn up for the representatives of the four projects.

(ii) Implementation Stage

To give the thematic evaluation a structure, the evaluation team first cross-referenced the Amazon Fund Logical Framework with the logical frameworks of the four projects evaluated (Figure 2).

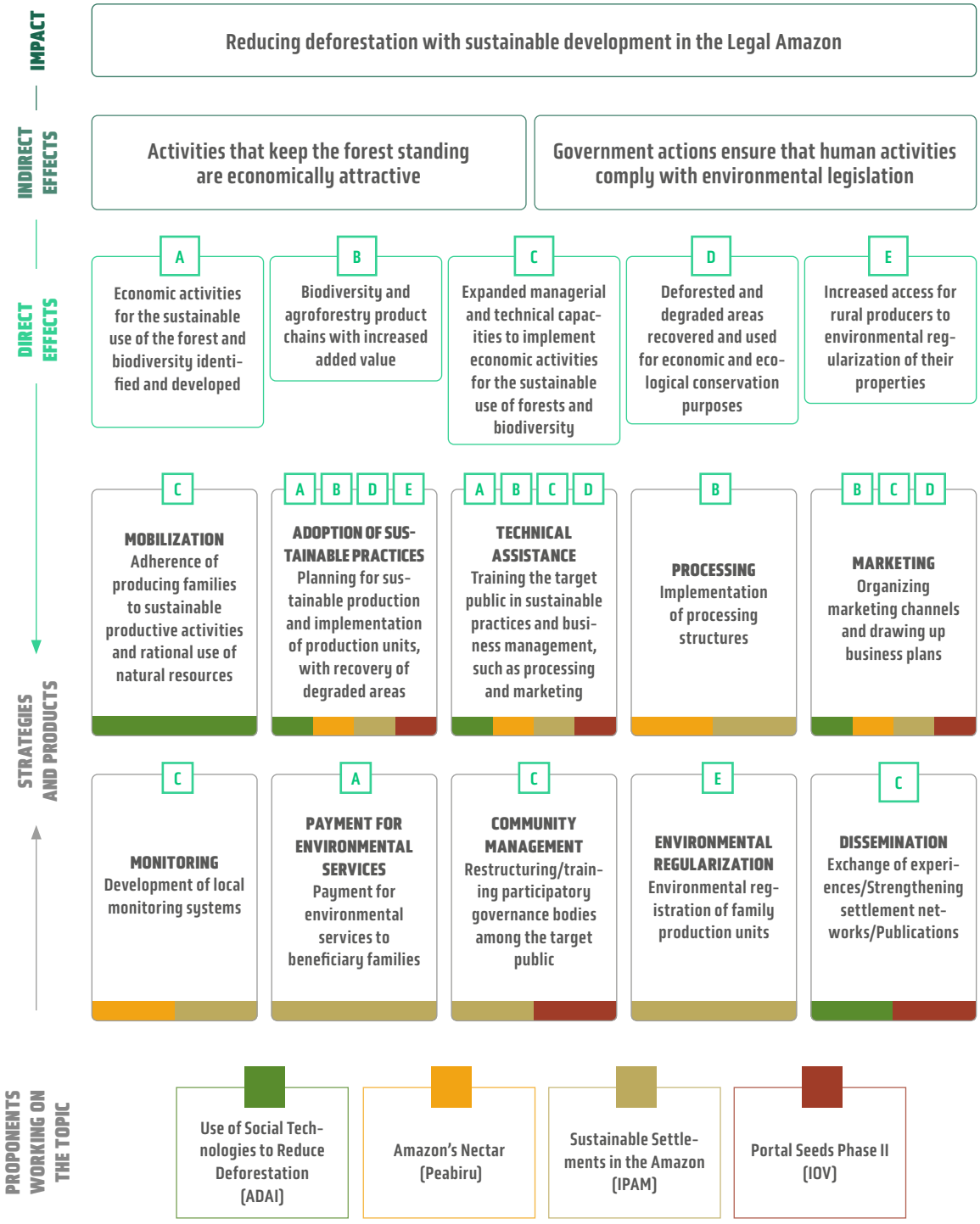
Figure2 Cross-referencing matrix between the logical frameworks of the projects and the Amazon Fund.

	Indirect Effects (Components) of FA					
	1. Activities that keep the forest standing are economically attractive		2. Government actions ensure that human activities comply with environmental legislation		4. Science, technology, and innovation activities contribute to the recovery, conservation, and sustainable use of the Amazon Biome	
	Direct Effects of the FA Component					
	1.1 Economic activities for the sustainable use of the forest and biodiversity identified and developed	1.2 Biodiversity and agroforestry product chains with increased added value	1.3 Expanded managerial and technical capacities to implement economic activities for the sustainable use of forests and biodiversity	1.4 Deforested and degraded areas recovered and used for economic and ecological conservation purposes	2.2 Increased access for rural producers to environmental regularization of their properties	4.1 Knowledge and technologies for the recovery, conservation, and sustainable use of the Amazon Biome produced and disseminated.
Social Technologies	◆		◆			
Amazon's Nectar		◆	◆			
Sustainable Settlements	◆	◆	◆	◆	◆	
Portal Seeds – Phase II		◆	◆	◆		◆

Source: Own elaboration

Based on this cross-referencing, a proposed Aggregate Theory of Change was drawn up for the projects. The theory is presented in a diagram (Figure 3) that integrates the products and services of the projects and correlates them with the direct and indirect effects desired by the Amazon Fund.

Figure 3 Aggregate Theory of Change for the projects



Source: Own elaboration

The diagram was drawn up with the aim of identifying thematic evaluation criteria that could be validated with the BNDES team in order to define guiding questions, aimed at measuring the effectiveness of each project and, above all, the overall impact of the projects within the thematic scope.

During the field mission, the evaluation team sought to confirm which criteria of the Theory of Change were most relevant in the implementation of the projects, thus seeking to identify joint contributions to the achievement of the Amazon Fund's goals. Thus, throughout the evaluation, the Theory of Change developed for the Thematic Evaluation guided the visualization of the contributions (expected and not expected) of the projects, showing their results for achieving the direct and indirect effects of the Sustainable Production Components and the Amazon Fund's goals. However, it is important to note that numerous internal and external factors influence the extent of the medium and long-term impact of each project, making it difficult to analyze which were the direct contributions of the project and which were the external contributions, i.e. independent of the project's intervention[3].

The mission involved individual and group interviews with pre-selected informants. Semi-structured (guided by pre-defined guiding questions) and unstructured (without a defined script) interviews were used. Documents made available or indicated by the informants during the interview process were also analyzed. Prioritization of the locations for the field mission, as well as the interviewees, was based on indications from the coordination of the projects, resulting in the schedule shown in Table 1.

Table 1 Schedule of field missions

Use of Social Technologies to Reduce Deforestation **Adai and Movement of People Affected by Dams - MAB/RO [State of Rondônia]** Porto Velho /RO	April 1st to 4th, 2024
Portal Seeds Phase II - IOV Alta Floresta /MT [State of Mato Grosso]	April 12th to 15th, 2024
Amazon's Nectar - Peabiru Institute Acará e Belém /PA [State of Pará]	April 19th and 20th, 2024
Sustainable Settlements in the Amazon - IPAM Altamira /PA	April 21st to 24th, 2024

Source: Own elaboration.

3 GIZ/AMAZON FUND. *Marco conceitual da Avaliação de Efetividade dos Projetos Apoiados pelo Fundo Amazônia [Conceptual Framework for Evaluating the Effectiveness of Projects Supported by the Amazon Fund]*. Rio de Janeiro: BNDES, 2016.

The overall results were analyzed qualitatively, based on secondary data and, above all, on primary data collected during the field mission, through questions that sought to identify:

(a) whether the direct effects have been effectively achieved

(b) which ways/strategies of working and generating products most contributed to the effectiveness of the projects

(c) how they contributed.

The possibility of carrying out a counterfactual analysis was considered, as recommended by the Conceptual Framework[4]. The focus of the analysis would be on comparing the dynamics of deforestation in Settlement Projects (PA) that did not receive support from Amazon Fund projects. Preliminary exercises, based on secondary data, revealed the limitations of identifying counterfactual scenarios that could generate relevant comparisons for all the projects analyzed. However, analyses carried out by the Amazon Environmental Research Institute (IPAM) in the context of the *Sustainable Settlements in the Amazon* (PAS) project compared the deforestation in territories with and without the presence of the project, indicating an effective reduction in rates where PAS acted. This topic is discussed in section 5.1.

Photo: Juliana Mello

Group interview. Social Technologies Project (ADAI and MAB/RO)

4 The Conceptual Framework defines the word counterfactual as "an approach that includes in its analysis a comparison of what would have happened if the project had not been implemented".

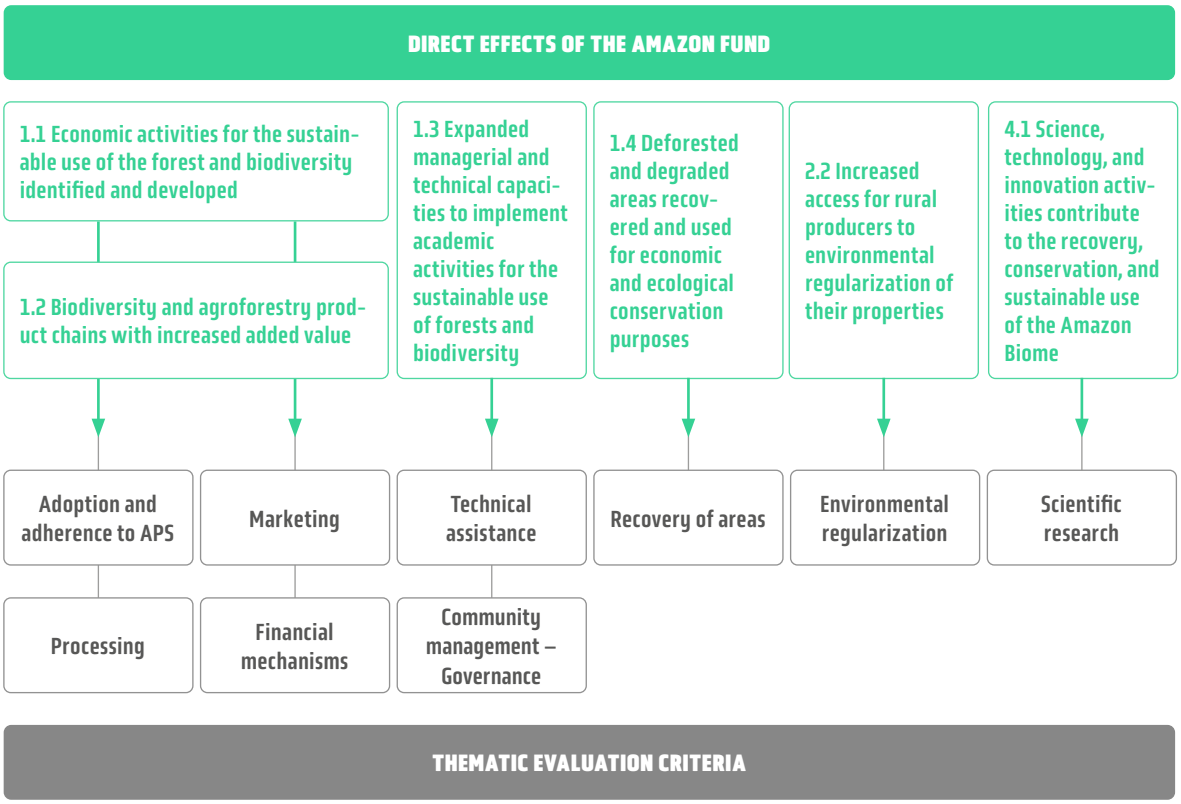
(iii) Analysis and Dissemination Stage

The evaluation team complemented the analyses in the Effectiveness Report with the inputs received during the Consultation Round, which were considered coherent and verifiable. A final version of the Effectiveness Evaluation Report for the projects was then sent to BNDES for publication on the Amazon Fund's website.

5. Aggregate Results

This evaluation seeks to analyze if the results achieved during the implementation period of the projects continued in force, as well as the outcome of these results and their impacts, years after the implementation. Initially, the contributions to the general goals of reducing deforestation and gender equality are analyzed. Subsequently, the aggregate results are evaluated in relation to the direct effects predicted in the Components. The analyses were organized according to the thematic evaluation criteria perceived as relevant to the projects as a whole (Figure 4). It is worth noting how much this aggregate analysis requires in terms of synthesizing the complexity of approaches, territories, social groups, chains, and land use present in the projects. Specific analyses are detailed in the individual reports attached to this document.

Figure 4 Criteria for Evaluating the Direct Effects of the Amazon Fund.



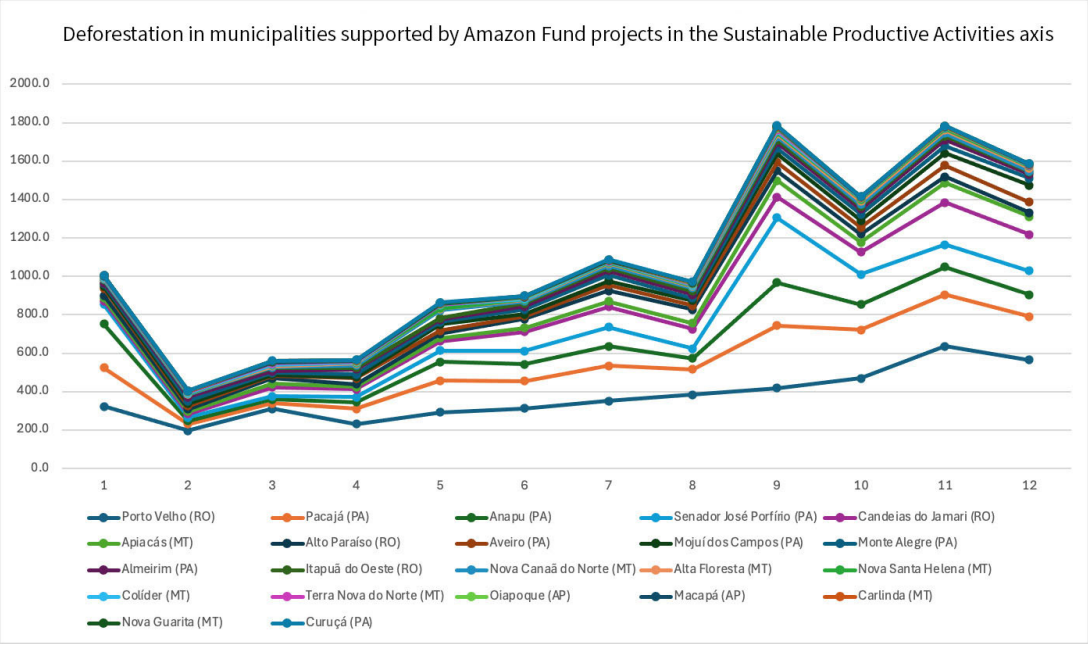
Source: Own elaboration.

5.1. Contributions to the general goals of reducing deforestation

Of the four projects evaluated, three included, in their monitoring plans, the forecast of measuring deforestation in the municipalities (*Amazon's Nectar* and *Use of Social Technologies to Reduce Deforestation*) or state of operation (*Sustainable Settlements in the Amazon*) as an indication of the contribution to the Amazon Fund's goal of reducing deforestation. The analyses, however, were not found in the reports for each project. The *Sustainable Settlements* project was the only one that carried out its own monitoring at the settlement plot level, including the data in its reports submitted to the Fund and made available to the general public.

In order to prepare this report, temporal, supplementary analyses of deforestation were carried out by an external team. These analyses showed that most of the municipalities targeted by the projects showed reduced or unchanged deforestation rates during the implementation period (Figure 5). It should be noted here, however, that the effects of projects on reducing deforestation are indirect and that creating logical connections between project results and the behavior of deforestation in their regions of operation is not simple and cannot be measured directly.

Figure 5 Deforestation in the municipalities supported by the projects evaluated



Source: Own elaboration.

One of the projects, however, sought to identify a greater causal relationship between their actions and deforestation rates. The *Sustainable Settlements in the Amazon* (PAS) project, of the Amazon Environmental Research Institute (IPAM), carried out analyses of deforestation specifically within the plots benefiting from the project in the period from 2012 to 2016. The analyses were carried out using data on the annual increase in deforestation produced by the Brazilian Amazon Forest Deforestation Monitoring Project – Prodes, carried out by the National Institute for Space Research (INPE), and carried out at two levels: **(i)** a level that evaluated deforestation in the settlements involved in the project as a whole and **(ii)** a second level that evaluated deforestation only in the plots that received Technical Assistance and Rural Extension (ATER) and payments for environmental services (PSA) from the project.

The overall findings showed a 73% reduction in the area deforested in settlements at the time of the project compared to the baseline, defined from the reference period between 1998 and 2008. More specifically, in the plots benefiting from ATER, a 76% reduction in deforestation compared to the baseline was observed. When the territories are compared, the nucleus that participated in the PSA scheme (PSA Core) showed an 83% reduction in deforestation for the same period[5].

After the end of the project, IPAM carried out a second analysis of the dynamics of deforestation in the benefited plots, for the period between 2018 and 2020. They found that the overall plots analyzed showed an 80% increase in deforestation compared to the project's field work period (2012–2016), which may be a reflection of other effects, such as the dismantling of environmental public institutions and policies in the period, as will be discussed below. The result also indicates that an exit strategy from the project is needed to ensure greater sustainability of the results. This issue is further explored in section 5.3, which discusses the role of ATER and financial solutions such as PSA in reducing deforestation.

It should be noted, however, that even following a trend of increased deforestation after the project, the values of converted forest in the plots that received ATER were still lower than the average of 91% found in the other plots in the settlements where the project was implemented. The plots in the PSA Core were an exception since they had a higher rate of deforestation than the other plots in the settlements. It is explained by IPAM, however, that "among the 64 family plots that received payment for environmental services through-

5 Relatório de Avaliação de Efetividade - RAE do IPAM.

out the project, only 05 plots were responsible for 40% of the deforestation that occurred among the plots sampled in the PSA Core. In the remaining 59 plots, the deforestation rate was 45%, which is lower than the rate for the territory, which was 87%.[6]

As seen in the PAS territory, from 2019 onwards, most of the municipalities targeted by the projects evaluated here showed a continuous increase in deforestation until 2022 (Figure 4). The increase is consistent with the rates found for the Amazon, which, between 2019 and 2022, saw a 150% increase in its deforestation rates compared to the previous four years[7]. Porto Velho, which showed a 44% increase in deforestation for the same period[8], was considered the epicenter of deforestation in the so-called Amacro region, made up of southern Amazonas, eastern Acre, and northwestern Rondônia5. The territory comprises a new front for agribusiness expansion, driven by the weakening of inspections and incentives provided by the federal government between 2019 and 2022.

The pressure for land in Amacro could be seen during the field mission in Porto Velho, when several families benefiting from the *Use of Social Technologies to Reduce Deforestation* (*Social Technologies*) project reported the devastation caused by the conversion of forests into soy crops and the aerial spraying of pesticides, which also affected the agroecological gardens on their plots.

During this period, there was also a drastic reduction in the budget defined by the Annual Budget Law (LOA), which had an impact on the Brazilian Ministry of the Environment (MMA), the Brazilian Institute for the Environment and Renewable Natural Resources (Ibama), and the Chico Mendes Institute for Biodiversity Conservation (ICMBio), affecting the command and control actions of these institutions[9]. As pointed out in APS Report I[10], "the PPCDAm's own Logical Framework, which is the main reference for the Am-

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6 Effectiveness Evaluation Report – IPAM's RAE.

7 The Amazon lost almost 3,000 soccer fields of forest per day in 2022, the most significant deforestation in 15 years. *Imazon* [online], Jan. 18. 2023. Available at https://imazon.org.br/imprensa/amazonia-perdeu-quase-3-mil-campos-de-futebol-por-dia-de-floresta-em-2022-maior-desmatamento-em-15-anos/. Accessed on June 2024.

8 Desmatamento na Amazônia Legal nos anos Bolsonaro [Deforestation in the Legal Amazon during the Bolsonaro years]. *Infoamazônia* [online], s.d.. Available at https://infoamazonia.org/storymap/desmatamento-na-amazonia-nos-anos-bolsarno-2019-2022/. Accessed on June 2024.

9 GIZ/AMAZON FUND. *Avaliação de Efetividade de Projetos de Aglutinadoras de Atividades Produtivas Sustentáveis no Fundo Amazônia* [Evaluation of the Effectiveness of Sustainable Productive Activities Agglutinating Projects in the Amazon Fund]. Aug 2023. Available at https://www.fundoamazonia.gov.br/export/sites/default/pt/.galleries/documentos/monitoramento-avaliacao/5.avaliacoes-externas/Relatorio-Efetividade-APS-Aglutinadoras.pdf . Accessed on: June 2024.

10 See the APS I Report here: https://www.fundoamazonia.gov.br/export/sites/default/pt/.galleries/documentos/monitoramento-avaliacao/5.avaliacoes-externas/Relatorio-Efetividade-APS-Aglutinadoras.pdf

azon Fund's operation at the public policy level, establishes that the reduction of deforestation is the result of integrated efforts in the areas of monitoring and control, territorial and land-use planning, and the promotion of sustainable production activities, complemented by the economic instruments axis". In this logic, the reduced presence of monitoring and control bodies and land-use planning in the years following the completion of the projects evaluated may have drastically influenced the high rates of deforestation found in the target territories.

5.2. Contributions to gender equality

The Amazon Fund's Annual Report (RAFA)[11] highlights that gender equality efforts are concentrated to some extent in the Sustainable Productive Activities (APS) Component. The promotion of gender equality was introduced as a criterion in the Amazon Fund's public calls for APS in 2012 and 2017. Although the projects analyzed did not originate from such processes, two of them included goals for women's participation. In addition, it was noticed that the executing organizations relied on guidelines from the Fund's team to consider the minimum 30% participation of women in the projects' actions, which proved to be very beneficial, as will be discussed below.

Reaching out to women, including them as participants, is a necessary first step towards equality, and can open doors for women to really benefit and empower themselves in the process of implementing a project.

The projects that monitored women's participation reported significant figures, well above the goals (Table 2). Some projects set specific goals for mobilizing women from the outset.

In the *Portal Seeds* project, the **active search for women's participation** generated the demand to create effective conditions for participation, making childcare spaces possible (called *ciranda*, inspired by the experience of the Landless Movement) and ensuring that teams are made up of men and women. After the end of the project, some measures are still in force, but limited resources resulted in more difficulties in keeping them.

In the case of organizations that had specific advisors for actions with women, the outcomes occurred in a way that was more integrated with the institutional strategies, and without interruption after the end of the projects, ensuring the continuity of training and meetings. One example of continuity

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11 BNDES. *Relatório de Atividades 2023 – Fundo Amazônia* [Activity Report 2023 - Amazon Fund]. BNDES, Jun. 2024 Available at https://www.fundoamazonia.gov.br/export/sites/default/pt/.galleries/documentos/rafa/RAFA_2023_port.pdf. Accessed on: June 2024.

Table 2 Goals to be achieved: women directly benefiting from the activities supported by the project.

Project	Goal	Result	Achievemnt of goal (in %)
Social technologies ADAI	240	556	232%
Portal Seeds IOV	N/A	3,905	N/A
Sustainable settlements IPAM	N/A	N/A	N/A
Amazon's Nectar Peabiru	40	52	130%

Source: Own elaboration based on project monitoring plans.

is the *Arpilleras* Workshops, in which participants discuss violations of women's rights in the communities served by the Movement of People Affected by Dams (MAB) – Rondônia, the local executor of the project *Use of Social Technologies to Reduce Deforestation* of the Interstate Agricultural Development Association (ADAI).

The **identification and meeting of women's specific needs to reduce income inequalities was not initially foreseen in the scope of the projects; However, the nature/type of APS strengthened** by the projects affected the degree of women's involvement, promoted engagement, and enabled income generation. In other words, the type of APS generated opportunities for women to get involved in income-generating activities. This is the case with the Integrated and Sustainable **Agroecological Production** System (PAIS), which is part of the direct spectrum of women's work in the production units, and the backyard, which was the central production model of the *Social Technologies* (ADAI) project.

A similar situation occurred in the *Amazon's Nectar* project with meliponiculture, in which stingless bees can be managed by women in their backyards. In this case, although the majority of those who benefited from the project were men, it was the women who remained in charge of production management. Not necessarily because of the project's incentive, but because of the organization of the families' work. In the case of *Portal Seeds*, women made up 46% of the production base when the project was carried out, and currently (2024) there are **56% of women among the active collectors in the**

Seed Network, indicating the attractiveness of this activity for women.

In the case of the restoration of areas and the implementation of Agroforestry Systems (SAFs), the direct involvement of women in the implementation and management of the areas was noticed as a **working force**. The role of women in **decision-making** in relation to land use and income, however, is not so evident, requiring other methods of investigation, such as participant research, observation during ongoing advisory services, and thematic workshops with women.

Some of the families visited were led by women and, in these cases, it was clear that ouctomes of the *Portal Seeds* project, such as *Raiz Bank*, are **facilitating women's access to better production conditions**.

It was found that the transition to more sustainable agroecological production models was successful and effective, and has continued to the present day. The **women have been essential in this transition process**, being responsible for the management of productive areas, collection/extractivism and the marketing of production, especially when the models are more inclusive, absorbing craft production, small quantities, and diversity of products, as is the case with fairs and bags for consumers, in the case of the projects implemented by the *Ouro Verde* Institute (IOV) and ADAI/MAB-RO.

In the case of the *Sustainable Settlements* (PAS) project, women's participation in training had a direct effect on their involvement in marketing the products. The courses provided access to information on marketing via institutional markets, which has since been led by women and continues to this day. The **increased income** generated by this greater participation in the market was generally **used to improve production or processing**.

The perception of women's financial autonomy was very evident in the case of the Pacaja Rural Family Producers' Cooperative (COOPROPAC), a cooperative that manages the family production fair in Pacajá, Pará, supported by the PAS project. With the president and more than half of its members being women, marketing has generated effective results for **women's empowerment and autonomy**. The cooperative's sales to institutional markets represented an income of around BRL 10,000 per family in 2023

Photo: Cecília Simões

Coopropac members interviewed in the shed of the Pacajá Family Fair

With regard to occupying positions of power, different situations were observed. In the case of the *Portal Seeds* project, some of the women farmers interviewed mentioned **not wanting to take on "positions"**, such as the local coordination of seed houses, for example. Some consider themselves capable, others have reported literacy limitations, but in general they say it would be "one more activity" to be done, leading to overload.

In the same project, the willingness to face the challenge of taking on the formal leadership of the Seed Network came recently, in 2023. The new board of the recently created cooperative is **made up of 3 women and 1 man, and on the board there are 3 men and 3 women**, some of them farmers and previously part of the project's technical team. In PAS, women have been engaged in leadership positions. Today, women are the majority of leaders in the Tapajós associations, and they are also the presidents of the Central Association of Agrarian Reform Settlers in the State of Pará (CAAREAPA).

5.3. Results by direct effects

In this section, it is analyzed if the results continue in force according to each of the direct effects of the Amazon Fund Logical Framework. , As mentioned, the analyses were organized according to the thematic evaluation criteria perceived as relevant to the projects as a whole.

DIRECT EFFECT 1.1: "Economic activities for the use of the forest and biodiversity developed"

DIRECT EFFECT 1.2: "Biodiversity and agroforestry product chains with increased added value"

The Amazon Fund's Logical Framework establishes common indicators for direct effects 1.1 and 1.2. Based on the logic that the greater the income obtained, the greater the interest in conserving the forest, these effects are monitored by the income-generating capacity of sustainable use economic activities. And also by the extent of forest that is subject to extractive activities, where appropriate.

All the projects analyzed in this evaluation aimed to increase income while reducing deforestation through solutions that use nature's potential, such as Agroforestry Systems (SAFs), Silvopastoral Systems (SSPs) and Sustainable Management of Timber and Non-Timber Forest Products.

In all the experiments evaluated, there was a real increase in income (Table 3).). IPAM's *Sustainable Settlements* project mapped a **135% increase in the gross income** of beneficiary families over the four years of its activities. **Five years after its completion, there was a 79% increase** in this income, generated by the sale of agroecological food and agroforestry cocoa. The *Portal Seeds* project, meanwhile, has generated a total income of more than BRL 7 million over the course of its implementation, both from the sale of agroecological food and from the sale of seeds for restoration. In the *Social Technologies* project, agroecological production was primarily aimed at the food security of the beneficiary families, but surpluses were also marketed, generating a total income of BRL 1.8 million at the end of the project. The production of honey, promoted by the *Amazon's Nectar* project, has brought in extra income that didn't exist before the project, estimated at around BRL 1,150 to BRL 1,350 a year for each producing family.

Table 3 Goals achieved: income increase in the projects evaluated.

Project	Goal (BRL)	Result (BRL)	Achievement of goal (in %)
Social technologies – total revenue ADAI	471,960	1,805,119.27	382%
Portal Seeds – total revenue IOV	N/A	7,056,255	-
Sustainable settlements – increase IPAM	30%	135%	450%
Amazon's Nectar – annual income Peabiru	N/A	1,125 - 1,350	-

Source: Own elaboration based on project monitoring plans.

In order to go beyond income in the analysis of the aggregate results of these effects, it was decided to use a simplified version of the value chain approach, considering the strategies of the projects to establish a structure for the stages of **production, processing, and marketing** (Table 4). It should be noted that there was no homogeneous interpretation of what strengthening chains would mean and, in some cases, isolated strategies were developed, without a market-driven perspective, as advocated by the chain approach.

All the projects have worked hard to consolidate production systems (implementation of areas, development of models and practices). Processing has not been a widely worked link, with actions through storage structures (seeds) and agroindustries (*Sustainable Settlements* project). The structuring of marketing was planned in three projects, with the exception of *Social Technologies*, in which it had not been planned, but proved to be fundamental during the course of the project.

Table 4 Project action strategies for structuring APS/chains, projects

Project/ executor	Sustainable production activities	Strategy	Production	Beneficiation	Commercialization
Social Technologies ADAI	Agroecological vegetables, legumes and poultry	Implementation of the PAIS system	◆		◆
Portal Seeds - Phase II IOV	Agroforestry and backyard production: fruit, legumes, vegetables	Implementation and enrichment of SAFs and agroforestry yards	◆		◆
	Forest seeds and green manure	Training Seed Network collectors	◆	◆	◆
Sustainable Settlements IPAM	Agroforestry and backyard production: fruit, legumes, vegetables	Improving farming practices and making agricultural machinery and implements available	◆	◆	◆
	Community forest management	Community forest management demonstration projects in three settlements	◆	◆	
Nectar from the Amazon Peabiru	Honey from native bees	Production and distribution of beehives, training of families.	◆	◆	◆

Source: Own elaboration based on the projects' logical frameworks.

Thematic Criterion 1. Adoption and adherence to APS

In order to win over producing families to Sustainable Productive Activities (APS) and the rational use of natural resources, the four projects evaluated here carried out **wide-ranging movements to engage their target audience, based on strong local partnerships**. It was also found that the beneficiaries' implementation of production units was often based on **land use planning strategies, with social mobilization for collective actions** (Table 4).

The *Social Technologies* project implemented Demonstration Units of mandala gardens on the plots of some beneficiaries, where the training sessions were held. The new production system was adopted through community effort, in which the whole community came together to plant the vegetable garden on each beneficiary's plot. This model of community cooperation continues to this day and has been responsible for creating a social fabric that is still active today, especially in resisting the pressures of agribusiness and strengthening marketing channels. **All the families visited during the field**

mission continue to produce vegetables in the agroecological system, including for marketing purposes.

Agroecological management techniques are still in full use: syrups, biofertilizers, and organic compost. Therefore, it is possible **to state that this new production model has been integrated**. Some families who have marketing contracts with middlemen and therefore produce on a large scale have **integrated agroecological techniques into conventional systems** (using pesticides and chemical fertilizers).

Photo: Juliana Mello

Agroecological production of vegetables irrigated with a solar energy system – Social Technologies project (ADAI and MAB/RO).

In Pará, the *Amazon's Nectar* project was responsible for **introducing** the honey **value chain** for Melipona bees in the region, which are easier to manage and produce honey with a higher added value than Apis bees. This has allowed the **dissemination and consolidation of an income-generating production technology that requires little investment and workforce** while promoting forest conservation and avoiding deforestation, since the hives are cultivated under the canopy of the trees, which serve as pasture for the bees.

During the field mission to the state of Pará, it emerged that, with the

support of the project, the meliponiculture chain in the regions visited has remained active, with families maintaining, and in some cases multiplying, their hives and selling their production to Peabiru, in partnership with a company (Fitobel). A relevant development of *Amazon's Nectar* was the **outcome of new projects** by the Peabiru Institute, which allowed the spread of meliponiculture to a new municipality in the state of Pará: Acará, on the outskirts of Belém.

The *Portal Seeds*, in turn, was the only project evaluated that worked with the **forest seed chain for restoration**, continuing its first phase of implementation. The Amazon Portal Seeds Network (RSPA), which gives its name to the project, had its infrastructure expanded in this second phase, as well as diversifying and improving the quality of the seeds.

During the implementation period, the project itself was the main buyer of the seeds marketed by the Network. These seeds were used in restoration activities in Permanent Preservation Areas (APPs) and production systems. Immediately after the end of the project, therefore, there was a reduction in demand for the seeds, but through the commercial insertion that had already been built, added to the articulation with the Redário, RSPA managed to increase its sales, boosted by other projects such as the PPP-Ecos Project, the REM-MT Program, and the Copaíbas Project. This has made it possible to maintain the Network, which in 2023 generated BRL 318,000 in sales, generating an average income of BRL 3,000 per collector that year.

The collection system in the RSPA has developed little in the way of seed extraction in the forest, due to access difficulties and the need for specific climbing skills. Some species are already collected in recovered APPs, but the restoration model was not designed with this in mind. More work is done on the collection of isolated matrices and on the forest orchards set up by the project in backyards, which is easy in the context of an aging population and the expansion of agribusiness, where many matrices located on third-party farms have been lost as a result of leases for soya plantations.

As well as working to consolidate the seed chain, the project implemented APPs, SAFs and enriched existing systems. Following the completion of the project, the restoration models implemented have been **integrated into production systems**, and part of them **through funding from the *Raiz Bank***, a microcredit mechanism created by the *Ouro Verde* Institute (IOV). Production models are defined based on the family's needs and motivation. In general, the combination of SAFs with investments from Raiz Bank has generated

an increase in income and quality of life for its beneficiaries, who have built houses, bought furniture and appliances, increased their food security, and invested in education for their children. **Silvopastoral systems** have been the most widespread model, along with **forest orchards (for seeds), fruit orchards, and agroforestry gardens** (more details in effect 1.4).

IPAM's *Sustainable Settlements* (PAS) project supported its beneficiaries in adopting SAFs for planting cocoa and agroecological gardens. In its 2022 Effectiveness Evaluation Report – RAE, IPAM reported that five years after the end of the project's activities, even with 88% of the beneficiary families not receiving technical support, 98% were still carrying out productive activities in the recovered areas supported by PAS, and 9% had expanded their SAF areas. Observations during this evaluation's field mission confirmed this data, indicating the **effective adoption of the productive transition**.

Respect for the individual aspirations of the beneficiaries, through the drafting and implementation of **Land Use Plans** may have been a key element in the effective adoption of the new practices. Some areas, however, have been **losing productivity** due to management failures because, with the end of the project, came a reduction in technical assistance and the free supply of inputs. In addition, the **difficulty in accessing credit** to invest in production in a more sustainable model, such as agroecology and SAFs, has also made it difficult to properly maintain productive areas.

PAS was the only project analyzed to promote community forest management, implemented in the Tapajós project area. After the end of the project, forest management continued through a partnership with the Tapajós Flona Mixed Cooperative – COOMFLONA, an organization of Flona residents that has been working with timber and non-timber community forest management. The Cooperative drew up the management plans, but it was only in the years following the end of the project that it obtained the exploration permits. Through companies outsourced by COOMFLONA, the community of São Miguel, in the Moju Settlement Project (PA), is currently implementing its management plan and extracting timber products in its territory. As for non-timber products, the women of PA Moju continue to extract, process, and sell andiroba oil and kernels, especially to cosmetics companies. Exploitation, however, has only been carried out on an individual basis, rather than collectively through the management plan.

Thematic Criterion 2. Processing

Adding value through processing strategies was foreseen for some of the APSs promoted by the projects (Table 5). In implementing the projects, adaptations were made in agreement with the Amazon Fund team in order to better target investments in processing structures.

Table 5 Processing-related strategies envisaged in the projects evaluated

Project/executor	Sustainable productive activities	Processing-related strategies envisaged in the projects
Social technologies ADAI	Vegetables, legumes, and poultry produced through the Integrated and Sustainable Agroecological Production System – PAIS	N/A
Portal Seeds IOV	Agroforestry and backyard production: fruit, vegetables.	N/A
	Forest and green manure seeds	Construction, renovation, and structuring of seed houses
Sustainable settlements IPAM	Agroforestry and backyard production: fruit, vegetables.	Processing structures in 20 community organizations
	Community forest management	Storage and drying structures built
Amazon's Nectar Peabiru	Honey from native bees	Setting up a processing unit

Source: Own elaboration based on the projects' logical frameworks.

In the case of the Seed Network, of the 18 Community Seed Houses implemented, 16 were still active at the time of this evaluation, some of them requiring expansion of the work area. Small projects subsequent to the Amazon Fund made it possible to build a Regional Seed House in Alta Floresta, to facilitate storage and speed up sales. The new infrastructure is already proving too small to meet demand.

Photo: Débora Almeida

Community Seed House in the São Paulo PDS – Portal Seeds II Project

When implementing the *Amazon's Nectar* project, it was assessed that a processing industry would not be profitable at this stage in the development of the meliponiculture chain. The decision was then made to enter into a partnership with a company that already worked with honey from Apis bees. The project supported the industry in obtaining the Federal Inspection Seal (SIF), the first in the country for meliponiculture products, which made it possible to **sell them throughout the country**. Through this partnership, the **Peabiru Institute buys the entire production** of the project's beneficiaries until the implementation of this evaluation.

In the case of PAS, it was planned to invest in processing units allocated to community organizations, but due to various limitations, the decision was made to invest in only one milk agroindustry for a cooperative and 18 other agroindustries in individual family units that already worked with the priority chains (fruit and manioc) and had a good commercial relationship with the market. The decision was the right one and, during the field mission, it was possible to see that the **processing structures** built during the project **have remained active** on most of the farms and that **access to different markets** has increased, especially institutional markets such as the Alimenta Brasil Program (PAB) and the Brazilian National School Feeding Program (PNAE). This has contributed to the **increase in income** of several families in the settlements.

Photo: Juliana Mello

Frozen fruit and pulp – Portal Seeds II Project

Thematic Criterion 3. Marketing

In all the projects, there were marketing (Table 6). The *Social Technologies* (ADAI) project was the only one that didn't foresee a commercial strategy from the start, since the intention was to produce diversified, agroecological food for consumption by the families; However, the volume of surplus production and the process of social organization strengthened in the communities led to the creation of a point of sale, in the form of a fair, on the initiative of some women. The local implementing organization, MAB/RO, has had to develop since then to support the families on this issue.

