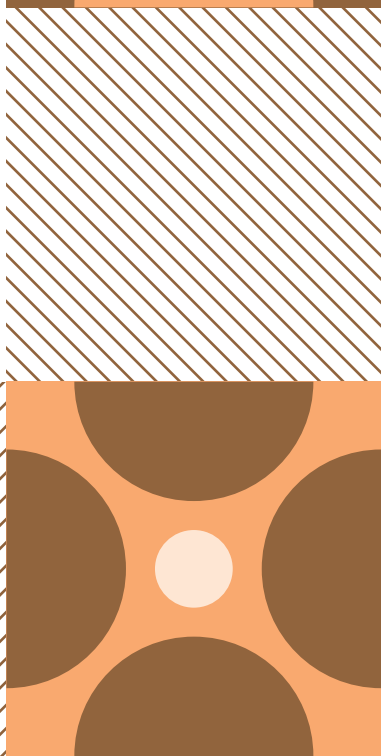


Effectiveness Evaluation of
Sustainable Production Activities
Projects of Agglutinating
Entities in the Amazon Fund

MATERIALIZA – RECA



August 2023





EFFECTIVENESS EVALUATION OF SUSTAINABLE PRODUCTION ACTIVITIES PROJECTS OF AGGLUTINATING ENTITIES IN THE AMAZON FUND

This report presents the results of the ex post effectiveness evaluation of the Materialize project on the theme of Sustainable Productive Activities within the scope of the Amazon Fund/BNDES. The evaluation was carried out by a team formed by independent consultants under the coordination of the German Cooperation for Sustainable Development through the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), within the scope of the technical cooperation with BNDES about the Amazon Fund. All opinions expressed herein are the sole responsibility of the authors, not necessarily reflecting the position of GIZ and BNDES. The recommendations presented are neither prescriptive nor mandatory.

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LIST OF ACRONYMS

Amacro	Amazonas, Acre, Rondônia
APL	Local Productive Arrangement
PPA	Permanent Preservation Area
APS	Sustainable Production Activities
ATER	Technical Assistance and Rural Extension
BNDES	Brazilian Development Bank
CAR	Rural Environmental Registry
Ceplac	Executive Committee of the Cocoa Farming Plan
Embrapa	Brazilian Agricultural Research Corporation
ENREDD+	National Strategy for REDD+
FA	Amazon Fund
GIZ	German Agency for International Cooperation für Internationale Zusammenarbeit GmbH)
Ibama	Brazilian Institute of Environment and Renewable Natural Resources
IN	Normative Instruction
MMA	Ministry of the Environment
OCDE	Organization for Economic Cooperation and Development
Oema	State Environment Agency



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PROJECT SHEET

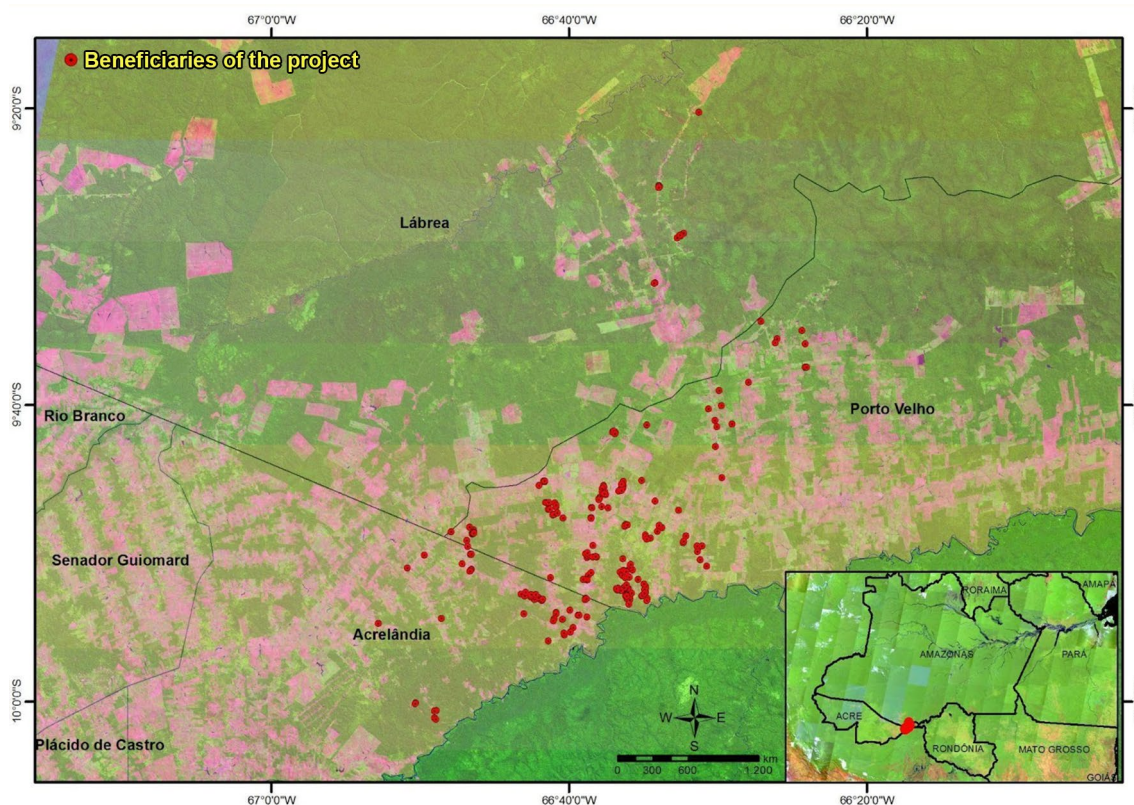
Project title:	Materialize
Responsible entity:	Consortium and Densified Economic Reforestation Project (Reca)
Project period:	Q1 2015 - Q4 2020
Territorial scope:	Ponta do Abunã – Porto Velho (RO) and Acrelândia (AC)
Beneficiaries:	Families of agro-extractivists associated with Reca and the beneficiary associations of pulp and oil processing plants.
Objective:	Strengthen the production chain of cupuaçu, açaí, vegetable oils and peach palm, through agroforestry systems (SAFs), the expansion and modernization of processing units and the restructuring of the Brazil nut and seed storage warehouse.
Classification in the Amazon Fund via:	Public Call for Sustainable Productive Projects of the Amazon Fund (2012)
Land Category	Settlements
Component:	Sustainable Production
Total value of the project:	R\$ 7,126,393.21
Value of the support from the Amazon Fund:	R\$ 6,422,748.00

Source: Form prepared based on the information from the Amazon Fund/BNDES website.

