



FINANCIAL TECHNICAL ASSESSMENT

Marajó Resiliente: Enhancing resilience
of smallholders to climate change
impacts through adapting and scaling up
diversified agroforestry systems in the
Marajo Archipelago in Brazil

PREPARED BY



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1. Introduction

In order to develop the financial model for the sustainability and scalability of the financial support to be provided at the project *“Enhancing resilience of smallholders to climate change impacts through adapting and scaling up diversified agroforestry systems in the Marajo Archipelago in Brazil”*, it is fundamental to deep knowledge regarding the current landscape of the rural credit and production in Brazil. In this sense, this Technical Assessment argumentation departs from the macro scenario to then analyse micro level, thus considering the specificities of rural credit performance in Marajó.

At the federal level, the document presents data regarding the productive organization, financial data divided by region and type of credit, and regional presence of financial institutions. Besides, it explains the operationalization of Sistema Nacional de Crédito Rural (SNCR), whose creation goes back to the 1960s. Given the robustness of the Brazilian rural credit system, special attention is devoted to Programa Nacional de Fortalecimento da Agricultura Familiar - PRONAF, the main public credit line available for family farmers in Brazil, with subsidized tenors and rates.

The hypothesis embodied in the analysis is that, in comparison to other emerging market economies, Brazil has proven to be capable of achieving success in the development of the agriculture business, to a large extent due to government support programs. In this sense, due to the existence of subsidized federal credit lines with appropriated tenors and rates, specially PRONAF, the supply of credit is not a major concern in the country. However, due to the lack of knowledge – both educational and financial – of the smallholders and the existence of bureaucratic and institutional issues – for example, property documents and credit history – their access to these existing lines is hindered.

Thus, the assessment reaches the micro level, analysing the specificities of rural credit performance in Marajo, namely on the three municipalities covered by the project (Soure, Salvaterra and Cachoeira do Arari). As expected, the data confirms the small number of users of financial products and services among the producers from the communities involved in the project, which gives the rationale for the development of the proposed solution.

Finally, the assessment presents a brief report of the field trip made by SURECO consultants on the first week of October (October 4th to 7th), where several meetings were held with relevant local actors - financial institutions, cooperatives, technical agencies, among others.

As stated in the initial analysis developed by SURECO, smallholders in Marajó face many barriers to access public or private finance to support their agricultural activities – not only on commercial “business as usual” production, but especially regarding production through nature-based adaptation solutions. These difficulties can be summarized in five main pillars: (i) lack of knowledge from smallholders regarding not only available financial lines and institutions, but also regarding basic concepts of financial education; (ii) bureaucratic issues that hinder smallholders’ access to credit, mainly related to the land ownership, but also related to regular identification itself, especially considering that quilombolas and other traditional communities are on the potential beneficiaries; (iii) institutional barriers that

compromise the operation of robust financial institutions, specially development banks, in this scenario; (iv) cost barriers, related to cost of funding and organizational issues, that compromise the operation of local financial institutions in this scenario; (v) difficulties regarding risk measurement and the estimation of financial returns of agroforestry systems.

These meetings and interviews reassured the previous hypothesis and lead to a more rigorous comprehension of local reality, which led to refinements in the financial structure proposal.

2. The landscape of rural credit and production in Brazil

Brazil is a major player in the global agricultural market, being one of the biggest producers and exporters of grains and animal protein. Besides, considering that the country is among the ten most populous in the world, with a population of around 215 million persons¹, agriculture also plays a major role in food security and supply for the country's internal market. Since the 1970s, the Brazilian agricultural sector experienced a profound modernization process, expanding the use of technology and machinery in production, thus enhancing the country's competitiveness in the international market.² However, this process has also generated income concentration and structural heterogeneity regarding the production process, generating a dichotomy between the export and family farming sectors.

Data from the *Censo Agropecuário, Florestal e Aquícola 2017*, organized by the *Instituto Brasileiro de Geografia e Estatística* (IBGE), shows that Brazil has almost 5.1 million agricultural establishments, occupying an area of 351.2 million hectares, around 41% of the country total area.³ Despite representing 77% of total rural establishments and being responsible for 67% of the country's employed agricultural labour force, family farming occupies only around 23% of the total agricultural area in Brazil.⁴ Even though, regarding food security and internal market supply, family farming plays a major role: in permanent cultures, this segment is responsible for 48% of the total production of coffee and banana in the country; in temporary cultures, family farming is responsible for 80% of the total manioc production in Brazil, 69% of pineapple and 42% of beans. **Table 1** below shows data regarding the agricultural scenario in the country.

Table 1 – Rural establishments, employment, and occupied area in Brazil

	Total (Brazil)	Family Farming (% of the total)	"Non-family" Farming (% of the total)
Number of rural establishments	5.1 million	3.9 million (77%)	1.2 million (23%)
Employment (in millions of persons)	15.1	10.1 (67%)	5 (33%)
Occupied area (in million ha)	351.2	80.9 (23%)	270.3 (77%)

Source: SURECO & Partners based on *Censo Agropecuário, Florestal e Aquícola* (IBGE, 2017).

¹ Information compiled by the United Nations (see <https://www.unfpa.org/data/world-population/BR>).

² VIEIRA FILHO, J. E. R.; FISHLOW, A. Agricultura e indústria no Brasil: inovação e competitividade. Brasília: Ipea, 2017.

³ *Censo Agropecuário 2017* also shows that Brazil's total area comprises 851.4 million hectares (ha) - conservation units represent 151.8 million ha (around 17% of the total area) and indigenous land represents 117.6 million ha (around 14% of the total area).

⁴ *Censo Agropecuário, Florestal e Aquícola 2017*. Instituto Brasileiro de Geografia e Estatística, IBGE. 2017.

According to Brazilian Law – more specifically, Law 11,326 of July 24th, 2006 – to be recognized as a family farmer a household must, simultaneously, attend to the following requirements: (i) have at most a land size of a maximum of 4 fiscal modules⁵; (ii) use mainly family labour at the economic activities of the establishment; (iii) have an income predominantly driven by agricultural activities; (iv) is responsible for managing its establishment, alone or with the family members. In this sense, considering the legal definition, which is fundamental for the definition of public policies for the agricultural sector, especially regarding eligibility for access to public credit lines, “non-family” farming (or *agricultura patronal*) is defined by exclusion. At this point, it is important to remark that potential beneficiaries of the project – namely smallholders at Marajó – are considered family farmers by Brazilian law; in this sense, it is fundamental to describe the rural financial scenario in the country to better understand the difficulties of these smallholders to access credit.

Considering that the agricultural sector represents around 30% of the Brazilian GDP, the rural credit system in the country is robust and widely developed. From a historical perspective, rural credit was institutionalized as a public policy in Brazil with Law 4,829, of November 5th, 1965, which established the National System for Rural Credit (*Sistema Nacional de Crédito Rural* – SNCR) and assigned the responsibilities for managing rural credit rules to the National Monetary Council (*Conselho Monetário Nacional* – CMN). CMN is composed of the president of the Brazilian Central Bank (*Banco Central do Brasil* – BCB), the Brazilian Ministry of Economy, and the Special Secretary for Treasury and Budget, being the most relevant institutional body in the Brazilian financial system. In this sense, regarding the governance of the rural credit system, the structure has remained similar since 1965 – CMN establishes the rural credit policies to be implemented through the SNCR and BCB manages the system, which is composed of financial institutions that grant rural credit with regulated or market interest rates. The BCB also issues subsidiary regulation and supervises financial institutions to ensure that the rural credit flows to the intended beneficiaries.