Table 6 Marketing strategies planned by the projects evaluated and their effects.

Project/executor	Sustainable productive activities	Marketing Strategies planned	Lasting effects (effectiveness)
Social technologies ADAI	Vegetables, legumes, and poultry produced through the Integrated and Sustainable Agroecological Production System – PAIS	N/A Initial focus on food safety	Fairs Bags for consumers
Portal Seeds IOV	Agroforestry and backyard production: fruit, vegetables.	Fairs SISCOS[12] Government procurement	SISCOS Fairs in restructuring

12 Solidarity Marketing System

Project/executor	Sustainable productive activities	Marketing Strategies planned	Lasting effects (effectiveness)
Portal Seeds IOV	Forest and green manure seeds	Seed Network actions Supply of seeds for the project	Local marketing Participation in the Redário
Sustainable settlements IPAM	Agroforestry and backyard production: fruit, vegetables.	Business plans for community organizations	Institutional market
	Community forest management	N/A	
Amazon's Nectar Peabiru	Honey from native bees	Market study, business plan, Peabiru's commercial website	Peabiru's commercial website Short-cycle individual sales

Source: Own elaboration based on project planning.

Agroforestry and agroecological production was central to three of the projects analyzed. **The main commercial strategies** to absorb the diversified production obtained in these systems were: **institutional market, fairs, and direct-to-consumer loyalty sales (bags)**.

The **institutional market** was and continues to be relevant in all the projects that had access to the Food Acquisition Program (PAA), the Alimenta Brasil Program (PAB) and the Brazilian National School Feeding Program (PNAE). Although most of the projects did not monitor revenue data broken down by type of market, in the case of *Portal Seeds*, revenue in the institutional market exceeded BRL 3 million over the life of the project. In terms of structuring this channel, PAS (IPAM) stands out for its **consistent provision of information and training on how to organize and compete in calls for tenders, either individually or collectively**. This investment was reflected in the sustainability of access to this canal by families and local organizations in Altamira and Tapajós.

Structuring or participating in fairs is another significant commercial strategy; However, during the covid-19 pandemic, between 2020 and 2022, many were demobilized, giving way to loyalty bags directly to consumers. In the *Social Technologies* project, the fair also worked as a meeting point, an exchange of knowledge and socializing. The experience created an unexpected effect: the donation of food not sold by the producing families to urban families in vulnerable situations. During the pandemic, the initiative gained strength from the coordination between MAB/RO, Cáritas, the Pastoral Land Commission and other local organizations. The agroecological production

chain has laid the foundations for a **solidarity chain between the countryside and the city**. The experience was strengthened by a project supported by the Banco do Brasil Foundation, which enabled the purchase of 48 tons of food, worth a total of BRL 1.2 million, which enabled the distribution of 4 thousand food baskets. Part of this amount was earmarked for the purchase of food from Integrated and Sustainable Agroecological Production (PAIS).

In addition to participating in municipal fairs, the main current commercial strategy of the families participating in the project is direct sales, implemented with the support of MAB/RO, volunteer university students in an extension program and young farmers. Based on the principles of the solidarity economy, the profit-sharing agreements were built with the families, seeking to be inclusive of the different profiles of producing families. The goal is to reach 200 consumers, making a minimum wage per month possible for each producing family. To this end, they see the importance of formalizing the creation of a cooperative, guaranteeing diversity in agroecological production, and strengthening the consumer network.

Photo: Débora Almeida

Vegetables for sale at the municipal market in Porto Velho. Social Technologies Project (ADAI and MAB/RO).

In PAS, fairs were organized in two regions served by the project. In the Transamazon, the Pacajá Family Production Fair was initiated by a provocation from the IPAM team, which supported the formation of its cooperative, COOPROPAC, which today has 36 members. The fair, which began with tents in the street, has evolved through partnerships and subsequent projects with the Amazon Fund, and today has a permanent location, its own shed, a truck, and contracts with institutional markets. In the Tapajós region, the Tapajós Solidarity Marketing Network was formed, which was demobilized during the pandemic, but subsequently resumed. Participation in institutional markets led some women to create the so-called Women's Agroecological Group, which sells directly to consumers through social networks and participates in fairs.

The *Amazon's Nectar* project has brought **relevant outcomes to the Peabiru Institute's strategy for marketing socio-biodiversity products**, with an impact on other forest value chains. As part of the project, a specialized website[13] and the "Peabiru Produtos da Floresta" brand were created and were active until this evaluation was carried out. In 2018, an Institute store was also opened, which was closed during the pandemic and reopened in 2022. Although formal markets are the focus of Peabiru's work, the Institute currently believes that the best financial returns for honey production can be achieved through **short-cycle sales**, informally and directly between producer and consumer. In these arrangements, families get three times the value paid by the industry.

During the lifetime of the *Portal Seeds* project, marketing points were set up, called "fairs", some sporadic, at events, and others permanent, totaling 25 over the course of the project in the eight municipalities where it was implemented. In terms of direct marketing to the consumer, the Solidarity Marketing System (SISCOS), created by IOV in 2008 as a way of selling products online, stands out and was supported by the project. In 2021, SISCOS was expanded and currently operates in four municipalities (Alta Floresta, Nova Canaã, Colíder, and Carlinda), representing IOV's main marketing strategy for family production from SAFs and vegetable gardens after the project. The **range of products marketed is wide and flexible, making it an inclusive model for different family profiles**. In 2023, SISCOS generated BRL 130,000 in sales, benefiting around 24 producing families, who earn a monthly income between BRL 800.00 and BRL 1,500.00.

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13 Check it out at https://www.peabiruprodutos.com.br

Thematic Criterion 4. Financial Solutions (PSA, Microcredit)

Although solutions such as Agroforestry Systems (SAFs), Silvopastoral System (SSP), and timber and non-timber forest management are promising alternatives for generating income in a sustainable way, they have a high investment cost that can make their adoption unfeasible.

Today, rural financing does not provide sufficient resources or adequate financial products to meet and scale these solutions. Thus, in order to make possible the investments needed to foster the adoption of sustainable practices and encourage forest conservation, the *Sustainable Settlements* and *Sementes da Amazônia* projects delivered two pioneering financial solutions at the time they were implemented, which generated effective results for maintaining the productive transition.

Raiz Bank, developed by *Portal Seeds* in Phase I and strengthened in Phase II of the project, is still one of the main strategies for generating financial autonomy for families in their production practices. The fund currently has BRL 650 thousand, raised through donations from the University of Exeter in the UK and the REDD Early Movers Program (REM/MT), and has a target of reaching BRL 1 million.

To access the credit, producers need to meet a series of criteria that seek to safeguard social cohesion and environmental protection, which include **(i)** active participation in the community and **(ii)** practicing sustainable land use and recovering the Permanent Preservation Area (APP). The resources have been used to invest in improvements to production and processing, such as fences, milk tanks, milking parlors, and freezers for fruit.

The **microcredit**, in the case of *Portal Seeds*, created the conditions for **continuing restoration actions** associated with income generation. The model created under the project and subsequently expanded by IOV has proven to be inclusive, **facilitating access to better production conditions, including for women**.

In the *Sustainable Settlements* project, the financial mechanism implemented followed the Payment for Environmental Services (PSA) model, in which families were paid for keeping the native vegetation on their properties conserved. The payment was offered to 350 beneficiaries in the Transamazon region, and led to an 83% reduction in deforestation on the benefited properties (see chapter 5.1 Contributions to the general objectives of reducing deforestation). It was also found that the resources received were used for investments in the productive transition, also contributing to the effective

adoption of the new practices.

The *Sustainable Settlements* PSA experience was pioneering and generated a series of lessons for the formulation of the **National PSA Law** – Law 14119 dated January 13, 2021, which regulates compensation for those who protect nature and keep environmental services functioning. Among the main lessons is the need for longer-term payments to guarantee effective conservation of the areas. Without financial remuneration, and under intense pressure from agribusiness after the project ended, all the family farmers interviewed in this evaluation reported having opened up new areas to expand their production. Thus, it was found that it is crucial that, along with the payments, the continued provision of technical assistance is also crucial, albeit in a mixed form and at greater intervals, to guide producers towards best practices to ensure an income that is not tied to deforestation.

DIRECT EFFECT 1.3: "Expanded managerial and technical capacity to develop economic activities for the sustainable use of forests and biodiversity"

According to the Amazon Fund's Logical Framework, the indicator for this item seeks to assess training at the managerial and technical levels for sustainable productive activities. The expected audience includes leaders from the public sector, business and community groups, as well as technicians and farmers.

Capacity-building actions are essential for the adoption of sustainable production systems and form the basis of all the projects evaluated. They range from Technical Assistance and Rural Extension (ATER) services for families to training for managers in the value chains they work with and for leaders in community management.

Thematic Criterion 5. Technical assistance and rural extension

The ATER service was offered to beneficiaries by the four projects evaluated.

In the *Social Technologies* project, all the families that implemented Integrated and Sustainable Agroecological Production (PAIS) received technical assistance from the project on an ongoing basis during its implementation. The indicators report an average of 18 visits per family**. After the completion of the project, the intensity and character of the technical support were**

modified, but never interrupted. There were few resources to continue advising the families individually, so **MAB/RO continued, and continues to this day, to work through community effort**, which brings together members of the community to maintain the gardens, organize marketing and act to defend rights and protect the territories. The working conditions of the technical team have become more precarious and often made more difficult by their commitment as activists.

Foto: Cecília Simões

Meliponicultura no quintal familiar. Projeto Néctar da Amazônia (Instituto Peabiru).

In the *Amazon's Nectar* project, the **provision of technical assistance** also proved crucial to the effectiveness of the efforts made. **The training courses were tools for engaging and selecting the producers in the project.** In addition, the producers report the need for frequent assistance when implementing the meliponaries to have questions answered and support received when extracting the honey. It is important to note that Peabiru has developed a mechanical tool for extracting honey that has significantly reduced working time compared to manual extraction with a syringe, which was done at the beginning of the project. The tool, however, is unique and remains in

Peabiru's possession. So the producers wait for the technical assistant to visit them to extract the honey, which happens once a year.

The *Amazon's Nectar* also highlights the role of other training actors in the intervention logic. Although not foreseen by the project, the supplementary **training offered by other institutions proved to be relevant in increasing the impact**. Reports were collected from producers who had taken courses offered by the Brazilian National Rural Learning Service (SENAR) on rural entrepreneurship, which provided guidance, for example, on pricing products, offering differentiated products, better financial management, etc. This has led to better management of production and marketing, in addition to the support offered by the project.

The **ATER model** adopted in the *Portal Seeds* project, in turn, favored collective moments, like workshops, training sessions, exchanges, and community work. Only in the initial design phase of the production systems were there individualized visits. Even today, IOV continues to work in the same way, but the **learnings** point to ATER with greater involvement of young people from the communities, so that the management stages can be monitored more individually and efficiently.

Assistance in this project was organized with one technical team per municipality, coordinating the different work fronts according to each context. The members of the team, both men and women, were appointed by the local management councils (now the Credit Committees), guaranteeing a relationship of greater proximity and trust with the beneficiaries, who thus became more easily engaged in the productive transition proposals.

The *Sustainable Settlements* (PAS) project devised and implemented a wide-ranging ATER model, which carried out regular, individual visits to all the families benefiting from the project throughout its implementation period. During the visits, the technicians supported the producers in various actions, starting with the preparation of their production diagnoses and **Land Use Plans** for the property, through to technical guidance for adopting agroecological practices, distribution of inputs and provision of machinery for use in production, management of cultivated areas, preparation of the Rural Environmental Registry (CAR), guidance on the construction of processing structures and support for marketing processes and social organization. The technical team also accompanied the producers in the construction of the community and individual nurseries and guided the students from the Rural Family Schools in their field internships.

IPAM has invested a large part of its resources in technical support, so that it is broad and present. It can be said that the extension workers acted as **agents of rural development**. The investment was worthwhile and proved crucial to the results achieved by the project and its long-term effectiveness. This allowed the IPAM team to build a local identity worthy of the trust of the beneficiaries, with enough ballast to generate **impacts on public ATER policies** and the potential to gain scale at a national level. During the field mission, the beneficiaries of the project unanimously agreed that the service provided by the ATER team was unique and differentiated because it was always present and respected the families' vision for rural production on their plots.

Since 2023, IPAM has been structuring partnerships with the Brazilian National Institute of Colonization and Agrarian Reform (INCRA) and the National Agency for Technical Assistance and Rural Extension (ANATER), with the aim of bringing the lessons learned at PAS to the work of these two institutions nationwide. At the state level, IPAM is a member of the Technical Chamber for ATER and of the State Council for Sustainable Rural Development in Pará and has been sharing the lessons learned from implementing the project, contributing to discussions and the construction of state public policies.

The ATER model developed by IPAM, however, faces a financial bottleneck, with high implementation costs (especially in terms of logistics) that hinder its ability to gain scale, as has been discussed with INCRA and ANATER. The financial bottleneck also impacts the sustainability of the model and, consequently, the results it achieves. The increase in deforestation rates after the end of the project suggests that the lack of continued technical assistance is crucial to guiding producers in the best practices to ensure income unlinked to deforestation in the long term.

To reduce costs, IPAM is betting on its current hybrid service strategy, which is part face-to-face and part virtual. To this end, it has developed an app that will begin its testing phase in the second half of 2024. The next step will be to formalize this type of service in public ATER institutions.

Thematic Criterion 6. Community management – governance

In three projects, the training activities included actions to strengthen community management aimed not only at implementing the project, but at rural development in the target territories as a whole.

The *Portal Seeds* project stood out for creating a **social base for partic-**

ipatory project management by strengthening various collective spaces for information and decision-making, such as local councils, marketing groups and seed houses, through to regional strategies such as the general council of the Seed Network. These spaces were considered fundamental for creating an environment of control, transparency, monitoring, collective learning and valuing family farming.

IOV continues with its participatory structure, involving Base Groups that make up the organization by statutes. The project's local councils **functioned as experiments in territorial governance**. Currently, the Credit Evaluation Councils (CAC) make it possible to continue this **exercise of participatory management**, although they have a smaller scope.

In the *Social Technologies* project, the emphasis was on strengthening the social fabric, which has been empowering the local population on various social and environmental issues. This is because MAB/RO has principles that guide the design and methodology of its training activities. Underpinning the technical process is the organizational bias, in the sense of strengthening local organizations and collaborative ties within communities.

On the subject of production, training took place mainly through **community effort** (called field days), in which knowledge, food and affection were shared. As a result of MAB's presence, the movement's community and base groups have been strengthened. This community effort was pointed out by several interviewees as "the best part of the project", which taught collectivity in the communities and was the main contributor to the social organization still present in the territory at the time of the evaluation.

The *Sustainable Settlements* project worked on community governance as a way to promote **more sustainable results that could be institutionalized**. In this sense, it worked to include representatives of the settlements in pre-existing governance structures, such as the Municipal Councils. After the end of the project, leaders from the Moju Settlement Project (PA) in Santarém, who received training during the project, went on to take up positions in the Municipal Agriculture, Health, and Education Councils. The project coordination believes that the representativeness has been maintained in Santarém, as the **leaders are associated with a community governance structure that predates the project**, the Central Association of Agrarian Reform Settlers in the State of Pará (CAAREAPA).

Although some of CAAREAPA's members have been demobilized during the covid-19 pandemic, the Central Association continues to meet at least

once a year. In addition, it was reported that the associations participating in the Central Association began to gain momentum of their own and, like CAAREAPA itself, began to act on the social control component.

With the support and training offered by the project, these organizations, including the Central Association, approached government bodies such as INCRA, city halls, the Brazilian Forestry Service (SFB), and began to act as articulators of public policies on water, electricity, land titling and CAR. Social organizations in Tapajós have also recently begun talks on carbon credit projects, discussing opportunities and evaluating the implementation of private projects that are already taking place in the region. The training of leaders and capacity building of these associations by PAS, therefore, has effective impacts on the construction and implementation of new strategies to control deforestation in the Tapajós.

PAS also worked to form new structures, such as Settlement Councils and Settlement Networks. The new structures formed, however, were encouraged by IPAM's work and by the end of the project ended up being deactivated in the Transamazon region. The period coincided with changes in the management of municipal and federal governments, including the extinction of the INCRA office in Altamira and a drastic reduction in dialogue with government agencies. The absence of a clear advocacy purpose, as well as the low expectation of a real impact, may have affected the members' willingness to continue meeting.

The action of these **governance bodies** during the implementation of PAS, however, was very effective, generating **collective results** that remained after the end of the project. Through advocacy in the councils and liaison with public authorities, the leaders have brought instruments of **rural development** to the settlements, improving their infrastructure through, for example, access to drinking water, the installation of electricity posts, the opening of roads and the opening of schools and health centers. These improvements contribute to the resilience of families, increasing their quality of life and promoting their desire to stay on the land.

DIRECT EFFECT 1.4: "Deforested and recovered areas used for economic and ecological conservation purposes"

According to the Amazon Fund's Logical Framework, the evaluation of

this direct effect seeks to understand the evolution of the recovery of deforested and degraded areas by the projects, considering environmental functions and occupation and income. Of the four projects analyzed, only two carried out restoration and recovery actions in open/degraded areas. (Table 7)

Table 7 Recovery goals for degraded areas recovered by the project.

Project / executor	Indicator	Goal	Result	Achieving the goal (in %)
Social technologies ADAI	Seedlings produced in the project	24,000	56,318	235%
Portal Seeds IOV	Area of SAF planted with project resources	1,550 ha	1,550 ha	100%
	Area of SAFs enriched with productive species	400 ha	400 ha	100%
Sustainable settlements IPAM	Area reforested with SAF	90 ha	198 ha	220%
	Recovered area used for economic purposes	900 ha	1,011 ha	112%
Amazon's Nectar Peabiru	Area corresponding to agroforestry systems implemented (hectares)	4 ha	0	-

Source: Own elaboration based on project monitoring plans

In the case of the *Social Technologies* project, 100 tree seedlings were distributed per beneficiary family with a focus on food security, landscaping and climate comfort, without the intention of promoting the effective recovery of the areas. In the field, it was clear that the families had embraced the project, exceeding the planned targets and spontaneously planting new trees. In the case of the *Amazon's Nectar* project, the Agroforestry Systems (SAFs) planned at the beginning of the project were not implemented due to a lack of expertise on the subject by the technical team specializing in meliponiculture.

The *Portal Seeds* and *Sustainable Settlements* (PAS) projects have developed and implemented models for recovering degraded areas for both ecological and economic purposes. Both provided interesting elements on the **restoration of areas in the context of family farming in settlements**, although in the case of *Portal Seeds*, the audience was more diverse. Of the total rural properties served by this project, 46% were settlement areas and 54% were private properties.

In the *Sustainable Settlements* project, the **restoration of areas took place in an integrated way with the Land Use Plans** of the properties, which defined, based on the environmental characterization of the property and dialogue between the technical team and the family, the activities to be implemented in line with the aspirations and needs of the families. Another element that to some extent **stimulated the recovery of degraded areas was the PSA mechanism**, which, in addition to the conservation of forest areas and APPs, included among its criteria the degree of implementation of the productive transition activities agreed in the land use plans.

As a result of this integrated process, around 1,000 hectares have been reclaimed in order to increase the productivity of already open areas. The technologies used to recover the areas included mechanized plowing (for planting grains, tubers, and vegetables), recovering degraded pastures, installing paddocks for grazing poultry, planting of fruit trees, among others. Other hectares (198) were recovered through SAFs, half in new areas and half in the enrichment and management of existing areas.

In the *Portal Seeds*, the **restoration/recovery models have been integrated into the consolidation of the forest seed chain**. The project adopted the "*muvuca de sementes*" [a swarm of seeds] sowing technique to recover APPs, inducing demand for seeds. The technology facilitated the restoration process and promoted the engagement of families, and the results promoted changes in the landscape. The production and restoration models generated by the project have been systematized and disseminated through the network of researchers set up by the project, which is still active.

Photo: Débora Almeida

Permanent preservation area restored. Portal Seed II Project.

The **restoration** continues to be supported by the Ouro Verde Institute (IOV), prioritizing **models integrated with income generation**, such as silvopastoral, orchards, and agroforestry gardens. The intensity of action expressed in the figures was not maintained after the end of the project, but the Institute continues to work to restore areas. Data systematized by the organization show that there was an **increase in restored areas of around 200 hectares** after the end of the project (data from 2021 to 2023). The **silvopastoral systems** have been the most widespread model, covering 90% of the area mentioned and involving 50 families. The strategy adopted seeks to **integrate restoration with dairy farming**, a central economic activity for family farming in the region, and is being carried out integrated with a microcredit financial mechanism, the Raiz Bank;

However, the expansion of agribusiness has put pressure on the leasing of properties. The IOV team estimates, for example, **that 30% to 40% of the families assisted by the project have leased their land**, especially outside the settlements. But there is no data to back up this perception. The team evaluates that the **families involved in income-generating activities, such as seeds and agroforestry production, rented less** than those who only restored APPs. In addition, there are reports that restored APP areas are not being included in the lease because their value is recognized in terms of maintaining environmental services, especially the protection of springs.

In this way, both the *Portal Seeds* and the *Sustainable Settlements* projects have generated significant results that have contributed to the **resilience of family farming** in the region; However, the intensity of the expansion of agribusiness generates intense social, economic and cultural pressures, demanding broader processes of **territorial management/governance**.

5.4. Contributions to Other Components

Some of the projects evaluated also contributed to the effectiveness of two other Amazon Fund Components: (II) Government actions ensure that human activities comply with environmental legislation and (IV) Science, Innovation, and Economic Instruments: Science, technology, and innovation activities contribute to the recovery, conservation, and sustainable use of the Amazon Biome.

Although these Components were not worked on in all the projects and had few aggregate contributions in the context of this evaluation, they

brought important lessons for the Amazon Fund's sustainable production chains strategy, as highlighted below.

DIRECT EFFECT 2.2: "Increased access for rural producers to environmental regularization of their properties"

Thematic Criterion 7. Environmental Regularization

Environmental regularization was approached in all the projects in this evaluation through measures to obtain environmental licensing for the production areas and processing structures of the value chains approached, such as honey, fruit pulp, manioc flour etc. Environmental licenses were a key element in the marketing strategy of these projects, as they enabled access to institutional and other more demanding markets, thus increasing producers' income.

In addition, the *Portal Seeds* and *Sustainable Settlements* projects also supported producers in registering for the Rural Environmental Registry (CAR), the main environmental regularization tool under the Brazilian Forest Code. The registration of settlement plots carried out by IPAM in the *Sustainable Settlements* project was one of the pioneering works in the state, comprising a total of 1,300 plots, and with its lessons learned and expertise developed, has contributed to the consolidation of the CAR registration process for settlers throughout the country with INCRA, the Brazilian Forestry Service (SFB), and state environmental agencies.

DIRECT EFFECT 4.1: "Science, technology, and innovation activities contribute to the recovery, conservation, and sustainable use of the Amazon Biome"

Thematic Criterion 8. Scientific research

The *Portal Seeds* project has established a network of researchers from various national and international institutions (Federal University of Mato Grosso - UNEMAT, Federal University of Mato Grosso - UFMT, University of Exeter/UK, University of Florida/USA) who have directed their actions towards meeting the demands of family farming in the region.

The productive transition to more sustainable practices requires adapting methods to reflect local environmental and cultural characteristics. The partnership with research institutions allows producers to propose the research

needed to improve their production, participate in the modeling and implementation of the research and benefit from the results in an agile manner.

This model of partnership for scientific research in response to the needs of producers in the process of productive transition is scalable to other regions of the Amazon and could speed up the implementation of sustainable production chains throughout the region.

6. Analysis of the OECD evaluation criteria and REDD+ and Cross-cut-ting Safeguards

6.1. Analysis of the OECD Evaluation Criteria

Table 8 Analysis of the OECD Evaluation Criteria.

Evidence	Evaluation
RELEVANCE CRITERION Did the projects contribute jointly and in aggregate to the Amazon Fund's goals?	
· The four projects evaluated were highly relevant in terms of the **diversity of the sustainable productive activities and chains supported**, involving a variable spectrum of actions, from the introduction of new activities to the consolidation of the production of agroecological vegetables, forest seeds, fruit, honey from native bees, as well as timber and non-timber forest management. · **Production models** have been developed and perfected, which contribute to the restoration of forests (in APPs) and the recovery of degraded areas, such as direct sowing (*muvuca*), silvopasture, integrated animal and plant production systems, mechanization, and Agroforestry Systems (SAFs). · The relevance of the projects is highlighted by the **beneficiary public**, made up mainly of family farmers in settlements, but also extractivists from protected areas, students from rural schools and, in the case of the *Social Technologies* project, families affected by dams, an innovation for the Amazon Fund. · Two projects worked more extensively on aspects of **community development**. In the case of *Social Technologies*, by defending the rights of families impacted by developments. In *PAS*, territorial management tools were implemented, as well as advice on resolving bottlenecks such as access to drinking water, access to lighting, occupational organization of settlements and the opening of roads, among others. · Although **it is not possible to directly measure** the effects of the projects on the reduction of deforestation in the target territories, IPAM identified that, during the implementation of PAS, in the **plots benefiting from ATER, there was a trend of a 76%** reduction in deforestation in relation to the baseline between 1998 and 2008. Among the **plots that received Payments for Environmental Services (PSA), the reduction reached 83%**. These results indicate that the project may have been relevant in reducing deforestation among the beneficiaries · The projects *Portal Seeds*, *Social Technologies*, and *Sustainable Settlements* are inserted in territories that are receive a lot of pressure in various areas by the **expansion of agribusiness**. The work of the proponents, even after the end of the project, has been fundamental in combating the violation of rights and increasing the **resilience of families to remain on their land, producing in a diversified way, keeping the forest standing** and therefore aligned with the objectives of the Amazon Fund.	**Very relevant**
EFFECTIVENESS CRITERION What direct aggregate effects have been achieved?	
· The goals of the projects were achieved: (i) families continue to adopt more sustainable and productive production systems; (ii) agroforestry products continue to be produced and marketed, representing a significant increase in family income; (iii) the **capacities** developed have made it possible **for families and their partners** to maintain production systems and commercial strategies with considerable **autonomy**; (iv) restored and recovered areas continue to develop, with effective changes to the landscape. · In the case of *Portal Seeds* and *PAS*, the **integrated action**, involving not only the **implementation of areas** but also the structuring of **marketing**, is associated with an intense and consistent process of **technical assistance, training, and governance**.	**Effective**

· In the *Social Technologies* project in Rondônia, the **commitment of the executing organization** to the beneficiary families beyond the implementation of the project was key to achieving the objectives; the **intervention methodology** based on organizational principles that strengthen the families' autonomy; the **productive activity with structured demand** (vegetables on the conventional market) and latent demand (agroecological production). · In the case of *Amazon's Nectar*, the production base has been structured, but the project has redefined the objectives for the other links in the chain, which remain in need of more investment towards the autonomy of the families. The communities' managerial and technical capacities to operate in the *Melipona* honey production chain has also been expanded, although there is still some dependence on technical assistance.	
EFFICIENCY CRITERION Is the cost-benefit of project activities consistent with each other?	
· In general, the documentation made available and the project records provide few elements for a more qualified evaluation of this criterion. The projects carried out their work plans, i.e. the resources made available were used to carry out the planned activities and financial control mechanisms were implemented to optimize resources in order to comply with the Amazon Fund's regulations. · The Portal Seeds project stands out in this criterion, with a governance process structured through municipal and regional participatory bodies, with instruments and procedures for transparency and co-responsible decision-making between beneficiaries and executors. · Difficulties in acquiring equipment in the Amazon led to additional costs and not-so-favorable purchasing schemes, such as the case of the photovoltaic cells for irrigating the gardens in the *Social Technologies* project, where centralized purchasing in the south of the country made it difficult to maintain the equipment. · In this criterion, it stands out that the management arrangement adopted in the *Portal Seeds* project has resulted in relatively low restoration costs compared to the regional average.	**Efficient**
IMPACT CRITERION What were the main aggregate effects of the projects? Were there any aggregate impacts? Have they proven to be scalable in the territory?	
· The **income-generating activities have been consolidated** and make a significant contribution to the composition of income in the context of family farming. There has been an increase in the processing and marketing of sustainable products, with the structuring of channels that in many cases continue to be managed autonomously by families and community-based organizations. The **marketing models are inclusive of different family profiles, considering age and gender**, which adds greater complexity and impact. For this reason, in some projects there is still the protagonism and even dependence on support organizations to manage specific marketing channels, such as SISCOS from Portal Seeds and honey from native bees from *Amazon's Nectar.* · The projects promoted the **productive transition** to more sustainable models and introduced new activities and models of land use. It resulted in a higher level of social organization, engagement, and training among family farmers, young people, and women. · All the projects contributed to the **food security** of the beneficiary families. But the *Social Technologies* project went further, providing healthy food for vulnerable families during the **pandemic**, both in the countryside and in the city, which established a solidarity chain based on the production chain of agroecological vegetables. · *Portal Seeds* project has enabled **changes in the landscape through the restoration** and enrichment of a significant area belonging to APPs and SAFs. · The *PAS* project promoted a rural **development model** that demonstrated the viability of family farming in the Amazon free from deforestation and with economic improvement. At the base of the model is an **ATER** program based on family planning of land use, provision of inputs and constant technical advice. The lessons learned have been used in the **formulation of public ATER policies**, currently being developed by INCRA and ANATER. · The *Amazon's Nectar* project **formed the productive base of a new value chain** of meliponiculture which, despite using endogenous bees from the Amazon, is incipient in the biome and was absent in the target territories.	**Positive impacts**

· Financial solutions were developed and implemented in two projects. In PAS, there was **Payment for Environmental Services (PSA)**, which remunerated families for their performance in reducing deforestation during the execution of the project. The program achieved positive results and its learnings contributed to the **formulation of Brazil's National PSA Law** – Law 14.119 dated January 13, 2021, becoming a national reference for similar programs. At *Portal Seeds*, Raiz Bank is a microcredit initiative started by the project and which continues to expand, providing access to the means of production for Sustainable Productive Activities (APS), including for women.	
SUSTAINABILITY CRITERION Are the effects achieved by the projects in aggregate lasting? Has sustainability been achieved? What are the effects of the Covid-19 pandemic on the organization and results of the project, especially the generation of income from sustainable productive activities?	
· The strengthening of virtually all the value chains supported by the projects continues in force. Contributing decisively to this was the **structuring of entrepreneurial organizations**, such as cooperatives, associations and groups **and the marketing channels** they operate. Noteworthy are the **short-cycle channels**, such as fairs and loyalty sales to consumers, which are operated with greater autonomy. The **institutional market** has also been an important channel for ensuring sustainability and generating demand for diversified chains such as SAFs and vegetable gardens. These channels were strengthened above all by **training for access to calls for proposals** during the execution of the projects. It is worth mentioning that families have also made marketing possible on an individual basis, as in the case of the family enterprises supported in the Transamazon region and the women who manage non-timber products in Santarém, both under the *PAS* project. · The covid-19 pandemic and the dismantling of public policies severely affected these marketing channels during the project's execution, but they are gradually being resumed and restructured. · The network of partnerships created during the implementation of the projects has made it possible to continue the actions, even though the number of beneficiaries has decreased significantly. In this regard, it should be noted that in the case of the *Portal Seeds* and *Social Technologies* projects, the sustainability of the results has been ensured due to the **executing organization remaining active in the territories independently of the projects**, largely on a militant basis, with more precarious working conditions and less intensively. · The consistency of the work of **ATER and the investment in family processing enterprises** has contributed to the sustainability of the results of PAS in the Transamazon. · The **microcredit** mechanism structured by the Portal Seeds project is expanding, making it possible to expand restoration through models integrated with production and income generation: silvopastoral, orchards and agroforestry gardens. The **research projects** developed by the network of researchers created during the project have contributed greatly to this. · In all the projects, the experience strengthened the local executing organization as a **reference in the themes**. The lessons learned are **guiding the continuity of actions** through new fundraising. In none of the projects evaluated there was subsequent funding in the form of actions and resources such as those provided by the Amazon Fund.	**Relevant sustainability**

6.2 Analysis of the Cancun Safeguards

Table 9 Analysis of the Cancun Safeguards

Safeguard	Attend-ance	Notes
1. Actions complementing or consistent with the objectives of national forest programs and other relevant international conventions and agreements	**Yes**	This project contributes directly to the PPCDAm and, more specifically, to the expected results: 1.1 Bioeconomy, socio-biodiversity, agroecology and agroecological transition expanded and strengthened in the Amazon; 1.2 Training and capacity building of personnel and infrastructure for socio biodiversity chains and sustainable family farming improved (Objective 1: Stimulate Sustainable Productive Activities) and 2.2 Recovery of native vegetation in public and private areas stimulated (Objective 2: Promote Sustainable Forest Management and the recovery and restoration of deforested or degraded areas). It is linked to and complements the efforts undertaken by the REDD Early Movers Program (REM MT).
2. Transparent and effective national forest governance structures, with a view to national sovereignty and national legislation	**No**	There were no specific contributions from the projects to this aspect at the national level.
3. Respect for the knowledge and rights of Indigenous Peoples and members of local communities, taking into account relevant international obligations, national circumstances and laws and noting that the UN General Assembly adopted the United Nations Declaration on the Rights of Indigenous Peoples	**N/A**	The projects did not target Indigenous Peoples, but worked with farming families in settlements and private areas.
4. Full and effective participation of interested parties, in particular Indigenous Peoples and local communities, in the actions referred to in paragraphs 70 and 72 of Decision 1/CP 16	**Yes**	The *Portal Seeds* project structured a system of governance, including participatory bodies at the municipal and regional levels, instruments and procedures for transparency and co-responsible decision-making between beneficiaries and proponents. In the interviews, the beneficiaries of the four projects demonstrated a broad understanding of the results obtained.
5. Actions consistent with the conservation of natural forests and biological diversity, ensuring that the actions referred to in paragraph 70 of 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 improve other social and environmental benefits	**Yes**	Two projects have developed and implemented models for recovering degraded areas for ecological (APPS) and economic (agroforestry systems) purposes using native species and consolidating the forest seed chain for this purpose.
6. Actions to address the risks of reversals in REDD+ results	**N/A**	
7. Actions to reduce the shift of carbon footprint to other areas	**N/A**	

6.3 Analysis of Cross-Cutting Criteria

Table 10 Analysis of Cross-Cutting Criteria

Criterion	Attendance	Notes
POVERTY REDUCTION		
· To what extent has the project contributed effectively to economic alternatives that value the standing forest and the sustainable use of natural resources? · To what extent has the project positively influenced the reduction of poverty, social inclusion and improvement of the living conditions of beneficiaries (in particular: traditional communities, settlements and family farmers) who reside in the area of the project activities? · Has the project succeeded in promoting and increasing production in value chains of timber and non-timber forest products originating from sustainable management?	**Absolutely**	· The four projects evaluated enabled the effective adoption of production systems that value the standing forest and the sustainable use of natural resources. In the field, the continuity of production systems was verified in most of the plots, as well as the processing and marketing of production, contributing to family income. · All the projects resulted in an increase in income for their beneficiaries, either by increasing and diversifying production, by adding value to products through processing, or by directly supporting marketing. · Through community governance training and leadership support, the projects also promoted community advocacy, which led to various achievements for the territorial development of settlers and family farmers, such as the paving of streets and roads, the installation of electricity, access to water, and the construction of schools and health centers.
GENDER EQUALITY		
· Has the project succeeded in integrating gender issues into its strategies and interventions or addressed the issue in an independent way? How? · Was there separation by gender in data collection for project planning and monitoring? · How did the project contribute to gender equity?	**Yes**	· In general, the projects went beyond mobilizing women and advanced measures to ensure effective participation. There have been direct benefits, such as income generation and access to means of production, such as credit. · Women have been essential in the transition to more sustainable production activities, being responsible for managing the production areas and marketing the produce. · In some projects, women have moved into leadership positions, while in others there are still obstacles that discourage women's involvement. See item 5.2 for more details.

7. Conclusions and Lessons Learned

The following are the conclusions and lessons learned from this evaluation of sustainable productive activity projects that have received support from the Amazon Fund. The main findings were organized into themes.

GENDER EQUALITY

- The projects did not provide strategies for understanding the gender restrictions present in the Sustainable Productive Activities (APS) supported. None of them included actions to meet the specific needs of women; However, the Amazon Fund's induction of the need to mobilize women to participate was relevant and fundamental to raising the issue internally in the executing organizations.

- As a result, the projects analyzed have taken a few steps forward on the long road to gender equality. It was possible to reach the women, i.e. to enable them to attend the training activities, meetings and workshops. Some projects have even guaranteed better conditions for participation. This step enabled direct benefits such as training, income and access to credit.

- It became clear that the exercise of formal leadership, through occupying spaces and positions of power, encountered cultural constraints, often related to the division of reproductive labor. Thus, in some cases, women have risen to positions of power.

- Creating the conditions for women's participation is a fundamental initial strategy, but it must be preceded by more consistent support from funders to combat gender restrictions more systematically.

- Actions in this direction were carried out intuitively, much more due to the courage of the women at the head of the technical teams than due to well-founded, methodologically based strategies and adequate human and financial resources.

- Finally, the concept of the indicator used in the monitoring plans mentions the number of "benefited" women, which should actually be translated as participants in the activities, as it does not guarantee direct benefits for the women.

RECOVERY OF AREAS

• The *Portal Seeds Phase 2* and *Sustainable Settlements in the Amazon (PAS)* projects developed and implemented models for recovering degraded areas for both ecological and economic purposes, totaling 3,159 hectares of areas restored and incorporated into production systems or for the purpose of recovering Permanent Preservation Areas (APPs).

• Both projects show the importance of financial solutions, such as Payments for Environmental Services (PSA) and microcredit, for the effectiveness and sustainability of the results. They also show that, in the context of family farming, recovery and restoration must be carried out using multiple technologies and models associated with production/income generation, taking into account land use planning instruments such as land use plans or rural assistance and extension (ATER) processes that enable families to play a leading role in decision-making.

• The intensity of agribusiness expansion generates intense social, economic and cultural pressures, demanding broader territorial management/governance processes.

ADOPTION AND ADHERENCE TO APS

• The results confirm that sustainable production chains are viable and promote an increase in income, as they increase and diversify production. The social organization of communities turns out to be a key factor in these results, as it enables producers to organize themselves in order to access new markets.

• Respecting the small producers' vision of how to use their own plots, as occurred in PAS through the Land Use Plans and in *Portal Seeds*, which has been promoting scientific research to adapt production systems to the needs faced by producers in the production transition, is proving to be an efficient strategy for adopting and adhering to Sustainable Productive Activities (APS). In this way, the adoption of new practices becomes a service to producers and an opportunity for desired improvements, rather than an imposition that provokes resistance.

PROCESSING

• Implementing processing strategies requires a level of organization-

al management that was not always available during the projects. For this reason, adjustments and flexibility were needed from the Amazon Fund to redesign actions and targets. These adjustments were important for the viability of the few processing actions identified in the projects. One case in point is the family agroindustries set up by PAS, originally planned as collective enterprises.

• Processing structures have indeed made it possible to upgrade the production in the APS chains, expanding markets and increasing producers' incomes.