1. PROJECT SUMMARY

The *Materialize* project, developed by the Consortium and Densified Economic Reforestation Project (Reca), supported the strengthening of different biodiversity production chains (mainly cupuaçu, açaí, andiroba, heart of palm and peach palm seeds) in the Ponta do Abunã region through agroforestry systems (SAFs) (Figure I). The direct beneficiaries of the project were family farmers who have occupied, for decades, plots of the National Institute of Colonization and Agrarian Reform (Incra) in the region. The activities developed were: (a) implementation of SAFs; (b) technical monitoring and rural extension (ATER), holding exchange events for training in SAFs and project management; (c) modernization of the fruit and vegetable oil pulp processing units and the storage shed (there was a contractual addendum for the implementation of a fire prevention and fighting system); and (d) construction of the headquarters of the Associação da Baixa Verde (ABV) and the Associação dos Produtores Rurais do Município de Acrelândia (Aspromacre).

Figure I: Location of beneficiaries supported by the *Materialize* project (AC and RO).



Source: Own elaboration, based on the QGIS Desktop software version 3.22.8.

Governance Structure

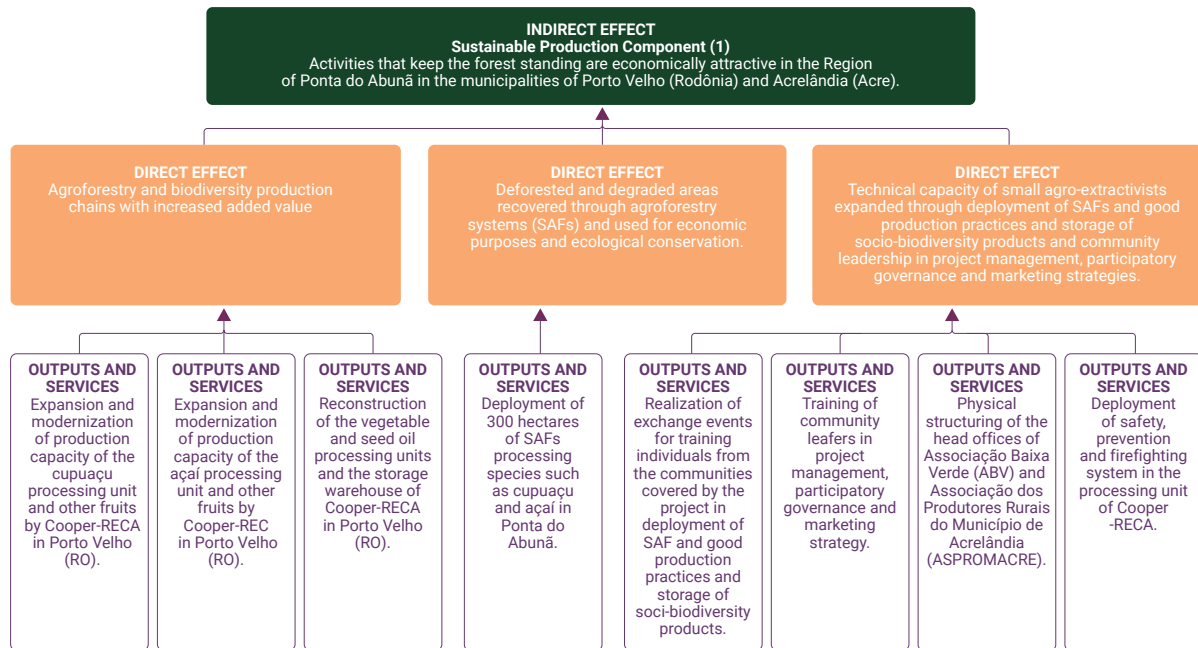
The governance structure of Reça, the entity responsible for the *Materialize* project, is composed of an association of agro-extractivist rural workers that concentrates more than 300 families in the Ponta do Abunã region. Reça also has the legal figure of a cooperative – Cooper-Reça – to market production. Cooper-Reça is divided into ten groups of members, organized according to territorial proximity, which maintain their own but interdependent organizational structure and whose members participate in the collegial decisions of the Association and the Cooperative. These groups are formed by members and cooperators of Associação Reça, ABV, Aspromacre and Cooper-Reça, and are called: i. Pioneiros I, ii. Pioneiros II, III. Pioneiros III, iv. Baixa Verde, v. Gravel, VI. BR, vii. Linha 05, viii. Linha 06, ix. Linha 12 and x. Eletrônica¹.

2. INTERVENTION LOGIC

According to the procedures in force in the Amazon Fund during the implementation of the project, a Logical Framework was agreed for the *Materialize* project aligned with the structure of the Amazon Fund's Logical Framework (Figure II).