SNCR was created aiming to provide low-cost rural credit to finance production, investment (especially in machinery and technology), commercialization, and access to markets, being fundamental for the modernization of Brazilian agriculture over the last four decades. The system was based on three main pillars, that remain valid nowadays: (i) guarantee stable and predictable credit access with lower interest rates than those established in the private market; (ii) guarantee stable and predictable funding for the system, with the legal exigence that banks operating in the national financial system must destinate a percentage of their current deposits to finance these activities; and (iii) incentivize small rural producers with even lowers interest rates, trough directed and tailored public credit lines – such as *Programa Nacional da Agricultura Familiar* (PRONAF).⁶ This third pillar is fundamental to deep knowledge regarding financial access of the Marajó smallholders – due to the existence of subsidized federal credit lines with appropriated tenors and rates, namely PRONAF, as it will be detailed further, the supply of credit is not a major concern.

Regarding the sources of funding for the SNCR, the system has both public and private sources of resources, with relevant participation of earmarked resources. Among the earmarked resources, it is important to highlight the ratios of reserve requirements

⁵ In Brazil, each municipality has the right to define its own measure of the fiscal module, which can vary from 5 to 110 hectares depending on the locality.

⁶ LOPES, Desirée; LOWERY, Sarah; PEROBA, Tiago Luiz Cabral. Crédito rural no Brasil: desafios e oportunidades para a promoção da agropecuária sustentável. Revista do BNDES, Rio de Janeiro, n. 45, p. [155]-196, jun. 2016.

on demand deposits (*depósitos à vista*), rural savings and the Agribusiness Credit Bill - LCA⁷. Additionally, there are federal subsidized lines of resources, such as the resources from the Brazilian Development Bank (*Banco Nacional do Desenvolvimento Econômico e Social* - BNDES)⁸ and the Constitutional Funds (*Fundos Constitucionais de Financiamento*).

The *Fundos Constitucionais* were established by the Brazilian Constitution (Constituição da República Federativa do Brasil de 1988, artigo 159, inciso I, alínea c) and are regulated by Federal Law no. 7,827/1989. The Brazilian Constitution establishes three different funds - *Fundo Constitucional de Financiamento do Norte* (FNO), *Nordeste* (FNE) and *Centro-Oeste* (FCO) - to be applied, respectively, in the North, Northeast, and Central-West regions. These funds destinate resources from federal taxes to provide credit in special conditions to the economic and social development of these regions and are channeled through federal financial institutions with regional presence, namely *Banco da Amazônia* (BASA) for the FNO, *Banco do Nordeste* (BNE) for the FNE and *Banco do Brasil* for the FCO. Finally, there are also sources of unrestricted resources, where interest rates and other conditions can be freely agreed upon by the contracting parties. **Figure 1** below presents a stylized diagram of the Brazilian SNCR.

Given the importance of rural production to Brazilian GDP and the level of development of its financing system, rural credit can be described as the country's primary agricultural policy. **Table 2** below shows the evolution of rural credit in Brazil in the last years - the amounts are considerable and present a growing trend. For instance, in 2021, the credit amount corresponds to approximately 39% of the country's total agricultural gross production in the same year, R\$ 743.3 billion (140.9 billion USD)*.

Table 2 - Rural credit evolution in Brazil (2013-2021, constant values)

Year	Rural Credit Amount (R\$ Billions)* (USD**)	Variation (%)
2013	139.39 (26.43 USD)	-
2014	164.43 (31.18 USD)	25.5%
2015	154.15 (29.23 USD)	3.7%
2016	116.23 (22.04 USD)	-19.9%
2017	166.93 (31.65 USD)	47.9%
2018	180.82 (34.29 USD)	12.4%
2019	178.67 (33.88 USD)	3.1%
2020	206.11 (39.08 USD)	20.6%
2021	292.52 (55.47 USD)	56.2%

Source: SURECO & Partners based on data from Banco Central do Brasil.

* Note: December 2021 constant values (inflation adjusted by Índice de Preços ao Consumidor Amplo - IPCA).

** Conversion rate is the one given by the Brazilian Central Bank for 24th October 2022 1 USD= R\$ 5.2738 <https://www.bcb.gov.br/conversao>

⁷ The LCA and the Agricultural Receivables Certificate (CRA) have been created, among other securities, to attract private capital to the agribusiness sector, expanding the financing opportunities through financial and capital markets.

⁸ One of the major funding sources for BNDES is Fundo de Amparo ao Trabalhador (FAT) and the destination of a part of FAT resources to BNDES to provide credit to foster Brazilian social and economic development was also established by the Brazilian Constitution (artigo 239); the share of resources is regulated by Federal Law no. 8,352/1991.

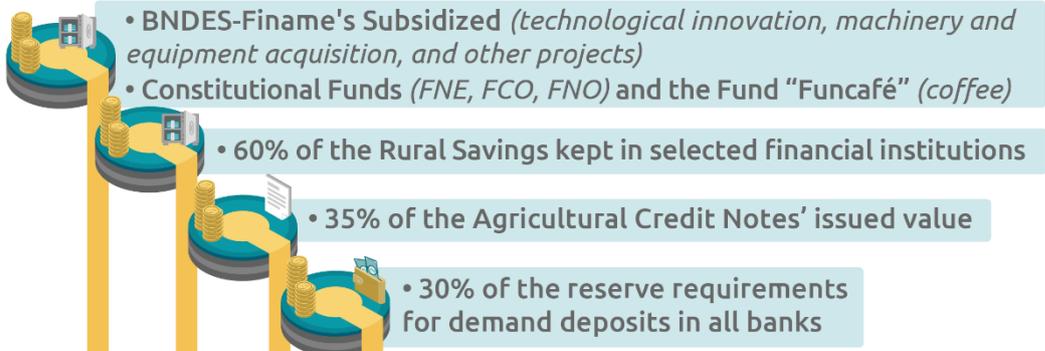
* Conversion rate is the one given by the Brazilian Central Bank for the 24 octobre 2022 1 USD= R\$ 5.2738 <https://www.bcb.gov.br/conversao>

Figure 1 - Structure of the Brazilian National System for Rural Credit (SNCR)

WHAT ARE THE FUNDING SOURCES FOR RURAL CREDIT?

Restricted resources

The loans' interest rates caps are defined by the Federal Government



Unrestricted resources

Market interest rates and other conditions freely agreed



Other resources

Outside the Rural Credit System (SNCR), the others funding resources for agribusinesses are producers' own funds, family Loans, traders, private banks, supply manufacturing companies etc

DISTRIBUTION CHANNELS

The SNCR's participants: private and public retails banks and cooperatives.

BENEFICIARIES

- Rural producers (*private individuals or companies*)
- Medium-Sized Farmers
- Agricultural, agroindustrial, aquaculture and fisheries cooperatives

Source: Banco Central do Brasil (BCB).

Table 3 below shows the rural credit distribution alongside the country in 2021 by region, considering the number of contracts and the contracted value. Data analysis marks the unequal distribution of resources, thus reiterating the structural heterogeneity of rural production in Brazil and the large differences between *agricultura patronal* and family farming. The Northeast region is responsible for the highest share in the country considering the number of rural credit contracts established in 2021 – however, the region has received only around 9% of total rural credit provided in the year, with the lowest average value per contract. These numbers are explained by the predominance of rural farming and small properties in the states of the region. On the other hand, the Central-West region, which concentrates the majority of export-oriented agricultural properties in Brazil, has the lowest share in the country considering the number of rural credit contracts established in 2021 but has received around 28% of total rural credit provided in the year, with the highest average value per contract.