MARKETING

• Marketing was effectively expanded in all the projects through channels such as fairs, institutional markets and direct sales to consumers, especially in the case of diversified production from Agroforestry Systems (SAFs) and agroecological gardens. These strategies are inclusive of different family profiles and benefit women in particular. These channels remain active to this day in all the territories evaluated.

• Although they were not originally envisaged by the projects, direct-to-consumer sales markets, such as fairs and food baskets, have proven to be a crucial marketing channel that deserves to be considered in future APS-related initiatives with a dedicated strategy.

FINANCIAL SOLUTIONS

• The financial solutions implemented in the projects evaluated (PSA and Community Bank) proved to be effective in promoting the adoption of APS, as they provided the necessary financial resources for an effective transition in production models. In the case of Raiz Bank, which provides reimbursable resources and has continued to raise funds even after the end of the project, the mechanism has made it possible to increase APS production areas and make various investments to improve production.

• Raiz Bank's experience has shown that a solution built on the needs of its beneficiaries provides highly effective results: there is little or no resistance from the target audience, engagement is rapid and there is a commitment to paying off debts, which facilitates the continuity of financial operations.

• In both of the experiences analyzed, the combination of technical assistance to guide the use of resources was also crucial to the proper use of resources and the successful achievement of the socio-environmental results sought by the financial solutions.

• Longer-term payments may guarantee more effective conservation of the areas. Without financial remuneration, and under intense pressure from agribusiness after the project ended, all the *PAS* family farmers interviewed in this evaluation reported having opened up new areas to expand their production. Thus, it was found that it is crucial that, along with the payments, the continued provision of technical assistance is also crucial, albeit in a mixed form and at greater intervals, to guide producers towards best practices to ensure an income that is not tied to deforestation.

ATER

• The permanent adoption rate of sustainable production models, such as SAFs and Agroecology, is directly related to the provision of ATER services. The more frequent and long-lasting the service, the greater the chances of the new production system being maintained, while at the same time reducing the chances of deforestation, due to the advice and offer of alternative solutions provided by the rural technician.

• For future experiences, it would be interesting if the ATER service offering were to provide for a transition to a self-financing model in the medium and long term, so that the service could be continued even after the projects have been completed.

COMMUNITY MANAGEMENT

• Mobilization and training are essential for working on projects related to sustainable production chains. Firstly, because the transition in the production model is also a cultural transition and therefore requires time and continuous training to take place. Secondly, because family farming's sustainable production chains require a high level of articulation and social organization in order to be able to sell on a large scale.

• Social mobilization and organization movements widely promote the adoption of and adherence to APS, as they constitute a support network

in which not only the work, which is very hard, but also the economic and social difficulties of the beneficiaries are shared.

• In scenarios of low availability of resources to carry out ATER services, community effort had proved to be an efficient way out, capable of maintaining the mobilization and engagement of beneficiaries and the exchange of knowledge between technicians and communities.

PROJECT MANAGEMENT

• The gain in the scale of the direct effects is still mainly due to new philanthropic funding, which allows for the continuity of actions and occasional expansion into new territories. In this sense, it is interesting for BNDES to support the funded institutions in this process of new fundraising, as this can expand the impacts expected by the Amazon Fund.

• The support of the Amazon Fund was a differential in the trajectory of all the executing/proposing organizations, whether from the point of view of the complexity of the projects or the scope of the financial resources. None of them carried out subsequent projects of the magnitude of those supported by the Fund. To a certain extent, there was a rebound effect due to the retraction of actions, demobilization of teams and reduction of coverage areas, with impacts on the management of organizations.

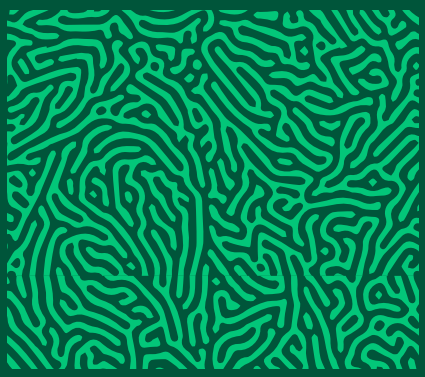
• Partnerships enhance the actions of projects supported by the Amazon Fund and create better conditions for the sustainability of the effects generated.

8. Recommendations

In this chapter, recommendations will be presented for the organizations carrying out the evaluated projects, public agents, the Amazon Fund/ BNDES and donors. These recommendations are of a suggestive nature, so that the pertinence of their implementation by the agents involved can be assessed. It was decided to generate a small number of recommendations, more essential and with a direct correlation to the projects evaluated. However, it is understood that there is an accumulative process with other effectiveness evaluations already carried out..

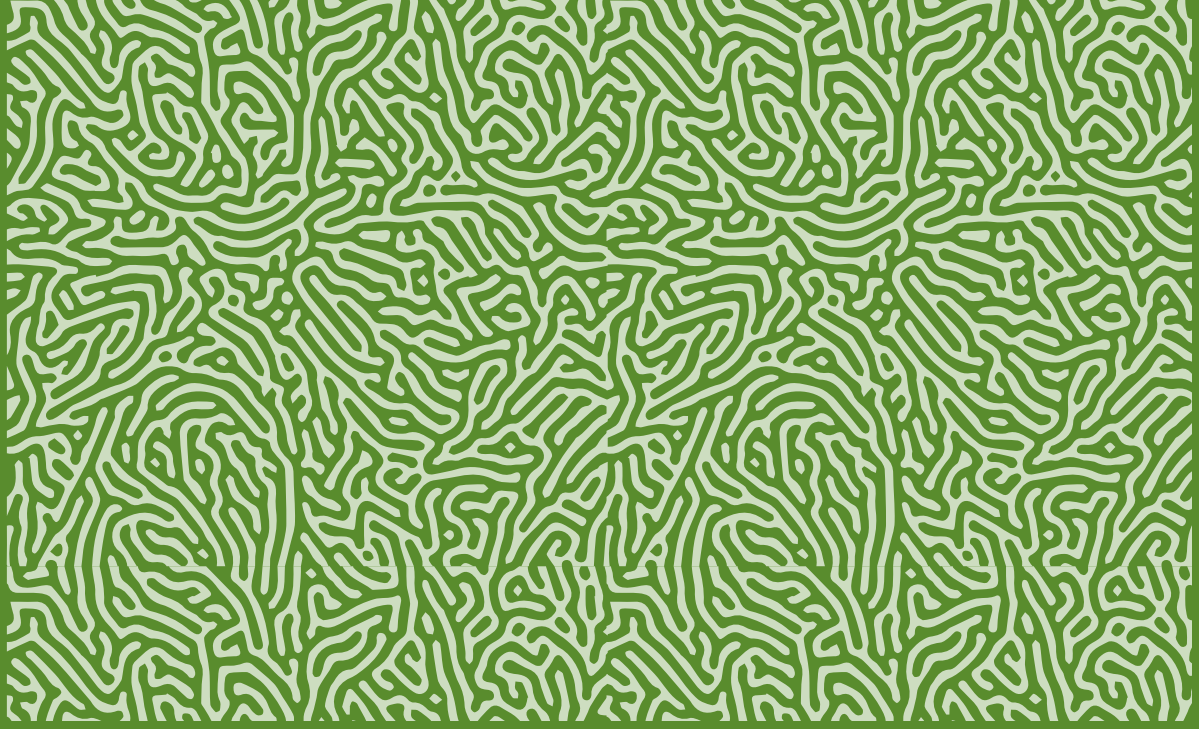
Table 11 Recommendations resulting from the evaluations

	Recommendations	Executors	Public actors	BNDES/Fund	Donors
1	Promote events to integrate projects, exchange experiences and disseminate lessons learned on strategic themes, taking into account the indicators from the effectiveness evaluations of the Sustainable Productive Activities (APS) Component.			◆	
2	Implement financial mechanisms as part of the execution cycle (*phase-out*), in order to reduce negative impacts caused by the closure of projects on the executing organizations and the benefited public, which threaten the discontinuity of the actions and results achieved.	◆		◆	
3	Maintain and expand strategies to diversify the organizations supported by the Amazon Fund, promoting the inclusion of grassroots organizations from different social groups, valuing their unique capillarity and mobilization power.			◆	
4	Carry out consistent methodological training processes to combat gender restrictions in APS.	◆		◆	
5	Encourage specific calls for proposals and project actions to identify and meet the specific needs of women in order to reduce income inequalities.	◆	◆	◆	
6	Provide governance and territorial protection strategies to deal with vectors of Deforestation and threats to biodiversity, considering the integration of government projects, research institutions and civil society on a state/regional scale.		◆	◆	◆



Annex 1
Individual Project Evaluation

Use of Social Technologies to Reduce Deforestation Project – ADAI
Projeto Assentamentos Sustentáveis – IPAM
Projeto Sementes do Portal II – IOV
Projeto Néctar da Amazônia – Instituto Peabiru



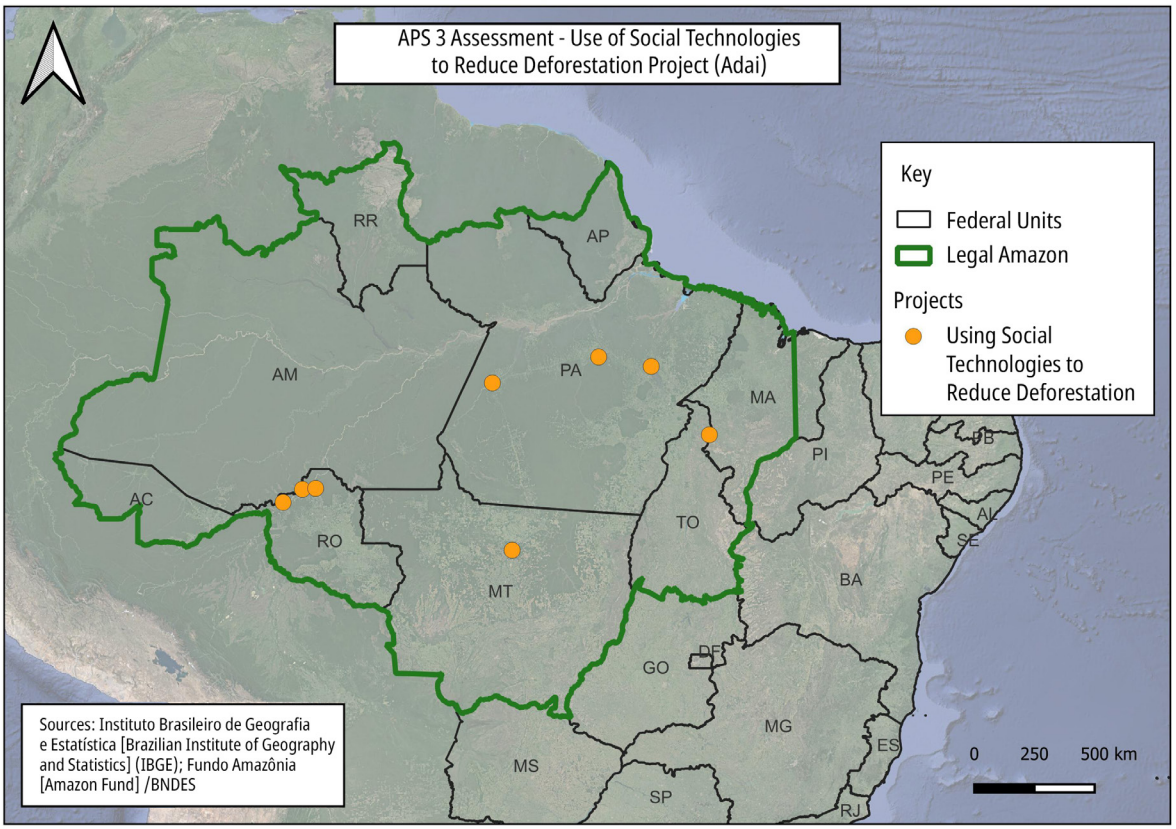
I.
Use of Social Technologies to Reduce Deforestation Project

Project File			
Project Title:	Use of Social Technologies to Reduce Deforestation	**Responsible organization:**	Interstate Agricultural Development Association (ADAI)
Project Period:	31/Jul/2017 – 31/Dec/2021	**Territorial Coverage:**	Mato Grosso, Pará, Rondônia, and Tocantins.
Beneficiaries:	Riverine families and small farmers in areas of influence of hydroelectric projects.		
Goals:	Implementing family agroecological production units, contributing to food security and income generation for riverine dwellers and family farmers in an environmentally sustainable way.		
Inclusion in the Amazon Fund via Component:	Sustainable Production	**Deadline:**	42 months
Total value of the Project:	BRL 9,157,010.25	**Amount of support from the Amazon Fund:**	BRL 9,059,718.63
Hiring date:	31.Jul.2017	**Date of completion:**	31.Dec.2021

Source: Amazon Fund website, accessed on 28/Feb/24, available at https://www.fundoamazonia.gov.br/pt/projeto/Uso-de-Tecnologias-Sociais-para-Reducao-do-Desmatamento/

1. Project Summary

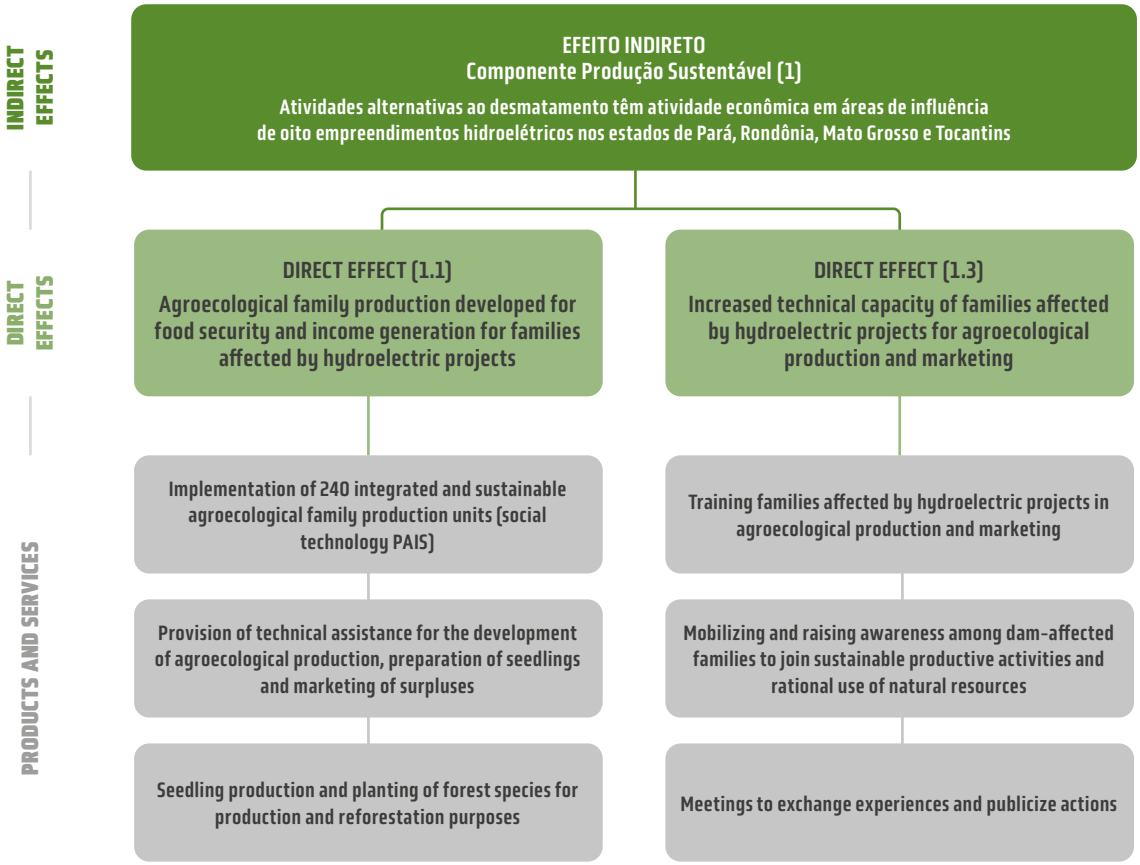
With the aim of promoting food security for families and reducing pressure on natural resources, the *Use of Social Technologies to Reduce Deforestation* project implemented 240 family units of integrated and sustainable agroecological production (PAIS), a model that involves organic farming integrated with small animal husbandry and uses inputs produced on the property itself. To make the productive transition possible, all the families received a photovoltaic energy kit to collect water and irrigate their gardens. Native forest species were also planted for productive purposes at the project sites. The families who benefited were trained to prepare seedlings and use planting management techniques, as well as receiving technical assistance on agroecology.



2. Intervention Logic

The project *Use of Social Technologies to Reduce Deforestation* falls under the Sustainable Production component (1) of the Amazon Fund and its Logical Framework agreed with the funder is shown in Figure 1.

Figure 1 Logical Framework of the *Use of Social Technologies to Reduce Deforestation* project



Source: Own elaboration based on project monitoring plans

In the Monitoring Plan agreed between the Interstate Agricultural Development Association (ADAI) and the Amazon Fund, the Indirect Effect was treated as the project's General Objective, while the Indirect Effects were considered the Specific Objectives. Indicators were developed for the General and Specific Objectives, as well as for each Product and Service presented.

3. Specific Methodology

This evaluation sought to analyze if the results achieved during the implementation period of the project continued in force, as well as the outcome of these results and their impacts, years after the implementation.

The area covered by the project comprises four states and six regions where families who live there have had their way of life affected by the operation, construction or planning of hydroelectric power plants (UHEs):

- Rondônia: Santo Antônio UHE, Jirau UHE, and Samuel UHE, involving the municipalities of Porto Velho, Candeias do Jamari, Alto Paraíso, and Itapuã do Oeste;
- Mato Grosso: Sinop UHE, involving the municipality of Sinop;
- Tocantins: Estreito UHE, involving the municipalities of Filadélfia and Babaçulândia;
- Pará:
  - Belo Monte UHE, involving the municipalities of Altamira, Brasil Novo, and Vitória do Xingu;
  - Tucuruí UHE, involving the municipalities of Marabá and Nova Ipixuna; and
  - São Luiz do Tapajós UHE, involving the municipalities of Itaituba, Trairão, and Rurópolis[14].

In the preparation phase of the analysis, data was collected from secondary sources including project documents shared by the BNDES, public data and institutional materials made available by the institution responsible. For active data collection, a field mission was carried out in April 2024 in Rondônia, in the municipalities of Porto Velho and Candeias do Jamari. During the mission interviews were held with 26 people, including representatives of beneficiary families, partners, coordination and the local technical team. Some interviews were individual, but most were group interviews. Seven properties directly involved in the implementation of the Integrated and Sustainable Agroecological Production (PAIS) systems were visited.

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14 The procedures to start construction of the São Luiz do Tapajós UHE were canceled by IBAMA in 2016 after a decision to shelve them during the environmental licensing phase; However, the riverine families in the project's polygon experience a situation of vulnerability due to other factors inherent to the local socio-economic reality. For this reason, and regardless of any future resumption of the project, they were considered an eligible audience for the project's activities.

Photo: Juliana Mello

Evaluation team visiting Porto Velho/RO

4. Project implementation context

The Interstate Agricultural Development Association (ADAI) was founded in 1993 as a non-profit organization to implement projects with communities affected by hydroelectric power generation dams. Today, ADAI implements projects in partnership with organizations representing social movements, with the **Movement of People Affected by Dams (MAB) being a historic partner and the local executing organization of the project supported by the Amazon Fund**, through its state coordinators.

The *Use of Social Technologies to Reduce Deforestation (Social Technologies)* project was created based on experience carried out by ADAI and MAB between 2009 and 2011. The previous project was aimed at implementing PAIS with 20 families in three settlements in Rondônia with support from the Banco do Brasil Foundation.

Because of its trajectory, MAB is considered a pioneer in the discussion of agroecology in Rondônia, participating in forums and inter-institutional articulations. The Amazon Fund project boosted this action and strengthened the discussion of the issue nationally within the MAB.

The pressure on the settlements has worsened with the growth of agribusiness in the Porto Velho region. In addition to the leasing of areas, generating a loss of family food production territories, there are many effects

of aerial spraying, both on production and on people's health. For MAB, the productive agenda has been a fundamental strategy for the resilience of the communities and their continued production in the settlements.

5. Evaluation of the Results

This section summarizes the results achieved based on the framework of indicators systematized by the project in its Monitoring Plan. As mentioned in the methodology, the evaluation comments highlight the permanence and outcome of the results several years after the project was implemented. The discussion of the results follows the sequence and structure of the indicator blocks defined in the Monitoring Plan.

It should be noted that in the *Social Technologies* project specifically, the indicators are reported globally for the four states. The comments are based on interviews carried out during the field mission to Rondônia and with the project's general coordinator.

DIRECT EFFECT 1 – Agroecological family production developed for food security and income generation for families affected by hydroelectric projects.

DIRECT EFFECT 2 – Increased technical capacity of families by hydroelectric projects expanded for agroecological production and marketing.

Indicator	Goal	Indicators at the end of the project (August 2018)	Change
Volume of production *in natura* generated by the supported project broken down by main products	Per year, per PAIS: • 730 bundles of vegetables • 365 kg of vegetables • 24 kg of meat • 30 dozen eggs	Vegetables: 1,191,003 bundles Vegetables: 132,155 kg Meat: 46,284 kg Eggs: 23,922 dozen Root: 37,210 kg Fruit: 16,730 kg Grains: 28,478 kg	
Estimated value of the production of PAIS implemented by the project for self-consumption by families	BRL 471,960.00	BRL 1,335,919.54	
Revenue from the sale of the surplus from PAIS implemented by the project	BRL 471,960.00	BRL 1,805,119.27	
No. of individuals directly benefiting from the activities supported by the project	888	1,067	120%

Indicator	Goal	Indicators at the end of the project (August 2018)	Change
No. of women directly benefiting from the activities supported by the project	240	556	232%
Number of female employees in the institution responsible for implementing the project and total number of employees in that institution	-	8 women / 25 total	
Number of women holding coordinating positions in the institution responsible for implementing the project and total number of individuals holding coordinating positions in that institution	-	4 women / 16 total	

Income and Marketing

The project was designed with the intention of producing diversified, agroecological food for consumption by the families. The commercial strategy was not clearly defined at the start of the project, but it was planned to sell surpluses to supplement income.

> *Working in production is a way of supporting families to stay on the land. And once you get into the subject of production, there's no turning back. We had to take action in marketing to guarantee the continuity of agroecological production. — MAB/RO leadership*

Some families were already selling vegetables through the middlemen who operate in the communities. The demand was, and still is, for a very short list of items, grown in monoculture. The diversity of production in PAIS systems demanded a different business model. One way out was to sell locally, individually, in the villages located near the settlements and within the settlements themselves, at very low prices, but providing quality food. The social cohesion that was growing in the communities drove the search for a collective strategy.

The need for marketing took shape during a women's workshop held in partnership between MAB/RO and the Federal University of Rondônia (UNIR).

> *We wanted a fair to call our own.*
> *— Beneficiary, family farmer.*

The F*eira da Igreja São José* was a fair set up to sell the surplus produce of PAIS, but it also functioned as a meeting point, an exchange of knowledge and socializing. The support of Porto Velho's city hall for transportation was arranged, but after a few months the scheme deteriorated, with effects on the families' participation. The fair ran for a year until the covid-19 pandemic hit.

The experience of holding the fair created an unexpected effect: the donation of food not sold by the producing families to urban families in vulnerable situations.

> *The experience of donating leftover food awakened a feeling of solidarity among the farming families for the families in the city. This was very new for them. — MAB/RO Coordination*

During the pandemic, this relationship of support gained strength from the articulation between Cáritas, MAB/RO, the Pastoral Land Commission and other local organizations. The agroecological production chain has laid the foundations for a solidarity chain between the countryside and the city.

> *There was an alignment between the partners, we wanted to deliver quality products in the baskets that would be distributed and generate income for those who produce. Very little was bought at the market, everything came straight from the fields, produced by the riverine dwellers and settlers. MAB/RO organized this entire agroecological food supply base.*
> *— Coordinator of Caritas*

The experience was strengthened by a project supported by the Banco do Brasil Foundation, which enabled the purchase of 48 tons of food, worth a total of BRL 1.2 million, which enabled the distribution of 4 thousand food baskets. Part of this amount was used to buy food from PAIS.

> *At that moment of uncertainty, the assistance work renewed the spirit of the team itself. We were all afraid. Our remedy was to come together to provide an emergency response. — MAB/RO Coordination*

After the end of the project, marketing strategies continued on two fronts: individual initiatives, carried out by the families themselves, and collective initiatives, articulated by the MAB. Participation in two fairs in Porto Velho

has been an important commercial strategy. Some families gather products from neighbors to diversify their stalls.

Photo: Débora Almeida

Beneficiary family, selling produce at the fair visited by the evaluation team.

Individually, the families supplied the Food Acquisition Program (PAA), but the implementation of the program via the city government became bureaucratic and some gave up.

> *You can't produce and look after paperwork!*
> *— Beneficiary, family farmer.*

PAA allows for predictable income and has remained a commercial option for some families, who reported receiving BRL 1,000.00 a month. One of them sadly shows the deactivated PAIS due to the aerial spraying that intensifies every year around Porto Velho. Another family is anxiously awaiting the results of toxicology tests for contamination by the spray. MAB/RO has been assisting families to deal with this new impact on their territories.

Photo: Débora Almeida

Okra planted in PAIS affected by aerial spraying

Among current commercial strategies, the basket marketed directly to consumers stands out. Based on the principles of the solidarity economy, the profit-sharing agreements were built with the families, seeking to be inclusive of the different profiles of producing families.

The goal is to reach 200 consumers, making a minimum wage per month possible for each producing family. To this end, they see the importance of formalizing the creation of a cooperative, guaranteeing diversity in agroecological

production and strengthening the consumer network.

The organization of the requests has been carried out by volunteer students from UNIR, daughters and sons of farmers. Three consumer meetings have already been held and there are reports of effects on people's diets.

> *People have started cooking again and are creating a healthier relationship with their food. — MAB/RO Coordination.*

The MAB's marketing experience in Rondônia is considered by the project's general coordination to be a benchmark, with more expressive results than in the other project states.

Women

In terms of reach, the indicators report that more than half of the public directly benefited by the project were women. In the field, in the state of Rondônia, these figures were confirmed, firstly, because several families are led by women and, secondly, because the PAIS system is inserted into the direct spectrum of women's work and power in the production units, the backyard. Added to this is MAB's view that women are protagonists in the process of organizing in the territories.

> *In the world of those affected by dams, we understand that women are the ones who make social organization happen. —Project coordination*

Although there is no systematized data on the effects of the project on women's financial autonomy, there were reports that the sale of PAIS products is still the main source of income for the women interviewed, along with social benefits such as *Bolsa Família*. The marketing model is inclusive and guarantees access to older women, those with health problems or young children.

> *Because of my health limitations, baskets are my only way of selling. They buy what I can produce, and it's been very important. — Beneficiary, family farmer.*

Among the actions carried out directly for women, the workshop in partnership with UNIR was a time to listen to women's needs and led to the organization of the fair.

MAB/RO's technical team has an advisor specializing in women's organization, so activities in this direction continued even after the end of the project, guaranteeing moments of meeting, exchange and training for women. One example is the Arpilleras Workshops, in which participants discuss violations of women's rights. In Rondônia, for example, one of the topics addressed was the effects of agribusiness expansion on the surroundings of family farms, especially the impact of aerial spraying.

DIRECT EFFECT 1. Agroecological family production developed for food security and income generation for families affected by hydroelectric projects.

Indicator	Goal	Indicators at the end of the project (August 2018)	Change
Product 1.1: Implementation of 240 integrated and sustainable agroecological production units – PAIS, using photovoltaic energy to collect water and irrigate the gardens			
No. of properties with sustainable production projects implemented (PAIS - Integrated and Sustainable Agroecological Production)	240	240	0%
Product 1.2: Production of seedlings and planting of forest species for production and reforestation purposes, and marketing of surpluses.			
No. of seedlings produced in the project	24,000	56,318	235%
Product 1.3: Provision of technical assistance for the development of agroecological production, preparation of seedlings and marketing of surpluses.			
No. of rural properties with families benefiting from technical assistance actions	240	240	0%
No. of technical assistance visits carried out	4,320	5,520	128%

Production Model

Before the project, some families already produced vegetables commercially, but for most, the reality was just a small bed of spices. The PAIS system has diversified the vegetables grown and therefore consumed and marketed by the families to date.

Connecting with families' real needs made the process of selecting 30 beneficiary families in Rondônia very challenging, as there were many more interested. **All the families visited continue to produce vegetables in the**

agroecological system, including commercially, but practically all of them have abandoned the circular mandala planting system, considered unsuitable for the Amazonian winter conditions. Only the demonstration unit located on the Franciscan sisters' farm retains the original circular model, the others have been "rectified".

Agroecological management techniques are still in full use: syrups, biofertilizers, and organic compost. Therefore, it is possible **to state that this new production model has been integrated**. Some families who have marketing contracts with middlemen and therefore produce on a large scale have **integrated agroecological techniques into conventional systems** (using pesticides and chemical fertilizers).

The Integrated and Sustainable Agroecological Production System - PAIS

PAIS system in a circular format with solar energy for irrigation. Photo: Débora Almeida.

It consists of circular vegetable beds with a chicken coop in the center. The model was initially tested through previous project implemented in Rondônia and expanded to four states with support from the Amazon Fund. The system includes a diversity of vegetable species, root crops and grains, grown in an agroecological way and irrigated using solar energy.

The seedlings distributed by the project were effectively planted and managed. The plantations were not intended to restore degraded areas, but to introduce new species for food, ornamental and medicinal use. The fruit and forest trees are shown with pride and affection by the families and on some properties they were the start of orchards and Agroforestry Systems (SAFs).

Photo: Débora Almeida

PAIS system "rectified".

MAB/RO continues to perfect the agroecological model of production, now evolving in the perspective of regenerative agriculture, with agroecological gardens and more intensive management of organic matter through green, arboreal and herbaceous fertilization, managed with pruning. It is worth noting that in one of the gardens visited, the new model is being especially celebrated, as it makes it possible to work in the shade and is better adapted to the resident's physical conditions.

Photo: Débora Almeida

Regenerative vegetable garden recently set up.

The provision of inputs (seeds, seedlings, tools) and technical assistance were fundamental. The solar-powered irrigation system, however, went further and made it possible to overcome a bottleneck that limited the activity and would have been difficult for families to access without the project's support. There have been reports that the cost of electricity can reach BRL 1,500.00 per month, which can only be justified on large-scale commercial plantations.

The installation of solar energy system was a technological innovation. However, problems in sizing the system and difficulties in maintenance caused the **shutdown of the systems before the end of the project**. Replacing the batteries with their own resources required financial organization that the families didn't have. Only two of the families visited were still using the original system.

> *"Today there's a solar energy store on every corner in Porto Velho, but at the start of the project it was different. The whole system came from the South, technical assistance was limited, we faced many problems."*
> *— Technical team..*

The project was an **experiment that made it possible to prove the viability and necessity of the solar energy for irrigation** system and generated fundamental lessons for MAB/RO to readjust the system in the project that will continue the horticultural activities. The new system includes a central power plant integrated into the electricity supply network and the resizing of some components. A few better-off families, for example with pension funds, bought, expanded or replaced solar system components on their own after the project experience.

Technical Assistance and Rural Extension (ATER)

All the families that implemented PAIS received technical assistance from the project on an ongoing basis during its implementation. The indicators report an average of 18 visits per family. **After the completion of the project, the intensity and character of the technical support were modified, but never interrupted.**

> *"MAB/RO works in the territories independently of the projects. It is not the project that defines MAB's action. When we have a project, the work is carried out under better conditions, but we never stop serving the families".*
> *— MAB leadership.*

After the end of the project, MAB/RO continued to assist the families in carrying out community effort to maintain the gardens, marketing, defending rights and protecting the territories. But the working conditions of the technical team have become more precarious and are often made more difficult by their commitment as activists.

> *"The agroecological transition in horticulture is sustained by the technical presence in the field, so that they don't give up and go back to conventional management. In the garden, you can quickly lose everything to insect attacks if you don't know how to act." — Field technician*

DIRECT EFFECT 2. Increased technical capacity of families affected by hydroelectric projects for agroecological production and marketing.

Indicator	Goal	Indicators at the end of the project (August 2018)	Change
Product 2.1: Training families affected by hydroelectric projects in agroecological production and marketing			
No. of modules offered in the technical training course	9	9	100%
No. of individuals participating in the technical training course, broken down by gender	not confirmed	167 96 men and 71 women	-
No. of field days held for training	72	80	111%
No. of individuals participating in local multiplier meetings, broken down by gender	48 (24 M and 24 W)	117 59 M and 58 W	244%
Product 2.2: Mobilizing and raising awareness among families affected by dams to join sustainable productive activities and the rational use of natural resources.			
No. of individuals involved in activities supported by the project (community effort, workshops and grassroots groups in the communities)	1,200	1,326	110%
Product 2.3: Meetings to exchange experiences and publicize actions			
No. of exchange meetings	2	1	- 50%
No. of individuals participating in the exchange meetings, broken down by gender	80	82 44 M and 38 W	102%

Training and Capacity Building

The indicators provide information on the quantitative scope of the training. The targets have been met and many of them exceeded, despite restrictive measures during the covid-19 pandemic. At that time, face-to-face actions were carried out with fewer participants or replaced by telephone and messaging guidance. The isolation measures reduced the number of exchange trips, but what was achieved had results that are still talked about today.

It was observed in the field that the training sessions were effective and trained producers who are currently maintaining the new practices they learned, sometimes making adaptations and often operating in groups to manage their production areas.

This is because MAB has principles that guide the design and methodology of training activities. Underpinning the technical process is the organizational bias, in the sense of strengthening local organizations and collaborative ties within communities.

On the subject of production, training has mainly taken place through **community effort** (called field days), where knowledge, food and affection are shared. As a result of MAB's presence, the movement's community and base groups have been strengthened.

> *"We didn't just hold meetings and then go home.*
> *It was a complete meeting, with courses, work, food and conversation."*
> *— Beneficiary, family farmer.*

> *"The project came at a very necessary time, it was my therapy, it got me out of my depression."*
> *— Beneficiary, family farmer.*

Thus, the community effort was pointed out by several interviewees as "the best part of the project", which taught collectivity in the communities and was the main contributor to the social organization still present in the territory today.

6. Analysis of the OECD Evaluation Criteria and REDD+ and Cross-Cutting Safeguards

6.1. Analysis of the OECD Evaluation Criteria.

Evidence	Evaluation
RELEVANCE CRITERION	
• Of particular relevance to the project is the **beneficiary public**, made up of **families affected by dam**s, an innovation for the Amazon Fund. • The project expanded on a previous experience and **met the priority demands of the beneficiaries** by offering conditions to provide a structure to, and expand the production of agroecological vegetables, both for food security and to generate income for the families. • In the case of Rondônia, the families directly involved in the project live on farms, with **low pressure from deforestation**, so the issue of maintaining the standing forest was not the most relevant in that context; However, the smallholdings are surrounded by areas of **agribusiness expansion**. The proponent's efforts in these territories, even after the end of the project, have been fundamental in combating the violation of rights and increasing the capacity of **resilience of families to remain on their land producing in a diversified way** and are therefore aligned with the Amazon Fund's objectives in this regard.	**Relevant**

EFFECTIVENESS CRITERION	
· The project's objectives were met: (i) new production units have been implemented, creating **better conditions for food security and a source of income**; (ii) the **capacities** developed have made it possible to maintain production systems and commercial strategies with considerable **autonomy for the families**. · The production systems, although implemented on the basis of previous experience, **proved to be poorly suited** to the Amazon's rainfall conditions and the vast majority were "rectified", replacing the circular beds with rectilinear ones. But the **agroecological management techniques have been integrated**. · In the case of Rondônia, some factors that seem to have influenced the achievement of the objectives were: (i) the **commitment of the executing organization** to the families beneficiaries beyond the implementation of the project; (ii) the **intervention methodology** based on organizational principles that strengthen family autonomy; (iii) **productive activity with structured demand** (vegetables on the conventional market) and latent demand (agroecological production).	**Effective**
EFFICIENCY CRITERION	
· The project was implemented from an **agglutinating structure** at the ADAI office (in PR at the time of the project, and today in SP?) in which management, purchasing and procurement processes were centralized. This structure **discharged** the state coordinators and **optimized** the use of resources. · The exception is the purchase of **photovoltaic systems**, which were not available in the Amazon at the time the project was implemented. The centralized acquisition of the equipment led to **maintenance difficulties** that ended up making the use of the systems unfeasible. Despite the lessons learned, the consequences have been significant for the beneficiary families.	**Efficient**
IMPACT CRITERION	
· The project contributed to the **food security** of the beneficiary families and went further, providing healthy food for vulnerable families during the **pandemic**. · The project introduced new **knowledge about agroecological production** that has been adapted and integrated into each family's reality. · **Marketing channels** have been created which will continue after the end of the project, with the prospect of being expanded through local partnerships and the growing autonomy of the families. · The **consumer network** set up during the project has been expanded with the support of local partners. · The experience strengthened the local executing organization as a **reference on the subject** of Agroecology in the state of Rondônia and in the national MAB network. · The lessons learned are **guiding the continuity of actions** through new projects by the executing organization in the territories.	**Relevant positive impacts**
SUSTAINABILITY CRITERION	
· Considering the implementation of the project in Rondônia, the **benefits of the project last** in the territories. · The **vegetable chain has assured demand**, although prices may not be worthwhile on the local and conventional markets. · Strengthening collective marketing strategies has been a key strategy to **maintain and expand demand** for agroecological production. The articulation of a consumer network has proved assertive in this regard. · The network of partnerships has made it possible for actions to continue, even without projects. In this respect, it should be noted that the sustainability of the results has been ensured due to the **executing organization remaining active in the territories independently of projects**, on the basis of militancy, albeit less intensely and with more precarious working conditions.	**Relevant sustainability**

6.2 Analysis of the Cancun Safeguards

Safeguard	Attendance	Notes
Actions complementing or consistent with the objectives of national forest programs and other relevant international conventions and agreements	**Yes**	The Amazon Fund projects related to the Sustainable Production Components are directly aligned with Axis 1 of the 2023 to 2027 phase of the PPCDAm – Sustainable Productive Activities, especially in its Objective 1: Stimulating Sustainable Productive Activities. The project contributes more specifically to the expected result '1.1 Bioeconomy, socio-biodiversity, agroecology and agroecological transition expanded and strengthened in the Amazon'. In the interviews, it was reported that, during the implementation of the project, government enforcement actions were weakened. At the state level, this has intensified, reflecting a picture of growing threats not only of deforestation and degradation, but also of pressure on family production territories through the predatory expansion of agribusiness, including permanent preservation areas. The project contributes indirectly to reducing carbon emissions by increasing the resilience of family farming in these regions.
Transparent and effective national forest governance structures, taking into account in view of national sovereignty and national legislation	**No**	There were no specific contributions from the project to this aspect at the national level.
Respect for the knowledge and rights of Indigenous Peoples and members of local communities, taking into account international obligations relevant national circumstances and laws and noting that the UN General Assembly has adopted the UN Declaration on the Rights of Indigenous Peoples	**Widely**	The project works to secure the rights of families affected by hydroelectric projects.
Full and effective participation of interested parties, in particular Indigenous Peoples and local communities, in the actions referred to in paragraphs 70 and 72 of Decision 1/CP 16	**Yes**	The project prioritized collective decision-making, training and information. In the interviews, the beneficiaries demonstrated a broad understanding of the project's results.
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 improve other social and environmental benefits	**In part**	The PAIS system is installed in backyards, already open areas around homes. In addition, fruit and forest tree species were planted, with a focus on climate comfort, ornamentation and food. The models did not aim to restore areas.