1. Throughout the project, the Eletrônica group now has less than seven participants, however, the RECA statute establishes a minimum number of ten participants. Therefore, the group will have to disband and the participants will have to join other groups

Figure II: Logical Framework of the Materialize project agreed with the Amazon Fund



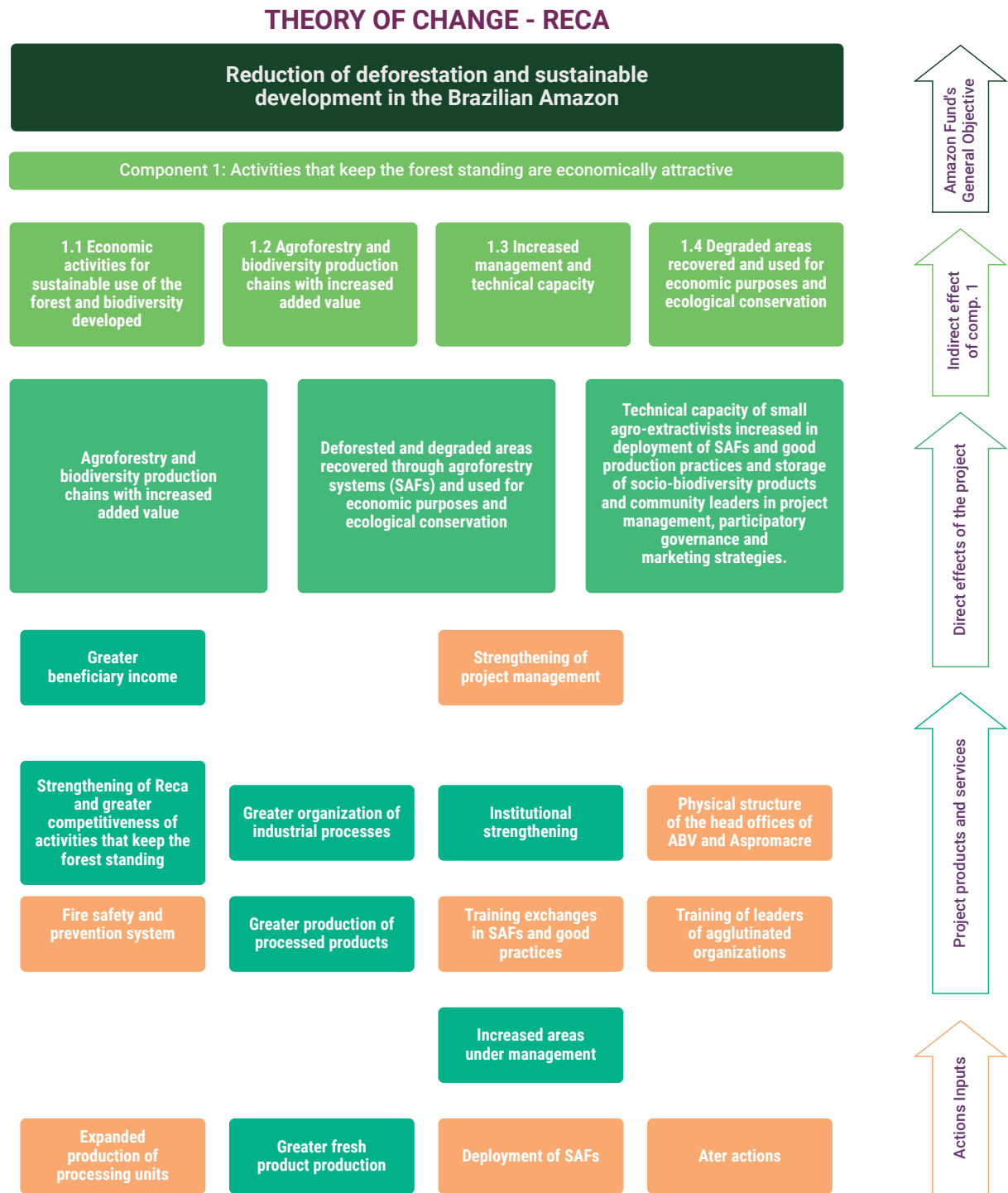
Source: Amazon Fund.

3. THEORY OF CHANGE

The schematic framework representative of the theory of change of the *Materialize* project was built considering the specific objectives of the Amazon Fund and the indirect effects of the projects. In addition to these key concepts, elements, results and impacts considered fundamental in the analysis and understanding of the project were added. The chart illustrates the relationship between the main results of the project and the impact (or indirect impact) of Component 1 (activities that keep the forest standing are economically attractive) and, at a higher level, the general objectives of the Amazon Fund (Figure III).



Figure III: Schematic representation of the *Materialize* project's Theory of Change



Source: Own elaboration

4. SPECIFIC METHODOLOGY

The general methodological steps defined for this evaluation were followed, including the stages of exploratory interviews, analysis of secondary data and project reports, field mission focused on project visit and interviews with project managers, technicians and beneficiaries, and a participatory results evaluation workshop.

4.1 PARTICIPATORY RESULTS EVALUATION WORKSHOP

The Participatory Results Evaluation Workshop was attended by managers, employees, members and beneficiaries of the *Materialize* project. It brought together 17 participants from different groups supported by the project and was held in the Reca auditorium on January 24, 2023.

First, a presentation was given on the logic of the workshop, and then the participants were randomly divided into three working groups. The proposal of the themes was previously made by the evaluation team. Each group applied the SWOT matrix, which considers the strengths, opportunities, weaknesses and threats observed during the execution of the project. The proposed thematic division took place as described below:

- **Group 1: RECA Present and RECA Future: Where are we and where do we want to go?**
Encourage discussion and reflection on the situation of the project after the application of resources from the Amazon Fund and future prospects for the coming years.
- **Group 2: Agroforestry Systems: we are agroforestry farmers!**
Encourage discussion of the results and implications for the production process, marketing, and member learning.
- **Group 3: Working in partnership: Cooperative and Associations**
Measure the level of relationship, synergy and coexistence between Cooper-Reca and the various associations supported during the project.

With the application of the SWOT matrix, it was possible to read the specificities of the historical evolution of the project's execution and to learn about the main challenges and learnings identified by the agglutinating entity (Reca) and the agglutinated entities (ABV, Aspromacre and Cooper-Reca), which is of great value for the composition of recommendations for future support from the Amazon Fund. The results are reflected in chapter 4 of the main report of this evaluation.