Additionally, the South region has more balanced participation, with around 30% of total contracts signed in the country and around 32% of total contracted value. These numbers also can be explained by the productive structure – the states in the South region have the highest share of rural properties associated with cooperatives, around 30 to 40% according to *Censo Agropecuário 2017*. Finally, the North region, where the state of Pará and the Marajó island are located, has the lowest share regarding both the number of rural credit contracts established and total rural credit provided in 2021. Regarding the average value per contract in the North, which is quite high considering the other numbers for the region, these values can be explained by large credit operations to huge properties oriented to cattle raising in the region, especially in the south of the Pará state.

Table 3 – Regional distribution of rural credit evolution by the number of contracts and contracted value (2021)

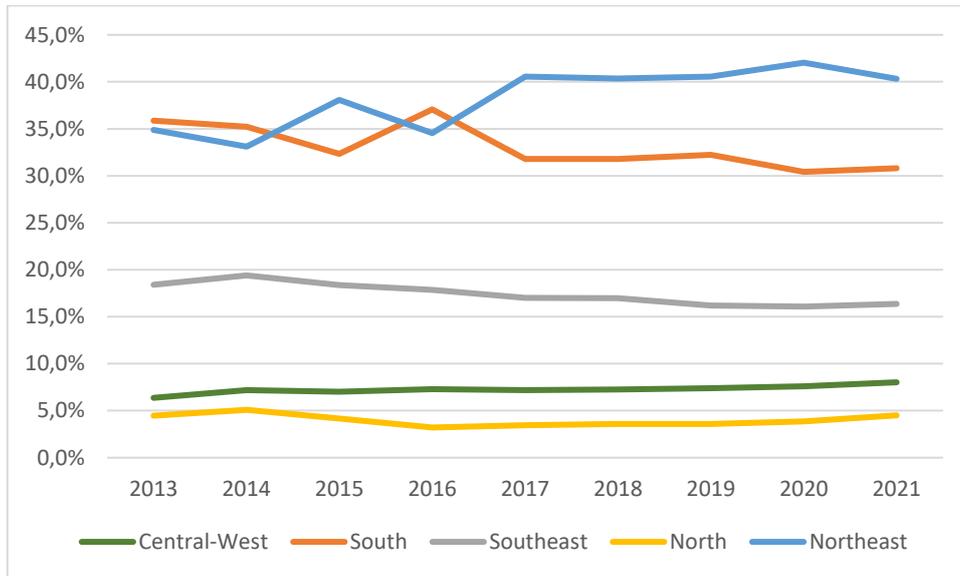
Region	Number of Contracts	% of Total	Contracted Value (R\$ Billions) (USD*)	% of Total	Average Value per Contract (R\$)
Central-West	159,137	8.0%	81.7 (15.5 USD)	27.9%	513.638
North	89,432	4.5%	22.6 (4.28 USD)	7.7%	252.785
Southeast	324,365	16.4%	68.0 (12.89 USD)	23.3%	209.776
South	611,378	30.8%	94.6 (17.93 USD)	32.3%	154.666
Northeast	799,545	40.3%	25.5 (4.83 USD)	8.7%	31.924
Brazil	1,983,857	100.0%	292.5 (55.46 USD)	100.0%	147.427

Source: SURECO & Partners based on data from Banco Central do Brasil.

* Conversion rate is the one given by the Brazilian Central Bank for 24th October 2022 1 USD= R\$ 5.2738 <https://www.bcb.gov.br/conversao>

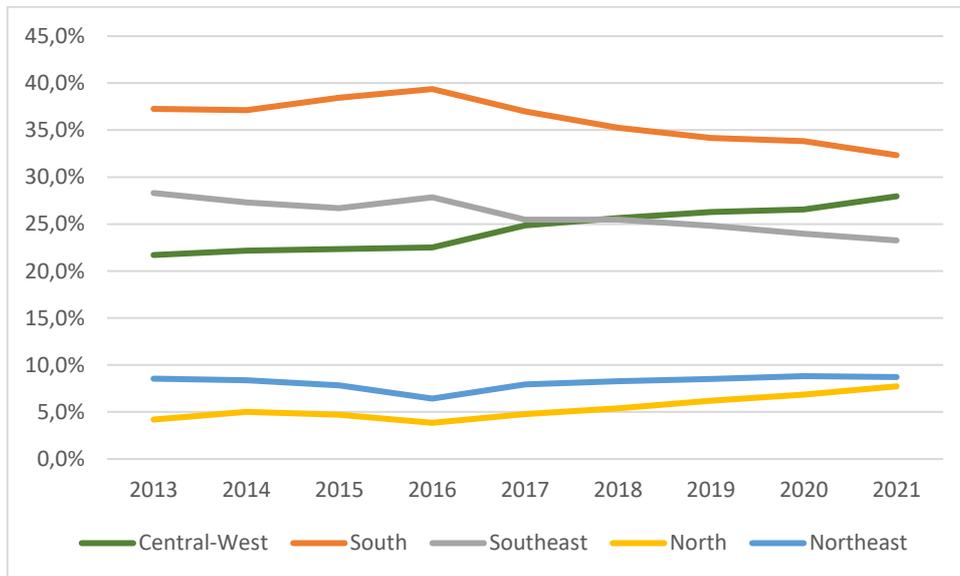
Figures 2 and 3 present regional rural credit data for the number of contracts and contracted value for the last eight years, from 2013 to 2021. Since aspects such as the structure of the regional productive organization, size of properties and economic indicators do not vary in the short term, the analysis provided above for the rural credit scenario in 2021 remains valid considering the trend of the last years, with relative regional shares on the analyzed variables.

Figure 2 – Regional Share in Total Rural Credit Provided by Number of Contracts (2013-2021)



Source: SURECO & Partners based on data from Banco Central do Brasil.

Figure 3 – Regional Share in Total Rural Credit Provided by Contracted Value (2013-2021)



Source: SURECO & Partners based on data from Banco Central do Brasil.

According to the Rural Credit Manual (*Manual do Crédito Rural - MCR*)⁹, there are four main types of credit lines available in the Brazilian rural credit system, namely: (i) production costs (“*custeio*”) – working capital lines aimed to cover regular costs on the production process, such as input purchases; (ii) agricultural investment (“*investimento*”) – aimed to fund fixed and semi-fixed investments or services, such

⁹ The [MCR](#) comprises all the relevant legislation regarding rural credit in Brazil and is composed of CMN Resolutions related to the issue, presenting aspects such as eligibility, credit lines definitions, tenors and interest rates, among others.

as machinery acquisition; (iii) commercialization (“*comercialização*”) – lines aimed to provide to the rural producers or their cooperatives resources for the commercialization of their products; (iv) industrialization (“*industrialização*”) – financing for processing or industrialization of agricultural and livestock goods.

Regarding the distribution agents/financial institutions, the SNCR is composed of public and private banks, development banks, and credit cooperatives. **Table 4** presents data on rural credit in 2021 by financial institution and type of credit line, also considering the number of contracts and the contracted value. First of all, it is important to highlight that, considering the contracted value in Brazil, more than 50% of the resources are destined to *custeio* (production credit) – investment credit also has a significant share of total contract value, while the sum of commercialization and industrialization credit lines represents only around 15% of total contracted value in 2021.

Additionally, an important characteristic of the Brazilian rural credit system is the major role played by public banks, representing around 75% of total contracts established in 2021 and around 60% of total contract value. The main explanation for this data is that public banks are implementation agents for the rural public policy in the country, being authorized to operate as financial intermediaries for public programs and credit lines with subsidized funding, such as PRONAF and the Constitutional Funds. This scenario offers public banks more competitive funding sources than private institutions, thus enhancing their importance as an actor to operate family farming credit lines.