Safeguard	Attendance	Notes
Actions to address the risks of reversals in REDD+ results	**N/A**	Not applicable.
Actions to reduce the shift of carbon footprint to other areas	**N/A**	Not applicable.

6.3 Analysis of Cross-Cutting Criteria

Criterion	Attendance	Notes
POVERTY REDUCTION		
· To what extent has the project contributed effectively to economic alternatives that value the standing forest and the sustainable use of natural resources? · To what extent has the project positively influenced the reduction of poverty, social inclusion and improvement of the living conditions of beneficiaries (in particular: traditional communities, settlements and family farmers) who reside in the area of the project activities? · Has the project succeeded in promoting and increasing production in value chains of timber and non-timber forest products originating from sustainable management?	**Yes**	· The project was primarily focused on food security for families. It has strengthened the agroecological vegetable chain and the executing organization as a reference in this area in the state. · The commercial strategies created within the framework of the project and strengthened subsequently have generated significant income gains, constituting the main or complementary source of income for the property. · Particularly noteworthy is the generation of income for women.
GENDER EQUALITY		
· Has the project succeeded in integrating gender issues into its strategies and interventions or addressed the issue in an independent way? How? · Was there separation by gender in data collection for project planning and monitoring? · How did the project contribute to gender equity?	**Yes**	· A Women are recognized by the implementing organization as the protagonists of social organization in their territories. In this sense, there are actions to empower women and gender equality beyond the project implemented. · The PAIS system is part of the direct spectrum of work and power given to women in the production units, the backyard. There was income generation for the women. · The project monitored the number of women taking part in the activities.

7. General Evaluation

Positive aspects

• The project stands out for its relevance and novelty within the scope of the Amazon Fund in serving, as **beneficiary public, families affected** by hydroelectric projects. The strategy of strengthening agroecological production proved to be appropriate to the reality of the small peri-urban farms where these groups were resettled.

• The **production model** has not stopped in time and continues to be **improved on the basis of lessons learned**. Although adaptations have been made by the families, "rectifying" the proposal of the circular gardens, the **agroecological management has been incorporated as a production practice**, enduring even after the end of the project and expanded by some families. The local executing organization, MAB/RO, is introducing the perspective of regenerative agriculture through the implementation of vegetable gardens and agroforestry yards. The feasibility of irrigation using solar energy has been proven and the system is being redesigned.

• The vegetable chain has the comparative advantage of already structured commercial demand, whether through the action of middlemen or participation in fairs. This characteristic favors the search for autonomous solutions by the families, as has been the case since the project's implementation and has continued after its completion. It is worth noting that the project has made it possible to experiment with a **differentiated market that values agroecological production**. The strategies have been successful, **have generated significant income** and have been expanded with the creation of a prominent space at two existing fairs and the production of baskets with direct delivery to consumers.

• The primary objective of the project, initially, was to guarantee **family food security** by increasing the quantity and diversity of food. The PAIS not only made it possible to improve the nutrition of beneficiary families, but also of **vulnerable families**, who were given emergency assistance during the pandemic. More recently, as an outcome of the project, a network of consumers is being created in the city of Porto Velho, strengthening the **country/city relationship through agroecological food**.

• The project had a significant reach of women. In the case of Rondônia, MAB has specialized advice on the gender approach, which is integrated

into the actions, as well as in specific actions. It was observed that several families are headed by women and the project **structured a fundamental activity for generating income, in an inclusive way**, taking into account the specificities of women such as age, physical condition and family composition.

• The MAB in Rondônia is linked to a **network of partners** that has contributed to the continuity and outcome of the project's actions.

• MAB's capacity-building model is based on community effort. Community efforts were carried out during the implementation and management of the agroecological gardens on each of the benefited properties, and have remained to this day as a tool for social organization and strengthening the community in the territory.

Challenges

• A process of **converting from conventional to agroecological** horticulture is highly demanding of Technical Assistance and Rural Extension (ATER). New problems arise in the production system and need to be solved quickly, at the risk of total loss of production and/or going back to conventional practices.

• The constant demand for technical assistance generates a need for uninterrupted continuity in attracting new funding. Fundraising efforts should be well planned in advance, looking for diversified sources and new partnerships.

• The family farming territories visited are under **intense threat from the expansion of predatory agribusiness**. The areas that are not bought are being sprayed by air with pesticides that are killing the agroecological gardens and putting pressure on small producers to leave the territory.

• Some **beneficiary families are in more remote areas**, where the logistics of selling at fairs or in baskets in Porto Velho don't make sense. For these families, the only alternative is to sell locally, in the villages near the settlements or among neighbors. This demand is sometimes insufficient, generating food waste and reduced income for producers.

• The project was carried out with a very small team, which compromised data collection, documentation and **systematization of the effects and valuable lessons learned** generated by the project in its Rondônia branch.

8. Lessons Learned and Conclusion

• The transition to the agroecological production model was successful and effective, and continues to this day.

• Women have been essential in this transition process, being responsible for managing the productive areas and marketing the produce.

• Maintaining good partners is crucial in times of crisis/bottlenecks, when mutual support can generate innovative solutions with exponential impacts, such as the Feira da Igreja de São José in partnership with UNIR and the baskets during the covid-19 pandemic in partnership with Cáritas.

• The project contributes indirectly to reducing carbon emissions by increasing the resilience of family farming in regions where predatory agribusiness is expanding.

• Structuring marketing is fundamental to maintaining demand and thus maintaining agroecological management.

• MAB/RO's approach is based on an organizational bias in everything it does and promotes in the communities, which is a determining factor for the autonomy of the families and the effectiveness of the results achieved by the project.

II.
Sustainable Settlements in the Amazon Project

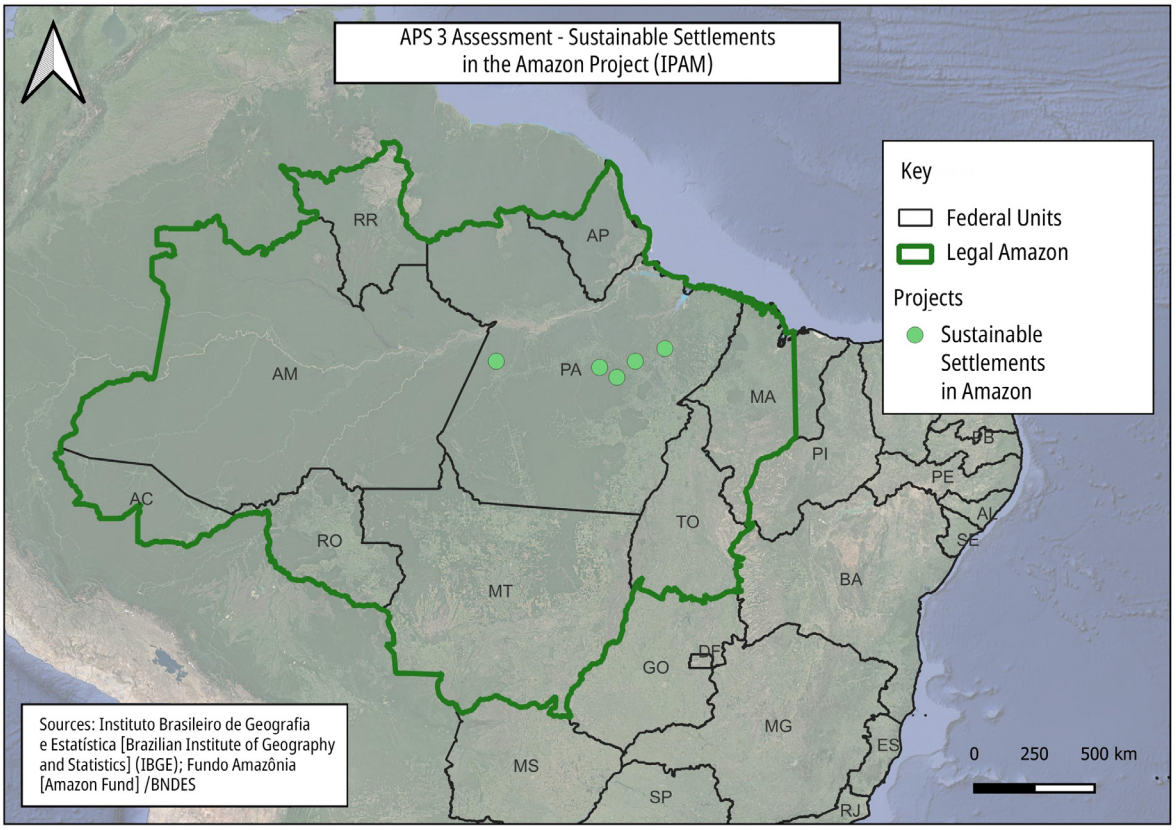
Project File			
Project Title:	Sustainable Settlements in the Amazon	**Responsible organization:**	Amazon Environmental Research Institute (IPAM)
Project Period:	14/Feb/2012 – 16/Aug/2022	**Territorial Coverage:**	Pará
Beneficiaries:	Agrarian reform settlers from the Brazilian National Institute of Colonization and Agrarian Reform (Incra) in the municipalities of Anapu, Pacajá, Senador José Porfírio, Mojuí dos Campos, and Aveiros.		
Goals:	To support, in Incra settlements in western Pará, the development of a demonstration experiment in sustainable production and the implementation of Payment for Environmental Services (PSA) for families committed to reducing deforestation.		
Deadline:	64 months		
Total value of the Project:	BRL 24,397,144.00	**Amount of support from the Amazon Fund:**	BRL 23,408,189.46
Hiring date:	14.Feb.2012	**Date of completion:**	16.Aug.2022

Source: Amazon Fund website, accessed on 28/Feb/24, available at https://www.fundoamazonia.gov.br/pt/projeto/Assentamentos-Sustentaveis-na-Amazonia/

1. Project Summary

The *Sustainable Settlements in the Amazon* (PAS), aimed to develop and implement a demonstration model of sustainable family agricultural production in the west of the state of Pará, associated, in one of the target territories, with Payment for Environmental Services (PSA) to families who maintained their commitment to reducing deforestation.

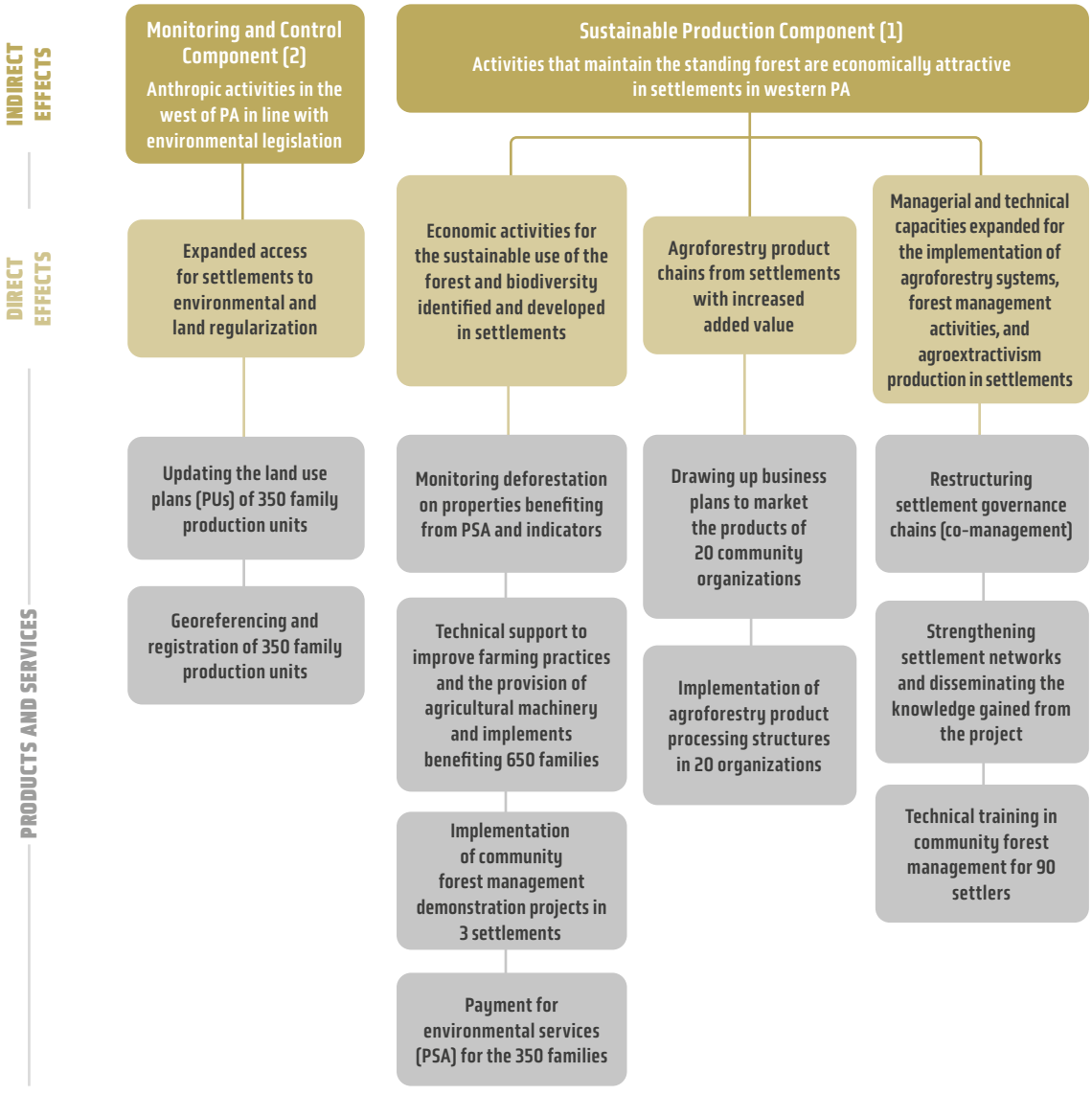
To achieve this goal, the project was structured into two components: (i) development and implementation of a sustainable production model on small rural properties located in three agrarian reform Settlement Projects (PAs); and (ii) payment for avoided deforestation for 350 families around the BR-230 – Transamazon Highway. The work also included preparatory stages for the Environmental Regularization of these family properties.



2. Intervention Logic

The project *Sustainable Settlements in the Amazon* was initially included in the Sustainable Production Components (1), Monitoring and Control (2) and Science, Innovation and Economic Instruments (4) of the Amazon Fund's Logical Framework. Over the course of its implementation, however, the component of expanding the areas of land with a regular land situation around BR-230 was reformulated into environmental regularization actions in the same territory, and was integrated into the environmental regularization component. In the end, the project, agreed with the funder, presented the Logical Framework shown in Figure 1.

Figure 1 Logical Framework of the Project Sustainable Settlements in the Amazon



Source: Own elaboration based on project monitoring plans

In this way, the project has helped to make productive activities that maintain the standing forest economically attractive, encouraging models that preserve the forest, as well as sequestering carbon by recovering the vegetation cover of deforested areas.

With regard to the Monitoring and Control Component, the project expanded access for rural producer families to environmental regularization of their properties in the state of Pará, by supporting their registration in the Rural Environmental Registry (CAR).

Finally, by using economic instruments aimed at the conservation and sustainable use of biodiversity, by paying small farmers for avoided deforestation, the project contributed to the Amazon Fund's general objective of "reducing deforestation with sustainable development in the Legal Amazon".

3. Specific Methodology

This evaluation sought to analyze if the results achieved during the implementation period of PAS continued in force, as well as the outcome of these results and their impacts, years after its completion.

In the preparation phase of the analysis, data was collected from secondary sources, including project documents shared by the BNDES, public data and institutional materials made available by the institution responsible. For active collection of primary data, a field mission was carried out in April 2024, in the state of Pará, in the municipalities of Altamira, Anapu, and Pacajá. During the mission, members of the project's technical team were interviewed, as well as the project's main implementation partner, *Fundação Viver, Produzir e Preservar* (FVPP), *Casa Familiar Rural* in Anapu, COOPROPAC Fair in Pacajá, the current Secretary of Administration and former Secretary of the Environment in Anapu, and the project's beneficiaries on their properties. A total of eight families were visited, four in each municipality.

4. Project Implementation Context

The disorganized expansion of the agricultural frontier in the Amazon has historically been considered the main vector of environmental degradation in the region. This challenge is also present in family farming. Small farmers, many of whom are settlers under agrarian reform, still practice agriculture based on the "slash and burn" system of native vegetation. In most

cases, this is due to the poor quality or lack of Technical Assistance and Rural Extension (ATER) services they receive, or the absence of infrastructure for transporting production. In addition to these factors, there is a lack of land and environmental regularization that would give them the security to remain on the land and difficulties in accessing rural credit that would allow them to change their production model.

The result of this historical model of occupation in the region has been the advance of deforestation and the subsequent abandonment of already open areas, the reconcentration of land and, in particular, the perpetuation of low profitability agriculture. As in the past, production remains dependent on clearing the forest, followed by burning, as a tool for agricultural cultivation.

Profitable and sustainable family farming, however, is feasible and can be the basis of an Amazonian development model free of deforestation and social conflicts.

In this context, the fundamental objective of the *PAS* was to provide subsidies for building a profitable, socially inclusive and Deforestation-free family farming model. The project was conceived based on the knowledge accumulated in more than a decade of scientific work and experience by the Amazon Environmental Research Institute (IPAM) with numerous partners, in particular the Fundação Viver, Produzir e Preservar (FVPP) and the Brazilian National Institute of Colonization and Agrarian Reform (INCRA).

5. Evaluation of the Results

The following analyses consider the permanence and outcome of the results achieved around 10 years after the end of the field activities. The analyses are organized according to the structure of the indicator framework of the project agreed with the Amazon Fund.

It should be noted that in the *Sustainable Settlements in the Amazon* project, specifically, the indicators are reported globally for the three target territories. The comments, however, are based on interviews carried out during the field mission to the Altamira/Anapu/Pacajá region and with the project coordination in Santarém.

5.1. Results Achieved

The *Sustainable Settlements in the Amazon* project set out to contribute to reducing deforestation by making activities that maintain the standing forest

economically attractive to settlers in western Pará. To this end, the project **i)** developed and implemented a sustainable production model; **ii)** implemented a payment for avoided Deforestation (PSA) program; and **iii)** supported producers in their environmental regularization.

However, this evaluation shows that the project had broader effects, validating not just a production **model with environmental regularization**, but a model for promoting rural development for settlers in the Amazon. This model consists of a qualified and frequent **ATER** service; actions to encourage production, processing and marketing; processes of social organization, engagement and capacity building among young people; and coordination to resolve socio-structural bottlenecks, such as access to drinking water, access to lighting, occupational organization of settlements, opening of roads, among others.

> *PAS today is a roadmap with all the elements for the development of family farming, applicable throughout Brazil.*
> *— Project coordination.*

The results generated by this broad combination of actions can be seen in detail in the book *Sustainable Settlements in the Amazon: family farming and environmental sustainability in the world's largest rainforest*, published by IPAM in 2022 with the aim of contributing to the dissemination and construction of this new model. An in-depth discussion of the project's results can also be found in the reports submitted by IPAM to the Amazon Fund, in particular the Effectiveness Evaluation Report (RAE) and the Results Evaluation Report (RAR), available online on the Amazon Fund's website. The reports show, for example, an increase in the value traded of around 246% and an increase in gross income of 135%, while at the same time achieving a 79% reduction in deforestation. These figures are among the most significant found among finalized Amazon Fund projects and suggest that the **combat against deforestation** via family farming in the Amazon is more effective when it goes **beyond the promotion of Sustainable Production chains** and works on the **social, economic and environmental development of communities** as a whole, as will be seen below.

INDIRECT EFFECT 1

Activities that maintain the standing forest are economically attractive in settlements in western Pará State

DIRECT EFFECT 1.1 Economic activities for the sustainable use of the forest and biodiversity identified and developed in settlements.

Direct Effect Indicator	Goal	Indicators at the end of the project	Change
Revenue from sustainable use economic activities	30% increase	135% increase	450%
Area reforested with SAF	90 ha	198 ha	220%
Recovered area used for economic purposes	900 ha	1.011 ha	112%

Product Indicator	Goal	Indicators at the end of the project	Change
Product 1.1: Technical support to improve farming practices and the provision of agricultural machinery and implements benefiting 650 families			
Properties with effective technical support	650	638	98%
Graduates	24	30	125%
Records of productive experiences	9	9	100%
Product 1.2: Implementation of community forest management demonstration projects in three settlements			
Storage and drying structures built	3	1	33%
Community nurseries built	7	7 (6 active)	100%
Records of productive experiences	3	3	100%
Product 1.3: Payment for Environmental Services (PSA) for the 350 families			
Financial mechanism for PSA developed	1	1	100%
PSA contracts signed	350	385	110%
PSA carried out	100% disbursed	75% disbursed	75%
Product 1.4: Monitoring deforestation on properties benefiting from PSA and indicators			
Forest cover area for PSA	Reducing average deforestation by at least 50%	Reduction of 79%	158%

Product Indicator	Goal	Indicators at the end of the project	Change
Matrix of sustainability indicators drawn up	indicators drawn up and agreed	Matrix drawn up	100%
Matrix of sustainability indicators applied to communities	indicators implemented	Available on SIMPAS	100%

Technical Assistance

In order to promote the economic activities that keep the forest standing, PAS devised and implemented a model of **Technical Assistance and Rural Extension (ATER)** of high scope and quality, which carried out regular and individual visits to all the families benefiting from the project throughout its implementation period (**Product 1.1**).

During the visits, the technicians supported the producers in various actions, starting with the preparation of their production diagnoses and **Land Use Plans** for the property, including technical guidance for the adoption of agroecological practices, the distribution of inputs and the provision of machinery for use in production, the management of cultivated areas, the preparation of the CAR, guidance on the construction of processing structures and support for marketing processes and social organization. The technical team also accompanied the producers in the construction of community and individual nurseries (**Product 1.2**) and guided the students from the Rural Family Schools in their field internships (**Product 1.1**).

During the field mission, the beneficiaries of the project unanimously agreed that the service provided by the ATER team was unique and differentiated because it was always present and because it didn't tell the producers what to do on their plots. On the contrary, they supported the producers in adopting new practices, respecting their wishes and visions for the property, in accordance with the Land Use Plan drawn up (**Product 2.2.1**).

> *The IPAM project was the best ever to appear here in the region, because they respected us and favored the worker. The other projects want to tell us what to do without listening to our will".*
> *— Beneficiary, family farmer.*

The accompaniment of the ATER team was so extensive and so present that it can be said that they acted as **agents of rural development**, having been crucial to the results achieved and their long-term effectiveness. This has allowed the IPAM team to build a local identity worthy of the trust of its beneficiaries, with enough ballast to have an impact on public ATER policies and the potential to gain scale at a national level.

> *At the time the project was finalized in 2017, IPAM had been contributing to the preparation of INCRA's technical contracting notices, bringing elements of its lessons learned from the PAS.*
> *— Project coordination*

Since 2023, relations with INCRA have become closer and the two institutions are currently in the process of formalizing a cooperation agreement with the aim of bringing these lessons to INCRA's operations nationwide. Another **important partnership to bring scale** to the PAS ATER model is being designed with the National Agency for Technical Assistance and Rural Extension (ANATER), with which IPAM is currently drawing up a project to make technical assistance along the lines of PAS viable in the municipalities with the highest rates of Deforestation in the Amazon.

At state level, IPAM is a member of the ATER Technical Chamber of the State Council for Sustainable Rural Development and has been taking the lessons learned from implementing the project to this level, contributing to discussions and the construction of state public policies.

The continued provision of technical assistance is also crucial, even if in a hybrid and more spaced out manner, to guide producers in the best practices, with the aim of guaranteeing income that is not linked to deforestation.

The ATER model developed by IPAM, however, faces a financial bottleneck, with high implementation costs (especially in terms of logistics) that make it difficult to gain scale. To reduce costs, IPAM is betting on its current hybrid service strategy, which is part face-to-face and part virtual. To this end, it has developed an app that will begin its testing phase in the second half of 2024. The next step will be to formalize this type of service in public ATER institutions.

Adoption of New Practices

In its 2022 Effectiveness Evaluation Report (era), IPAM reported that five years after the end of the project's activities, even with 88% of the beneficiary families not receiving technical support, 98% were still carrying out productive activities in the recovered areas supported by the PAS and 9% had expanded their areas of Agroforestry Systems (SAFs). Observations during this evaluation's field mission confirmed this data, indicating the **effective adoption of the productive transition**.

Respect for the individual aspirations of the beneficiaries, through the drafting and implementation of **Land Use Plans**, may have been a key element in the effective adoption of the new practices. As the producers have put into practice the vision they have built for their property, they tend to maintain the new practices and production systems.

Some areas, however, have been **losing productivity** due to management failures because, with the end of the project, came a reduction in technical assistance and the free supply of inputs. In addition, the **difficulty in accessing credit** to invest in production in a more sustainable model, such as agroecology and SAFs, has also made it difficult to properly maintain productive areas.

Payment for Environmental Services (PSA)

The payment for environmental services offered to 350 PAS beneficiaries (**Product 1.1**) in the Transamazon region led to an 83% reduction in deforestation on the benefited properties, as reported. The funds received were used to invest in the productive transition, thus also contributing to the effective adoption of the new practices, as seen above.

Photo: Cecilia Simões

Area of cocoa SAF implemented with support from the Sustainable Settlements Project.

> *The PSA resource made a difference, it paid to stop deforesting in order to receive this money and invest in production.*
> *— Project beneficiary*

During the project, some producers benefiting from the PSA opened up new areas of forest and were therefore disconnected from the program. In an interview during the field mission, one of these producers reported that he had cleared the forest to prevent monkeys from coming to eat the cocoa grown in the SAF. Difficulties like these have led to important lessons, such as the proper allocation of PSA areas.

> *We were losing our entire production, so I had no choice but to cut down the trees. — Project beneficiary.*

Currently, all the family farmers interviewed reported having opened up new areas to expand their production, indicating that the PSA needs to be of longer duration in order to be effective.

A highly relevant outcome of the project was its contribution to the formulation of the **National PSA Law** - Law 14.119 dated January 13, 2021, which regulates compensation for those who protect nature and keep environmental services functioning. IPAM was one of the leading institutions in the working group that built the PSA Law.

> *We used much of what we learned from the Payment for Environmental Services in the PAS to contribute to the drafting of the PSA Law.*
> *— Project coordination.*

DIRECT EFFECT 2.1 Agroforestry product chains from settlements with increased added value.

Direct Effect Indicator	Goal	Indicators at the end of the project	Change
Revenue from sustainable use economic activities	30% increase	135% increase	450%

Product Indicator	Goal	Indicators at the end of the project	Change
Product 2.1: Drafting business plans to market the products of 20 community organizations			
Community management organizations trained in business management	20	20	100%
Business plans drawn up	20	20	100%
Partnerships established to market products	8	39	487%
Product 2.2: Implementation of agroforestry product processing structures in 20 community organizations			
Processing structures assembled	20	19	95%

Marketing

To measure the increase in the added value of agroforestry chain products at the end of the project, IPAM mapped a **135% increase in the gross income** of the beneficiary families over the four years of activities and, **five years after its completion, a 79% increase** in this income, according to the 2022 RAE. This significant increase is directly linked to the commercial planning and processing work provided by the project, which allowed producers to diversify their commercial partners, especially including institutional markets such as the Food Acquisition Program (PAA), the Alimenta Brasil Program (PAB) and the Brazilian National School Feeding Program (PNAE).

In the 2022 RAE, IPAM points out that an effect not foreseen by the project was an increase in the level of entrepreneurship among families, who previously didn't know about programs such as PAA, PAB, or PNAE and didn't know what the Brazilian National Supply Company (CONAB) was doing, for example. They also didn't know how to organize themselves in order to compete for tenders and take part in bidding processes, either individually or collectively. Today, even after the end of the project, the **institutional markets continue to be one of the main marketing channels** for the settlers, either individually or through associations.

Through the project, two **direct marketing** channels have also been formed with consumers who are still active. In the Transamazon region, the Pacajá Family Production Fair was started at the instigation of the IPAM team, which supported the formation of its cooperative, the Pacaja Rural Family Producers' Cooperative (COOPROPAC), which today has 36 members. The cooperative underwent a gradual process of growth **based on strong partner-**

ships: it began with tents in the street, in partnership with the town hall, until it received a donation of land from the municipal government. With resources from BNDES, the cooperative built a shed to house the permanent market, which is open daily to the community. In the middle of 2018/19, they also received a donation of a truck from Eletrobrás to transport their production. During the covid-19 pandemic, the fair was closed, but reopened with the end of social restrictions. After the pandemic, there was a reduction in attendance and also in production, but the organizers have seen a slow recovery since the beginning of 2023.

Photo: Cecília Simões

The Coopropac Market Shed in Pacajá.

COOPROPAC also sells its produce to institutional markets, which represented an income of around BRL 10,000 per family in 2023. With more than half of its members being women, this marketing has generated effective results in terms of **women's empowerment and autonomy**.

> *Traditionally, the man looks after the cattle and the woman looks after the fields and the yard. So what they sell here stays for them, who are empowering themselves and seeking financial independence from their husbands. — Coordination of the fair.*

In the Tapajós region, the Tapajós Solidarity Marketing Network was formed. As a result of the covid-19 pandemic, several of the network's producers have demobilized, but sales have continued to date, with some families selling through PAA. Furthermore, participation in the **institutional markets led** some women of Tapajós to create the so-called **Women's Agroecological Group**. To this day, they sell their produce through a WhatsApp group, making weekly deliveries in the city of Santarém. The group also participates in two fairs in the region: the Agroecology Fair at the Federal University of Western Pará (UFOPA) and the Tapajós Organic Fair.

IPAM also reports that, as a result of the pandemic, the **market for differentiated products** (organic and agroecological) has strengthened for establishments such as restaurants, bakeries and supermarkets, especially for the products of the agroindustries supported by the project in the fruit pulp and cassava flour chains.

Processing

The project initially planned to invest in 20 processing units allocated to community organizations spread across the project's three target territories. During implementation, however, there was a low level of institutional maturity in these organizations and, in agreement with the Amazon Fund team, it was decided to invest in only one milk agroindustry for a cooperative (*Cooperativa dos Produtores de Leite da Vila Bom Jardim* - Cooperlight) and another 18 agroindustries for individual producers who already worked with the chosen value chains (fruit and manioc) and had a good commercial relationship with the market.

The field mission made it possible to verify that the **processing structures** built during the project **remain active** on most of the properties, and have increased **access to different markets**, especially institutional ones, such as PAB and PNAE, and contributed to the **increase in income** of several families in the settlements (**Product 2.2**). These small family agroindustries would hardly have been built without the presence of the project, as they depended on financing that is rarely accessed by family producers in the region, due to various bottlenecks in access to credit.

One of the producers visited in 2024 reported that he had stopped using his pulp agroindustry because he found it difficult to manage production due to his advanced age, indicating the need for prior planning before donation, considering succession aspects. This was the case, for example, on another proper-

Photo: Cecília Simões

A beneficiary of the Sustainable Settlements Project in Pacajá.

ty we visited, where the son of the deceased beneficiary continued to produce fruit pulp and is now looking to expand the agroindustry and diversify the marketing channels, including exports.

> *Before PAS we only produced cocoa, cattle and açaí. PAS gave us the pulper, the freezer and the structure for the industry, and today our biggest source of income is the pulper.*
> *— Project beneficiary.*

Photo: Cecília Simões

Products from the pulping machine financed by the project, in the process of being expanded in 2024.

DIRECT EFFECT 3. Managerial and technical capacities expanded for the implementation of agroforestry systems, forest management activities, and agroextractivism production in settlements.

Direct Effect Indicator	Goal	Indicators at the end of the project	Change
Settlers participating in the project's dissemination activities	500	1,633	327%
Settlements with participation in Municipal Council meetings	3	3	100%

Product Indicator	Goal	Indicators at the end of the project	Change
Product 3.1: Restructuring the governance chains of three settlements (co-management)			
Leaders involved in the working groups	60	96	160%
Management training courses for leaders	3	16	530%
Settlements with a constituted Settlement Council	3	3	100%
Settlements with basic infrastructure	3	3	100%
Settlements with management guidelines and strategies drawn up	3	3	100%
Product 3.2: Strengthening settlement networks and disseminating the knowledge gained from the project			
Sensitized producers	270	559	207%
Exchange participants	15	233	1,553%
Organized seminars	4	4	100%
Participation in events	50	164	328%
Published newsletters	8	10	125%
Documentary video, final book and project closing event	1 of each product	Closing event held, documentary video made. Published book.	100%
Product 3.3: Technical training in community forest management for 90 settlers			
Sustainable management workshops	9	10	111%
Settlers trained in sustainable management practices	90	275	305%
Management plans drawn up	3	3	100%

Social Organization and Rural Development

In order to bring greater representation to local communities in their own territory and promote **more sustainable results that could be institutionalized**, PAS worked to include representatives of the settlements in pre-existing governance structures (**Product 3.1**), such as the Municipal Councils. After the end of the project, leaders from the Moju Settlement Project (PA) in Santarém, who received training during the project, still occupy positions in the Municipal Agriculture, Health, and Education Councils. In the Bom Jardim and Cristalino PAs, in the Altamira region, there are currently no leaders from the settlement taking part in municipal councils.

The project coordinators believe that representation has been maintained in Santarém because the **leaders are associated with a community governance structure that predates the project**, the Central Association of Agrarian Reform Settlers in the State of Pará (CAAREAPA). Although some of CAAREAPA's members have been demobilized during the pandemic, the Central Association continues to meet at least once a year. In addition, it was reported that the associations participating in the Central Association began to gain momentum of their own and, like CAAREAPA itself, began to act on the social control component.

> *The great legacy of PAS was that it was a project for social organizations to strengthen their actions. — Project coordination*

With the support and training offered by the project, these organizations, including CAAREAPA, approached government bodies such as INCRA, city halls, the Brazilian Forestry Service (SFB), and began to act as articulators of public policies on water, electricity, land titling and Rural Environmental Registry (CAR). Social organizations in Tapajós have also recently begun talks on carbon credit projects, discussing opportunities and evaluating the implementation of private projects that are already taking place in the region. The training of leaders and capacity building of these associations by PAS, therefore, has effective impacts on the construction and implementation of new strategies to control deforestation in the Tapajós.

PAS also worked to form new structures, such as Settlement Councils and Settlement Networks. The new structures formed, however, were encouraged by IPAM's work and by the end of the project ended up being deactivated in the Transamazon region. The period coincided with changes in the man-

agement of municipal and federal governments, including the extinction of the INCRA office in Altamira and a drastic reduction in dialogue with government agencies. The absence of a clear advocacy purpose, as well as the low expectation of a real impact, may have affected the members' willingness to continue meeting.

The action of these **governance bodies** during the implementation of the PAS, however, was very effective, generating **collective results** that remain to this day. Through advocacy in councils and liaison with public authorities, the leaders have brought **rural development** tools to the settlements, improving their infrastructure through, for example, access to drinking water, installing electricity posts, opening roads and opening schools and health centers (**Product 3.1**). These improvements contribute to the resilience of families, increasing their quality of life and promoting their desire to stay on the land.

Women

The issue of gender in PAS was addressed by encouraging the participation of women in all meetings, workshops and training sessions. At these events, **at least 30% of the participants were required to be women** and, as a result of a great effort to mobilize and engage the technical team, **they often represented 50% to 60%** of those present.

The direct result of this engagement was a **sense of belonging** generated in women: in different links of value chains, in leadership positions and in environments of discussion and collective construction. The same effect could be seen among the **young people who accompanied their parents** during the implementation of the project and today are at the head of farms, social organizations, councils and municipal secretariats, especially in Tapajós. **Women are now the majority of leaders** in the Tapajós associations, and are also in the presidency of CAAREAPA.

The women's participation in the training also led to their greater involvement in marketing the products. Because they are responsible for the so-called "roça" (countryside fields), where the agroecological and organic food is planted, it is also the **women who have led sales** to institutional markets and participation in fairs and other marketing channels. The **increased income** generated by this greater participation in the market was generally **used to improve production or processing**.

> *Where women occupy a place in production, they also have a different re-investment logic to men. Women are able to look at the business in the long term, deciding when to buy, when to invest, who to sell to, etc.*
> *— Project coordination.*

Strengthened in their sense of belonging, the women of Tapajós have participated in the March of the Daisies and see their contribution to political achievements, such as Law 14660/2023, which determines that formal and informal groups of women from family farming will have priority in the sale of food destined for PNAE.

Community Forest Management

After the project had been approved, at the start of implementation it was realized that the minimum conditions for forest management were not in place in the Transamazon. The three plans drawn up were in Tapajós, where there was continuity after the completion of PAS through a partnership signed with the Tapajós Flona Mixed Cooperative (COOMFLONA), an organization of Flona residents that has been working with timber and non-timber community forest management. The Cooperative drew up the management plans and, in the years following the end of the project, achieved results such as the issue of two permits for community forest management areas issued by INCRA, the issue of two Prior Authorizations for the Technical Analysis of Sustainable Forest Management Plans (APATs) and two Annual Operational Plans (POA), by the Pará State Department for the Environment and Sustainability (SEMAS).

Through companies outsourced by COOMFLONA, the São Miguel community in PA Moju is currently implementing its Management Plan and extracting timber products in its territory. Two other communities, Princesa Isabel and Santa Rita, have also approved their community management plans with SEMAS, and the latter has also been implementing its plan independently of third-party companies.

Also in PA Moju, the Management Plan provided for the exploitation of non-timber products. Today, women continue to extract, process, and sell andiroba oil and kernels, especially to cosmetics companies. Exploitation, however, has only been carried out on an individual basis, rather than collectively through the management plan.

INDIRECT EFFECT 2: Human activities in Western Pará comply with environmental legislation.

Indirect Effect Indicator	Goal	Indicators at the end of the project	Change
Number of properties with georeferenced mapping, suitable for Rural Environmental Registry (CAR) purposes	1,300	1,300	100%
No. of rural properties georeferenced	650	2,710	417%
Area of georeferenced rural properties	58,955 ha	268,985 ha	456%
Number of rural landowners with environmental regularization processes underway	650	1,300 CAR	200%
Area of rural properties with environmental regularization processes underway	58,955 ha	101,657	172%

DIRECT EFFECT 2.2.1 Expanded access for settlements to environmental regularization

Direct Effect Indicator	Goal	Indicators at the end of the project	Change
Number of properties with georeferenced mapping, suitable for Rural Environmental Registry (CAR) purposes	1,300	1,300	100%

Product Indicator	Goal	Indicators at the end of the project	Change
Product 2.2.1: Updating the land use plans (PUs) of 350 family production units			
PU elaborated at the property level	350	650	186%
Community agreements signed	15 community groups with 350 landowners with a signed community agreement	-	-

DIRECT EFFECT 2.2.2 Areas of land with environmental regularization expanded in settlements around BR-230 – Transamazon Highway

Direct Effect Indicator	Goal	Indicators at the end of the project	Change
No. of rural properties georeferenced	650	2,710	417%
Area of georeferenced rural properties	58,955 ha	268,985 ha	456%
Number of rural landowners with environmental regularization processes underway	650	1,300	200%
Area of rural properties with environmental regularization processes underway	58,955 ha	101,657 ha	172%

Product Indicator	Goal	Indicators at the end of the project	Change
Product 2.2.2: and registration of 350 family production units.			
Properties with georeferencing and forest boundary coverage georeferenced	650	2,710	417%
Properties with the plan and descriptive memorial per property	650	-	-

Rural Environmental Registry (CAR)

Initially, the project envisaged the environmental and territorial regularization of its beneficiaries' settlement plots. With the start of the activities and the process of liaison with the body responsible, INCRA, IPAM identified bottlenecks in land regularization that would prevent the achievement of the goals during the project's execution period. In agreement with the Amazon Fund, IPAM then chose to focus on the environmental regularization process, represented by the registration of settlers in the Rural Environmental Registry, CAR.