The participants recognized, as strengths of Reca, that it is a major producer of both fresh and processed products and a promoter of sustainable development, through organic certification, implementation of SAFs and training of members. Among the weaknesses identified were the need for more technical assistance, the creation of more attractive jobs for young people in the region, and more investment in training for young people. There are difficulties related to the geographical isolation of Reca and the resulting lack of road infrastructure for the

transport of products, the lack of support for irrigation of SAFs of members and the difficulty of access to structured organic markets that value socio-biodiversity products.

Among the opportunities, the groups participating in the Workshop highlighted the development of new products, with the dissemination of Reça at various fairs, access to new government programs and dissemination on social networks. The identification of new credit lines, the strengthening of new chains, geographical identification seals and the expansion of partnership production were also identified as opportunities that are already being developed. The external threats identified are the increased incidence of diseases and pests such as moniliasis, the attractiveness of other productive activities (soy and livestock), low wages in the field, the weakening of public policies, and climate change, which has made harvests more uncertain and difficult to predict.

5. EVALUATION OF RESULTS

Indirect Effect: *In the region of Ponta do Abunã, in the municipalities of Porto Velho (Rondônia) and Acrelândia (Acre), activities that keep the forest standing are economically attractive.*

Indicator: *Annual deforestation in the municipalities of the Ponta do Abunã region in the municipalities of Porto Velho (Rondônia) and Acrelândia (Acre).*

Table I and Figure IV show the annual evolution of deforestation between 2014 and 2022, according to the Project for Monitoring Deforestation in the Brazilian Amazon by Satellite (PRODES), consolidating the total accumulated in the municipalities targeted by the project, Porto Velho (RO) and Acrelândia (AC). Even though it was a relevant indirect effect of the project, these data were not included in the BNDES monitoring spreadsheet, they were added to the evaluation for comparison purposes. Given the extent of the territory² and the localized performance of the *Materialize* project, it is not feasible to evaluate its performance on the deforestation rate of the municipalities. However, the analysis is important for territorial contextualization at the time of conducting the project.

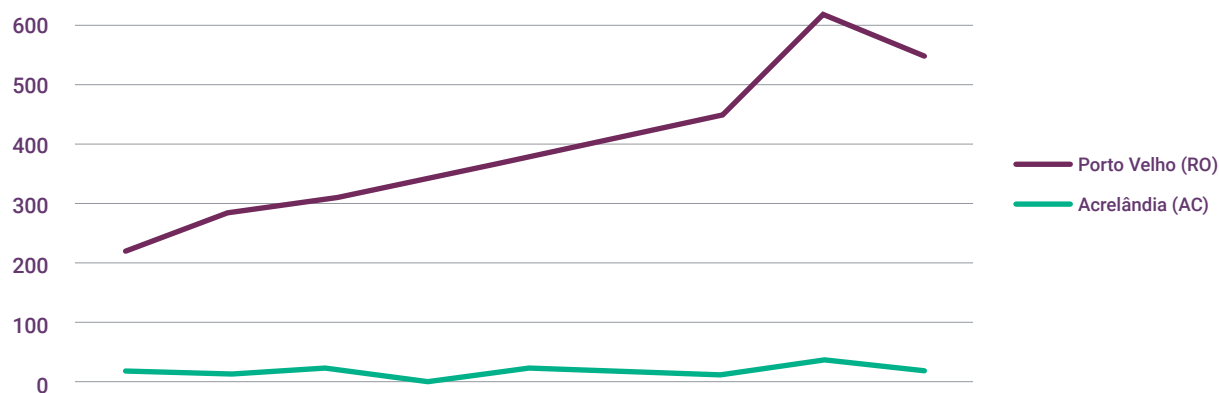
Table I: Evolution of deforestation (in km²) in the municipalities where the Materialize project operates - Porto Velho (RO) and Acrelândia (AC).

	Area (km ²)	Total deforested (km ²)	(%)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Porto Velho (RO)	34,090	4,833.14	14.2%	223	285	305	347	378	413	450	619	551
Acrelândia (AC)	1,812	252.07	13.9%	19	15	24	6	22	20	13	38	19

Source: Terra Brasilis/Prodes (Deforestation)/Inpe, 2023.³.

2. In particular, the municipality of Porto Velho, which is among the largest municipalities in the country.
3. Data available at: http://terrabrasilis.dpi.inpe.br/app/dashboard/deforestation/biomes/legal_amazon/increments

Figure IV: Graph of the evolution of deforestation in the municipalities where the Materialize project operates, Porto Velho (RO) and Acrelândia (AC).



Source: Terra Brasilis/Prodes (Deforestation)/Inpe, 2023.⁴

Due to its territorial extension, Porto Velho (RO) is the third municipality with the highest deforestation rate in Brazil in 2022, accounting for 4.5% of the total deforestation in the Brazilian Amazon. Furthermore, when analyzing the period between 2014 and 2022, it is possible to observe a steady growth of deforestation in the municipality, with a peak in 2021. In Acrelândia (AC), despite the variations, the deforestation rate is constant and considerably lower in the same period.

The target region of the *Materialize* project has been increasingly affected by deforestation at alarming levels due to the rapid conversion of land use, insertion of soybeans in specific locations and the spread of extensive livestock farming, with the presence of large industries. This analysis corroborates the reports on deforestation pressure in the interviews. Environmental imbalances are noticed in the crops under the *Materialize* project. Several producers reported the increase in the presence of wild animals in search of food in SAFs, which generates losses. Another climate change observed is the occurrence of winds, which knock down flowers, reducing the volume of production.

Direct Effect/Specific Objective 1: Agroforestry and biodiversity product chains with added and expanded value.

The revenue obtained by Reca from economic activities exceeded the expected target (0.43% above), generating a revenue of more than R\$4.4 million. This result was achieved mainly by the great diversity of products covered by the project and by the construction of the Reca product store on the edge of BR-364. The results of all Direct Effect/Specific Objective 1 indicators are presented in Chart I.