On the other hand, private banks are more focused on offering credit products for *agricultura patronal*, normally for large properties with export-oriented production – for instance, the average value per contract established by private banks in 2021 was 759.6 thousand Brazilian Reais, more than six times bigger than the average value per contract established by public banks. Credit cooperatives are also an important player in the Brazilian credit market, especially for family farming, being responsible for around 20% of contracts signed and total contracted value in 2021, with an average value per contract of 138.7 thousand Brazilian Reais

Table 4 – Brazil: Rural Credit lines by type of financial institution (2021)

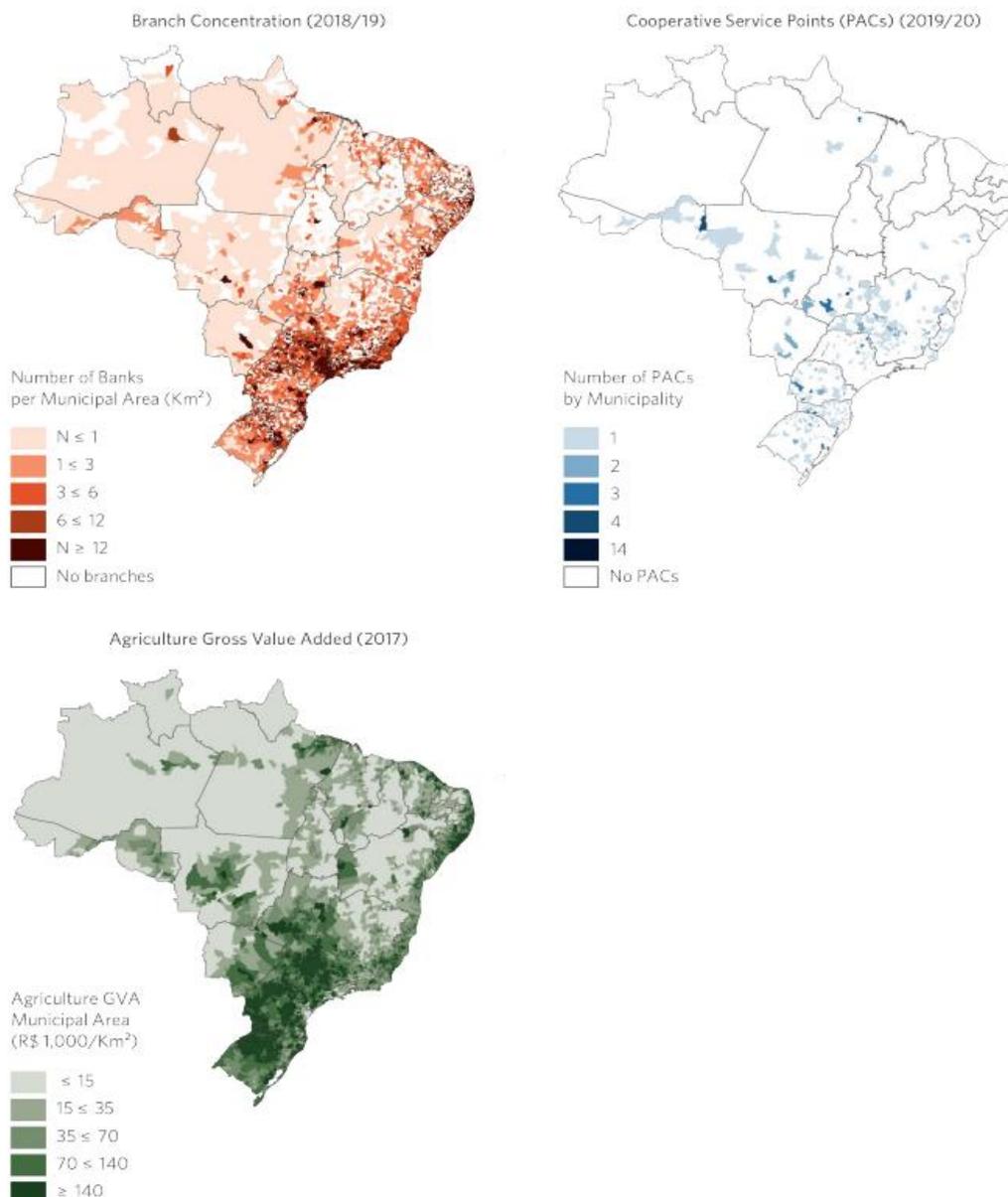
	Number of Contracts	% of Total	Contracted Value (R\$ Billions) (USD*)	% of Total	Average Value per Contract (R\$)
Public Banks	1,487,127	75.0%	170.7 (32.37 USD)	58.4%	114,782
Production	512,712	34.5%	94.7 (17.96 USD)	55.5%	184,700
Investment	957,783	64.4%	51.1 (9.69 USD)	30.0%	53,393
Commercialization	15,964	1.1%	16.6 (3.15 USD)	9.7%	1,038,704
Industrialization	668	0.0%	8.3 (1.57 USD)	4.8%	12,389,627
Private Banks	79,783	4.0%	60.6 (11.49 USD)	20.7%	759,607
Production	22,192	27.8%	22.5 (4.27 USD)	37.1%	1,014,319
Investment	54,811	68.7%	20.3 (3.85 USD)	33.5%	370,489
Commercialization	2,168	2.7%	12.3 (2.33 USD)	20.3%	5,666,557
Industrialization	612	0.8%	5.5 (1.04 USD)	9.1%	8,990,165
Development Banks	4,641	0.2%	4.0 (0.76 USD)	1.4%	852,730
Production	2	0.0%	0.0 (0 USD)	0.0%	372,150
Investment	4,575	98.6%	3.3 (0.62 USD)	83.6%	723,229
Commercialization	64	1.4%	0.6 (0.11 USD)	16.4%	10,125,052
Industrialization	0	0.0%	0.0 (0 USD)	0.0%	0
Credit Cooperatives	412,306	20.8%	57.2 (10.85 USD)	19.6%	138,775
Production	322,758	78.3%	38.9 (7.38 USD)	67.9%	120,375
Investment	86,136	20.9%	15.0 (2.84 USD)	26.2%	174,163
Commercialization	3,314	0.8%	2.9 (0.55 USD)	5.1%	875,727
Industrialization	98	0.0%	0.5 (0.09 USD)	0.8%	4,713,709
Brazil	1,983,857	100.0%	292.5 (55.46 USD)	100.0%	147,427
Production	857,664	43.2%	156.1 (29.60 USD)	53.4%	181,960
Investment	1,103,305	55.6%	89.8 (17.03 USD)	30.7%	81,352
Commercialization	21,510	1.1%	32.4 (6.14 USD)	11.1%	1,507,072
Industrialization	1,378	0.1%	14.2 (2.69 USD)	4.9%	10,333,959

Source: SURECO & Partners based on data from Banco Central do Brasil.

* Conversion rate is the one given by the Brazilian Central Bank for 24th October 2022 1 USD= R\$ 5.2738 <https://www.bcb.gov.br/conversao>

Considering the importance of public banks and credit cooperatives in the Brazilian system, one dimension that also explains the unequal distribution of rural credit resources alongside the country is that bank branches are strongly concentrated in the most developed regions. The geographical distribution of bank branches, credit cooperatives, and agriculture gross value added in Brazil is shown in **Figure 4** (CPI, 2020)¹⁰. The Southeast and the South concentrate the majority of bank branches, as well as states' capital cities, which alone contain 33% of all branches in the country. Credit cooperatives have more penetration outside the main cities but are also highly concentrated in the same regions. Agriculture gross value added is also concentrated in the Southeast and South.