In this field, IPAM carried out the georeferenced mapping of all the plots in the settlements worked on in PAS and registered 1,300 plots in CAR (Products 2.1 and 2.2). To this day, PA Moju's CAR registry remains the most complete in the state, due to the high number of registrations with IPAM's support.

6. Analysis of the OECD Evaluation Criteria and REDD+ and Cross-Cutting Safeguards

6.1. Analysis of the OECD Evaluation Criteria

Evidence	Evaluation
RELEVANCE CRITERION	
· The project developed and implemented a **Rural Development** model for settlements in the Amazon, with the potential to scale up to the whole of Brazil. · Through this model, the project has promoted **productive transition**, an increase in the processing and marketing of sustainable products, a higher level of social organization, the engagement and training of young people and coordination to resolve bottlenecks, such as access to drinking water, access to lighting, the occupational organization of settlements, the opening of roads, among others. · The project also developed an **ATER model** based on frequent individual visits and permanent high-quality follow-up, with the provision of inputs and various training opportunities. The lessons learned from this ATER model have been used in the **formulation of public ATER** policies currently being developed by INCRA and ANATER. · Through PAS, IPAM also tested a **Payment for Environmental Services** program that paid families for their performance in reducing deforestation. The program achieved positive results and its learnings contributed to the **formulation of Brazil's National PSA Law** - Law 14.119 dated January 13, 2021. · PAS also contributed to the implementation of the Forest Code, through **CAR**. The project registered 1,300 settlement plots and shared the lessons learned as part of the CAR Working Group in Settlements, coordinated by SEMAS/PA with the participation of INCRA, among others.	**Relevant**
EFFECTIVENESS CRITERION	
The project's objectives were achieved: (i) families continue to adopt more sustainable and productive production systems; (ii) agroforestry products continue to be produced and sold, representing a significant increase in families' gross income; (iii) the **capacities** developed have made it possible to maintain production systems and commercial strategies with considerable **autonomy by families and their partners**; (iv) 1,300 settlers were registered in CAR, **starting their environmental regularization process**. Several families have **opened up new areas** since the end of the project, which should be identified by SEMAS and **forwarded for regularization** as the CAR analyses are carried out.	**Medium Effective**
EFFICIENCY CRITERION	
· The resources made available by the Amazon Fund were used to carry out the planned activities properly and efficiently. · There were two main sources of expenditure in the project: most of the resources were used for the logistics of the technical assistance service, due to the long distances traveled by the project team. The project also invested in the purchase of inputs for the SAFs and machinery for the family agro-industries.	**Efficient**

IMPACT CRITERION	
· The main impacts generated by the project could be measured quantitatively through the following indicators: **increase in the value marketed** by the families of around 246%**, increase in gross income** achieved by the assisted settlers of around **a reduction of** 135% and **76% in deforestation** on their plots. · In qualitative terms, it can be said that the project's greatest impact was to promote a **rural development model** that demonstrated that family farming in the Amazon is possible, free from deforestation and with economic improvement.	**Quantitative impacts**
SUSTAINABILITY CRITERION	
· After the PAS, at least seven new projects were implemented that allowed the continuation of actions linked to part of the families served by the project, but also **new projects** that, inspired by the PAS, **today benefit other family farmers** in other regions. · The sustainability of the results was also provided by the **actions of the** project's **partners**, such as the Rural Family Houses. Casa de Anapu, for example, maintains the seedling nursery set up by PAS, generating financial resources for the school and donating seedlings for the students' families to plant on their properties. The nursery is also considered an important teaching laboratory for the students.	**High sustainability**

6.2 Analysis of the Cancun Safeguards

Safeguard	Attendance	Notes
Actions complementing or consistent with the objectives of national forest programs and other relevant international conventions and agreements	**Yes**	This project contributes more specifically to the expected result '1.1 Bioeconomy, socio-biodiversity, agroecology and agroecological transition expanded and strengthened in the Amazon' of the PPCDam (Objective 1: Stimulating Sustainable Productive Activities), by promoting cocoa production in SAFs and agroecological fruit and vegetable production. The project also contributed to the implementation of the Brazilian Forest Code by registering 1,300 farmers/settlers in its environmental regularization tool, the Rural Environmental Registry.
Transparent and effective national forest governance structures, with a view to national sovereignty and national legislation	**N/A**	There were no specific contributions from the project in this respect.
Respect for the knowledge and rights of Indigenous Peoples and members of local communities, taking into account international obligations relevant national circumstances and laws and noting that the UN General Assembly has adopted the UN Declaration on the Rights of Indigenous Peoples	**N/A**	The project targeted land reform settlers and did not directly benefit traditional and Indigenous Peoples communities.
Full and effective participation of interested parties, in particular Indigenous Peoples and local communities, in the actions referred to in paragraphs 70 and 72 of Decision 1/CP 16	**N/A**	

Safeguard	Attendance	Notes
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 improve other social and environmental benefits	**Yes**	The project encouraged the protection and conservation of natural forests and their ecosystem services by promoting the restoration of deforested areas with SAFs and the adoption of agroecological production systems, by structuring nurseries to produce seedlings for forest recovery and by implementing a payment for environmental services program, namely avoided deforestation.
Actions to address the risks of reversals in REDD+ results	**N/A**	Not applicable.
Actions to reduce the shift of carbon footprint to other areas	**N/A**	Not applicable.

6.3 Analysis of Cross-Cutting Criteria

Criterion	Attendance	Notes
POVERTY REDUCTION		
· To what extent has the project contributed effectively to economic alternatives that value the standing forest and the sustainable use of natural resources? · To what extent has the project positively influenced the reduction of poverty, social inclusion and improvement of the living conditions of beneficiaries (in particular: traditional communities, settlements and family farmers) who reside in the area of the project activities? · Has the project succeeded in promoting and increasing production in value chains of timber and non-timber forest products originating from sustainable management?	**Yes**	The project promoted an increase in food production through sustainable methods such as SAFs and Agroecology, generating greater food security in the target territories, and supported the expansion of marketing, bringing a gross increase of 135% in the income of the families benefited during the implementation of the project. The increase in income was effective and was seen again five years after the end of the project, when it reached a rate of 79%.
GENDER EQUALITY		
· Has the project succeeded in integrating gender issues into its strategies and interventions or addressed the issue in an independent way? How? · Was there separation by gender in data collection for project planning and monitoring? · How did the project contribute to gender equality?	**Partially**	Gender issues were addressed by encouraging the participation of women in project activities (with a target of at least 30% female participation), as well as social protagonism. As a result, more than half of the social organizations supported by the project (associations and cooperatives) are currently led by women, and some are formed exclusively by women. In addition, women represent more than half of the institutional food sales contracts formalized with the project's support. At the COOPROPAC fair, which was formed during the project and currently has its own facilities in the municipality of Pacajá, again more than half of the members are women, as is the president of the cooperative.

7. General Evaluation

Positive Aspects

• The project was built using a "menu" of investments in various potential production chains. It was agreed with the Amazon Fund that the choice of the most suitable investments and value chains would be made during implementation, as conditions arose in the field. This brought f**lexibility in implementation** that was crucial to the success of the project, which was able to adapt to reality, avoiding a waste of resources and increasing the engagement of beneficiaries.

• Through the project, IPAM established **partnerships** with key institutions in the region, which have been maintained to this day, perpetuating territorial impacts. Of particular note here is the partnership with the Viver, Produzir, Preservar Foundation (FVPP), with whom IPAM continues to work as a partner in the implementation of other projects; with the Rural Family Houses, which still maintain one of the community nurseries and continue to receive support through the dissemination of technologies and donations of inputs by IPAM; with INCRA, with whom IPAM has been building a cooperation agreement to scale up the ATER model developed in the project.

• The good results achieved leveraged the funding of at least seven new projects, which not only made it possible to continue serving the many families benefiting from the project, but also to expand the model developed by PAS to other regions of the country.

• The lessons learned during the project have fed into discussions and the construction of public policies that are crucial to the rural development of settlers in the Amazon and to forest conservation efforts, such as the PSA Law, ANATER and INCRA's ATER model and the implementation of CAR. These effects have the potential to scale up and bring greater effectiveness to the results obtained by PAS.

Challenges for Effectiveness

• During implementation, it became apparent that the social organizations in most of the target territories were weakened, and it was decided to focus part of the project's investments on individual producers. Although the change generated positive results at an individual level and

made sense in terms of effectiveness, it was not possible to act in a more structural way, with greater scale and long-term sustainability.

• The high cost of the ATER model made it impossible to continue providing the service to all the beneficiary families at the end of the project. The high cost is also the biggest bottleneck for the model to gain scale, even though it has great merits, with the potential to generate rural development in settlements across the country.

• The absence of ATER, accompanied by the withdrawal of INCRA from Altamira and the weakening of command and control structures at the end of the project, contributed to the increase in deforestation and reduced the effectiveness of the results.

• Social organizations formed by the project (councils of the settlements), as well as the participation of leaders in municipal councils, were not sustained after the end of the activities, with the exception of the Santarém region, where the leaders were associated with a cooperative of organizations pre-existing to the project. This indicates that more time may be needed to consolidate the formation of social organizations and that ideally they should be associated with pre-existing structures.

8. Conclusion and Lessons Learned

• The transition to sustainable production models (agroecological, SAFs and community management) was successful and effective, and has continued to this day.

• The project has contributed directly to reducing carbon emissions through its PSA program and indirectly to increasing the resilience of family farming in regions where predatory agribusiness is expanding. With the end of the project, however, deforestation rates rose again, following the national trend during the period.

• Reducing deforestation requires an advocacy strategy that covers not only the promotion of sustainable activities, but also the promotion of rural development as a whole, including social and structural improvements.

• In order to offer an ATER service capable of promoting rural development in the territories, it is necessary to think of alternative strategies that reduce costs. The hybrid ATER system, proposed by IPAM and based on the lessons of the project, could be one of these alternatives, with the

potential for rapid gains in scale throughout Brazil.

- The partnerships made by IPAM to implement PAS proved essential, both for carrying out the activities and for the **sustainability and effectiveness of the results** in the long term. Good partnerships guarantee greater engagement, ease of implementation and greater chances of the strategy continuing.

III.
Portal Seeds Project – Phase II

Project File			
Project Title:	Portal Seeds – Phase II	**Responsible organization:**	Instituto Ouro Verde (IOV)
Project Period:	05/Dec/2013 – 16/Sep/2022	**Territorial Coverage:**	Eight municipalities in the region known as Portal da Amazônia, in the far north of Mato Grosso: Apiacás, Alta Floresta, Carlinda, Colíder, Nova Canaã do Norte, Nova Guarita, Nova Santa Helena, Terra Nova do Norte
Beneficiaries:	Family Farmers		
Goals:	To support the recovery of degraded areas and the strengthening of family farming in the Portal da Amazônia region, in the state of Mato Grosso, by implementing and consolidating Agroforestry Systems (SAFs), planting and enriching agroforests, structuring channels for marketing products and seeds and carrying out research.		
Deadline:	71 months	**Inclusion in the Amazon Fund via Component**	Sustainable Production
Total value of the Project:	BRL 16,553,250.64	**Amount of support from the Amazon Fund:**	BRL 16,086,000.00
Hiring date:	05.Dec.2013	**Date of completion:**	16.Sep.2022

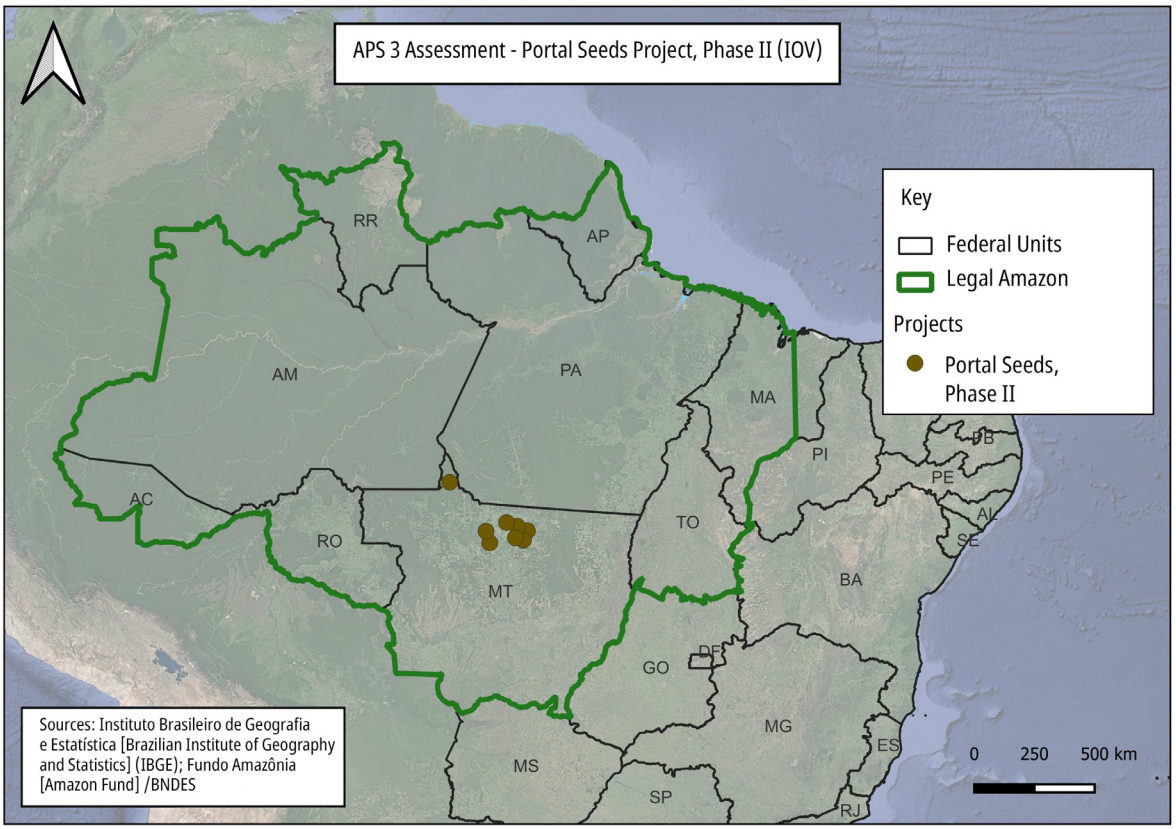
Source: Amazon Fund website, accessed on 28/Feb/24, available at https://www.fundoamazonia.gov.br/pt/projeto/Sementes-do-Portal-Fase-II/

1. Project Summary

Between 2010 and 2014, the Ouro Verde Institute (IOV) implemented the first project with the support of the Amazon Fund in the Portal da Amazônia region, in the state of Mato Grosso. In its first phase, the project involved actions to restore deforested areas through Agroforestry Systems (SAFs) and the revalorization of family farming in six municipalities in the region.

In its Phase II, carried out between 2014 and 2019 in the same region, the project expanded the environmental recovery of degraded areas following the methodology used in its first phase, including the insertion of species of economic interest in part of the areas already recovered.

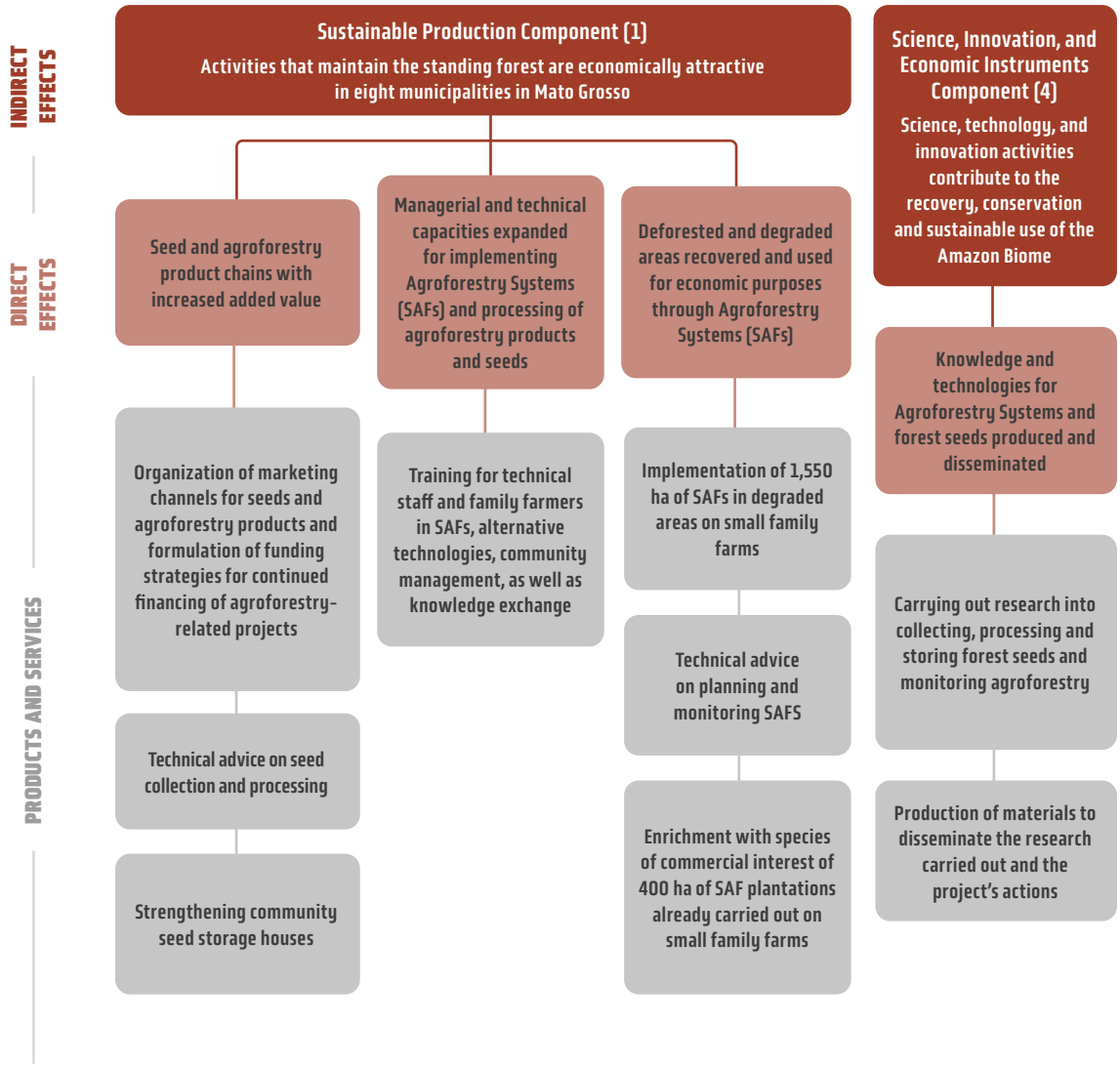
The development of marketing channels for forest products and the consolidation of the Amazon Portal Seed Network (RSPA) were also encouraged. In addition, the project consolidated the formation of a research network focused on the collection, processing and storage of seeds, the monitoring of agroforestry and local adaptations for the practice of silvopastoral systems, which work in cooperation with producers, responding to their needs in the field.



2. Intervention Logic

The *Portal Seeds – Phase II* project is part of the "Sustainable Production" (1) and "Science, Innovation, and Economic Instruments" components (4) of the Amazon Fund's Logical Framework. The project's logical framework, agreed with the funder, is shown in Figure 1.

Figure 1 Logical Framework of project *Portal Seeds – Phase II*



Source: Amazon Fund.

Photo: Juliana Mello

Group interview with the IOV technical team.

3. Specific Methodology

This evaluation sought to analyze if the results achieved during the implementation period of the project *Portal Seeds – Phase II* continued in force, as well as the outcome of these results and their impacts, years after the implementation.

In the preparation phase of the analysis, data was collected from secondary sources, including project documents shared by the BNDES, public data and institutional materials made available by the institution responsible.

For active data collection, a field mission was carried out in April 2024, in the municipalities of Alta Floresta, Carlinda, and Colíder. During the mission interviews were held with 28 people, including representatives of beneficiary families, the board of the Seed Network, the project coordination, and the local technical team. Some interviews were individual, but most were group interviews. Six properties directly involved were visited: (i) in the implementation of restoration areas in their various models – agroforestry systems, recovery of permanent preservation areas, silvopasture –; (ii) in participation in the Solidarity Marketing System (SISCOS); (iii) as collectors in the Seed Network.

4. Project implementation context

The Ouro Verde Institute (IOV) is a civil society organization based in the municipality of Alta Floresta, in the state of Mato Grosso. Founded in 1999, it has been operating in the region known as the Portal da Amazônia since 2004. This region is located in the far north of Mato Grosso, at the initial limits of the Amazon Rainforest, and is characterized by a high concentration of

family farming and settlements and a low human development index (HDI) and economic dynamism. IOV is mainly made up of professionals in the field of agricultural sciences and family farmers, who are statutorily part of the institution through the Base Groups.

The *Portal Seeds* offers a unique case of learning for the Amazon Fund, which is the possibility of realizing the effects of the continuity of a project. This analysis, however, must take into account the context at the end of Phase II. In the midst of finalizing the execution and celebrating the results achieved, the covid-19 pandemic occurred. At that time, the discontinuation of Amazon Fund financing was consolidated, ending the prospect of Phase III. There was also a loosening of actions to command and control illegal deforestation and the growth of agribusiness in the region, with the incorporation of family farming.

5. Evaluation of the Results

This section summarizes the results achieved based on the framework of indicators systematized by the project in the Monitoring Plan. It is worth mentioning that no targets were set for some of the indicators, limiting quantitative analysis.

As mentioned in the methodology, the evaluation comments highlight the permanence and outcome of the results some years after implementation. The discussion of the results follows the sequence and structure of the grouping of indicators defined in the project's Monitoring Plan.

DIRECT EFFECT 1. Seed and agroforestry forest product chains with increased added value.

DIRECT EFFECT 2. Managerial and technical capacities expanded for implementing Agroforestry Systems (SAFs) and processing agroforestry products and seeds.

DIRECT EFFECT 3. Deforested and degraded areas recovered and used for economic purposes through Agroforestry Systems (SAFs).

Indicator	Goal	Indicators at the end of the project (4th quarter 2019)	Change
Revenue from the sale of agroforestry products	N/A	BRL 6,953,315.57	N/A
Revenue from the sale of seeds	N/A	BRL 102,940.97	N/A
SAF area supported by the project for economic purposes	1,550 ha	1,550 ha	100%
Number of individuals trained in SAF and alternative production technologies effectively using the techniques and knowledge acquired	N/A	32%	32%
Number of individuals benefiting directly from the project	8,050	8,246	102%
Number of women directly benefiting from the project	N/A	3,905	N/A
Number of settlers benefiting directly from the project	N/A	357	N/A
Total number of families benefiting directly from the project	N/A	2,749	N/A
Number of women in management or coordination positions at IOV	3	4	133%

Integrated strategy and public

The first set of indicators portrays the integrated strategy used in the Ouro Verde Institute's approach: **promoting forest restoration and agroforestry, inducing demand for forest seeds, and structuring marketing mechanisms**, both for seeds and agroforestry production. At the end of the project, with the reduction in funding and the pandemic, **there was an interruption and, subsequently, an adaptation of the proponent's strategy**, as will be discussed in each direct effect of the project below.

These indicators also provide information on the magnitude of the *Portal Seeds – Phase II* project. Historically working with family farming, the *Portal Seeds* project has made it possible to **expand the number and profile of families supported by IOV**, as expressed in the figures presented. With a view to restoring the landscape, the project also involved livestock farmers who were motivated to recover springs and permanent preservation areas, thus strengthening the connectivity of forest fragments. Although IOV continues to work in the same municipalities as the project, the audience has been reduced. **Today, there are around 120 families served**, especially those that make up the IOV Base Groups.

Women

From the outset, the project **actively sought the participation of women**. Noting the limitations, the project adopted measures to **create conditions for** women's **participation**, such as childcare spaces during the events (called *ciranda*) and hiring cooking and cleaning services from outside the group of beneficiary families.

Considered "a small but fundamental effort", these measures have generated significant results, with 47% of participants being women. Although there is no comparative data with the first phase of the project, when these measures were not adopted, the result is highlighted among the indicators.

Photo: Juliana Mello

Interview with women family leaders.

Some of the women interviewed mentioned **not wanting to take on "positions"**, such as the local coordination of seed houses, for example. Some consider themselves capable, others have reported literacy limitations, but overall they say it would be "one more activity" to be done, leading to **overload**.

> *My husband is the coordinator, but in practice I do even more than he does. But I don't want to take it on, it's another burden for us who already do so much: house, children, meetings...*
> *— Beneficiary, family farmer, and seed collector.*

In the management of the Seed Network, the willingness to take on the challenge of formal leadership came recently, in 2023. The new board of the recently created cooperative is **made up of three women and one man, and on the board there are three men and three women**, some of them farmers and previously part of the project's technical team. This is a new thing and still make collectors feel uncertain about it, due to the position of power that women are assuming.

> *It was the cooperative's first assembly with a ciranda for the children. Considering that we have few resources to hold meetings, there is a bit of a struggle to prioritize how to spend the money. The action is small but fundamental, it creates a climate in which the child is allowed to be, welcomed as part of the family. — Women of the cooperative*

In all the properties visited, the direct involvement of women in the implementation and management of the areas was noticed as a **working force**. The role of women in **decision-making** in relation to land use and income, however, is not so evident, requiring other methods of investigation.

The *Portal Seeds* project had no actions to **identify and meet the specific needs of women in order to reduce income inequalities**. The project also supported existing initiatives, such as the Strong Women Network. In the Seed Network, women made up 46% of the base and now there are **56% of women among the active collectors**.

After the project, with support from the REDD for Early Movers Program (REM MT Program), the University of Exeter and ISPN/PPP-ECOS, IOV expanded its work with women, advising the Association of Women in Family Farming of the Portal da Amazônia (AMAFPA) on aspects of organization and management of pequi processing.

> *The calls for projects were geared towards actions with women. And this has always been the team's vision. Things got together.*
> *— Technical team.*

Some of the families visited were led by women and, in these cases, it can be seen that outcomes of the project, such as the Raiz Bank, are **facilitating women's access to better production conditions**.

> *If it wasn't for* Raiz Bank *I wouldn't be able to access credit because I don't have a guarantor (I don't meet the requirements).*
> *— Beneficiary, family farmer, and seed collector.*

Photo: Débora Almeida

Barn financed by *Raiz Bank* for a dairy farmer in a silvopastoral system.

DIRECT EFFECT 1. Seed and agroforestry forest product chains with increased added value.

Indicator	Goal	Indicators at the end of the project (4th quarter 2019)	Change
Product 1.1: Organization of marketing channels for seeds and agroforestry products.			
Revenue from the sale of agroforestry products through government purchases	N/A	BRL 3,392,552.55	N/A
Revenue from the sale of agroforestry products on the local market, not including government purchases	N/A	BRL 3,318,741.77	N/A
Revenue obtained by selling agroforestry products outside the local market, not considering government purchases	N/A	BRL 242,021.25	N/A
Revenue from the sale of forest seeds on the local market	N/A	BRL 73,399.95	N/A
Revenue from the sale of forest seeds outside the local market	N/A	BRL 110,480.08	N/A
Number of fairs to promote agroforestry products held	15	25	167%
Report on fundraising strategy for continued financing of agroforestry-related projects	N/A	2	N/A

Indicator	Goal	Indicators at the end of the project (4th quarter 2019)	Change
Product 1.2: Technical assistance for seed collection and processing			
Number of families benefiting from technical assistance for seed collection and processing	120	635	530%
Product 1.3: Strengthening community seed storage houses			
Number of seed houses built	7	5	%
Number of seed houses renovated	14	13	93%
List of equipment purchased by seed houses	N/A	-	N/A

Photo: Juliana Mello

Frozen fruit and pulp producer.

Marketing and income

As is typical of family farming, income is made up of various activities. In the case of the project's beneficiaries, dairy cattle predominate, but seeds, legumes, vegetables and fruit have gained an important role with the project's support.

> *Life has improved 100%. I built my house, bought furniture.*
> *— Beneficiary, family farmer, and seed collector*

The Carlinda fruit pulp cooperative was supported by IOV and has remained an important agent for marketing fruit from the SAFs **(Product 1.1)**.

> *I make some pulp for SISCOS, but my flagship product is the frozen fruit I sell to the cooperative. The first freezer I bought with seed money, the second came from the fruit, and I kept expanding.*
> *— Beneficiary, family farmer, and seed collector.*

The project team advised on public procurement in all the municipalities **(Product 1.1)**. Currently the IOV does not work in this area, and the **institutional market has been accessed** through associations or directly by the families with the town halls, possibly with some loss of effectiveness.

> *We have contracts through the association, but there have been problems of interruption due to the inexperience of the board.*
> *— Beneficiary, family farmer.*

During the project, marketing points were set up, known as "fairs", which brought producing families closer to consumers **(Product 1.1)**. The "fairs" took a variety of forms, from taking part in the town's open-air fairs to a differentiated stall with the project's identification installed in strategic locations in the eight municipalities where the project operates. Some were sporadic, at events, and others permanent, totaling 25 over the course of the project. All "fairs" have been suspended during the pandemic and are being **resumed in two municipalities**. In Alta Floresta, IOV recently obtained the concession of the Casa do Artesão in the town's central square for this purpose.

> *The fairs were a showcase for the project and family farming. One of the first effects of the pandemic fell precisely there. We lost them all. Remobilizing would be almost like starting from scratch. We've been working on strengthening SISCOS ever since. — Technical team.*

The Solidarity Marketing System (SISCOS) was created by IOV in 2008 as a way of selling products online. The initiative was supported by the project through advice and training **(Product 1.1)**. In 2021, it was expanded and currently operates in four municipalities (Alta Floresta, Nova Canaã, Colíder, and Carlinda), representing IOV's main marketing strategy for family produc-

tion from SAFs and vegetable gardens after the project. The range of products marketed is wide and flexible, making it an inclusive model for different family profiles.

> *For SISCOS I sell a bit of everything and whatever else I can think of. It's my main sales channel, customers like my products. It's an important income in addition to retirement.*
> *— Beneficiary, family farmer.*

Currently, SISCOS has 4,000 registered consumers, around 700 of whom are active. In 2023, the System generated BRL 130,000 in sales, benefiting about 24 producing families, who earn a monthly income between BRL 800.00 and BRL 1,500.00. The maintenance of SISCOS depends on projects, but part of the operating costs are covered by an administrative fee (15 to 25% of the value of the product).

The marketing strategies used in the project were strongly affected by the pandemic and the discontinuation of funding for the project. But it is possible to say that the results achieved during the project, such as fairs, access to institutional markets and the strengthening of SISCOS, were the basis for **solutions carried out by the families themselves and by local cooperatives** after the project ended.

Forest seed chain

The Amazon Portal Seed Network (RSPA) gives its name to the project. The second phase saw the expansion of infrastructure, diversification and improvement of seed quality, as well as the strengthening of the Network's governance **(Product 1.3)**. During the execution of the project, the RSPA had 120 collectors **(Product 1.2)**, but has seen an **18% reduction in members** since then, and now has 98 active collectors, 55 women and 43 men.

> *The Seed Network is the great link that keeps the communities connected and nurtures the family spirit that was built up during the project.*
> *— Technical team.*

Photo: Juliana Mello

Diversity of seeds collected by the interviewed family

During the implementation period, the project itself was the main buyer of the seeds marketed by the Network. These seeds were used in restoration activities in Permanent Preservation Areas (APPs) and production systems. Immediately after the end of the project, therefore, there was a reduction in demand for seeds. But through a commercial insertion that had already been built **(Product 1.1)**, added to the articulation with the Redário[15] , the Network has been expanding its sales, boosted by other projects such as the PPP-Ecos Project, the REM-MT Program, and the Copaíbas Project. This has made it possible to maintain the Network, which in 2023 generated BRL 318,000 in sales, generating an average income of BRL 3,000 per family.

A milestone in the Seeds Network's trajectory was its institutionalization as a cooperative in 2016 **(Product 1.2)**. Formerly known as Cooperguarita, in 2023 it was renamed Cooperativa Solidária da Agricultura Familiar (Coopersaf), which, from the same year, elected a directorate led by women.

Small subsequent projects with the Amazon Fund made it possible to draw up a business plan, make progress on pricing and build a Regional Seed House in Alta Floresta, to facilitate storage and speed up sales. The new infrastructure is already proving too small to meet demand. Of the 18 Community

15 The Redário brings together 24 networks and groups of seed collectors from all over Brazil, offering support in the production of native seeds and boosting the market.

Photo: Juliana Mello

Team interviewed at the central seed house.

Seed Houses implanted, 16 are active, some of them requiring an expansion of the working area.

> *Quality control is collective, but we're limited on space, so we need a balcony to work together in the seed house.*
> *— Beneficiary, family farmer, and seed collector.*

Photo: Juliana Mello

PDS São Paulo community seed house.

The collection system in the RSPA has developed little in the way of seed extraction in the forest, due to access difficulties and the need for specific climbing skills. Some species are already collected in recovered APPs, but the restoration model was not designed with this in mind. More work is done on the collection of isolated matrices and on the forest orchards set up by the project in backyards, which is easy in the context of an aging population and the expansion of agribusiness, where many matrices located on third-party farms have been lost as a result of leases for soya plantations.

> *The seed represents my Christmas bonus. I have my matrices mapped out here and at the homes of relatives who I educate not to cut them down. At the time, I see and harvest.*
> *— Elderly beneficiary, family farmer, and seed collector.*

Microcredit

The project provided for the development of a fundraising strategy for continued financing of projects related to agroforestry. This activity resulted in the **initial design of a solidarity credit line (Product 1.1)**. Named **Raiz Bank**, it is today one of the main strategies for generating financial autonomy for actions with families.

> *I only have credit because there's the Raiz Bank, I can't access PRONAF because I don't have a guarantor. I'll want another project, but I want to discuss the silvopastoral model, so I can do it my way.*
> *— Beneficiary, family farmer.*

The fund started with BRL 50,000 and now has BRL 650,000, raised through donations from the University of Exeter in the UK and the REM/MT Program. The decision-making process for granting financing is carried out by 11 Credit Evaluation Committees (CACs) operating in nine municipalities. The Institute's plan is to set up a fund of BRL 1 million, with the consolidation of 15 CACs.

To access the credit, producers need to meet a series of criteria that seek to safeguard social cohesion and environmental protection, which include (i) active participation in the community and (ii) practicing sustainable land use and recovering the APP. Currently, the average credit project accessed by

Raiz Bank is BRL 9,000 per family. The resources have been used to invest in improvements to production and processing, such as fences, milk tanks, milking parlors, and freezers for fruit.

Because it does not require a guarantee or guarantor, has an easy access process and is part of a broader strategy to support producers, Raiz Bank's credit stands out as a crucial financial solution for sustainable rural development in the region, enabling investments that could not have been made in its absence. The prospect of gaining scale also contributes to increasing its impact in the medium and long term.

DIRECT EFFECT 2. Managerial and technical capacities expanded for implementing Agroforestry Systems (SAFs) and processing agroforestry products and seeds.

Product 2.1 Training of technical staff and family/farmers

Indicator	Goal	Indicators at the end of the project (4th quarter 2019)	Change
Product 2.1: Training of technical staff and family/farmers			
Number of individuals trained in SAFs, alternative technologies and community management of agroforestry projects	424	2,352	555%
Number of young people trained in social mobilization for participatory management of agroforestry projects	70	71	101%

Training and Governance

The training activities have expanded important **know-how skills** for a new form of land use, but above all, they have created a **social base for participatory project management** by strengthening various collective information and decision-making spaces, such as: local councils, marketing groups, seed houses and regional strategies, such as the general council the Seed Network **(Product 1.2)**. These environments were considered fundamental to creating an atmosphere of control, transparency, monitoring, collective learning and valuing family farming.

> *At the height of the project, we were able to gather 700 people at one meeting. The project has led to agroforestry intense activities.*
> *— Technical team.*

IOV continues with its participatory structure, involving Base Groups that make up the organization by statutes. Since the end of the project, the continuity of the actions has been made possible by **projects considered to be one-offs** in terms of territorial scope, theme and beneficiary public when compared to previous major projects.

The project's local councils **functioned as experiments in territorial governance**. Currently, the Credit Evaluation Councils (CAC) make it possible to continue this **exercise of participatory management**, although they have a smaller scope.

> *I had no idea how decisions were made. Ever since I joined the CAC, I've understood the importance of taking part.*
> *— Young farmer, member of the Credit Committee*

Technical Assistance and Rural Extension (ATER)

The **Technical Assistance and Rural Extension (ATER) model** adopted in the project **(Product 2.1)** favored collective moments: workshops, training, exchanges and community work. Only in the initial phase of designing the production systems were there individualized visits. Even today, IOV continues to work in the same way, but the **learnings** point to ATER with greater involvement of young people from the communities, so that the management stages can be monitored more individually and efficiently.

> *With the project we saw the value of community effort: one day can transform the system. We're continuing to work in this way, but the plan we have for the future is for young people to work as community agents, monitoring the day-to-day life of the communities.*
> *— Field technician*

The project was organized with a technical team for each municipality, coordinating the different fronts of the project according to each context. The members of the team, both men and women, were appointed by the

local management councils (now the Credit Committees), guaranteeing a relationship of greater proximity and trust with the beneficiaries, who engaged more easily with the productive transition proposals.

Although the team was greatly reduced after the end of the project's activities, the research and credit initiatives currently have **people trained and qualified** by *Portal Seeds*, favoring **institutional learning**.

DIRECT EFFECT 3. Deforested and degraded areas recovered and used for economic purposes through Agroforestry Systems (SAFs).

Indicator	Goal	Indicators at the end of the project (4th quarter 2019)	Change
Product 3.1: Implementation of 1,550 ha of SAFs			
Number of rural properties with SAF projects	1,300	777	60%
Area of SAF planted with project resources	1,550 ha	1,550 ha	100%
Product 3.2: Enrichment with species of commercial interest			
Area of SAFs enriched with productive species	400 ha	400 ha	100%
Product 3.3: Technical advice on planning and monitoring SAFs			
Number of families benefiting from technical assistance for SAFs	1,300	777	60%

The project expanded the scale of IOV's work, as expressed in the number of families and hectares restored and SAFs enriched **(Products 3.1 and 3.2)**. The number of families is significant, although it was below the targets. IOV clarified that the targets were considered to have been overestimated: it was initially considered that each benefited property would receive a project action, disregarding the fact that not every beneficiary who took part in the workshops and mobilizations would be interested in restoring degraded areas. Of the total rural properties served, 46% were settlement areas and 54% private properties, of which 74.5% have the Rural Environmental Registry (CAR).