4. Data available at: http://terrabrasilis.dpi.inpe.br/app/dashboard/deforestation/biomes/legal_amazon/increments



Chart I: Indicators of the Direct Effect/Specific Objective 1 of the Materialize project

Indicator	Goal	2018	Variation %
Revenue obtained by Cooper-RECA from the economic activities of sustainable use supported by the project (broken down by product)	Cupuaçu: R\$ 2,660,000.00 Açaí: R\$ 1,800,000.00 Other fruits: R\$143,000.00 Vegetable oils: R\$535,695.76 Peach Palm Seed: R\$886,867.50 Brazil nut: Not defined Total: R\$4,405,563.26	Cupuaçu R\$1,259,466.88 Açaí R\$631,561.86 Other fruits: R\$ 148,072.32 Vegetable Oils R\$1,454,421.40 Peach Palm Seed: R\$341,333.84 Brazil nut: R\$589,690.00 Total: R\$4,424,546.30	100%
Revenue received by Cooper-RECA with the sustainable use economic activity supported by the project, generated exclusively through commercialization through government purchases or subsidies (broken down by product).	Cupuaçu: R\$50,000.00 Açaí: R\$20,000.00 Other fruits: R\$100,000.00 Total: R\$170,000.00	Cupuaçu: R\$49,402.08 Açaí: R\$12,950.40 Other Fruits: R\$87,352.97 Total: R\$149,705.45	88%
Volume of fresh products from the extractive chains supported by the project benefited or industrialized by the proponent, broken down by product (tons or other unit of measurement).	Cupuaçu: 2,500 tons Açaí: 750 ton Other fruits: 66 ton Andiroba: 4.5 ton Peach palm: 37.8 ton Brazil nut: 1.3 ton	Cupuaçu: 1,463 ton Açaí: 300,842 ton Passion Fruit: 16.982 ton Acerola: 2.686 ton Pineapple: 0.291 ton Andiroba: 8.392 ton Brazil nut: 47,544 ton Passion Fruit Seed: 0.350 kg Peach Palm Seed: 14.853 ton	N/A
Volume of pulp produced by the proponent from the fresh product broken down by product (tons or other unit of measurement)	Cupuaçu: 760 ton Açaí: 300 ton Other fruits: 31 ton	Cupuaçu: 384.213 ton Açaí: 124.435 ton Passion Fruit: 5.775 ton Acerola: 1.516 ton Pineapple: 0.243 ton Andiroba: 1.278 ton Passion Fruit Seed: 0.037 ton Peach Palm Seed: 14.853 ton	N/A
Average annual amount received by agro-extractivist as a result of the sale of cupuaçu, açaí and other fruits to Cooper-RECA	Cupuaçu: R\$13,528.00/producer Açaí: R\$9,800.00/producer Other pulps: R\$8,190.00/producer Andiroba: R\$789.00 Peach palm: R\$10,109.00 Brazil nut: R\$ 1,107.00. Total: R\$43,523.00	Cupuaçu: R\$9,669.56/producer Açaí: R\$2,693.50/producer Other pulps: R\$ 3,991.8/producer Andiroba: R\$419.80/producer Brazil nut: R\$1,615.00 Peach palm: R\$3,593.46/producer Total: R\$21,913.12	50,3%

Source: Control spreadsheet of the Logical Framework and Monitoring Plan agreed between the Amazon Fund and the executing entity.

The production of cupuaçu and açaí was lower than expected (51% and 42% of the target, respectively), having been impacted by climate change. Brazil nut and andiroba production was responsible for the positive results achieved in this indicator, exceeding the initial target by 3,000% and 44% respectively. It was contacted that the higher production of Brazil nut is due to the natural annual variations to the culture and the acquisition in Brazil nut trees neighboring Reca.

In terms of sales to government purchasing programs, the target was achieved by 88%, mainly due to lower sales of açaí and other fruit pulps that did not meet the original production, processing and destination targets.

It is worth noting that the production of passion fruit oil was a new element that was not initially foreseen, with a production of 37 kg in 2018. Still, when analyzing the volume of fresh processed product (pulp, oils and seeds) at the end of the project, it is observed that the pulps were below the initially stipulated target, and in this case, the açaí production was the most impacted, being 58% below the target.

On the other hand, the average annual amount allocated to the agro-extractivists of Reca, due to the lower production and consequently lower sales of fruit pulps, led to the fulfillment of the income generation objective by 50.3% (R\$ 21,000 per producer per year, compared to the R\$ 43,000 expected). Factors such as interest in other activities were indicated as causing this difference.

Among the activities and products related to the *Materialize* project, we highlight the acquisition of equipment (dryers, motors, etc.) and the construction of facilities, such as a new pulp and vegetable oil processing plant (rebuilt after the fire and destruction of the old Cooper-RECA plant)⁵ The production of cupuaçu and açaí was lower than expected (51% and 42% of the target, respectively), having been impacted by climate change. Brazil nut and andiroba production was responsible for the positive results achieved in this indicator, exceeding the initial target by 3,000% and 44% respectively. It was contacted that the higher production of Brazil nut is due to the natural annual variations to the culture and the acquisition in Brazil nut trees neighboring Reca.

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On the other hand, the average annual amount allocated to the agro-extractivists of Reca, due to the lower production and consequently lower sales of fruit pulps, led to the fulfillment of the income generation objective by 50.3% (R\$ 21,000 per producer per year,

5. In May 2015, there was a fire in the facilities for processing and storage of Brazil nut and andiroba oils, cupuaçu butter and peach palm seeds. There were material losses, which affected about 350 families in the region, who sell their production through Cooper-RECA.

compared to the R\$ 43,000 expected). Factors such as interest in other activities were indicated as causing this difference.