Figure 4 – Bank Branches, Credit Cooperatives, and Agriculture in Brazil



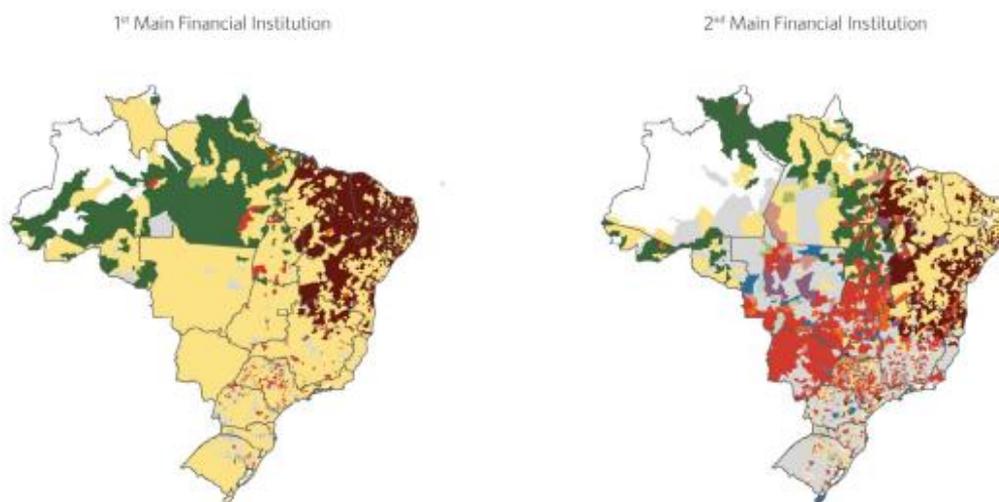
¹⁰ “Rural Credit Policy in Brazil: Agriculture, Environmental Protection, and Economic Development.” Climate Policy Initiative – CPI, December 2020.

Source: Climate Policy Initiative with data from Central Bank of Brazil and Brazilian Institute of Geography and Statistics (IBGE).

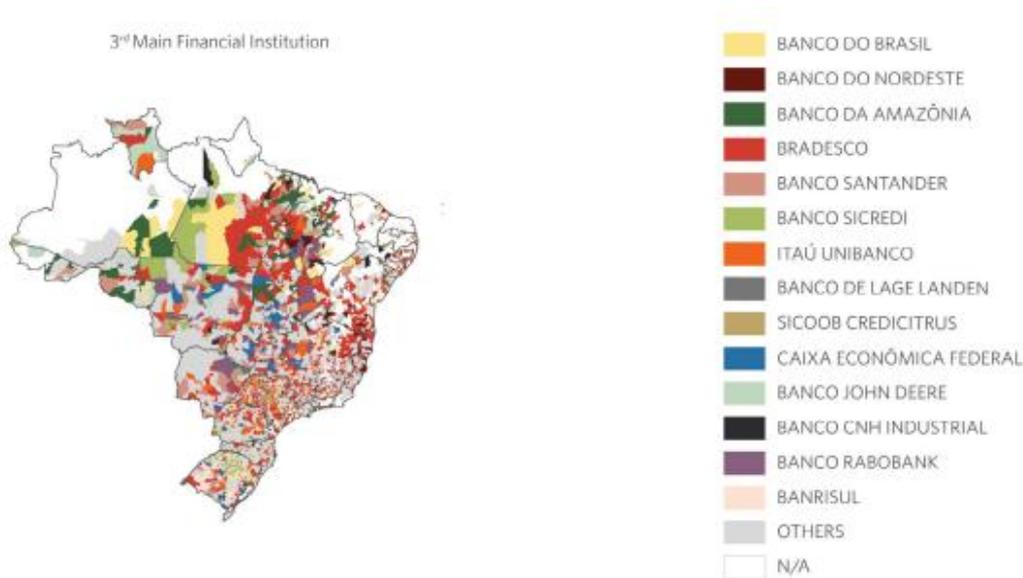
Still, regarding credit distribution in Brazil, it is also important to remark that the importance of different financial institutions in credit lending varies considerably across regions. **Figure 5**, extracted from the same report made by the Climate Policy Initiative on rural credit policy in Brazil, shows the first, second, and third main providers of rural credit for each municipality. Banco do Brasil, which is the major player in the Brazilian rural credit market¹¹, is the leading credit provider for most of the South, South-East, and Central-West regions. Regarding the institution leadership in the Central-West region, it is important to remark that Banco do Brasil is the authorized bank for operating FNE in this region. While the Banco da Amazônia and Banco do Nordeste are not large lenders considering the country as a whole, due to their role as financial operators of the Constitutional Funds, they dominate the credit system in the North and Northeast regions, respectively.

Considerations presented in this section are of utmost relevance for better understanding the barriers that smallholders in Marajó face to access public or private finance to support their agricultural activities – not only on commercial “business as usual” production but especially regarding production through nature-based adaptation solutions. In order to develop the financial model for the sustainability and scalability of the financial support to be provided at the project, the scenario hereby described presents relevant information regarding why financial institutions have not been successful in engaging the communities of the project.

Figure 5 – Primary Rural Credit Providers by Municipality (2018)



¹¹ According to BCB data, Banco do Brasil market share in the Brazilian rural credit was around 40% on the last five years.



Source: Climate Policy Initiative with data from Central Bank of Brazil.

3. Analysis of Programa Nacional de Fortalecimento da Agricultura Familiar – PRONAF

The objective of this section is to give a comprehensive approach of Programa Nacional de Fortalecimento da Agricultura Familiar – PRONAF, which is the main credit line available for the potential beneficiaries of the project. As described in the previous section, the Brazilian rural credit system is robust and widely developed, with a wide range of subsidized federal credit lines with appropriated tenors and rates, most of them grouped on PRONAF.

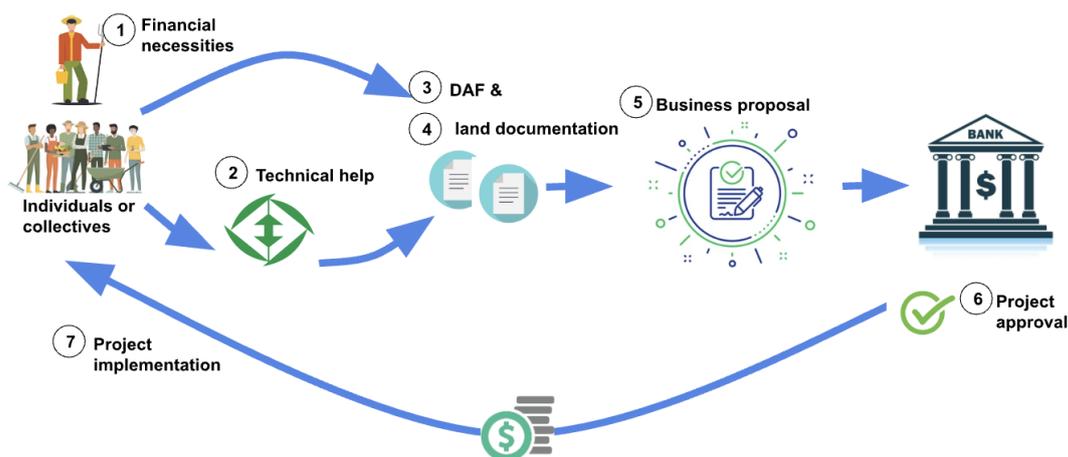
The program was created in 1996, in a context where rural credit in Brazil was mainly oriented to large properties and big producers. In this sense, in order to better include family farmers in the credit system and to reduce inequalities, the Federal Government created PRONAF through Decree number 1,946, 1996. As widely discussed in the literature, PRONAF operates as a microcredit mechanism, offering subsidized credit at low-interest rates (compared with commercial market interest rates) for family farmers, for both working capital and investment.