The expansion of agribusiness has put pressure on property rents. The IOV team **estimates that between 30% and 40% of the families assisted by the project have leased their land**, especially outside the settlements.

But there is no data to back up this perception. The team evaluates that the **families involved in income-generating activities, such as seeds and agroforestry production, rented less** than those who only restored APPs. In addition, there are reports that restored APP areas are not being included in the lease because their value is recognized in terms of maintaining environmental services, especially the protection of springs. For the purposes of this evaluation, families of different profiles were visited for whom the APPs are a source of pride and the effects of preserving springs are visible.

> *I wanted to restore my APP, I had tried it myself, but the seedlings died. I joined this project for a cause. In our region, the time is coming when there won't be a stick left to make a fence, people are tearing everything down to put up soybeans. My APP is all preserved, and the water in the slope has become stronger and no longer dries up all year round.*
> *— Small farmer, beneficiary of the project.*

> *I didn't know anything about APP, I was used to my father's system, which was to take everything down. I love my field, I did everything to the letter, as I was taught. People gather here to worship, it's a different atmosphere inside. —Beneficiary, family farmer.*

The intensity of action expressed in the figures was not maintained after the end of the project, but the Institute continues to work to restore areas. Data systematized by the organization show that there was an **increase in restored areas of around 200 hectares** between 2021 and 2023 **(Product 3.1)**, especially APP areas.

> *What sparked the desire to restore was seeing the area of acquaintances.*
> *— Project beneficiary.*

Photo: Débora Almeida

Spring protected by APP restored.

Following the completion of the project, the restoration models implemented have been **integrated into production systems**, some of them **through funding from the *Raiz Bank***. The models are defined based on the family's needs and motivation. In general, the combination of SAFs with investments from Raiz Bank has generated an increase in income and quality of life for its beneficiaries, who have built houses, bought furniture and appliances, increased their food security, and invested in education for their children.

The **silvopastoral systems** have been the most widespread model, covering 90% of the area mentioned and involving 50 families. The aim is to integrate restoration with dairy farming, an economic activity that is central to family farming in the region. The implementation involves picketing the pasture with an electric fence and planting strips of trees combined with agricultural species. The models have been refined in close conjunction with the research activities carried out at the Federal University of Mato Grosso (UNEMAT), the University of Exceter and other partner universities. In the same logic of integrating restoration into the production systems prioritized by the families, **forest gardens (for seeds), fruit trees and, agroforestry gardens were planted**, representing 10% of the area (20 hectares) involving 12 families.

Photo: Juliana Mello

APP restored.

Component 4: Science, Innovation, and Economic Instruments: Science, technology, and innovation activities contribute to the recovery, conservation, and sustainable use of the Amazon Biome.

DIRECT EFFECT 4. Knowledge and technologies for Agroforestry Systems and forest seeds produced and disseminated.

Photo: Juliana Mello

Silvopastoral system under implementation.

In addition to the Sustainable Productive Activities component, the *Portal Seeds* project was structured with direct effects on Component 4: Science, Innovation, and Economic Instruments, which brings together actions aimed at research and communication. .

Indicator	Goal	Indicators at the end of the project (4th quarter 2019)	Change
Number of scientific, educational, or informative publications	5	59	1,180%
Number of integrating events held	5	6	120%
Number of participations in integrating events aimed at disseminating the knowledge produced	N/A	17	N/A
Amount invested in CT&I infrastructure	BRL 35,500.00	BRL 255,497.50	7,300%
Number of researchers and technicians involved in CT&I activities residing in the Amazon region	N/A	59	N/A
Product 4.1: Carrying out research into seed collection, processing and storage and monitoring			
Number of surveys carried out on agroforestry monitoring	5	15	300%
Number of studies carried out on seed collection, processing, and storage	5	49	980%

Indicator	Goal	Indicators at the end of the project (4th quarter 2019)	Change
Product 4.2: Production of materials to disseminate the research carried out and project actions			
Number of printed materials produced, such as newspapers, booklets, and research reports	N/A	27	N/A

The communication actions took place in an integrated manner with governance, contributing to **transparency** in the application of resources and supporting decision-making processes in the project's collegiate bodies **(Product 4.2)**. Currently, there are no regular **institutional communication tools**, and the flow of information happens through the actions of technical teams, workshops and events.

The project made it possible to structure the research area at IOV far beyond the construction of a physical space for accommodation and events **(Product 4.1). A network of researchers from various national and international institutions (State University of Mato Grosso - UNEMAT, Federal University of Mato Grosso - UFMT, University of Exeter, University of Florida...)** has been established, who have directed their actions towards meeting the demands of family farming in the region.

> *Research is perhaps the area that has grown the most at IOV. We have projects providing information to improve production systems, train students and disseminate research.*
> *— Technical team*

After the project was completed, research activities were expanded with the approval of new projects in partnership with universities. The **researches directly benefit the families already in the implementation phase of experiments**, modeled in a participatory way. Research results have **contributed to both the design of production systems and the seed network**, as well as pricing, collection and storage practices **(Product 4.1)**. Students regularly participate in activities with families, contributing to the **development of professionals** with more knowledge about the reality of family farming. Events to present and discuss results are held with the **participation of students, families, and researchers (Product 4.1)**.

6. Analysis of the OECD Evaluation Criteria and REDD+ and Cross-Cutting Safeguards

6.1. Analysis of the OECD Evaluation Criteria

Evidence	Evaluation
RELEVANCE CRITERION	
· The project **developed restoration models** for a region with high deforestation pressure and irregular environmental properties, providing access to information and references on the recovery of APPs and the implementation of SAFs. · The **income-generating activities have been consolidated**; both agroforestry and seed production are significant and contribute to the composition of income in the context of family farming. · The effects remain after the end of the project and contribute to the **resilience of family farming i**n a context of strong pressure to lease areas and convert them into soy monocultures.	**Relevant**
EFFECTIVENESS CRITERION	
· One of the main factors that seems to have influenced the achievement of the goals was the **integrated action** involving not only the **implementation of areas** but also the structuring of **marketing**, being associated with an intense and consistent process of **technical assistance, training, and governance**.	**Effective**
EFFICIENCY CRITERION	
· A governance process structured through municipal and regional participatory bodies, with instruments and procedures for transparency and co-responsible decision-making between beneficiaries and executors. · Financial mechanisms implemented to optimize resources. · The management arrangement resulted in relatively low restoration costs.	**Efficient**
IMPACT CRITERION	
· It has enabled **changes in the landscape through the restoration** and enrichment of a significant area of APPs and SAFs. · **Consolidated the seed chain** for restoration, structured **agroforestry production**, and strengthened **marketing channels**. · It has generated **production and restoration models**, systematized and disseminated knowledge through **participatory research**. · The results achieved in terms of landscape change are under strong **threat from the expansion of predatory agribusiness**, which has reportedly deforested areas that had already been restored.	**Positive impacts**
SUSTAINABILITY CRITERION	
· **It has consolidated the seed chain** for restoration, with the formalization of a cooperative and a significant group of collectors, who remain mobilized and active even after the end of the project. Joining the national movement of community seed networks. Challenges of expanding the market. · The **microcredit mechanism structured by the project is expanding**, making it possible to **expand restoration** through models integrated with production and income generation: silvopastoral, orchards, and agroforestry gardens. · **Research projects expanded** and enabling the continuity of actions with the Base Groups of the executing organization · The lessons learned are **guiding the continuity of actions** through new projects by the executing organization in the territories.	**Relevant sustainability**

6.2 Analysis of the Cancun Safeguards

Safeguard	Attendance	Notes
1. Actions complementing or consistent with the objectives of national forest programs and other relevant international conventions and agreements	**Yes**	This project **contributes directly to PPCDam** and, more specifically, to the expected results: 1.1 Bioeconomy, socio-biodiversity, agroecology and agroecological transition expanded and strengthened in the Amazon; 1.2 Training and capacity building of personnel and infrastructure for socio biodiversity chains and sustainable family farming improved (Objective 1: Stimulate Sustainable Productive Activities) and 2.2 Recovery of native vegetation in public and private areas stimulated (Objective 2: Promote Sustainable Forest Management and the recovery and restoration of deforested or degraded areas).
2. Transparent and effective national forest governance structures, taking into account in view of national sovereignty and national legislation	**No**	There were no specific contributions from the project to this aspect at the national level.
3. Respect for the knowledge and rights of Indigenous Peoples and members of local communities, taking into account international obligations relevant national circumstances and laws and noting that the UN General Assembly has adopted the UN Declaration on the Rights of Indigenous Peoples	**N/A**	The project did not target Indigenous Peoples, but worked with farming families in settlements and private areas.
4. Full and effective participation of interested parties, in particular Indigenous Peoples and local communities, in the actions referred to in paragraphs 70 and 72 of Decision 1/CP 16	**Yes**	The project structured a system of governance, including participatory bodies at the municipal and regional levels, instruments and procedures for transparency and co-responsible decision-making between beneficiaries and executors. In the interviews, the beneficiaries demonstrated a broad understanding of the project's results.
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 improve other social and environmental benefits	**Absolutely**	The project developed and implemented models for recovering degraded areas for ecological (APPs) and economic (SAFs) purposes using native species and consolidating the forest seed chain for this purpose.
6. Actions to address the risks of reversals in REDD+ results	**N/A**	Not applicable.
7. Actions to reduce the shift of carbon footprint to other areas	**N/A**	Not applicable.

6.3 Analysis of Cross-Cutting Criteria

Criterion	Attendance	Notes
POVERTY REDUCTION		
· To what extent has the project contributed effectively to economic alternatives that value the standing forest and the sustainable use of natural resources? · To what extent has the project positively influenced the reduction of poverty, social inclusion and improvement of the living conditions of beneficiaries (in particular: traditional communities, settlements and family farmers) who reside in the area of the project activities? · Has the project succeeded in promoting and increasing production in value chains of timber and non-timber forest products originating from sustainable management?	**Absolutely**	Family farming is characterized by a mix of complementary income-generating activities. In this sense, the project has consolidated productive activities that make a significant contribution to family income. It should be noted that these strategies are inclusive of different family profiles, including women, the elderly and young people.
GENDER EQUALITY		
· Has the project succeeded in integrating gender issues into its strategies and interventions or addressed the issue in an independent way? How? · Was there separation by gender in data collection for project planning and monitoring? · How did the project contribute to gender equity?	**Yes**	The project created the conditions for women to take part in the activities, providing childcare space. The team was made up of men and women, broadening the possibilities for direct dialog with women. The results of reaching women with benefits were maintained after completion. The percentage of women beneficiaries as collectors of the seed network and taking up management positions in the cooperative has increased. The strategies for the agricultural production marketing created by the project directly benefit women, although there is no systematized data on this impact.

7. General Evaluation

Positive aspects

• The project has consolidated the forest seed chain. The incubation carried out by IOV during the execution of the project created the conditions for the **Seed Network to achieve autonomy**. Commercial challenges are inherent to the process, and reinforce the importance of continuity of support. National coordination with other community networks shows progress.

• In the case of agroforestry production, the structuring of the production link plus training and governance efforts were the basis for **marketing solutions led by the families themselves and by cooperatives locally**.

• The **income generation** activities supported by the project, seeds and agroforestry production, are active and valued, consolidating themselves as strategies in the composition of family income.

• The **restoration** continues to be supported by IOV, prioritizing **models integrated with income generation**, such as silvopastoral, orchards, and agroforestry gardens.

• The project has taken a few steps forward on the long road to gender equality. It was possible to **reach women**, creating better conditions for participation and generating **direct benefits**, such as income and access to credit.

• The **microcredit** created the conditions for **continuing restoration actions** associated with income generation. The model created under the project and subsequently expanded by IOV has proven to be **facilitating access to better production conditions for women**.

• **The research network catalyzed by the project has expanded** to include several national and international institutions that have directed their actions towards meeting the demands of family farming and contributing to the professional development of students in the region.

Challenges

• The *Portal Seeds* project enabled an integrated approach, with several simultaneous fronts, characterizing a "period of intense agroforestry activities" in the region, with significant economic, environmental, and

social organization results. The projects that followed the Amazon Fund did not have the same territorial, thematic or beneficiary public scope, **but were more specific**. On the other hand, in the same period there was **strong pressure to lease areas for soybeans**.

• Despite the results of inclusion and benefits for women, the exercise of formal leadership, by **occupying spaces and positions of power**, encountered cultural constraints, often related to the division of reproductive labor. Also, **combating gender restrictions** has been an intuitive act, much more due to the courage of the women at the forefront than due to well-founded, methodologically based strategies and adequate human and financial resources.

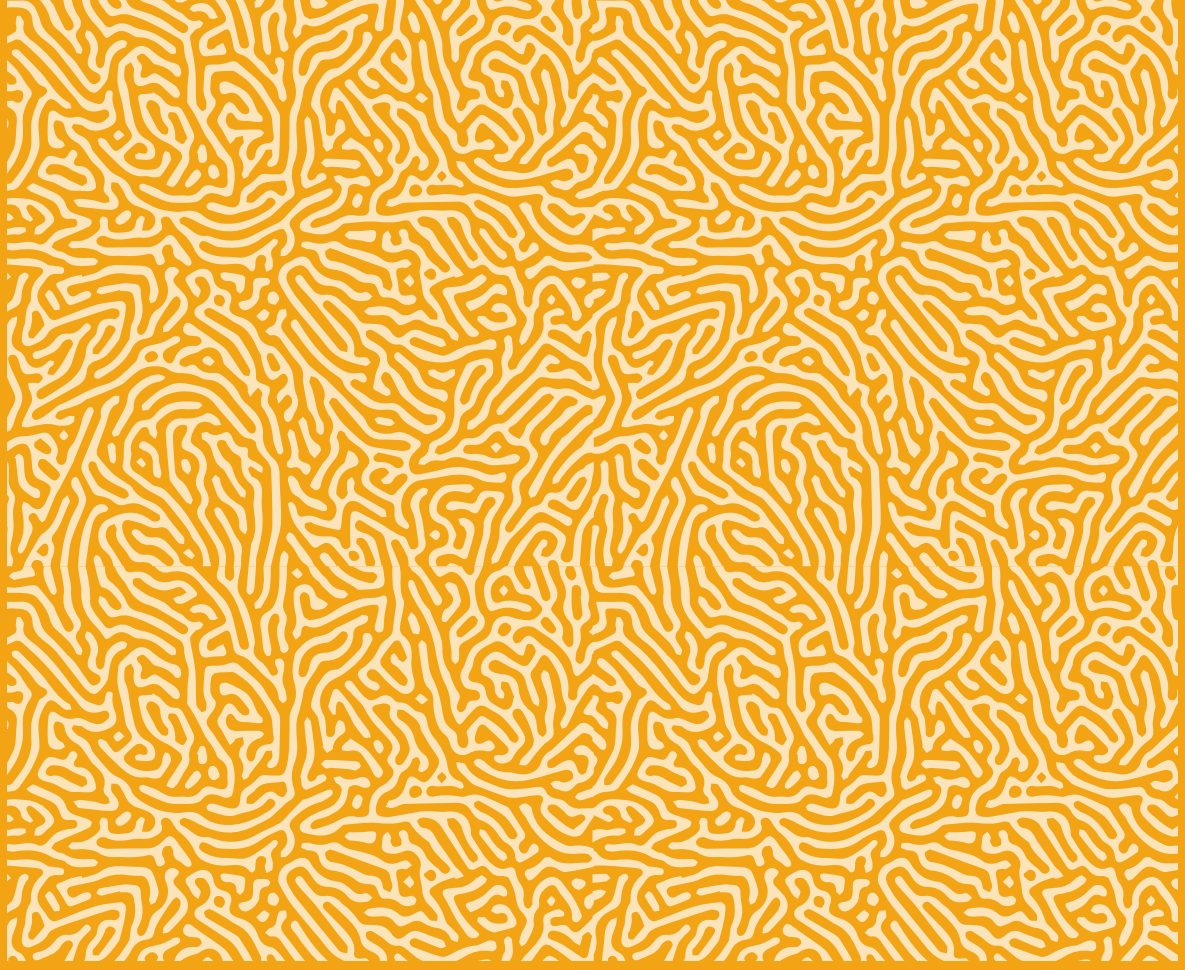
• After 10 years of partnership between IOV and the Amazon Fund, the suspension of Phase III of the *Portal Seeds* project, as well as the pandemic, has had repercussions for IOV's development.

8. Lessons Learned and Conclusion

• The *Portal Seeds* project has generated significant results that have contributed to the **resilience of family farming** in the region. However, the intensity of the expansion of agribusiness generates intense social, economic and cultural pressures, demanding broader processes of **territorial management/governance**.

• The **induction of gender issues in calls for proposals** is important to raise the issue internally in organizations. Creating the conditions for women's participation is a fundamental initial strategy, but it must be preceded by **consistent support from funders to combat gender restrictions** more systematically.

• Although it wasn't planned to meet women's **income needs**, the **seed chain proved attractive** in the context of a forest restoration project. The results achieved indicate the potential for more assertive actions in this direction in similar projects.



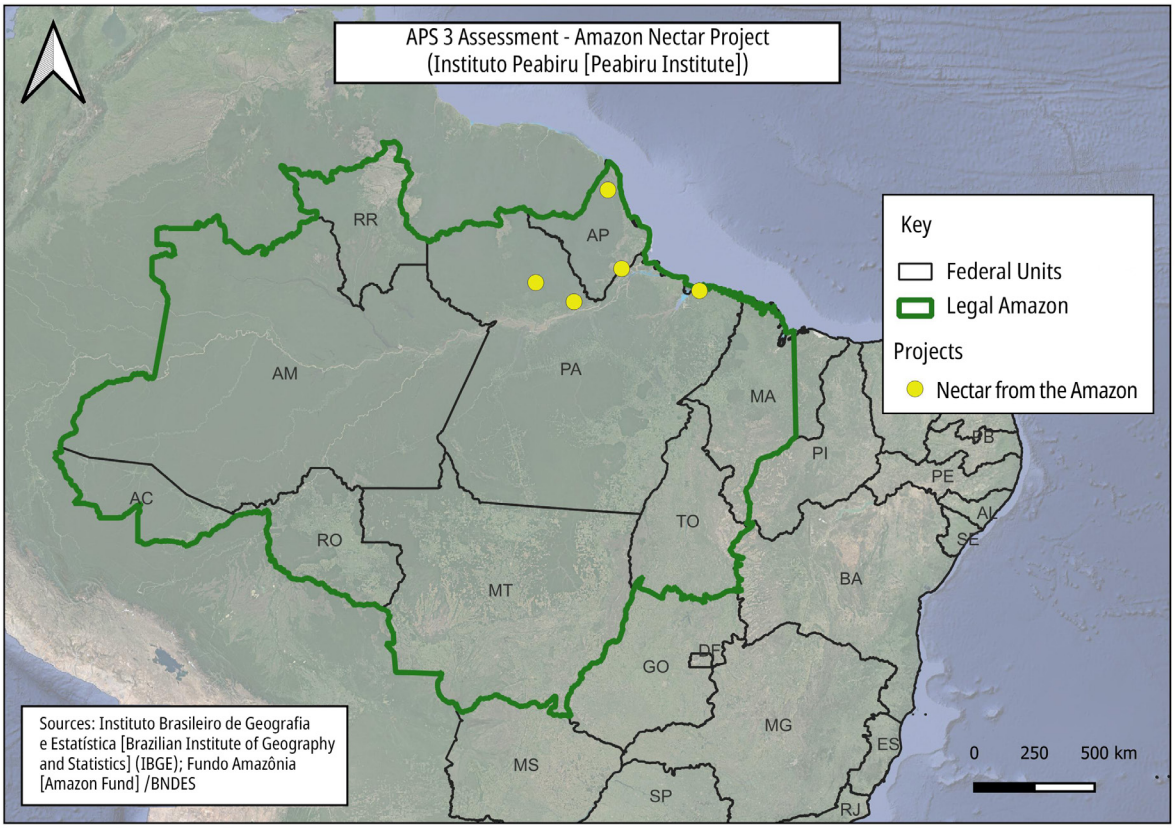
IV.
Amazon's Nectar Project

Project File			
Project Title:	Amazon's Nectar	**Responsible organization:**	Peabiru Institute
Project Period:	27/Aug/2014 - 30/Jun/2022	**Territorial Coverage:**	Amapá and Pará
Beneficiaries:	30 rural communities (quilombolas, Indigenous Peoples, riverine, and extractivists), comprising a target audience of 373 individuals		
Goals:	Strengthen the honey from native bees production chain in order to provide a sustainable economic alternative to deforestation		
Deadline:	42 months		
Total value of the Project:	BRL 2,072,901.00	**Amount of support from the Amazon Fund:**	BRL 2,030,000.00
Hiring date:	27.Aug.2014	**Date of completion:**	30.Jun.2022

Source: Amazon Fund website, accessed on 28/Feb/24, available at https://www.fundoamazonia.gov.br/pt/projeto/Nectar-da-Amazonia/

1. Project Summary

The *Amazon's Nectar* project sought to establish a structure for the honey production chain of *Melipona* (stingless) bees in four municipalities in the states of Pará and Amapá. To this end, it has worked to strengthen and expand the production and processing infrastructure, enhance the value of the final product and structure the marketing of honey from native bees produced by traditional communities: riverine communities, extractivists and small farmers in the municipalities of Curuçá, Almeirim, and Monte Alegre, in the state of Pará; quilombolas, in the municipality of Macapá, and Indigenous Peoples in the municipality of Oiapoque, in the state of Amapá.



2. Intervention Logic

The *Amazon's Nectar* project falls under the "Sustainable Production" Component (1) of the Amazon Fund's Logical Framework and, agreed with the funder, presented the Logical Framework in Figure I.

Figure 1 Logical framework for the Amazon's Nectar project

Source: Amazon Fund.

3. Specific Methodology

The evaluation sought to analyze if the results achieved during the implementation period of the project continued in force, as well as the outcome of these results and their impacts, years after the project implementation.

In the preparation phase of the analysis, data was collected from secondary sources including project documents shared by the BNDES, public data and institutional materials made available by the institution responsible.

For active collection of primary data, a field mission was carried out in April 2024, in the state of Pará, in the municipalities of Acará, around Belém, and Curuçá. During the mission, members of the project's coordination and technical team were interviewed and families of producers were visited on their properties. A total of eight families were visited, four in each municipality.

4. Project Implementation Context

Since 2006, the Peabiru Institute has been developing beekeeping projects for stingless bees (meliponiculture) with traditional peoples and communities in Pará and Amapá, through the Amazon Bees Program, which has been called different names from its inception to the present day. The aim of the Program is to present a sustainable family income option for the Amazon region, based on Brazilian biodiversity and with gender impacts since the activity of meliponiculture is traditionally carried out by women.

The activity is considered new in the country, but has seen an increase in demand over the last 20 years[16], due to the diversity of flavors and medicinal effects of honey from *Melipona* bees. The market value of honey from stingless bees is also higher than that of Africanized bees, since the production per colony is lower (average of 4 kg/hive/year compared to 30 kg/hive/year) and therefore rarer. As a result, the average price of a liter of honey from Melipona bees is usually higher than that of Africanized bees[17], with some species costing as much as BRL 1,460.00 a liter.

In the Amazon Bees Program, the initial focus was on "training related

16 CNA. Confederação da Agricultura e Pecuária do Brasil [Confederation of Agriculture and Livestock of Brazil]. Senar debates the prospects for meliponiculture in Brazil. Senar [online portal], July 19, 2023. Available at https://www.cnabrasil.org.br/noticias/senar-debate-perspectivas-da-meliponicultura-no-brasil. Accessed on: June 2024.

17 Lima, J. R. F.; Ribeiro, M. F. Custos e viabilidade econômica da meliponicultora comercial. In: Drumond, P. M. et. al. (Eds.). Meliponiculture: the producer asks, Embrapa answers. Brasília, DF: Embrapa, 2024. Available at https://ainfo.cnptia.embrapa.br/digital/bitstream/doc/1164026/1/Custos-e-viabilidade-economica-Meliponicultura-2024.pdf . Accessed on: June 2024.

to local development initiatives with a focus on validating scientific research and contributing to the strengthening of social organization in these territories". As of the *Amazon's Nectar* project, however, the Peabiru Institute is working to strengthen the meliponiculture value chain itself, with the aim of generating income, combating fires and deforestation, promoting biodiversity conservation and valuing environmental services such as pollination.

The *Amazon's Nectar* project focuses on the two pioneering centers of Peabiru's work: **(I)** the agroextractivism communities of Curuçá, in Salgado Paraense, a coastal region with mangroves, where the families involved did not form an organized group of producers; and **(II)** the quilombola communities around Macapá, in a transitional region between the Cerrado and coastal vegetation. Here, quilombola communities already existed as a structured social group, due to their history of fighting for territorial rights. On the other hand, in Salgado Paraense, families began to develop a process of creating a territorial collectivity based on the project

Although beekeeping was already present in both territories before the project, it was the work of the Peabiru Institute that introduced the so-called rational method of managing stingless bees, which, as will be seen below, enabled the expansion and strengthening of the meliponiculture chain in the regions.

5. Evaluation of the Results

This section summarizes the results achieved based on the framework of indicators systematized by the project in the Monitoring Plan. As mentioned in the methodology, the evaluation comments highlight the permanence and outcome of the results some years after implementation. The discussion of the results follows the sequence and structure of the indicator blocks defined in the project's Monitoring Plan.

It should be noted that in the *Amazon's Nectar* project specifically, the indicators are reported globally for the two states. The comments are based on interviews carried out during the field mission in Pará and with the project's general coordinator.

5.1 Results Achieved

DIRECT EFFECT 1. Honey from native bees production chain with increased scale and added value;

DIRECT EFFECT 2. Managerial and technical capacities of traditional communities expanded to operate in the honey from native bees production chain;

Indicator	Goal	Indicators at the end of the project	Change
Annual revenue from the production of honey from native bees resulting from the supported project	BRL 400,000.00	BRL 7,290.00	1,8%
Area of forest directly managed as a result of the supported project	17,239 ha	Not measured	-
No. of community organizations strengthened	6	1	17%
No. of individuals directly benefiting from the activities supported by the project	310	373	120%
No. of women directly benefiting from the activities supported by the project	40	52	130%
No. of Indigenous Peoples directly benefiting from the activities supported by the project	40	45[18]	112%
Number of women holding coordinating positions in the Peabiru Institute and total number of individuals holding coordinating positions in that institution	4	3	75%

Productive Base

The *Amazon's Nectar* project has made great efforts to promote the bee-keeping of stingless bees (meliponiculture) in the states of Pará and Amapá, managing, during the implementation period, to **expand the number and size of meliponaries in seven municipalities** distributed between the two states, totaling just over 4,000 hives distributed among 102 producers.

The **women have taken part in fewer training sessions, but they are the ones who have remained most responsible** for managing the hives to date. According to interviews conducted during the field mission, this was because many men preferred to work in value chains with faster financial returns and greater volume. For the women, the main attractions of meliponiculture were the ease of keeping the meliponaries close to home and the low

18 All from the Karipuna ethnic group, in Oiapoque-AP.

demand for workforce, since maintaining the hives only requires between two and three hours of work a week.

Photo: Cecilia Simões

Beneficiary of the project in her meliponary in the municipality of Curuçá.

Income and Marketing

About five years after the end of the project, it was found that, although the Peabiru Institute no longer monitors the exact number, many producers continue with their active meliponaries, **producing an average of 25 kg to 30 kg of honey a year**. This honey is sold directly to the Peabiru Institute itself, which, in partnership with the Fitobel company, processes and sells the final product. The amount currently paid to producers is BRL 45.00/kg, indicating an **average additional income of BRL 1,125.00 to BRL 1,350.00 per year for each family**. This amount is considered a supplement that diversifies family income sources, contributing to their **financial security**.

The Peabiru Institute had difficulties implementing the **processes of social organization** related to the production of meliponiculture, as well as **management of forested areas**. These actions ended up being little worked on and there are no significant results that can be seen today.

Finally, the Peabiru Institute currently has three women in coordinating positions on its team: **(i)** an administration coordinator, **(ii)** a program manager, and **(iii)** a project manager.

DIRECT EFFECT 1. Honey from native bees production chain with increased scale and added value

Indicator	Goal	Indicators at the end of the project	Change
Product 1.1: Consolidation of honey from native bees production and expansion of the number of hives			
No. of hives in production	10,000	4,075	41%
Product 1.2: Implementation of agroforestry systems in areas associated with bee breeding sites			
Area corresponding to agroforestry systems implemented (hectares)	4	4	100%
Product 1.3: Implementation of a honey processing unit and supervision of the operation for twelve months			
Volume de mel de abelhas nativas beneficiado no âmbito do projeto (kg)	20	270	1,350%
Product 1.4: Study on the market for honey from native bees and its by-products and preparation of business plans for the production chain appropriate to the realities of the project.			
Technical Report on the market for honey and other native bee products prepared	1	1	100%
Matrix Business Plan for the honey from native bees production chain drawn up	1	1	100%
Business Plans tailored to the reality of each sub-project drawn up	4	4	100%
Evaluation reports on the implementation of the local Business Plans prepared	1	-	1

New Sustainable Value Chain

It is estimated that around a third of native stingless bees are currently at risk in Brazil, which can affect pollination services in natural and agricultural ecosystems, compromising the reproductive capacity of plants and wild animals. In the Amazon, it is estimated that *Melipona* bees are responsible for 35% to 90% of the pollination of tree species. Thus, by maintaining colonies of native bees, meliponiculture presents itself as a way not only of generating income, but also of protecting the species from human actions, seeking to locate them in the region of their original occurrence, being an efficient way of conserving the species.

In the target territories, however, honey production before the project's intervention was restricted to *Apis* bees (stinging bees). The *Amazon's Nectar* project was responsible for **introducing** the honey **value chain** for Melipo-

na bees in the region, which are easier to manage and produce honey with a higher added value than Apis bees, precisely because it is produced on a smaller scale and has recognized medicinal qualities.

> *"My daughter loves to come and play here among the bee boxes." — Producer in Acará.*

This has allowed the *dissemination and consolidation of an income-generating production technology that requires little investment and workforce* while promoting forest and bee conservation. Thus, although the initial target of the number of hives in production was not reached, the final result produced was significant, as it was enough to form the productive base of this sustainable value chain in the region[19] .

> *"The productive base that exists in these places is made up of few activities that motivate and engage. So the introduction of meliponiculture has broadened this production base and increased the families' financial autonomy." — Project Coordination.*

During the field mission to the state of Pará, it emerged that, with the support of the project, the meliponiculture chain in the regions visited remained active, with families maintaining and multiplying their hives and selling their production to Peabiru in partnership with Fitobel.

A relevant development of *Amazon's Nectar* was the **outcome of new projects** by the Peabiru Institute, which allowed the spread of meliponiculture to a new municipality in the state of Pará: Acará, on the outskirts of Belém. Peabiru has been developing the Friends of Bees project there since 2020, offering participating families technical assistance from specialized professionals and the structure to set up meliponaries on their land. In Acará, the institute also has a meliponary demonstration unit, where boxes of bees are multiplied for distribution by the project and training and capacity-building activities are carried out. Thus, based on the lessons learned from the project, Peabiru's objective at the moment is to develop a meliponiculture center in the municipality of Acará, consolidating the honey chain in the region.

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19 In addition, it should be noted that the Peabiru Institute identified, at the end of the project, an overestimation of the target number of hives due to the lack of experience with the subject at the time the project was formulated.

> *"We want beekeeping to be like chicken farming. That all families adopt this practice and have boxes at the bottom of their backyards, making up their income just like cassava, chicken, açaí etc."*
> *— Project coordination.*

Photo: Cecilia Simões

Meliponary and Demonstration Unit of the Peabiru Institute, in the municipality of Acará.

It should also be noted that Acará was one of the municipalities visited during the field mission. Through the interviews with producers, it was found that meliponiculture has been adopted not only as a source of income, but mainly as a vehicle for **pollinating forest products**, such as açaí and cocoa. In other words, its relevance has grown in an integrated way with other value chains that also conserve the forest and its biodiversity.

Marketing

To strengthen the meliponiculture chain, the project envisaged not only establishing production and expanding hives, but also structuring the honey processing and marketing links. Initially, a processing plant was planned, but after the commercial studies and production capacity evaluation carried out by the project, it was decided that a processing industry would not be prof-

itable at this stage in the development of the meliponiculture chain in the regions where it operates. The decision was then made to enter into a partnership with the Fitobel industry, which already worked with honey from *Apis* bees. The project supported the industry in obtaining the Federal Inspection Seal (SIF), the first in the country for meliponiculture products, which made it possible to **sell them throughout the country**. Through this partnership, the **Peabiru Institute buys the entire the production** of the project's beneficiaries to date.

The *Amazon's Nectar* has also brought **relevant outcomes to the Peabiru Institute's strategy for marketing socio-biodiversity products**, with an impact on other forest value chains. After the experience of formalizing the products by obtaining the management authorization for the meliponaries and SIF, Peabiru saw the potential of these actions to increase scale and access more formal markets, not only for honey, but also for products such as flours, handmade chocolates and jellies. As part of the project, a specialized website and the "Peabiru Produtos da Floresta" brand (Peabiru Produtos da Floresta) were created in 2017 and are still active today. In 2018, a Peabiru Institute store was also opened, with the support of the Pão de Açúcar Institute, in Belém; However, the covid-19 pandemic drastically affected the brand's sales and caused the store to close, which was reopened in 2022. Since then, the brand's products have been sold in the store and in four other locations in the city of Belém.

Although formal markets are the current focus of Peabiru's work, the Institute believes that the best financial returns for honey production can be achieved through **short-cycle sales**, informally and directly between producer and consumer. This is the case because it has not been possible to establish a premium value for Amazonian honey from *Melipona* bees, as expected. According to the project coordination, there are several hypotheses that explain this difficulty. The most noticeable is that the average Brazilian does not know about and does not value, in terms of price premium, products from the Amazon or linked to socio-environmental factors. Also, the pandemic interrupted the sales strategy in emporiums in São Paulo just as the product was starting to gain traction in 2020. This forced a redirection towards online sales, at a time when the institution did not have the resources to invest in this strategy and there were no sources of funding available.

Thus, the strategy to support the marketing of honey is currently shifting from the purchase and processing by Fitobel to sales by the producers

themselves in their communities, at fairs and on the streets of the city of Belém, where it is possible to earn around three times more than the amount paid by Fitobel (BRL 120.00/kg against. BRL 45.00/kg).

The **Agroforestry Systems** (SAFs) planned at the start of the project (four hectares in each production pole) have not been implemented. The main causes were the lack of expertise on the subject and the lack of integration with meliponiculture, which led to flaws in the sizing of the work and basic flaws such as the absence of irrigation.

DIRECT EFFECT 2. Managerial and technical capacities of traditional communities expanded to operate in the honey from native bees production chain.

Indicator	Goal	Indicators at the end of the project	Change
Product 2.1: Technical support and training for the target audience in native beekeeping, agroecological practices, business management, and production processes.			
No. of individuals trained in native beekeeping, agro-ecological practices, business management, and production processes specified by gender	310	373	120%
No. of training events	80	37	46%
Product 2.2: Development of a participatory socio-environmental monitoring system			
Phenological calendars developed	4	4	100%

Training and Technical Assistance

The training courses were tools for engaging and selecting the producers in the project and, as such, crucial to the results achieved by the project. Family farmers were invited to take part in the training courses and, depending on their attendance and commitment, received boxes with hives at the end. This method of engagement and dissemination of meliponiculture has been consolidated at the Peabiru Institute, which continues to act in this way in its current projects. Another direct result of the investment in training was the first Management Authorizations for *Melipona* bees in Brazil, which were obtained by the project's producers.

In addition, although not foreseen by the project, the supplementary

training offered by other institutions proved to be relevant in increasing the impact. Reports were collected from producers who had taken courses offered by the Brazilian National Rural Learning Service (SENAR) on rural entrepreneurship, which provided guidance, for example, on pricing products, offering differentiated products, better financial management, etc. This has led to better management of production and marketing, in addition to the support offered by the project.

> *With SENAR I've learned that I can sell the boxes with hives for much more than I'm selling them for, I can make more money from selling the boxes than I can from selling the honey".*
> *— Project beneficiary*

The **provision of technical assistance** also proved crucial to the effectiveness of the efforts made. The producers reported the need for frequent assistance when setting up the meliponaries to have questions answered and support received when extracting the honey. It is important to note that Peabiru has developed a mechanical tool for extracting honey that has drastically reduced working time compared to manual extraction with a syringe, which was done at the beginning of the project.

> *At first it took us a whole day to extract all the honey from the hives. Today, with the mechanical extractor, it takes about an hour."*

The tool, however, is unique and remains in Peabiru's possession. So the producers wait for the technical assistant to visit them to extract the honey, which happens once a year.

Also within the scope of technical assistance, a number of products have been developed to support training and technical support, as well as to promote meliponiculture throughout the Amazon. The first is a chapter called "MELIPONICULTURE: Sustainable business opportunity in the Eastern Amazon" from the e-book *Ciências ambientais: política, sociedade e economia da Amazônia*[20] from the State University of Pará (UEPA), published in 2020. The research was carried out by Peabiru in partnership with Embrapa Amazônia Oriental and identified results and advantages of meliponiculture, both in

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20 Pontes, A. N.; Rosário, A. S. (Orgs.). *Ciências ambientais: política, sociedade e economia daAmazônia*. Belém: EDUEPA, 2020. Available at https://ainfo.cnptia.embrapa.br/digital/bitstream/item/225814/1/amb-pol-soc-ec-1cap3.pdf . Accessed on: June 2024.

terms of economic and social impacts and environmental impacts on ecosystems, especially in the Amazon biome.

In addition, the phenological calendar research became two products included in the document "*Dossiê Cadeia de Valor das Abelhas sem Ferrão da Amazônia* [Amazon Stingless Bees Value Chain Dossier][21]", also published in 2020. These are: Annex I - Species of stingless bees (*Meliponini*) that occur in the state of Pará; and Annex II - The preferred plants of stingless bees in the state of Pará.

Photo: Cecilia Simões

The Peabiru Institute technical advisor carrying out manual honey extraction with a project beneficiary.

21 Oliveira, H. J. S.; Meirelles Filho, J. C. S.; Meirelles, J. P. S. (Eds.) *Dossiê Cadeia de Valor das Abelhas sem Ferrão da Amazônia* Belém, PA: Instituto Peabiru, 2020. Available at https://www.fundoamazonia.gov.br/export/sites/default/pt/.galleries/documentos/acervo-projetos-cartilhas-outros/Peabiru-Dossie-Abelhas-Amazonia.pdf. Accessed on: June 2024.