Among the activities and products related to the Materialize project, we highlight the acquisition of equipment (dryers, motors, etc.) and the construction of facilities, such as a new pulp and vegetable oil processing plant (rebuilt after the fire and destruction of the old Cooper-RECA plant)

Figure V: Oil processing plant rebuilt with additions to original project after fire in 2015



Source: Image captured by Artur Sgambatti Monteiro during a visit to the unit in January 2023.

Figure VI: Cooper-RECA cupuaçu and other fruit processing unit in operation



Source: Image captured by Artur Sgambatti Monteiro during a visit to the unit in January 2023.

Direct Effect 2: Deforested and degraded areas recovered through agroforestry systems (SAFs) and used for economic and ecological conservation purposes.

There was an initial forecast of recovering 3,230 hectares distributed among the agglutinated entities of the project. This goal was reached years before the end of the project, and was eventually exceeded by 213%. This figure refers to the sum of the areas reclaimed by the members of the three associations - Reca, ABV and Aspromacre, as well as Cooper-RECA - which was higher than originally planned. (Chart II)

Chart II: Indicators of Direct Effect 2 of the *Materialize* project

Indicator	Goal	2018	Variation %
Area of forest directly managed as a result of the supported project (hectares)	ABV: 245.5 ha Aspromacre: 57 ha Cooper-RECA: 812.5 ha Assoc. RECA: 2,115 ha Total: 3,230 ha	ABV: 1189.80 ha Aspromacre: 439.02 ha. Cooper-RECA: 1666.91 ha Assoc. RECA: 3571.60 ha Total: 6,867 ha	213%

Source: Control spreadsheet of the Logical Framework and Monitoring Plan agreed between the Amazon Fund and the executing entity.

Regarding the implementation of SAFs, there was an initial goal of 300 hectares, which was achieved in 2015 and exceeded by 30% in the last months of the project, with the additional installation of 15.24 hectares of SAFs among Reca members. The amount allocated for the execution of this goal was R\$1,260,000.00 (17.6% of the project value), including ATER, purchase of seedlings, inputs and planting, among others. The consortia were defined with the producers and included 38 species (18 fruit trees and 20 forest essences).

Direct Effect 3: Technical capacity of small agro-extractivists expanded in the implementation of SAFs and good practices for the production and storage of socio-biodiversity products and community leaders in project management, participatory governance and marketing strategies.

The results of all Direct Effect 3 indicators are presented in Chart III..

Chart III: Indicators of Direct Effect 3 of the *Materialize* project

Indicator	Goal	2018	Variation %
Number of individuals trained to implement agroforestry systems and good practices for the production and storage of socio-biodiversity products effectively using the techniques and knowledge acquired specified by gender	150 men 50 women Total: 200	70 men and 50 women Total: 120	60%

Number of community leaders trained in project management, participatory governance, and marketing strategies who effectively use the knowledge gained, disaggregated by gender.	35 men 15 women Total: 50	44 Men 20 Women Total: 64	128%
No. of community organizations strengthened	2	2	100%
Number of partner entities supported by the Associação RECA with resources from the Amazon Fund in the APS public call	3	3	100%
Number of members participating in meetings convened by: Associação RECA, Cooper-RECA, ABV and Aspromacre (annual period)	Ass RECA 3,350 Cooper- RECA 230 Aspromacre 480 ABV 385 Total: 4,445	128 Cooperative Members and 98 Associates Total: 226	5%

Source: Control spreadsheet of the Logical Framework and Monitoring Plan agreed between the Amazon Fund and the executing entity.

A The goal of the Materialize project was to train 170 people (120 men and 50 women) in the implementation of agroforestry systems, project management, participatory governance, good product production and storage practices, and good marketing practices and techniques. Due to Reca's ability to mobilize rural producers, the project promoted 49 training event⁶, which were attended by 443 people, 270 men and 173 women (39%). Thus, it was possible to exceed the target by 260%.

Of the total number of training sessions held, six were for managers and focused on management and markets (business strategy analysis, financial management, etc.). 64 leaders were trained (28% above the initial goal), 44 men and 20 women.

With regard to the support provided exclusively to the project's partner organizations, the initial objective of strengthening two community organizations was achieved (100%). The agglutinated entities ABV and Aspromacre were supported in the construction of physical facilities and the purchase of materials and equipment, among others.

100% of the goal of supporting three partner entities of the Reca project was also met. In addition to ABV and Aspromacre, the Association of Small Farmers of the Reca Project benefited from some of the project activities and objectives.

The indicator on the number of members and cooperators attending meetings reached 5% of the target (236 out of 4,445 expected). As with other indicators related to the counting of participants, this metric was modified due to the counting methodology, as the project design referred to the number of members attending meetings rather than the number of members.

6. The events were divided into field days, workshops, launch of materials, exchanges, training, technical meetings, courses, lectures, seminars and training.



Established Partnerships

In addition to the activities and products planned for the *Materialize* project, partnerships were established on a wide range of topics, including soil research and AFS models; research on the fruit borer *Conotrachelus humeropictus*; Agroforestry Residency project; research on peach palm production; production of vegetable proteins based on Brazil nuts and cupuaçu; and a project to reduce the carbon emission of producers linked to Reca.

There was a partnership with the Executive Committee of the Cocoa Farming Plan (Ceplac/PA), for the development of research on fruit borer *Conotrachelus humeropictus*, which is one of Reca's main products. This partnership allowed improvements in the pulp processing plant, better economic exploitation of the crop and support for enrichment and management of SAFs and ATER.

An institutional partnership was developed, aimed at conducting agroforestry residences, with the Federal University of Rondônia (UNIR) and ten other institutions in Rondônia that work with indigenous peoples and quilombola communities. For the initiative, 20 residents, who studied and lived in the projects, collaborated according to the criteria of the pedagogy of alternation, which provided for long periods of permanence and rotation between the school and the field where they applied their knowledge.

Finally, a partnership was established with the *Carbon* project, developed in partnership with the company Natura, which consists of a Payment for Environmental Services (PSA) system aimed at not emitting greenhouse gases. This project is long term (26 years) and provides for payment for avoided deforestation, having already shown that the organizations participating in the project have less than half the deforestation and greenhouse gas emissions of the surrounding areas.