In the current structure of the Brazilian Federal Government, the program is carried out by the Secretariat of Family Farming and Cooperativism (SAF), which is part of the Ministry of Agriculture.¹² Due to the wide necessities along the agricultural sector, PRONAF counts with a wide range of different programs, each of them with its own criteria for providing loans (interest rate, credit limit, payment terms, payment capacity, among others), as better described in **Table 7**.

The procedure farmers have to follow in order to obtain a PRONAF contract is shown in **Figure 6** below – in order to better understand the barriers to credit access of Marajó smallholders, it is fundamental to have knowledge of the required procedures to access the program.

¹²A Secretaria de Agricultura Familiar e Cooperativismo. <https://www.gov.br/agricultura/pt-br/assuntos/agricultura-familiar/secretaria-de-agricultura-familiar-e-cooperativismo>

Figure 6 - PRONAF loan acquisition procedure



Firstly, the farmer must acquire the “Declaration of Fitness for PRONAF (Declaração de Aptidão ao PRONAF – DAP)”. The DAP is a document that legitimates that the producer is a family farmer, it also indicates in which group the farmer fits. In Brazil, farmers are categorized into different groups (Table 5); classification mostly considers the annual income level of the family¹³. The DAP is the instrument used to identify and qualify Rural Production Family Units and their associative forms organized into legal entities. The issuance of this document is free of charge and has a 3 year validity.

Table 5 - PRONAF Criteria for farmers classification

Classification	Characteristics
A	Agrarian reform settlers ¹⁴ .
B	Family farmers with an annual gross income below R\$23,000 reais (4,361 USD)* and who have at least 30% of that value in agricultural activity.
AC	Out of group A.
Others	Family farmers whose annual gross income is above R\$20 thousand (3,792 USD), but below R\$500 thousand (94,808 USD).

Source: Manual do Crédito Rural, Banco Central do Brasil, Chapter 10, Section 2.

* Conversion rate is the one given by the Brazilian Central Bank for 24th October 2022 1 USD= R\$ 5.2738 <https://www.bcb.gov.br/conversao>

¹³ Zeller, M., & Schiesari, C. (2020). The unequal allocation of PRONAF resources: which factors determine the intensity of the program across Brazil? Revista de Economia e Sociologia Rural, 58(3), e207126. <https://doi.org/10.1590/1806-9479.2020.207126> Retrieved from <https://www.scielo.br/rj/resr/a/8LG6fqTR8579K8YTrqGzW9r/?lang=en>

¹⁴ An agrarian reform settler is a family farmer that was beneficiated by the Federal Government with land possession for living and production accordingly to Law 8,629/1993, which is the legal mark for the agrarian reform in Brazil. These land destination is regulated by Instituto Nacional de Colonização e Reforma Agrária (INCRA) – more information regarding agrarian reform and land distribution for these family farmers (this type of land tenure is called *assentamento* in Portuguese) is available at the [Federal Government website](#).

Additionally, the farmer must have the land documentation (land ownership, land rental contract, or land partnership contract) and comply with the financial system, in the sense that the farmer does not have an open default or unnegotiated debts with financial institutions in the Brazilian bank system.¹⁵ The next step is to approach a financial institution to hand in a project proposal, which establishes what the family wants to finance. If the financial institution approves the loan, then, the farmer can sign the contract and implement the project.¹⁶ Loans can also be given to communities, credits are considered collective when formalized by a group of producers for collective purposes. PRONAF recognizes cooperatives single or central (art. 3 of Law No. 11,326, 2006) when they can prove that at least 60% of their active participants are PRONAF beneficiaries, accredited by submitting a list with the active DAP number of each cooperative member and that at least 55% of the production comes from cooperatives ¹⁷.

The activities financed by PRONAF are machinery acquisition, equipment and infrastructure, agro-industrial activities, and harvest funding. PRONAF has some benefits compared to other programs as it counts with the lowest interest rates on rural financing compared to market rates and even with other public credit lines, and has a specific line on gender equality and productive opportunities for rural youth. The subprograms PRONAF offers and their focus area are described on **Table 6**.

Table 6 - PRONAF Subprograms

Subprograms	Brief description
Pronaf Custeio (MCR, 10-4)	It is intended to cover the expenses of the production cycles, periodic crops, the off-season of permanent crops and the extraction of spontaneous or cultivated plant products. It also covers non-agricultural activities, cost credits may contain funds for the beneficiaries’ maintenance, animal acquisition, medicines purchase, warm clothes and other expenses essential to the well-being of the family. Farmers in group A or A/C are excluded from this line.
Pronaf Mais Alimentos (MCR, 10-5)	It is intended to promote production and productivity, to increase rural producer families’ income. It is necessary to present a technical proposal for acquiring the loan in which modernization, storage, animal reproduction and other agricultural or nonagricultural activities may be included.
Pronaf	It is intended to provide resources to those activities that aggregate value to

¹⁵ The expression in Portuguese that represents a customer’s eligibility for credit access and compliance with the financial system requirements is not being “negativado”.

¹⁶ Zeller, M., & Schiesari, C. (2020). The unequal allocation of PRONAF resources: which factors determine the intensity of the program across Brazil? *Revista de Economia e Sociologia Rural*, 58(3), e207126. <https://doi.org/10.1590/1806-9479.2020.207126> Retrieved from <https://www.scielo.br/j/resr/a/8LG6fqTR8579K8YTrqGzW9r/?lang=en>

¹⁷Exibe Normativo <https://www.bcb.gov.br/estabilidadefinanceira/exibenormativo?tipo=Resolu%C3%A7%C3%A3o%20CMN&numero=4889>

Agroindústria (MCR, 10-6)	the services and products developed by PRONAF beneficiaries. Investment in food processing, storage, commercialization, artisanal and forestry products, rural tourism and renewable energies can be financed.
Pronaf Floresta (MCR, 10-7)	It is intended to finance activities related to: 1) agroforestry systems; 2) ecologically sustainable extractive exploration; 3) restoration and maintenance of permanent preservation areas; 4) enrichment of areas that already have diversified forest covers.
Pronaf Semiárido (MCR, 10-8)	It is intended to provide loans to projects in the Semi-arid region, focused on the sustainability of agroecosystems and on the implementation, expansion, recovery or modernization of productive infrastructure, including those related to productive projects and agricultural and non-agricultural services.
Pronaf Mulher (MCR, 10-9)	It is intended to provide financing to female farmers who are part of a family production unit covered by PRONAF, regardless of marital status.
Pronaf Jovem (MCR, 10-10)	It is intended to provide financing to young people over 16 years old and under 29 years old, who have ended or are ending technical education in agricultural sciences or veterinary and integrate families already covered by PRONAF.
Pronaf Industrialização para Agroindústria (MCR, 10-11)	It is intended to finance production industrialization, packaging, labelling, condiments, preservatives, sweeteners and other inputs. Also focus on finance commercialization, accounting, market conditions, inputs acquisition, among others.
Pronaf Cotas-Partes (MCR, 10-12)	It is intended to provide financing to cooperatives in working capital, funding, investment or financial sanitation.
Pronaf B - "Microcrédito Produtivo Rural" (MCR, 10-13)	It is intended to provide loans for agricultural and non-agricultural activities carried out in rural establishments or in nearby rural community areas, as well as implementation, expansion or modernization of the production infrastructure and provision of agricultural and non-agricultural services; the credits can cover any demand that can generate income for the family served.
Pronaf Agroecología (MCR, 10-14)	It is intended to provide loans to farmers and rural producers (individuals) for investment in agroecological or organic production systems, including costs related to the implementation and maintenance of the enterprise. Technical assistance is mandatory.
Pronaf PGPAF (MCR, 10-15)	Financial entities must grant discount bonds to borrowers when the market price of the financed product is less than the guarantee price established by the Price Plan framework (Decree No. 5,996, of December 20, 2006)
Pronaf Bioeconomia (MCR, 10-16)	It is intended to provide loans to family farmers, rural producers or individuals for investing in renewable energy technologies, environmental technologies, water storage, forestry and the adoption of conservation practices and correction of soil acidity and fertility, to improve production capacity.
Pronaf Produtivo Orientado (MCR, 10-17)	It is intended for the farmers located in the regions where the Northeast (FNE), North (FNO) and Center-West (FCO) Constitutional Financing Funds operate. To enable credit access and rural education, incorporate technological innovation, facilitate agroforestral implementation, create the