6. Analysis of the OECD Evaluation Criteria and REDD+ and Cross-Cutting Safeguards

6.1. Analysis of the OECD Evaluation Criteria

Evidence	Evaluation
RELEVANCE CRITERION	
· The project formed the **productive base of a new meliponiculture value chain** which, despite using endogenous Amazonian bees, having high added value and being easy to maintain, allowing the inclusion of young people and women, is still incipient in the biome and in the target territories. · The production represents a **diversification in income** for the producing families and has been expanding to other territories since the end of the project, due to the attractiveness of the cost-benefit ratio between workforce and financial results.	**Relevant**
EFFECTIVENESS CRITERION	
· The project faced **hardships to act on other links in the chain**, which remain in need of more investment towards the autonomy of families. The communities' managerial and technical capacities to operate in the *Melipona* bee honey production chain has also been expanded, although there is still a certain **dependence on technical assistance**.	**Medium Effective**
EFFICIENCY CRITERION	
· The expansion of the meliponiculture production base, which can be considered the first step in strengthening any value chain, is based on the multiplication of bee hives and the training of producers. The project's resources were therefore well distributed between the construction of the bee boxes to form the meliponaries, the training processes and technical assistance. The cost of the boxes themselves already represents around half of the project's resources, but they were crucial to achieving the results we found.	**Efficient**
IMPACT CRITERION	
· The main impacts of the project focused on strengthening the **production of honey from native bees** and how this experience strengthened Peabiru's institutional strategy for the meliponiculture chain. · Meliponiculture was incipient or practically absent in the target territories, and with the work of the project its **productive base was permanently expanded**, remaining present to this day. · The project has contributed to a diversification in the productive base of families, increasing their **financial security**. · The project was Peabiru's **first experience** with strengthening a production chain, and its lessons have been **guiding the construction of the institutional strategy**. Since the end of the project, Peabiru has been raising new resources and implementing new actions in another territory, working to further expand the production base and strengthen other links in the value chain of stingless bees in the Amazon.	**Qualitative impacts**
SUSTAINABILITY CRITERION	
· Many of the families who benefited from the distribution of bee boxes after the training **continue to produce honey** to this day, even after the effects of the covid-19 pandemic. · Some producers are more **autonomous** and able to continue producing and marketing independently. Others are **more dependent** on technical assistance, and tend to stop producing if they don't receive at least sporadic technical visits. This indicates the need to generate more autonomy in future technical assistance efforts. · It is necessary to build a **marketing strategy** that is less dependent on purchases made by Peabiru itself, more diversified and autonomous.	**Average sustainability**

6.2 Analysis of the Cancun Safeguards

Safeguard	Attendance	Notes
Actions complementing or consistent with the objectives of national forest programs and other relevant international conventions and agreements	**Yes**	The Amazon Fund projects related to the Sustainable Production Components are directly aligned with Axis 1 of the 2023 to 2027 phase of the PPCDAm - Sustainable Productive Activities; especially in its 'Objective 1: Stimulating Sustainable Productive Activities'. This project contributes more specifically to the expected result '1.1 Bioeconomy, socio-biodiversity, agroecology and agroecological transition expanded and strengthened in the Amazon', as it operated in a sociobioeconomy value chain, which promotes the conservation of bees and forest species.
Transparent and effective national forest governance structures, with a view to national sovereignty and national legislation	**N/A**	There were no specific contributions from the project in this respect.
Respect for the knowledge and rights of Indigenous Peoples and members of local communities, taking into account relevant international obligations, national circumstances and laws and noting that the UN General Assembly adopted the United Nations Declaration on the Rights of Indigenous Peoples		The project worked with endogenous species from the territories, which many families had already been working with before the project, but in an informal and unstructured way: a tree would be cut down to move the hive closer to the house, which, more often than not, sacrificed the hive. The project introduced the rational method of raising stingless bees, which uses a wooden box where the hive is installed, and whose model, divided into floors, allows for the periodic multiplication of colonies[22].
Full and effective participation of interested parties, in particular Indigenous Peoples and local communities, in the actions referred to in paragraphs 70 and 72 of Decision 1/CP 16	**In part**	No evidence of formal compliance with the decisions was identified. The field work was carried out on an individual basis, requiring the agreement of the producers to carry out the activities in their areas. Community associations were not involved in the planning and monitoring of the project's actions.
Actions consistent with the conservation of natural forests and biological diversity, ensuring that the actions referred to in paragraph 70 of 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 improve other social and environmental benefits	**Yes**	The project encouraged the production of honey from native stingless bees, which promoted the conservation of the biodiversity of the bees themselves, but also of the forests that they use as pasture, serving as pollinators. Meliponaries are set up in forested areas and do not require deforestation. On the contrary, meliponiculture encourages forest conservation in order to increase honey production.
Actions to address the risks of reversals in REDD+ results	**N/A**	Not applicable.
Actions to reduce the shift of carbon footprint to other areas	**N/A**	Not applicable.

22 Relatório de Avaliação de Resultados do Projeto Néctar da Amazônia. Instituto Peabiru. Amazon Fund, October 2020.

6.3 Analysis of Cross-Cutting Criteria

Criterion	Attendance	Notes
POVERTY REDUCTION		
· To what extent has the project contributed effectively to economic alternatives that value the standing forest and the sustainable use of natural resources? · To what extent has the project positively influenced the reduction of poverty, social inclusion and improvement of the living conditions of beneficiaries (in particular: traditional communities, settlements and family farmers) who reside in the area of the project activities? · Has the project succeeded in promoting and increasing production in value chains of timber and non-timber forest products originating from sustainable management?	**Yes**	The project has formed the productive base of a value chain that offers a supplement to annual income while requiring very little investment and workforce, freeing producers to carry out other activities. In addition, the introduction of meliponiculture represented a necessary diversification in the source of income for many beneficiary families, increasing their financial security. The income generated from meliponiculture production varies: it can be generated from the sale of honey, but also from other products such as propolis and the hives themselves to multiply production. Thus, although the income from the sale of honey is relatively low, as it occurs once a year, the project has generated the capacity for further increases in the income of the families involved, depending on their level of interest and dedication.
GENDER EQUALITY		
· Has the project succeeded in integrating gender issues into its strategies and interventions or addressed the issue in an independent way? How? · Was there separation by gender in data collection for project planning and monitoring? · How did the project contribute to gender equality?	**Incipiently**	Meliponiculture, because it works with stingless bees that can be cultivated close to family homes, is traditionally a job carried out by women. Thus, despite the fact that most of the individuals who benefited from the project were men, it was the women who remained in charge of production, and/or it was at their instigation that the families started working with bees. Not necessarily because of the project's encouragement, but because of the natural organization of the families' work. The project monitored the number of women taking part in the activities.

7. General Evaluation

Positive Aspects

• The honey value chain from Melipona bees was considered to be incipient in the territories targeted by the *Amazon's Nectar* project, with production being carried out by a few isolated individuals, lack of processing and sanitary regularization, low commercialization etc. With the project financed by the Amazon Fund, it was possible to consolidate the process of multiplying parent hives, which generated a herd of around 4,000 hives that were distributed among the beneficiary families in the target territories.

• The herd formed by the project not only allowed for an increase in honey production, but also became the basis for new multiplication processes and the installation of meliponaries, making the installation of new meliponiculture projects by the Peabiru Institute more agile. In its pioneering spirit, the *Amazon's Nectar* Project therefore provided the initial conditions for gaining scale in the production of a value chain based on forest conservation.

• Along with the exponential growth in the production link of the honey chain, the project also generated extensive institutional growth at the Peabiru Institute. Through the lessons learned during its implementation, the institute refined its strategy for working with the meliponiculture chain, identifying as a major goal the inclusion of beekeeping in the composition of the diversified production systems that characterize family farming.

• In addition, Peabiru has trained its technical workforce, developed new technology for extracting honey from the hives, and developed new partnerships with national and international funders.

Challenges

• The *Amazon's Nectar* project proposal drawn up by Peabiru was based on several years of experience working with the meliponiculture value chain. Until the start of the project, however, this experience consisted of capacity building for local development with a focus on validating

scientific research and contributing to the strengthening of social organizations. The *Amazon's Nectar* was the Institute's first initiative focused on strengthening the chain and mass multiplication of hives and meliponaries. This led to overestimated initial targets that had to be revised over the course of the project, such as the target for the number of active hives and the number of training events held. However, as explored in the analyses presented, this did not interfere with the sustainability of the results achieved, with honey production being maintained to this day in the benefited territories.

- There is a need for planning and major fundraising efforts if the provision of technical assistance is to be maintained on an ongoing basis. The reality of the logistical costs of the technical team to serve the different hubs, which were quite distant from each other, was underestimated, leading to difficulties in implementation. This difficulty became even worse at the end of the project, when the Institute was unable to access new funding and was unable to continue serving the beneficiary families on an ongoing basis.

- Without substantial resources at the end of the project, Peabiru was unable to continue offering rural technical assistance to the families who were unable, at the time of the project, to fully master the technical aspects of bee management and, especially, honey collection/marketing. As of 2021, the Institute was again able to raise resources to support the maintenance of a technical assistance team that has been accompanying some of the project's beneficiary families to this day.

- As this was the Institute's first project aimed at strengthening the honey chain, the team also had difficulty consolidating the marketing strategy. The solution found has been efficient so far: all the producers sell their entire production to Peabiru, which, in partnership with the company Fitobel, processes and markets the honey. This solution, however, is not sustainable in the long term and needs to be gradually replaced. The Institute has been designing a strategy for this transition, based on individual and direct marketing by producers at fairs and on the city streets. Some families have already adopted this independence. But the strategy will begin to be implemented from 2025.

8. Conclusion and Lessons Learned

• The *Amazon's Nectar* project represented a milestone for the meliponiculture value chain in the target localities. The mass multiplication of the number of hives and the training of families in the management of meliponaries allowed for a large expansion in honey production and the consolidation of this activity as a source of complementary and sustainable income, which it remains to this day.

• Production takes place in areas close to the families' homes, usually under the canopy of trees in the yard. Producers recognize the value of standing forest as a pasture for bees, but it turned out that even so, some families did not choose to avoid deforestation (no matter how small) in order to produce more honey. This indicates the urgent need for technical assistance, not only to promote meliponiculture itself, but also to educate about the value of the standing forest and to guide the use of the land on the properties as a whole.

• Technical assistance to expand production was a crucial element in the project, and is still needed by some families.

• During the implementation of the project, Peabiru identified that it is crucial for technical assistance to foster the autonomy of its beneficiaries, encouraging independent management of the area and the meliponaries, the search for means of commercialization, etc.

Annex 2
Basic Itinerary for the Field Mission

1. Name and profile of interviewee

a. What were you doing on the project? What's next?

2. Allocation of the project in the organization's trajectory:

a. What did the project mean for the organization?

b. What was your previous experience of working in APS like?

c. What were the expectations, were they met?

d. What happened after the closure?

3. Reducing deforestation and pressures

a. Considering the goal of reducing deforestation. What was the deforestation pressure exerted by the beneficiary families? And in the region, what are the vectors?

b. What were the pressures on the territory before the project? How did they impact the territory and ways of life? (Agribusiness? Selling wood? Infrastructure projects?)

c. And today? What are the pressures?

4. Territory and public policies:

a. What was the scenario like for fighting deforestation and promoting sustainable development in the region at the time the project was implemented?

b. Were there other important actions underway and was there contact/interaction with these initiatives?

c. How did you select the territories and families? What are the criteria and process?

d How do they evaluate and relate to public policies to promote APS, e.g. PNAE, PAA, PGPMBio, state policies? What is the current situation like?

e. What has been the impact of the dismantling of public environmental protection institutions and policies in recent years?

5. Adoption of APS and chains

a. What is the concept of APS adopted by the project?
Why did you choose to work with this concept of APS?
Which scenario indicated this as a good option?

b. Were there any difficulties specific to the APS concept chosen?
How did they get over it?
How were the difficulties dealt with when implementing the project?

c. What was it like for the beneficiary families to adopt the new production practices? What helped? What got in the way?

d. Was there an approach to structuring sustainable production chains? Based on what concept of chain? Realize progress, challenges and lessons learned.

e. Have deforested areas been recovered with the new production model? What restoration model has been adopted? Have these areas been maintained to this day? What about monitoring the restored areas?

f. Where were the seedlings grown for reforestation?
How was it distributed?

6. Monitoring

a. Has the community started to monitor land use (deforestation and production practices)? Was there any training for this? How is it today?

7. Community governance and organization

a. What does community governance look like today?
Who takes part? Have you changed much as a result of the project?
Was any support given by the project team?

8. ATER

a. What was the presence of technical assistance in the territory before the project?

b. What kind of ATER did the project offer?
What is ATER's methodological approach?

c. Did you take part in any training sessions, what were they like?

d. How did the women participate in the training sessions? Did women also receive ATER visits on their plots?

9. Income generation and quality of life

a. Were you able to measure the change in income? How did you do it? Can you share the data?

b. Did they measure effects on quality of life? What indicators?

10. Marketing and processing

a. How were the food chains organized? Price? Who were they selling to? Relevance for income generation?

b. Who do you sell to today?

c. Have you benefited from a product with the help of the project? What kind of support did they receive?

11. Pandemic and project relationship

a. Correlate execution period and pandemic situation in the region

b. How has the COVID pandemic impacted the implementation of actions and the results of the project? What adaptations have been made?

c. Has the project had any effect on the impact of the pandemic on the beneficiaries?

12. Gender

a. Was there an approach? Good practices? Lessons learned? How did the women participate in the project?

b. Were there any calls, any work aimed specifically at women or young people?

c. Are the women of the community more involved in the production chains or governance of the territory today? What was the change like?

13. Achievements and challenges

a. From the interviewee's point of view, what were the project's biggest achievements and challenges?

14. Sustainability

a. What support has the project offered to date? ATER? Marketing? Processing? Environmental regularization? Monitoring? Support for governance? Dissemination?

b. Can you still identify whether there has been an increase in the income of the families involved in the project? What was your income before the project started? What is your income today?

c. After the project ended, what difficulties did you face in maintaining the changes?

15. Questions to clarify results/effects

a. Define for each project based on reading the reports

Annex 3
OECD, Cross-Cutting Criteria and Guiding Questions

The evaluation of the effectiveness of sustainable production chain projects will follow the guidelines and criteria specified in the document Conceptual Framework for Evaluating the Effectiveness of Projects Supported by the Amazon Fund and in the Addendum to the Conceptual Framework for Thematic Evaluations, based on the Criteria of the Organisation for Economic Co-operation and Development (OECD), the Cross-Cutting Criteria for Poverty Reduction and Gender Equality and the REDD+ Safeguards.

Each criterion adopts a basic roadmap of guiding questions for evaluating individual projects, as well as complementary questions defined in the Addendum to the Conceptual Framework for evaluating aggregate impacts - systematized in an integrated manner by criterion in the table below.

OECD Criteria

Criteria	Definition and guiding questions
Relevance	It assesses the coherence of the project's objectives with the demands of the beneficiaries and the political priorities of the target groups, the recipient and the donors.
Effectiveness of aggregate impacts (Addendum)	Did the projects contribute jointly and in aggregate to the Amazon Fund's goals?
Effectiveness per project (Conceptual framework)	• To what extent are project objectives still valid at the time of finalization? • Are the immediate activities and outcomes of the project consistent with the achievement of the objectives set for the project? •Are the immediate project activities and outcomes consistent with expected effects and impacts?
Effectiveness	It assesses the extent to which the direct objectives of the project have been achieved or are expected to be achieved and what factors have been important.
Effectiveness of aggregate impacts (Addendum)	What direct aggregate effects have been achieved?

Criteria	Definition and guiding questions
Effectiveness per project (Conceptual framework)	• Have the project's (specific) objectives been or will be met? • What are the main factors that influence whether or not direct goals are met?
Efficiency	Measures the products and services (outputs) in relation to the resources invested in the project. It assesses whether the financial resources were invested in the most economical way and whether the results were achieved satisfactorily. To assess whether the most efficient process has been adopted, it is necessary to compare alternative approaches to achieve the same results.
Effectiveness of aggregate impacts (Addendum)	Is the cost-benefit of project activities consistent with each other?
Effectiveness per project (Conceptual framework)	• What is the cost-effectiveness of the activities carried out? • Are the means applied in a reasonable relation to the results obtained? • Were goals met within the deadlines? • Are there alternative ways to get the same results with less cost/means?
Impact	It evaluates the positive and negative changes produced by the project, directly or indirectly, intentionally or unintentionally. This involves the main impacts and effects resulting from the project on local social, economic, environmental and other development indicators. The evaluation should be concerned with both intended and unintended results and should also include analysis of the positive and negative impact of external factors, such as changes in the social, cultural, economic and environmental environment.
Effectiveness of aggregate impacts (Addendum)	What were the main aggregate effects of the projects? Were there any aggregate impacts? Have they proven to be scalable in the territory?
Effectiveness per project (Conceptual framework)	• What were the main changes generated as a result of the project? • What were the main effects achieved that contributed to meeting the objective? • What actions or events outside the project contributed to the achievement of the observed changes? • Did the project make any difference to the beneficiaries?
Sustainability	It assesses whether the benefits of the project continue after it has ended, with an emphasis on social, economic and environmental aspects.
Effectiveness of aggregate impacts (Addendum)	• Are the effects achieved by the projects in aggregate lasting? Has sustainability been achieved? • What are the effects of the Covid-19 pandemic on the organization and results of the project, especially the generation of income from sustainable productive activities?
Effectiveness per project (Conceptual framework)	• To what extent do project benefits last after the end of Amazon Fund funding? • What were the main factors that influenced the sustainability of the project? • What risks should be monitored to ensure the sustainability achieved?

Cross-Cutting Criteria

Criteria	Guiding questions
Poverty reduction	
Effectiveness of aggregate impacts (Addendum)	How have the projects as a whole influenced poverty reduction, social inclusion and improvements in the living conditions of the beneficiaries living in their areas of operation?
Effectiveness per project (Conceptual framework)	• To what extent has the project contributed effectively to economic alternatives that value the standing forest and the sustainable use of natural resources? • To what extent has the project had a positive impact on reducing poverty, social inclusion and improving the living conditions of beneficiaries living in its area of activity? • Has the project succeeded in promoting and increasing production in value chains of timber and non-timber forest products originating from sustainable management?
Gender equality	
Effectiveness of aggregate impacts (Addendum)	Have the projects brought aggregate results and impacts on gender issues? How and what aggregate results can be observed?
Effectiveness per project (Conceptual framework)	• Has the project succeeded in integrating gender issues into its strategies and interventions or addressed the issue in an independent way? How? • Was there separation by gender in data collection for project planning and monitoring? • How did the project contribute to gender equality?

Cancun Safeguards

The seven Cancun safeguards and the corresponding guiding questions are listed below.

1. Actions complementing or consistent with the objectives of national forest programs and other relevant international conventions and agreements	• Is the project aligned with PPCDAm and state plans for deforestation prevention and control? • To what other federal public policies or international agreements is the project aligned to? In what aspects? • Has the project contributed or may come to contribute directly or indirectly to the reduction of emissions from deforestation or forest degradation? In what way?
2. Transparent and effective national forest governance structures, with a view to national sovereignty and national legislation	• To what extent has the project promoted the articulation between various actors (public sector, private sector, third sector or local communities)? Have instances of shared governance been used? Which? • To what extent has the project contributed to strengthening public instruments and forest and territorial management processes?

3. Respect for the knowledge and rights of Indigenous Peoples and members of local communities, taking into account relevant international obligations, national circumstances and laws and noting that the UN General Assembly adopted the United Nations Declaration on the Rights of Indigenous Peoples	• To what extent has the project influenced the constitutional rights associated to the possession and formal destination of land in its area of activity? • To what extent has the project influenced the sustainable use of the natural resources in its area of activity? • If the project had as direct beneficiaries Indigenous Peoples, traditional communities or family agriculturists: were their socio-cultural systems and traditional knowledge considered and respected throughout the project? •Are there any effects that interfere with the traditional way of life of these groups? What kind of effects: in the economic or social organization, or in the use of available space and resources? In what way do they interfere?
4. Full and effective participation of interested parties, 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 guarantee prior consent and local/traditional choice of representatives of its beneficiaries (especially indigenous peoples and traditional communities)? • Which participatory planning and management tools did the project apply during planning and decision-making? • In case of projects with economic purposes: were any benefits arising from the project accessed in a fair, transparent and equitable way 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 set up a good monitoring system for results and impacts? Has the project monitored and systematically communicated the results and their effects?
5. Actions consistent with the conservation of natural forests and biological diversity, ensuring that the actions referred to in paragraph 70 of Decision 1/CP 16[23] 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 improve other social and environmental benefits	• How did the project contribute to the expansion or consolidation of protected areas? • How did it contribute to the recuperation of deforested or degraded areas? • In the case of restoration and reforestation activities, did the methodologies used prioritize native species? • To what extent has the project contributed to establishing recovery models with an emphasis on economic use?
6. Actions to address the risks of reversals in REDD+ results	• Which factors constitute risks to the permanence of REDD+ results? How did the projects approach them?
7. Actions to reduce the shift of carbon footprint to other areas	• Have there been a shift of emissions prevented by the project to other areas?

23 Decision 1/CP 16: Reducing emissions from deforestation; reducing emissions from forest degradation; conserving forest carbon stocks; sustainable management of forests and enhancing carbon stocks.

Annex 4
List of People Interviewed

Project: Use of Social Technologies to Reduce Deforestation
Proponent: ADAI

	Name	Organization	Assignment
1	Rogério Paulo Hohn	ADAI	General coordination of the project. President of ADAI
2	Océlio Muniz	MAB/RO	State project coordination
3	Miqueias Ribeiro	MAB/RO	Technical team of the project
4	Laercio Cavalcante	MAB/RO	Agronomist – current technical advisor
5	Edilaine Guariniri	Cáritas Arquidiocesana de Porto Velho	Project partner organization
6	Felisbino João Santana	Rural community	Farmer
7	Cleide Passos	Rural community	Farmer
8	Waleria P. Rodrigues	Rural community	Farmer
9	Suelda Costa Cunha	Rural community	Farmer
10	Willian Santos Oliveira	Rural community	Farmer
11	Samuel Passos Guimarães	Rural community	Farmer
12	Maria das Graças da S. Felipe	Rural community	Farmer
13	Maria Augusta Santos	Rural community	Farmer
14	Ronaldo de Farias	Rural community	Farmer
15	Gilson Dias da Silva	Rural community	Farmer
16	Cleudineia Santos Oliveira	Rural community	Farmer
17	Antonio Nascimento	Rural community	Farmer
18	Waldenice Ramalho Nascimento	Rural community	Farmer
19	Neusa de Oliveira	Rural community	Farmer
20	Maria Eliane da Cunha	Rural community	Farmer

	Name	Organization	Assignment
21	Maria Madalena de Oliveira	Rural community	Farmer
22	Raimundo Francisco de Oliveira	Rural community	Farmer
23	Paulo Divino da Silva	Rural community	Farmer
24	Valdirene Silva	Rural community	Farmer
25	Vera Lucia Eing	Rural community	Farmer

Project: Portal Seeds II
Proponent: IOV

	Name	Organization	Assignment
1	Valquiria Seze Felito	IOV	Technical team of the project
2	Renato Felito	IOV	Technical team of the project
3	Andrezza Alves Oliveira	IOV	Technical team of the project
4	Anderson Rogerio Lopes	IOV	Technical team of the project
5	Débora Maria Fiometti	IOV	Technical team of the project
6	Aline Olivia Paglioro	IOV	Technical team of the project
7	Almerinda da Cruz	IOV	Technical team of the project
8	Edison Fernando Tamarini	IOV	Technical team of the project
9	Vinicius Teixeira Arantes	IOV	Technical team of the project
10	Ana Carolina França Bogo	IOV	Technical team of the project
11	Carolina Brito Oliveira	PDS São Paulo	Farmer
12	Antonia S. de Brito Oliveira	PDS São Paulo	Farmer
13	Evoneide Fernandes	PDS São Paulo	Farmer
14	Vanda Melo de Souza	PDS São Paulo	Farmer
15	Maria Edileuza de Oliveira	PDS São Paulo	Farmer
16	Felipe Oliveira da Silva	PDS São Paulo	Farmer
17	Altair da Silva	PDS São Paulo	Farmer
18	Rafael da Silva	PDS São Paulo	Farmer
19	Luzia	Rural community	Farmer

	Name	Organization	Assignment
20	Antonio de Jesus	Rural community	Farmer
21	Luciano Scalsavara da Silva	IOV	Technical team of the project
22	Bruna Scalsavara	IOV	Technical team of the project
23	Alice da Silva Souza	Rural community	Farmer
24	Josuel de Souza	Rural community	Farmer
25	Maria Ivonete	Rural community	Farmer
26	Mauricio de Souza	Rural community	Farmer

Project: Amazon's Nectar
Proponent: Instituto Peabiru

	Name	Organization	Assignment
1	João Meirelles	Peabiru	General project coordination
2	Hermógenes J. Sá de Oliveira	Peabiru	General project coordination
3	Cleiton José Oliveira Santos	Peabiru	Technical team of the project
4	Maria Lina dos Santos	Rural community	Producer
5	Vilson Santos de Souza	Rural community	Producer
6	Maria Verbena Corrêa	Rural community	Producer
7	Carlos Alberto Segura	Rural community	Producer
8	Nilma Maria Braga de Souza	Rural community	Producer
9	Bernardo Nascimento dos Santos	Rural community	Producer
10	Maria Diozete	Rural community	Producer
11	Erivan	Rural community	Producer
12	Ocivaldo	Rural community	Producer
13	Alessandro	Rural community	Producer

Project: Sustainable Settlements (PAS)

Proponent: Amazon Environmental Research Institute (IPAM)

	Name	Organization	Assignment
1	Lucimar Souza	IPAM	General project coordination
2	Alcilene Cardoso	IPAM	Regional project coordination
3	Edivan Carvalho	IPAM	Regional project coordination
4	Reginaldo dos Santos Rocha	IPAM	Technical team of the project
5	João Batista Uchôa Pereira	FVPP	Director
6	Patrícia do Vale	Rural community	Producer
7	Jane Rodrigues Pereira	Rural community	Producer
8	Francisco Lopes dos Santos	Rural community	Producer
9	Maria Andrade	Rural community	Producer
10	Francisco Moraes	Coopropac	Producer
11	Manoel Messias	Coopropac	Producer
12	Firmino F. Santana	Rural community	Producer
13	Luiz Diego Nascimento	State Department of Administration of Anapú	Secretary
14	Adezuito Teixeira Braga	Rural community	Producer
15	Diego Cardoso da Silva	Rural community	Producer
16	Rosa Maria de Souza	Rural community	Producer
17	Abraão Batista da Rocha	Rural community	Producer

Annex 5
Terms of Reference (ToR)

Project:	Cooperation with the Amazon Fund/BNDES
PN	15.2132.7-001.00
***Output* + Activity:**	3 + 3.5
Goal:	Evaluate the effectiveness of projects focused on Sustainable Productive Activities (PHC) supported by the Amazon Fund, measuring their results and impacts achieved, thematically and individually, taking into account the relevance, efficiency, effectiveness and sustainability of the changes generated by them.

Evaluation of the effectiveness of four projects focused on Sustainable Productive Activities (PHC) within the scope of the Amazon Fund/BNDES

1. Introduction and General Information

One of the actions supported by the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) in the cooperation project with the National Bank for Economic and Social Development (BNDES)/Amazon Fund (FA), is the ex-post evaluation of the effectiveness of the projects, with the objective of giving visibility to the results and lessons learned from these projects, in addition to promoting the institutional learning of the FA itself. It meets the demand of donors and actors in international cooperation for independent monitoring and evaluation actions.

To date, 28 individual evaluations and 20 evaluations have been carried out, divided by themes, the results of which are available to the public on the Amazon Fund website. In addition, in 2019, the Mid-Term Evaluation of the Effectiveness of the Amazon Fund was carried out by a team of independent consultants, with the technical coordination of the Economic Commission for Latin America and the Caribbean (ECLAC) and the United Nations (UN). Concomitantly with the evaluation, two complementary thematic studies were elaborated, which served as subsidies for the evaluation: the Study of the Distribution of Benefits of the Amazon Fund and the Thematic Study of the Rural Environmental Registry Projects (CAR) supported by the Amazon Fund.

This Term of Reference (ToR) provides for the hiring of a consultancy to carry out thematic and individual evaluation of projects focused on Sustainable Productive Activities (PHC) and support for the structuring of the various sustainable production chains within the scope of the Amazon Fund. They fall under the "Sustainable Production" (1), "Monitoring and Control" (2), and "Science, Innovation and Economic Instruments" (4) components of the Amazon Fund's Logical Framework.

The objective is to evaluate the effectiveness of four closed FA projects, considering the initiatives that aimed to support actions and activities related to sustainable productive activities (PHC). To increase efficiency, the projects will be evaluated thematically, in this way, it is expected to expand the understanding of the results achieved together, especially their aggregate impacts. The projects and their executors are::

- Use of Social Technologies to Reduce Deforestation – Interstate Agricultural Development Association (Adai);
- Nectar of the Amazon – Peabiru Institute;
- Sustainable Settlements in the Amazon – Amazon Environmental Research Institute (IPAM);
- Portal Seeds, Phase II – Instituto Ouro Verde (IOV).).

The projects will be evaluated individually and together – thematically – to increase the efficiency of the evaluation, broaden the understanding of the results achieved by the projects, especially their aggregate impacts, and generate recommendations to the actors involved in the scope of sustainable productive activities in addition to individual recommendations to the projects.

1.1. Context of the projects

Sustainable production chains have gained relevance with the growth in volume and value of products in the market (especially for the bioeconomy), and in terms of importance for the traditional communities that produce them, even though they face barriers to their integration into the formal economy.

Among these barriers are the great distances between producers and the main consumer markets, high transportation costs, deficient storage infrastructure, lack of understanding of the regulations and laws that govern production and marketing in these chains, difficulty in accessing financing,

efficient administrative management, lack of qualification of human resources and lack of access to technologies and information for the improvement of planting techniques, management, processing, storage, quality control, among others.

Adding to these difficulties is the environmental pressure of deforestation that affects several regions of the Amazon, making it even more important to develop activities that keep the forest standing. In view of this, it is important to emphasize that the projects to be evaluated worked with very specific contexts, with their respective challenges.

Adai's *Use of Social Technologies to Reduce Deforestation* project implemented projects with communities affected by hydroelectric power dams (HPPs) in Rondônia, Mato Grosso, Tocantins and Pará, where it promoted agroecological food production, aiming at food security for families and reducing pressure on natural resources, using the PAIS method (integrated and sustainable agroecological production). which involves organic agriculture integrated with the raising of small animals and uses inputs produced on the property itself in order to preserve the quality of the soil.

The Nectar of the Amazon (Peabiru) project worked to strengthen and expand the production and processing infrastructure, as well as to improve the commercialization of honey from native bees among traditional peoples, such as riverside dwellers, extractivists and small farmers in the municipalities of Curuçá, Almeirim and Monte Alegre in Pará. In addition, the project supported quilombola communities in Macapá and indigenous populations in Oiapoque (AP), on the border with French Guiana.

The IPAM project took place in settlements of the Institute of Colonization and Agrarian Reform (INCRA), in the west of Pará and supported the development of a demonstrative experience of sustainable production and the implementation of payment for environmental services for families committed to reducing deforestation.

Eight municipalities in the region of the Portal da Amazônia, in the extreme north of Mato Grosso, were included in this project. The main objectives were to support the recovery of degraded areas and the strengthening of family farming in the region, through the implementation and consolidation of agroforestry systems (SAFs). The strategies used involved the planting and enrichment of agroforestry systems, the structuring of marketing channels for products and seeds, and the conduct of research.

Thus, analyzing these projects from different contexts, it is expected, in

the evaluation, to determine whether the strengthening of sustainable productive activities, through third sector institutions, contributed to the general objective of the Amazon Fund, of reducing deforestation through the sustainable development of the Legal Amazon.

1.2. Summary of projects

Project Title	Implementing Institution	Period	Amount of support from the Amazon Fund	Goal
Use of Social Technologies to Reduce Deforestation	Interstate Agricultural Development Association (Adai)	2017 to 2021	BRL 9,059,718.63	Implement family agroecological production units in communities affected by dams of hydroelectric power generation projects, contributing to food security and income generation for riverside dwellers and family farmers.
Nectar from the Amazon	Peabiru Institute	2014 to 2022	BRL 2,030,000.00	Strengthen the production chain of honey from native bees in order to constitute a sustainable economic alternative to deforestation.
Sustainable Settlements in the Amazon	Amazon Environmental Research Institute (IPAM)	2011 to 2022	BRL 23,425,282.04	Support, in settlements in western Pará, the development of a demonstrative experience of sustainable production and the implementation of payment for environmental services for families committed to reducing deforestation.
Portal Seeds - Phase II	Ouro Verde Institute (IOV)	2013 to 2018	BRL 16,086,000.00	Support the recovery of degraded areas and the strengthening of family farming in the region of the Amazon Portal, in the state of Mato Grosso, through the implementation and consolidation of SAFs, structuring of marketing channels for products and seeds, and conducting research

2. Objectives of the Evaluation

The main objective of this thematic evaluation of effectiveness is to evaluate the effectiveness of projects focused on Sustainable Productive Activities (PHC) within the scope of the Amazon Fund/BNDES.

All supported projects followed an individualized logical framework in which results (products 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 were defined. This is the logic of project intervention, also called the 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 tables of the projects can be viewed in topic 3.2 or

on the Amazon Fund website.

The specific objectives of this evaluation are:

- Assist the Amazon Fund in reporting to its donors on the type of project supported and its effects, especially with regard to its impacts after the completion of the project;
- Enable the institutional learning of the Fund itself, contributing to improve the quality of projects and the prioritization of investments, thus subsidizing decisionmaking;
- Verify the compliance, by the supported projects, of the Cancun Safeguards agreed under the UNFCCC for actions to Reduce Emissions from Deforestation and Forest Degradation (REDD+), as well as the Cross-Cutting Criteria for Poverty Reduction and Gender Equity;
- Analyze the strengths and weaknesses of the intervention of the projects;
- Verify the extent to which the project is relevant, efficient, effective, sustainable and generates impacts (OECD criteria);
- Evaluate the effectiveness of the Amazon Fund's support in relation to support for projects of sustainable productive activities ;
- Identify challenges and lessons learned, as well as generate recommendations, which can also serve for national and international dissemination.

2.1. Task description: Object and focus of the assessment

To achieve the objectives identified in the previous topic, the projects targeted by this evaluation, implemented between 2011 and 2023, will be observed, focusing on the intervention areas of the projects and observing their direct and indirect effects presented in the objective trees in topic 2.2.

Thus, the following aggregate results should be observed:

a. Contributions to the implementation and strengthening of sustainable production chains for the standing forest;

b. Recovery of degraded areas with economic attractiveness;

c. Adding value and generating income with the objective of conser-

vation and maintenance of the standing forest;

d. Development of capacities for sustainable production actions with the valorization of the forest and biodiversity;

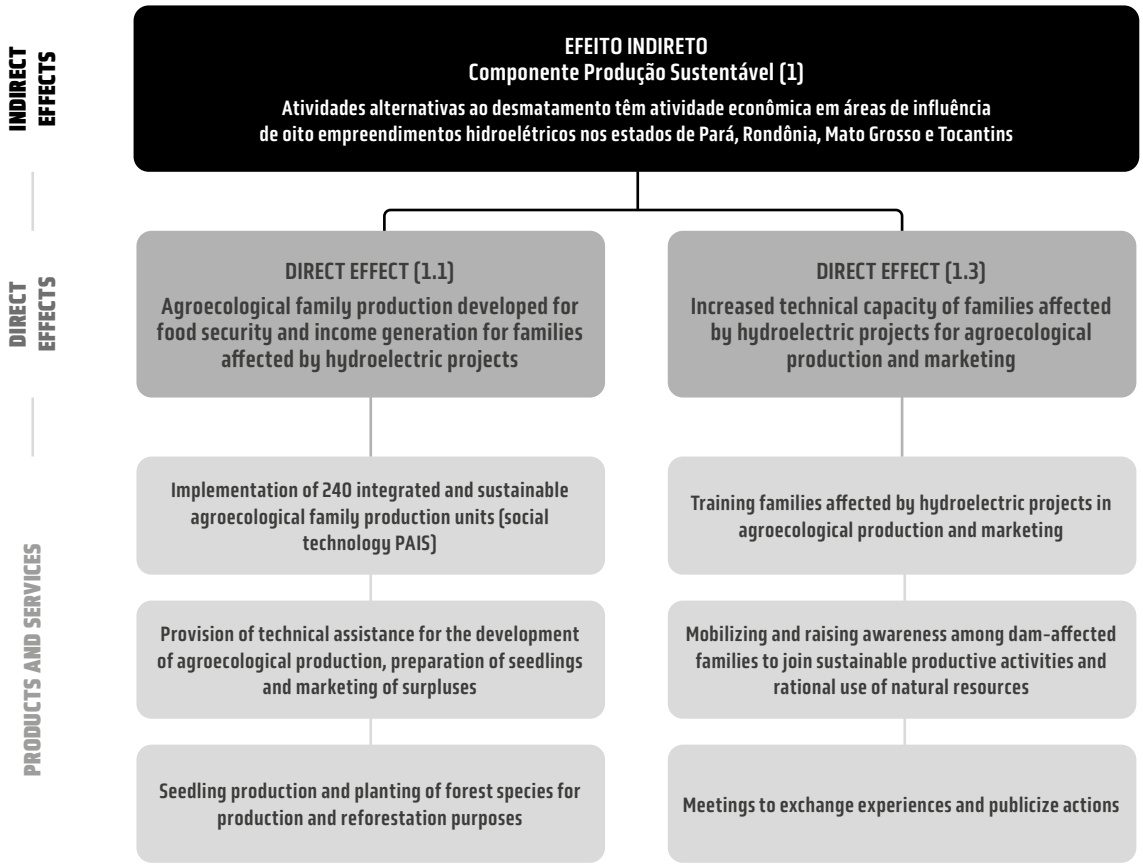
e. Analysis of the aggregate impacts on beneficiaries.

f. Capacity building for spatial planning

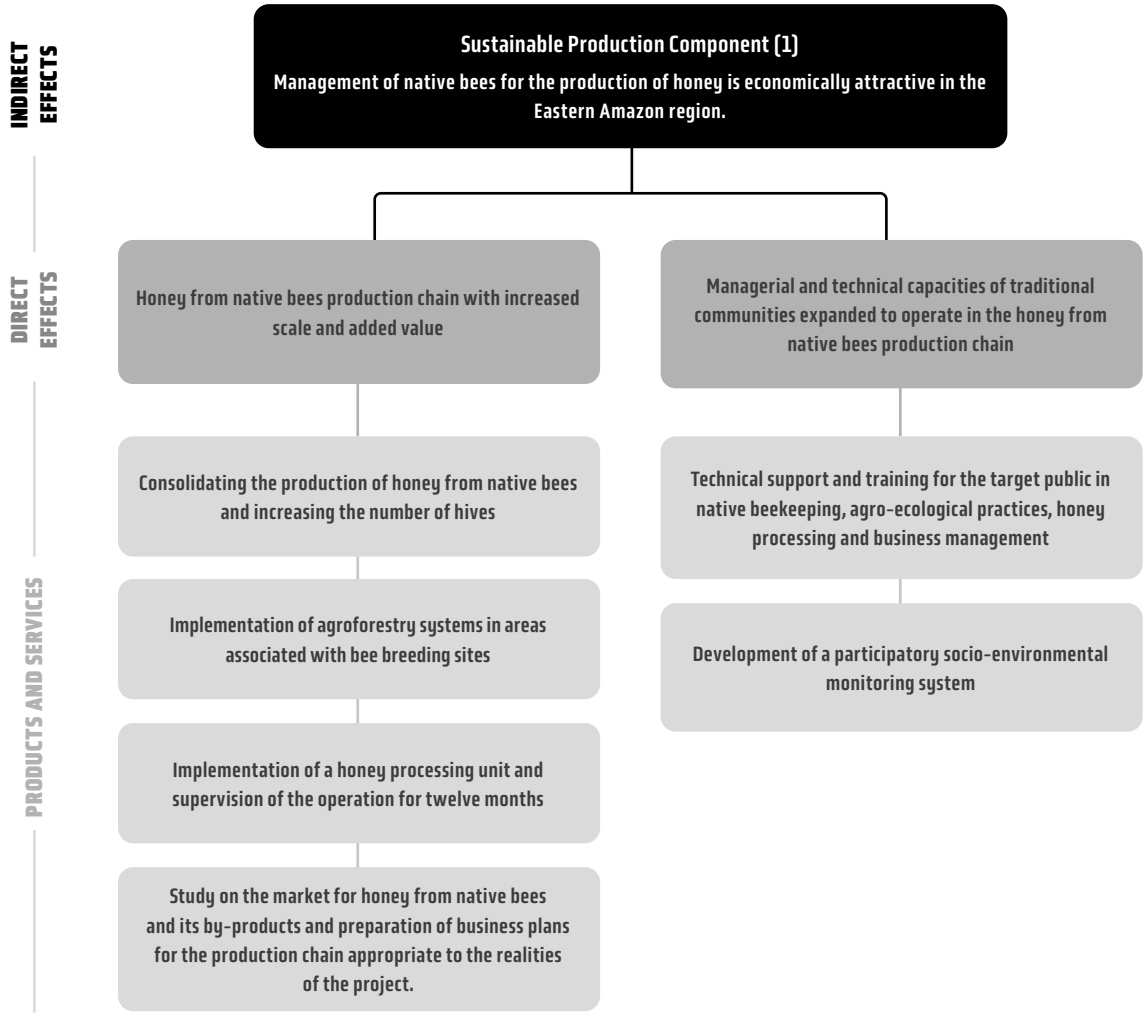
2.2. The Logic of Intervention

The logical tables of the projects to be evaluated give rise to the respective objective trees, which present the indirect and direct effects and products and services of each one, facilitating visualization for monitoring and evaluation. Below are the objective trees of the projects to be evaluated.