6. OVERALL EVALUATION

Positive Aspects

- **Installation of productive structures**, anticipating the future growth of production.
- Greater professionalization, diversification and quality of products, allowing **greater production, value addition and income alternatives to the beneficiaries of the project.**
- ABV, Cooper-Reca and Associação Reca were strengthened. However, limitations were observed in Aspromacre, which had its number of members reduced due to factors external to the project.
- The truck and the four motorcycles acquired with project resources contributed to the achievement of the project's goals and to other Reca work.
- **The events, exchanges and training conducted by the project to train beneficiaries in different areas** contributed to greater adherence and continuity of activities after the closure of the project, to community strengthening and to the training of leaders.



- **The hiring of professionals to conduct the project's work with BNDES, planning** and ATER, which supported the subprojects and qualified the processing of agroforestry products.
- **The reconstruction of the vegetable oil processing plant and the resumption of production** guaranteed greater income to the beneficiaries of the project.
- The **installation of fire prevention and firefighting systems and the training of a volunteer brigade** generated more safety for work in agribusinesses.
- **The recovery of 315 hectares with the implementation of SAFs** and the delivery of 138 mowers **improved working and production conditions in the field.**
- The quality of the products and the ability to establish diverse partnerships highlights the role of Reca as a reference in the production and processing of agroforestry products in the Amazon.
- The quality of Reca's management, technical and administrative staff, attested by meeting most of the goals stipulated and agreed with the Amazon Fund. It is worth mentioning that most are from the region, from a family of farmers and started their work at a young age.

Challenges

- The production values of açaí, cupuaçu and other fruit pulps reached only 69% of the stipulated target due to variations in local conditions and lower harvests than initially forecast.
- Difficulty in **obtaining the necessary licenses and documentation** for the production and processing of different products, as well as carrying out tests and **adapting the machinery of the production plants.**
- **Better adaptation to climate change**, which interferes with the production of crops of central importance to the project, such as cupuaçu.
- **Need for market adaptations and fluctuations in the values of different products.** The need to plan and anticipate production obstacles that may lead associated producers to opt for other crops with greater environmental impact, such as cattle ranching, which has shown attractive yields in recent years.
- Land pressure and deforestation in Ponta do Abunã. Values presented in agricultural production often do not attract young people to stay in the field, a fact that deserves attention.

7. CONCLUSIONS AND LESSONS LEARNED

The Ponta do Abunã region is a growing focus of deforestation, a reality intensified by the Amacro project, which aims to transform the region into a new producer of agricultural commodities.

Reca is an important promoter of income generation and recovery of degraded areas through agroforestry production, processing and commercialization of socio-biodiversity products.

Throughout the execution of the *Materialize* project, there were challenges related to the delay in the delivery of equipment, the fire at Cooper-RECA's former nut processing plant (in 2015) and the productivity of key products, such as cupuaçu and açaí.

However, despite the relevance of the production model based on historical cooperatives and the adaptability in the face of setbacks, Reca's creativity and organizational resilience made it possible to carry out the project well, with productive expansion, institutional strengthening and improvement of the quality of life of rural producers.

The development of sophisticated strategies for sustainable production (conventional and organic) and added value, based on diversified value chains, is creating a dynamic territory and a major employment hub.

It is possible to point to Reca as a reference in the generation of sustainable forest-based and agro-extractive incomes in the Amazon context, which has the potential to inspire other initiatives through training courses and technical exchanges with other projects supported by the Amazon Fund.

8. ANALYSIS OF THE OECD EVALUATION CRITERIA

Evidence	Evaluation
<p>Relevance Criterion</p> <p>The Reca project is a historical reference in the implementation of SAFs in the Amazon and in the management of cooperative models for the production of forest products (fruit pulps, nuts, vegetable oils, among others). Located in a region of intense land conflicts and increasing rates of deforestation in both Rondônia and Acre, the project is designed as an alternative for income generation combined with conservation of the Amazon. The Reca model is understood as relevant to the work of the Amazon Fund for: (i) allowing the recovery of degraded areas with the implementation of SAFs; (ii) strengthening different forest product chains in an economic, social and environmental sustainable way; (iii) strengthening the local community; (iv) generating knowledge related to agroforestry production in the Amazon context; and (v) ensuring food and territorial security for its beneficiaries, by allowing them to improve their income.</p>	<p>Very Relevant</p>

Efficacy Criterion	
<p>The project achieved most of its objectives, especially those related to the installation of systems (water treatment and fire fighting), the construction of treatment plants, and the purchase of equipment and materials. Some production targets have not been achieved in their entirety. However, Reca was able to adapt and be creative in cultural and productive treatment, since different products (such as Brazil nuts) were responsible for filling gaps that arose from smaller crops of products, such as cupuaçu and açaí, allowing there to be no major impact on the effectiveness of the project. The goals related to social participation, training of beneficiaries and women's participation are subject to reservations as they did not meet the original goals.</p>	Efficient with reservations
Efficiency Criterion	
<p>Measures were taken to optimize resources that led to the expansion of products and services offered by Reca, as well as to productive diversity based on adaptability to changes in scenario (fire, for example) and market, allowing income generation, even with changes in the harvest and change in productive interest. It is worth mentioning the record harvests of some products, the implementation of SAFs, the recovery of degraded areas and the institutional strengthening of the project's agglutinated entities.</p>	Very Efficient
Impact Criterion	
<p>The project was the first major initiative of Reca supported by the Amazon Fund and allowed an increase in the scale of production of the cooperative, access to new markets, training of leaders, institutional strengthening of agglutinating and agglutinated entities, recovery of degraded areas and establishment of various institutional partnerships. Reca is a local and national reference in income generation, combining production, nature conservation and social empowerment.</p> <p>Due to the historical characteristics of the creation of Reca, it is not possible to say whether it would be scalable, both in terms of obtaining a larger area of activity and in terms of inspiring the creation of similar initiatives. However, it is believed that its historical experience in building a business model combined with the rehabilitation of degraded areas is unique and deserves training processes aimed at inspiring models that promote the replication of successful experiences such as this.</p>	Relevant positive impacts
Sustainability Criterion	
<p>The characteristics of Reca (e.g. results, commitment and income generation), combined with greater organizational and technical capacity, are key factors for its continuity in a solid way. The overall data from the 2020 Effectiveness Report attest to the growth in production, processing and marketing, when compared to 2018. The need to consolidate the processes of creation and revision of production models is emphasized. This aspect is fundamental when considering climate, social and market changes that impact the region. It is interesting to point out the partnerships that have been established (e.g. with Ceplac/PA and Natura), which provide answers to problems such as pests and propose PES systems. It is believed, therefore, that the project gave greater sustainability to Reca and its works.</p>	Moderate sustainability