	necessary conditions for water infrastructure, among others. Technical assistance is mandatory.
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Source: Manual do Crédito Rural, Banco Central do Brasil, Chapter 10.

Given the credit context in Marajó, according to previous assessment and also considering the information obtained in the field trip¹⁸, after describing the whole range of lines available on PRONAF, we prioritized 6 subprograms to detail more its sub characteristics. It is important to remark that, to be eligible for accessing Pronaf Mulher and Pronaf Jovem, the individual must integrate a family unit that is eligible for Pronaf or had already accessed credit lines under the program.

1. Pronaf Custeio
2. Pronaf Mais Alimentos
3. Pronaf Floresta
4. Pronaf Mulher
5. Pronaf Jovem
6. Pronaf B - “Microcrédito Produtivo Rural”

Table 7 - Subprograms characteristics

Subprogram	Interest rate (per year)	Payment terms	Credit limit
Pronaf Custeio	Fixed interest rate of 5 % for plant cultivation and livestock funding non included animals intended for breeding and fattening and cultivation that exceeds \$20,000 reais (3,792 USD) in this case interest rate is of 6%	a) Agricultural funding <ul style="list-style-type: none"> - 3 years for saffron and royal palm - 2 years for biennial crops - 14 months for permanent crops b) Livestock costing <ul style="list-style-type: none"> - 6 months for cattle acquisition and fattening - 2 years for cattle acquisition, rearing and fattening - 1 year other financing 	R\$ 250,000.00 (47,404 USD ^{***}) per farmer/year
Pronaf Mais Alimentos	Fixed interest rate of 5% or 6% plus Floating rate composed of a fixed part of -0.77% + Monetary Update Factor (FAM) or 0.17% + FAM	Up to 10 years , including a grace period of up to 3 years , depending on credit purpose.	<ul style="list-style-type: none"> - Housing construction or renovation R\$60,000 (11,377 USD) - Pig, poultry , shrimp and fruit farming; and aquaculture R\$400,000 (75,847 USD)

¹⁸ As it will be detailed the consultant team was in Belém and Marajó between October 3rd and October 8th and had several meetings with local relevant stakeholders.

			- Other purposes R\$200,000 (37,923 USD)
Pronaf Floresta	Fixed interest rate of 5% plus Floating rate composed of a fixed part of -0.77% + FAM	Up to 20 years , including a grace period of up to 12 years , in financing intended exclusively for agroforestry system projects, except for beneficiaries classified in Groups "A", "A/C" and "B". Up to 12 years , including a grace period of up to 8 years , in all other cases.	- For agroforestry systems, except for beneficiaries classified in Groups "A", "A/C" and "B": R\$60,000.00 (11,377 USD) - Other purposes, except for beneficiaries classified in Groups "A", "A/C" and "B": R\$33,000.00 (6,257 USD). - Beneficiaries classified in Groups "A", "A/C" and "B": R\$18,000.00 (3,413 USD).
Pronaf Mulher	Beneficiaries in groups "A", "A/C" and "B" fixed interest rate 0,5% Other beneficiary Fixed interest rate of 5% or 6% plus Floating rate composed of a fixed part of -0.77% + Monetary Update Factor (FAM) or 0.17% + FAM	Beneficiaries in groups "A", "A/C" and "B", up to 2 years for each loan. Other beneficiary; - up to 5 years for the acquisition of cargo trucks and motorcycles adapted to rural activities; - up to 7 years, with a grace period of up to 14 months, for the acquisition of tractors and associated implements, harvesters and their cutting platforms, as well as self-propelled agricultural machines for spraying and fertilizing; - up to 8 years, including a grace period of up to 3 years for the isolated acquisition of matrices, breeders, service animals, semen, eggs and	- Beneficiaries classified in Groups "A", "A/C" and "B": R\$3,000.00 (569 USD); and for those women whose financing projects adopt the methodology of the National Program for Oriented Productive Microcredit (PNMPO): R\$6,000.00 (1,138 USD); - Other beneficiaries (swine farming, poultry farming, aquaculture, shrimp farming (crustacean farming) and fruit farming: R\$400,000.00 (75,847 USD); - Other beneficiaries (other purposes): R\$200,000.00 (37,923 USD)

		embryos; - up to 10 years, including a grace period of up to 3 years, for other financeable items.	
Pronaf Jovem	Fixed interest rate of 5% plus Floating rate composed of a fixed part of -0.77% + Monetary Update Factor	Up to 10 years , including up to 3 years of grace period, which may be increased to up to 5 years, when the assisted activity requires this period and the technical project proves its need.	Individual credit limit is R\$ 20,000.00 (3,792 USD)
Pronaf B - "Microcrédito Produtivo Rural" **	Fixed interest rate of 0,5 %	Up to 2 years for each financing.	Individual credit limit is R\$ 3,000.00 (569 USD) or R\$ 6,000.00 (1,138 USD), when using the methodology of the Oriented Productive Microcredit Program (PNMPO). Family credit limit is R\$18,000 (3,413 USD) subject to the prior settlement of the previous financing.

*Information valid for operations made between 01/07/2022 and 30/06/2023.

**For Pronaf B if the client pays the credit upon expiration date he receives a direct bonus (discount) of 25% on each divided parcel. This bonus may be of 40% when the financing is allocated to a semi-arid localized enterprise in the area covered by the Superintendence of Development of the Northeast (Sudene). This bonus is a compliance bonus known in Brazil as "Bônus de adimplência".

***Conversion rate is the one given by the Brazilian Central Bank for 24th October 2022 1 USD= R\$ 5.2738 <https://www.bcb.gov.br/conversao>

Source: Manual do Crédito Rural, Banco Central do Brasil, Chapter 7, Section 6.

The one-year interest rate validity is due to the Plano Safra provision, which is calculated every year, starting on July 1st and running until June of the following year, a period that follows the agricultural harvest calendar in Brazil. The Plano Safra credit lines destinate resources to different programs - on the 2022/2023 edition the government has made available an amount of R\$ 340.88 billion (64.64 billion USD) for the various types of rural credit. One of the programs is PRONAF, which has received a total contribution of R\$ 53.61 billion (10.16 billion USD) on the 2022/2023 Plano Safra.