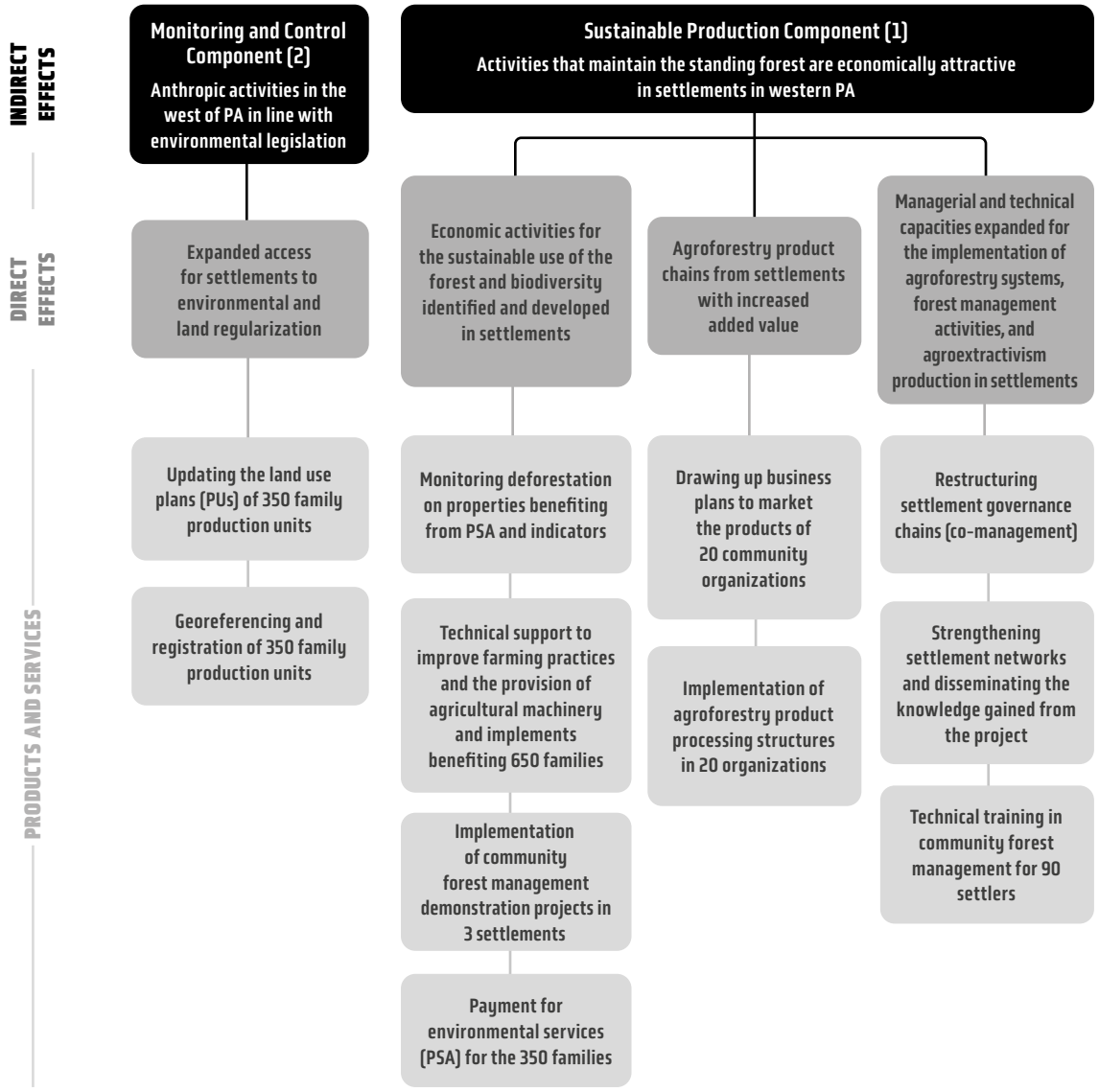
Logical Framework of the *Use of Social Technologies to Reduce Deforestation* project



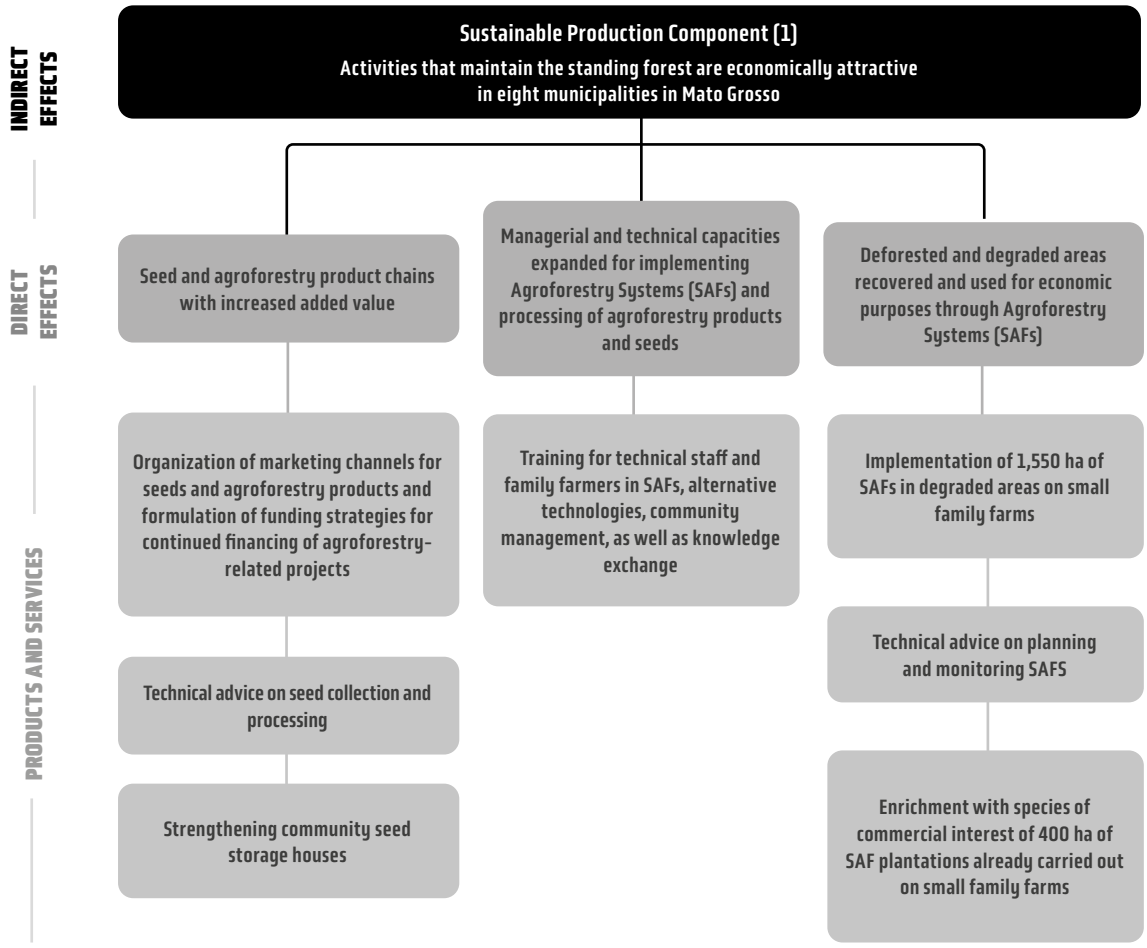
Logical framework for the Amazon's Nectar project



Logical Framework of the Project Sustainable Settlements in the Amazon



Logical Framework of project *Portal Seeds – Phase II*



2.3. Key Questions and Evaluation Criteria

The evaluation of thematic effectiveness will comply with the guidelines and criteria specified in the document Evaluation of Effectiveness of Projects Supported by the Amazon Fund - Conceptual Framework and its respective addendum. They are based on the methodology developed by the Organisation for Economic Co-operation and Development (OECD) and the Reducing Emissions from Deforestation and Forest Degradation (REDD+) safeguards, which have been 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 cross-cutting criteria. For each criterion, a script of guiding questions is adopted to be applied and which should be complemented in the Effectiveness Evaluation Design Report, as the evaluation team deems necessary. In this evaluation, the guiding questions that make sense according to the ob-

jectives of each of the projects will be selected, which may be complemented by specific questions, if necessary. Below is a summary table of criteria and respective guiding questions:

2.3.1. OECD Criteria, Cross-Cutting Themes and Evaluative Questions

Criteria	Guiding Questions
Relevance	Have the projects contributed together and in an aggregate way to the achievement of the objectives of the Amazon Fund?
Effectiveness	Have the aggregate direct effects been fulfilled?
Efficiency	Is the cost-benefit of project activities consistent with each other?
Impact	What were the main aggregate effects of the projects? Were there aggregate impacts? Have they demonstrated scalability in the territory?
Sustainability	Are the effects achieved by the projects in aggregate long-lasting? Has sustainability been achieved?
Cross-cutting criteria	
Poverty Reduction	In what way have the projects influenced in an aggregate way the reduction of poverty, social inclusion and the improvement in the living conditions of the beneficiaries who live in their areas of operation?
Gender Equity	Have the projects integrated gender issues in an aggregated way in the planning and execution of their activities? How and what results can be observed?

2.3.2. REDD+ Safeguards and Evaluative Issues

Criteria	Guiding Questions
1. Actions complementary to or consistent with the objectives of national forest programmes and other relevant international conventions and agreements.	• Have the projects been shown to be aligned with the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAm) and the state plans for the prevention and control of deforestation? • What other federal public policies or international agreements have the projects shown alignment with? In what respects? • Have the projects contributed or could contribute directly or indirectly to the reduction of emissions from deforestation or forest degradation? In what way?
2. Transparent and effective national forest governance structures, with a view to national sovereignty and legislation.	• To what extent did the projects promote articulation between different actors (public and private sector, third sector or local communities)? Has shared governance instances been used? What? • To what extent have the projects contributed to strengthening public instruments and processes for forest and territorial management?

Criteria	Guiding Questions
3. Respect for the knowledge and rights of indigenous peoples and members of local communities, taking into account 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 projects influence the constitutional rights associated with the possession and formal destination of land in your area of operation? • To what extent have the projects influenced the sustainable use of natural resources in your area of expertise? • If the projects had indigenous peoples, traditional communities or family farmers as direct beneficiaries: were their socio-cultural systems and traditional knowledge considered and respected throughout the projects? • Are there effects that interfere with the traditional way of life of these groups? What kind of effects: on social or economic organization or on 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 projects guarantee the prior, free and informed consent and the local or traditional way of choosing the representatives of their beneficiaries (especially indigenous peoples and traditional communities)? • What participatory planning and management tools did the projects apply during decision-making? • In the 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 have the projects provided the general public and their beneficiaries with free and easy access to information related to project actions? • Have the projects been able to set up a good system for monitoring results and impacts? Have the projects systematically monitored and disseminated the results and their effects?
5. Actions consistent with the conservation of natural forests and biological diversity, ensuring that the actions referred to in paragraph 70 of Decision 1/CP 16[24] 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 have the projects contributed to the expansion or consolidation of protected areas? • How have they contributed to the conservation of natural forests and biodiversity? • Were the investments in income-generating projects proportional to the increase in areas under management and effectively contributed to avoiding deforestation? • Have the projects contributed to the recovery of deforested or degraded areas? • In the case of restoration and reforestation activities, did the methodologies employed prioritize native species? • To what extent have the projects contributed 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 projects approach them? Is there a strategy for continuous monitoring of these results?
7. Actions to reduce the shift of carbon emissions to other areas.	• Has there been a displacement of the emissions avoided by the actions of the projects to other areas?

3. Metodologia

The methodology applied in the evaluation should be based on the criteria and objectives contained in the document "Evaluation of the Effectiveness of Projects Supported by the Amazon Fund - Conceptual Framework" and its respective addendum, already mentioned in topic 2.3.

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

It is expected that the following products will be generated: the Evaluation Design Report and the Effectiveness Evaluation Report of PHC Projects and, in 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:

3.1. Preparation phase

In this phase, the objectives are defined and the project evaluation plan is elaborated. After the preparation of the ToR and the hiring of the team of evaluators, the key documents of the evaluation must be organized. To this end, the documents, data and reports that will be used in the evaluation must be identified with the BNDES and the organization responsible for the execution of each project. The evaluation team will systematically collect data from secondary sources in order to compose a memorandum that will serve as a source of reference, leveling and memory aid of all the information related to the evaluated projects.

Subsequently, a methodological proposal for the joint evaluation of the four projects should be submitted. The methodology must be based on the document Evaluation of the Effectiveness of the Projects Supported by the Amazon Fund – Conceptual Framework and its respective addendum, including survey methods that contribute to the understanding of the effectiveness of the projects according to the reality of each one of them, indications of options for the best locations for field missions (considering the places with the highest and lowest effectiveness), Prior analysis of the dialogue and risks between indicators of project effectiveness and list of key people to be interviewed. All these methodological elements should be detailed in the Effectiveness Evaluation Design Report, described in the next topic (3.2).

3.2. Implementation phase

Assessment design and tools. The Effectiveness Evaluation Design Report to be prepared by the team of evaluators should present the evaluation work script, the detailed methodology, the choice of field areas to be visited and the tools that will be used during the evaluation. That report should have the following roadmap:

a) Basic data of the projects;

b) Introduction;

c) ToR analysis;

d) Division of tasks, work plan and logistics;

e) Design/Methodology. Here, specificities about the geographic areas of operation of the projects must be considered, since they operate in different areas of implementation of the Legal Amazon, and the cultural diversity of the supported populations must be taken into account, respecting the customs and values of each population.

f) Attachments. The specifics of the projects should be taken into account, possibly with guiding questions and specific survey methods.

3.2.1. Data collection and analysis. The methodology to be developed should have a diversified format, using three forms of data collection: Non-reactive (secondary sources: project documentation, public and scientific data available in the area of operation of the projects, in addition to the key documents already organized in the preparation phase); Survey (field research: application of standardized quantitative/qualitative questionnaires, conducting qualitative interviews with individuals or groups, use of situational analysis tools); and Observation (during visits, participatory or individual; a counterfactual approach may be used, i.e., comparing with similar cases that did not have FA support)..

This is the first phase of data analysis, whose objective is to analyze the intervention logic, the products and services carried out by the projects and the results achieved. 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, consideration should be given to the observation of areas that have not been supported by the Fund and that have not undergone interventions or support from other initiatives. With this analysis, it is hoped to determine the differences between similar cases outside of the projects.

3.2.2. Field missions: trips will be made for the face-to-face collection of primary data, considering a representative sample of the universe of operation of the projects, in their region of operation and surroundings.

The evaluation team will define the sites to be visited and the time required (to be detailed in the Drawing Reports). In these visits, in addition to observing the results and physical benefits of the projects, technicians and beneficiaries who worked directly with the projects in the reference period of the evaluation may also be interviewed. The field mission may also be complemented with interviews to be conducted virtually via videoconference.

3.2.3. Preliminary Report: after the field missions, the evaluators should complement the analysis with the data collected. To this end, a Preliminary Report on the Evaluation of the Effectiveness of the projects must be generated. This report should include an analysis of the results achieved, the aggregate impacts achieved by the projects in the light of the indicators of the corresponding Amazon Fund component, and individual analyses of the projects evaluated, in order to generate recommendations for the executing organizations, for the FA, COFA, State, etc.

3.2.4. Consultation round: a presentation of the analyses found and systematized in the Preliminary Report will be carried out by the team of evaluators, for representatives of BNDES, MMA, representatives and beneficiaries of the evaluated institutions, as well as peers – specialists who have relevant knowledge on topics addressed by the evaluated projects. It should be noted that the methodology of the workshop should be described in the Effectiveness Evaluation Design Report (see Stage 1).

3.3. Analysis and dissemination phase

Effectiveness evaluation report: with the complementary inputs received in the Consultation Round, the evaluation team should complement the analyses of the Preliminary Report based on the comments and justifications presented by the participants of the Consultation Round. The methodology and composition of the Effectiveness Evaluation Reports of the projects are specified in the document "Evaluation of the Effectiveness of the Projects Supported by the Amazon Fund – Conceptual Framework", in items 5.3 and 5.4, and in its Addendum.

3.3.1. Dissemination of results: the Effectiveness Evaluation Report of the projects and its executive summary will be published on the Ama-

zon Fund website.

4. Activities, deliverables and deadlines

The following schedule presents the basic roadmap for carrying out the evaluation of municipal projects. The table contains the activities, services and products, as well as the deadlines for the process.

	Activities	Accountable	Working days	Deadlines	Goods
1	Disclose ToR.	GIZ (responsible for hiring)	07	10/12/2023	
2	Receive and organize proposals from consultants, hire selected candidates and form an evaluation team (consultants + GIZ).	GIZ	31	15/01/2024	Consulting hired and team formed.
3	• Prepare the team's initial meeting with the Amazon Fund; • Contact the institutions responsible for the projects to be evaluated; • Analyze relevant documents; • Consolidate the evaluation methodology prepared and proposed by the external consultancy; • Consolidate proposal for Effectiveness Evaluation Design Report; • Deliver the Effectiveness Assessment Design Report to BNDES; • Presentation of the Report to BNDES.	GIZ	20	09/02/2024	Proposal for an Effectiveness Evaluation Design Report.
4	Comment on the proposal for the Effectiveness Evaluation Design Report.	GEMAV/BNDES DEFAM/BNDES	3	14/02/2024	Proposal for an Effectiveness Evaluation Design Report with comments.
5	Review Effectiveness Evaluation Design Report	Evaluation Team	3	16/02/2024	Relatório de Relatório de Desenho de Avaliação de Efetividade revisado.
6	Approve revised report	GEMAV/BNDES DEFAM/BNDES	3	20/02/2024	Effectiveness Evaluation Design Report (final).
7	Implement assessment: - Collect and analyze secondary data; and - Carry out field missions.	Evaluation Team	55	08/05/2024	Project data collected and analyzed

	Activities	Accountable	Working days	Deadlines	Goods
8	Prepare and deliver Preliminary Effectiveness Assessment Report.	Evaluation Team	10	19/07/2024	Preliminary Effectiveness Evaluation Report.
9	Present results (Round of Consultations)	Evaluation Team	1	30/08/2024	Preliminary Effectiveness Assessment Report with considerations reported in the Consultation Round.
10	Comment on Preliminary Effectiveness Evaluation Report.	GEMAV/BNDES DEFAM/BNDES Organizations responsible for each project	5	30/08/2024	Preliminary Effectiveness Assessment Report with comments sent after the Consultation Round.
11	Prepare final evaluation report	Evaluation Team	5	06/09/2024	Effectiveness Evaluation Report
12	Incorporate the complementary contents of presentation, preface and final review to the Effectiveness Evaluation Report	Evaluation Team	3	06/09/2024	Effectiveness Evaluation Report (final).
13	Deliver Final Effectiveness Evaluation Report	Evaluation Team	1	01/10/2024	Effectiveness Evaluation Report
14	Diagramming of the Final Effectiveness Evaluation Report and its annexes (version 1: Portuguese)	Diagrammer/ Evaluation Team	15	01/10/2024	Effectiveness Evaluation Report diagrammed in format for dissemination (Portuguese).
15	Disseminate and distribute the Effectiveness Evaluation Report.	Amazon Fund Team	-		Upload to the Amazon Fund/ BNDES website
16	Translation, layout and dissemination of the Final Effectiveness Evaluation Report and its annexes (version 2: English).	Translator / Diagrammer / Evaluation Team	40	01/10/2024	Effectiveness Evaluation Report diagrammed in format for dissemination (English). Upload to the Amazon Fund/BNDES website

5. Evaluation Team

The evaluation will be carried out by a team composed of two (2) external consultants to be hired by GIZ after a call for contracts published in the Brazilian Monitoring and Evaluation Network. In addition, there will be the monitoring of two GIZ technical advisors to verify the adherence of the evaluation to the definition of the ToR and other published documents that govern the evaluations of the effectiveness of projects of the Amazon Fund.

External consultants should have the following profile:

- One (1) senior or full consultant, with knowledge in national and state public policies in the environmental context and sustainable development in the Legal Amazon, experience in the topic of sustainable production and with experience in monitoring and evaluating policies in projects or programs; and
- One (1) senior or full consultant, with knowledge in policies related to sustainable production, and monitoring and control, and/or territorial planning and/or science, innovation and economic instruments, with experience in the preparation and implementation of questionnaires and data analysis for monitoring and evaluation of public policies.

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

- Technical knowledge. In a multidisciplinary way, it should have experience with work developed with sustainable productive activities and knowledge about related national and state policies, sustainable production, environmental policies and sustainability in the context of the Legal Amazon, in addition to having experience in monitoring and evaluating these policies and projects in the topics addressed.
- Methodological knowledge. Knowledge in the methodologies that will be used for project evaluation, especially those related to data collection and analysis, measurement of the achievement of results and qualification of the effects achieved with project managers. In addition, 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. They should have knowledge about the issues of the Amazon region that are dealt with within the scope of the projects supported by the Amazon Fund, such as social and economic

dynamics, invasions by loggers and miners, land grabbing, deforestation and legislative and legal issues, logistics, etc. It is desirable to have professional experience in the Amazon.

It should be noted that the consultants hired cannot have any previous involvement or particular link with the projects to be evaluated. The evaluation team will work without external interference, will have access to the data of the projects to be evaluated, and will obtain support to gather all the necessary information. GIZ's advisors 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.

6. Rapporteurship, 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 Evaluation of the Effectiveness of Projects Supported by the Amazon Fund – Conceptual Framework.

The evaluation of the effectiveness of the projects will be monitored by a reference group of the projects, with the following composition:

a.Representatives of the Monitoring and Evaluation Management of the Planning Area of BNDES;
b. Representatives of the Management Department of the Amazon Fund of the BNDES;
c. Representatives of GIZ, within the scope of the current cooperation project;
d. Project representatives and partners, responsible for the execution of the projects 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 Evaluation of the Effectiveness of Projects Supported by the Amazon Fund – Conceptual Framework.

7. Final Thoughts

a. Copyright

All information and materials produced from the works subject to this agreement will have the copyright reverted to GIZ. Total or partial reproduction requires express authorization, acknowledging the intellectual property. Authorship credits will be given for 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 papers, for congresses and scientific events, among others, produced from information contracted by the consultancy and its technical team, prior authorization must be requested from GIZ..

b. Code of Conduct

GIZ's internal management aims to promote equality of opportunity and perspective, regardless of gender identity, sexual orientation, ethnicity, health condition, social origin, religion or age. The diversity of its staff, as well as a corporate environment governed by mutual respect and appreciation, represents for GIZ a sign of success and excellence in its work. GIZ prioritizes the nomination of women, LGBTI (Lesbians, Gays, Bisexuals, Transsexuals and Transvestites, Intersex), black and indigenous people, and people with disabilities for lectures, representations, interviews, and even job vacancies.

Thus, the selected consultant or company must respect the diversity of gender, sexual orientation, ethnicity, health condition, social class, religion and age and assume attitudes that, with a multiplier effect, will help to promote equality among the various actors involved in the consultancy of this ToR, adopting the following postures:

Personal Posture

• Listen to and give credence to your co-workers' ideas, regardless of gender, sexual orientation, ethnicity, health condition, social origin, religion or age, keep an eye out for situations of vulnerability, respect their opportunity to speak and support the ideas of their co-workers;

• Talk about gender-related issues, listen and empathize with those who are harmed by inequalities – especially women, read about the topic and encourage this discussion in the spaces you circulate, whether in the company,

organization, meetings or lectures;

• Question and combat sexual harassment, be an example of respect for women and do not remain silent in the face of reporting or witnessing harassment;

• Question the idea that there are men's activities and women's activities, avoid attributing certain activities only to women, simply because they are considered "women's activities";

• Respect the culture, uses, and customs of indigenous peoples.

By providing the service

• Be an example of respect for the rights of women, LGBTI, black and indigenous people, people with disabilities and the elderly to co-workers. Avoid jokes that degrade these groups;

• Always try to be informed about the policies to promote gender equality in your work environment, seek to disseminate and respect them. The implementation of strategies to promote gender equality aims at a transformation of the internal culture and can also have an external impact;

Corporate Guidelines

• Support initiatives for the access and permanence of women, LGBTI, black and indigenous people, and people with disabilities in the field of sustainable development, who face numerous obstacles to occupy decision-making spaces and power in our society.

8. Attachments

This ToR has two annexes referring to the hiring of two consultants for evaluation:

• Annex 1 – Consultancy 1

• Annex 2 – Consultancy 2

Rio de Janeiro, October 18, 2023.

Christian Lauerhass
Project Director
Cooperation with the Amazon Fund/BNDES
Biodiversity, Forests and Climate Programme
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

ANNEX 1 – CONSULTING TERM OF REFERENCE

Call for contracting regarding the ToR for Effectiveness Evaluation of four projects focused on Sustainable Productive Activities (PHC) within the scope of the Amazon Fund/BNDES

1. Goal

Hiring of one (1) senior or full consultant, with knowledge in national and state public policies in the environmental context and sustainable development in the Legal Amazon, with experience in support arrangements and project management, and experience in work in monitoring and evaluation of policies in projects or programs.

2. Consultant Activities 1

The consultant should be part of the team of evaluators of the projects in question, with the following activities:

Activity	Description
Drawing Report	Contribute, together with the team of evaluators, to the design report, consolidating the wording in accordance with the Term of Reference and Conceptual Framework.
Data collection and analysis	Collect, analyze and interpret data on the results, effects and impacts of projects 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 for the evaluation of projects and, if possible, workshops in the field of analysis, (e.g. method. SWOT - Strengths, Weaknesses, Opportunities and Threats), together with the team of evaluators
Preliminary Report	Prepare, with the support of the team of evaluators, the preliminary report, consolidating the wording in accordance with the Term of Reference. Included here are the chapters related to the topics under your responsibility. Support and review, with the support of the team of evaluators, the individual reports of the projects, following the addendum of the conceptual framework (item J. + J.1). Support and revise the REDD+ questionnaire that will be attached to the preliminary assessment report.
Consultation Round	Support the organization and participate in the round of consultations for the presentation of the Preliminary Effectiveness Evaluation Report
Project Effectiveness Evaluation Report	Contribute, together with the team of evaluators, to the final version

3. Work Period

The activities must be carried out between 25/01/2024 and 15/07/2024. The period for the field mission is scheduled for March and April 2024.

4. Consultant's Products 1

Goods	Working days	Term	Formats/ Technical Specifications
Design Report of the evaluation of the effectiveness of PHC projects within the scope of the Amazon Fund (includes presentation of the report)	15	Until 23/02/2024	Document compatible with Microsoft Word, Arial 11 font, 1.5 space and in digital format; Microsoft Powerpointcompatible document.
Preliminary report on the evaluation of the effectiveness of PHC projects within the scope of the Amazon Fund (includes; and presentation for consultation round)	28	Until 19/07/2024	Document compatible with Microsoft Word, Arial 11 font, 1.5 spacing and in digital format, including index with links to report and executive summary; Microsoft Powerpointcompatible document.
Report on the evaluation of the effectiveness of APS projects within the scope of the Amazon Fund (includes individual reports of project evaluations)	03	Until 17/05/2024	Document compatible with Microsoft Word, Arial 11 font, 1.5 spacing and in digital format, including index with links to report and executive summary.
TOTAL	**46 days**		

5. Workplace & Travel

The work will be developed in the city of residence and cities of the supported projects. To this end, the following are planned:

Location	Prediction date	Travel days	Accommodation days (overnight stays)	Daily food
1. Porto Velho (RO)		3	2	3
2. Rio Branco (AC)		4	3	4
3. Alta Floresta (MT)	Mar / 2024	4	3	4
4. Santarém (PA)		4	3	4
5. Macapá (AP)		3	2	3
6. Brasília	Apr / 2024	2	1	2
TOTAL		**20**	**14**	**20**

Therefore, up to six trips will be required, for a total of up to 20 days, as specified above.

Local transportation expenses will be reimbursed globally (no proof required). In this modality, the values will be calculated in accordance with GIZ's guidelines for travel accountability (see attached document), where it is possible to consult the pre-fixed values for this modality and which should make up the total value of the financial proposal. It is worth mentioning that this amount will be refunded after confirmation of the trip by the project. Under no circumstances will it be possible to readjust the agreed amounts. The amounts signed will be maintained until the end of the contract.

6. Conditions for the Provision of Services

The contracted consultant must comply with the following conditions:

1. Subscription of confidentiality of data contractually arranged for analysis;

2. Acceptance of the term of commitment not to publish information about the object of analysis;

3. Access to and reception of prior material made available by the responsible sector;

4. Development and monitoring of the work in coordination with GIZ and the Amazon Fund, including with regard to the approval or request for rectification of products.

7. Professional Qualification

7.1. Experience of 10 years or more in the field of monitoring and evaluation of projects and/or public policies in the Legal Amazon;

7.2. Experience in methodologies for monitoring and evaluating socio-environmental programs and projects, especially those related to data collection and analysis, measurement of the achievement of results and qualification of the effects achieved. In addition, 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;

7.3. Experience in regional issues in the Amazon that are dealt with within the scope of projects supported by the Amazon Fund, such as social and economic dynamics, legislative and legal issues, logistics, etc.

7.4. Experience with agglutinating project models, public calls or similar;

7.5. Knowledge about Sustainable Productive Activities (PHC), with an emphasis on strengthening the biodiversity chain.

7.6. Knowledge about public policies in the area of sustainable development, climate change and environment;

7.7. Knowledge about the regional issues of the Amazon that are addressed within the scope of the projects supported by the Amazon Fund.

7.8. It is desirable to have knowledge about plant recovery, SAFs and APL in the Amazon.

8. Payment

Payments will be made after signing the contract, approving the products and presenting an Invoice or Invoice. Travel costs will be reimbursed upon presentation of proof of expenses, in accordance with GIZ guidelines to be informed in the contract. The process of technical review and approval of the products includes the evaluation of GIZ's technical advisor. The final approval of the products and the authorization for payment are the responsibility of the project's AV/DV.

ANNEX 2 – CONSULTING TERM OF REFERENCE

Call for contracting regarding the ToR for Effectiveness Evaluation of four projects focused on Sustainable Productive Activities (PHC) within the scope of the Amazon Fund/BNDES

1. Goal

Hiring of one (1) senior or full consultant, with knowledge in national and state public policies in the environmental context and sustainable development in the Legal Amazon, with experience in support arrangements and project management, and experience in work in monitoring and evaluation of policies in projects or programs.

2. Consultant Activities 2

The consultant should be part of the team of evaluators of the projects in question, with the following activities:

Activity	Description
Drawing Report	Contribute, together with the team of evaluators, to the design report, consolidating the wording in accordance with the Term of Reference and Conceptual Framework.
Data collection and analysis	Collect, analyze and interpret data on the results, effects and impacts of projects 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 for the evaluation of projects and, if possible, workshops in the field of analysis, (e.g. method. SWOT - Strengths, Weaknesses, Opportunities and Threats), together with the team of evaluators
Preliminary Report	Prepare, with the support of the team of evaluators, the preliminary report, consolidating the wording in accordance with the Term of Reference. Included here are the chapters related to the topics under your responsibility. Support and review, with the support of the team of evaluators, the individual reports of the projects, following the addendum of the conceptual framework (item J. + J.1). Support and revise the REDD+ questionnaire that will be attached to the preliminary assessment report.
Consultation Round	Support the organization and participate in the round of consultations for the presentation of the Preliminary Effectiveness Evaluation Report
Project Effectiveness Evaluation Report	Contribute, together with the team of evaluators, to the final version

3. Work Period

The activities must be carried out between 25/01/2024 and 15/07/2024. The period for the field mission is scheduled for March and April 2024.

4. Consultant's Products 2

Goods	Working days	Term	Formats/ Technical Specifications
Design Report of the evaluation of the effectiveness of PHC projects within the scope of the Amazon Fund (includes presentation of the report)	07	Until 23/02/2024	Document compatible with Microsoft Word, Arial 11 font, 1.5 space and in digital format; Microsoft Powerpointcompatible document.
Preliminary report on the evaluation of the effectiveness of PHC projects within the scope of the Amazon Fund (includes; and presentation for consultation round)	36	Until 18/04/2024	Document compatible with Microsoft Word, Arial 11 font, 1.5 spacing and in digital format, including index with links to report and executive summary; Microsoft Powerpointcompatible document.
Report on the evaluation of the effectiveness of APS projects within the scope of the Amazon Fund (includes individual reports of project evaluations)	03	Until 17/05/2024	Document compatible with Microsoft Word, Arial 11 font, 1.5 spacing and in digital format, including index with links to report and executive summary.
TOTAL	**46 days**		

5. Workplace & Travel

The work will be developed in the city of residence and cities of the supported projects. To this end, the following are planned:

Location	Prediction date	Travel days	Accommodation days (overnight stays)	Daily food
1. Porto Velho (RO)		3	2	3
2. Rio Branco (AC)		4	3	4
3. Alta Floresta (MT)	Mar / 2024	4	3	4
4. Santarém (PA)		4	3	4
5. Macapá (AP)		3	2	3
6. Brasília	Apr / 2024	2	1	2
TOTAL		**20**	**14**	**20**

Therefore, up to six trips will be required, for a total of up to 20 days, as specified above.

Local transportation expenses will be reimbursed globally (no proof required). In this modality, the values will be calculated in accordance with GIZ's guidelines for travel accountability (see attached document), where it is possible to consult the pre-fixed values for this modality and which should make up the total value of the financial proposal. It is worth mentioning that this amount will be refunded after confirmation of the trip by the project. Under no circumstances will it be possible to readjust the agreed amounts. The amounts signed will be maintained until the end of the contract.

6. Conditions for the Provision of Services

The contracted consultant must comply with the following conditions:

1. Subscription of confidentiality of data contractually arranged for analysis;

2. Acceptance of the term of commitment not to publish information about the object of analysis;

3. Access to and reception of prior material made available by the responsible sector;

4. Development and monitoring of the work in coordination with GIZ and the Amazon Fund, including with regard to the approval or request for rectification of products.

7. Professional Qualification

7.1. Experience of 10 years or more working with quantitative data collection;

7.2. Experience in methodologies for monitoring and evaluating socio-environmental programs and projects, especially those related to data collection and analysis, measurement of the achievement of results and qualification of the effects achieved. In addition, 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;

7.3. Experience in regional issues in the Amazon that are dealt with within the scope of projects supported by the Amazon Fund, such as social and economic dynamics, legislative and legal issues, logistics, etc.

7.4. Experience with agglutinating project models, public calls or similar;

7.5. Knowledge about Sustainable Productive Activities (PHC), with an emphasis on strengthening the biodiversity chain.

7.6. Knowledge in environmental economics and sustainable production, with experience in topics such as family farming, agroforestry systems (SAFs) and settlements in the Amazon;

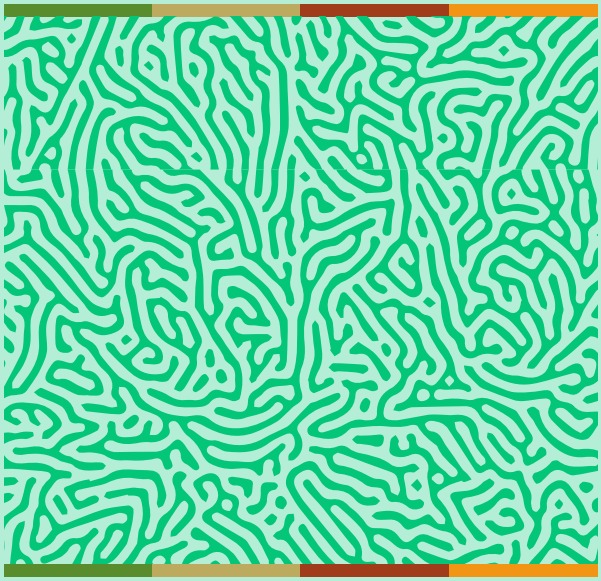
7.7. Knowledge about public policies in the area of sustainable development, climate change and environment;

7.8. Knowledge about the regional issues of the Amazon that are addressed within the scope of the projects supported by the Amazon Fund.

7.9. Knowledge about plant recovery, SAFs and APL in the Amazon..

8. Payment

Payments will be made after signing the contract, approving the products and presenting an Invoice or Invoice. Travel costs will be reimbursed upon presentation of proof of expenses, in accordance with GIZ guidelines to be informed in the contract. The process of technical review and approval of the products includes the evaluation of GIZ's technical advisor. The final approval of the products and the authorization for payment are the responsibility of the project's AV/DV.



cooperação alemã
DEUTSCHE ZUSAMMENARBEIT

Por meio da:

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

BNDES

MINISTÉRIO DO
DESENVOLVIMENTO, INDÚSTRIA, COMÉRCIO E SERVIÇOS

MINISTÉRIO DO
MEIO AMBIENTE E MUDANÇA DO CLIMA

GOVERNO FEDERAL
BRASIL
UNIÃO E RECONSTRUÇÃO