9. ANALYSIS OF THE CANCUN SAFEGUARDS

Criteria	Complies	Notes
Actions complementary to or consistent with the objectives of national forest programs and other relevant international conventions and agreements.	Yes	The projects of the Sustainable Productive Activities Component of the Amazon Fund align with Objective 7 of the 2016 to 2020 phase of the PPCDAm (<i>"Promoting Sustainable Forest Management"</i>). The project is linked to Results 7.2 (<i>"Strengthening the socio-biodiversity production chain"</i>), with emphasis on Action Lines 7.2.2. (<i>"Support sustainable productive inclusion projects for indigenous, traditional and extractive peoples and communities"</i>), 7.2.5. (<i>"Strengthen extractive activities"</i>) and 7.2.6. (<i>"Strengthen the management of community enterprises"</i>).
Transparent and effective national forest governance structures, with a view to national sovereignty and legislation.	No	There were no contributions from the project to governance structures at the national level.
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	Yes	The project had no direct involvement with indigenous, quilombola or riverine peoples. However, it is suitable to guarantee the right to land and access to land in Ponta do Abunã, especially because of the history of the occupation of the region, which is linked to family farming carried out by social groups whose presence was only allowed by INCRA's colonization projects. Regarding the participation of traditional groups and their representation in the decision-making bodies of Reca, the project is based on the principles of cooperatives and associations, which is a precept in the constitution of the work led by the cooperative. All work was carried out in Incra settlement areas. The production units supported are inserted in different settlement projects, namely: (i) in Rondônia, the Alto Madeira Land Project, partially titled; (ii) in Acre, the Porto Dias Extractive Settlement Project; and (iii) in Amazonas, the Gedeão Settlement Project.
Full and effective participation of stakeholders, in particular indigenous peoples and local communities, in the actions referred to in paragraphs 70 and 72 of Decision 1/CP 16.	Yes	The nature of Reca presupposes social participation and service to the interests of local peoples, formed mostly by settlers from other regions of Brazil. During project implementation, mechanisms for agreement building, decision-making, accountability and community empowerment were invested. The formally established leaders in each context and the legal rites for approving agreements and decisions were respected. Due to the localized scale and the historical performance of Reca, the project had as its central action the strengthening of social participation through training courses, the promotion of participation in meetings and activities of the cooperative and the construction of community spaces that contributed to the strengthening and social participation in the decision-making areas of the project, giving greater horizontality.

<p>Actions consistent with the conservation of natural forests and biological diversity, ensuring that the measures referred to in paragraph 70 of Decision 1/CP 16 are not used for the conversion of natural forests, but rather to promote the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits.</p>	<p>Yes</p>	<p>There were no direct actions to expand or consolidate protected areas, but the strengthening of economic models based on the maintenance of the forest and local productive arrangements that promote the strengthening of the territory by the population, contributing to its protection.</p> <p>Considering Reça's working format, based on broad social participation, mutual support between project beneficiaries and implementation of SAFs and ATER services, it is possible to say that an important aspect of the project is the recovery of degraded areas. The project led to the recovery of 315 hectares of degraded areas. More than 115 combinations of SAFs were applied, with a wide deployment of native species, whether fruit trees or forest essences.</p>
<p>Actions to address the risks of reversals in REDD+ results.</p>	<p>Partially</p>	<p>The project did not adopt methodologies to treat reversals related to implemented SAF areas, or even areas under sustainable management. However, partnerships established in other areas, such as the Carbon Project in partnership with Natura, are examples of monitoring a portion of degraded areas.</p>
<p>Actions to reduce the displacement of carbon emissions to other areas.</p>	<p>N/A</p>	<p>Not applicable.</p>

10. ANALYSIS OF TRANSVERSAL CRITERIA

Poverty Reduction Criterion	Evaluation
<p>Through the implementation of 315 hectares of SAFs, the project strengthened the productive base in 135 properties of the producing families; supported the reform and/ or expansion of the infrastructure for the processing of socio-biodiversity products, adding value and expanding the capacity to offer products that make up the agro-extractivist 'basket' (435 families in the region were able to process their products at RECA); and encouraged the establishment of local businesses for the production of seedlings.</p>	<p>Yes</p>
Gender Equity Criterion	Evaluation
<p>There is an indicator on the participation of women in the management of organizations, but it is not clear what action/strategy has been implemented to achieve results. The project carried out specific actions, treating gender in isolation in the training and with the beneficiaries adhering to the SAF. 456 women were trained to practice sustainable economic activities and 227 were directly benefited.</p> <p>The project allowed women to have their own income through their plantations (it was found that women benefited more from the sale of cupuaçu and açai); supported the organization of women to restructure the sales center for artisanal and industrial products; benefited women with their own production sheet in the cooperative; and contributed to the increase in the participation of women in the coordination of the association (of the 64 coordination positions of the agglutinated entities, 41 were occupied by men and 20 by women, with emphasis on ABV, which has 5 women on the association's fiscal and administrative council).</p>	<p>In part</p>