4. Analysis of the Marajó landscape on rural credit finance

4.1. General considerations regarding agriculture finance for smallholders

To understand the opportunities agriculture has to offer for sustainable development and inclusive growth, the sector must pass through a transformation so that sustainable agriculture practices are integrated into the production system, but mainly, the financial sector has to facilitate market access to the most vulnerable farmers which will enhance food and nutrition security. In this sense, this section intends to present general considerations regarding agriculture finance for smallholders, based on the report published by the World Bank, that can be used as a theoretical basis for the financial model proposed at Marajó.¹⁹

The need for additional liquidity in agriculture is not new: access to sufficient and adequate finance has been a challenge in agriculture for decades. The finance shortfall is a major problem for smallholder farmers and SME agribusiness, particularly for women and indigenous people. However, even though additional investment is brought into the sector, it will not be effective if the same old constraints are not addressed. Smallholder farmers generally have little literacy, scant or no collateral, few alternatives and supplemental sources of income, and little or no credit history. On the other hand, lenders find it difficult to reach farmers as they are usually disaggregated and scattered across remote areas and their portfolios do not meet farmers' financial needs and cash flows.

Development agencies have made multiple interventions to overcome the agricultural financing gap; the results have been mixed. The interventions have often involved directed credits, mandated lending by banks to agriculture, technical assistance for both borrowers and lenders, and the provision of credit lines and risk-sharing instruments, such as partial guarantees. However, financiers often do not prioritize customer centricity, with financial products that are designed considering the specificities and particular characteristics of the producer that will access the credit, and tend to use standard interventions that do not get past the specific finance barriers in agriculture or meet the needs of specific groups. For example, a short-term loan with monthly repayments may not be offered to a farmer whose income is seasonal and who needs a longer maturity and a repayment schedule aligned with seasonal cash flows.

While the difficulties for closing the financial gap are numerous, the three main barriers identified in the report are:

- A. Inadequate enabling environment:** this refers to a lack of effective policies and regulations governing agricultural finance that discourages lending and could create additional barriers. How governments support agriculture has a clear impact on how agricultural and financial markets operate. In some cases, governments fail to recognize the economic and market potential of agriculture, inject subsidies that distort the financial environment and discourage the development of private sector solutions. While not completely related, the lack of development in infrastructure and telecommunications may perpetuate some of the challenges that agriculture faces, such as high transaction costs and information gaps.

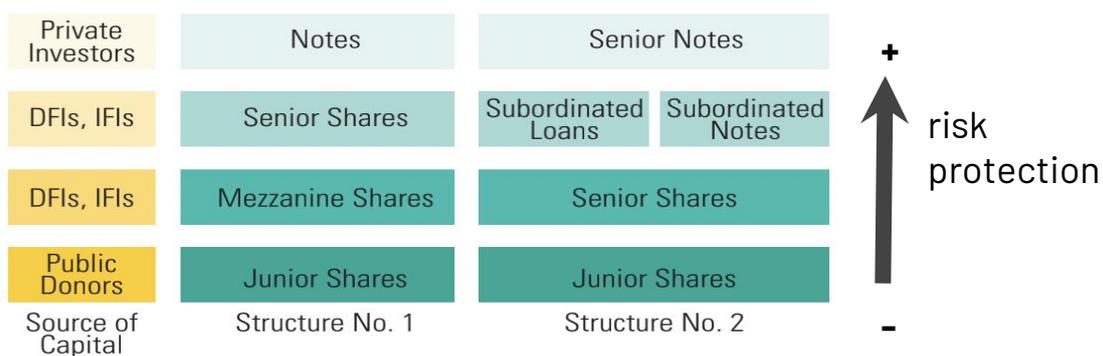
¹⁹ Making Climate Finance Work in Agriculture, World Bank, 2020.

- B. Insufficient capacity to manage exposure to specific agricultural risks:** the quantity and quality of financial products offered depend on the understanding of the agricultural risks, seasonality of agricultural flows, among others. Not having identified them leads to the perception that it is a high-risk sector. Among risks specific to agriculture are:
 - a. Production risks: Refers to internal (inadequate farm management practices, poor-quality inputs) and external factors (climate related factors).
 - b. Marketing risks: Inability to sell on time, in the right quantities and in acceptable quality; lack of contracts with identified markets.
 - c. Price risks: Changes in commodity prices, market variability.

- C. High Transaction costs:** This barrier poses a substantial barrier to lending to farmers. Compared to borrowers located in populated urban areas, farmers and agricultural SMEs tend to be located far from FIs, which often can be accessed only via poor roads and related inadequate physical infrastructure, such as electricity and communications. Moreover, the low population densities of rural areas mean that reaching those farmers that are disaggregated and thus not integrated into value chains is significantly more difficult, and therefore more expensive.

Although barriers are still difficult to overcome, some mechanisms have proven to reduce the gap such as: (1) (Public Private Partnerships) PPPs to leverage not only resources but also expertise and capacities; (2) investment vehicles that can help attract additional capital by diversifying, managing, and rebalancing risk-return profiles (**Figure 7**); and (3) bundling a wide range of financial instruments to make the use of capital more effective.

Figure 7 - Examples of layered capital structures



In addition to well-designed investment vehicles, success depends heavily on finding fund managers who understand the sector well and can identify potentially profitable and sustainable deals. It is also essential a proper alignment of interest and incentives to ensure that public funds are not used to subsidize unprofitable deals or deals that would not meet the targeted outcomes. Overall, if the suggested interventions and mechanisms mentioned previously are to function effectively, it is imperative that climate finance provides technical assistance to both financiers and smallholder farmers and SMEs so that both parties can build the capacities they need to use the resources available effectively.

Table 8 below presents a guideline for boosting market access and farmers' resilience - the key message is that barriers can be transformed into opportunities if they are addressed correctly, from a holistic view in order to close the financial gap.

Table 8 - Barriers, opportunities and guiding questions for boosting climate finance on agriculture

Barrier	Opportunity	Guiding questions
Inadequate Enabling Environment	Integrating Climate-Smart Agriculture principles	Are climate-smart agriculture principles mentioned in any National policy?
	Enabling agricultural finance policies	What economic relevance does agriculture have in the local context? Is it considered a vibrant and dynamic sector with great potential to maintain economic stability? Why?
	Systems of property rights	Do farmers have ownership titles? Why? Is there a way of strengthening cadaster registries? Do conflicts related to property rights represent a barrier?
	Collateral registry for movable assets	Do farmers have an inventory on equipment?
	Mobilization of deposits	What role do local cooperatives play related to loans? Do they have access to saving clubs inside their communities?
	Strong customer protection laws	Is there a law related to transparency, information disclosure, privacy, pricing and interest rates?
	Climate-smart advisory services	Are farmers informed on internal and external risks in their context, related to climate factors, market volatility, among others? Is there some way farmers have access to meteorological information?
Lack of capacity to manage exposure to specific agriculture risks	Effective risk management	Is there information available on the likelihood of occurrence, exposure and magnitude of each event that jeopardizes food production?
	Skills and capacities building	How much information is available on farmers markets, needs and risk exposure? Is there any framework available to understand the cost associated with each risk for facilitating

		the creation of an agricultural financial portfolio?
	Risk-sharing mechanisms	Is there any insurance for farmers? What role do they play?
	Value Chain Finance	How many cooperatives exist within the area? What role do they play? Can farmers integrate into a wider value chain? Is there any program that gathers farmers seasonally that represents an opportunity to aggregate cooperatives?
	Warehouse receipts	What is the lifespan of food produced by farmers? Can they transform it into something that is not perishable?
High transaction costs	Development of Agriculture Finance Capacities	What actors have been identified with agricultural finance experience? Is there interest in building peer to peer knowledge? What barriers (institutional, physical, communication) have been identified that suggest agriculture finance's actual mechanism is not working? What strategies have worked out? Are there any diagnostic templates that help map the needs and impediments of the farmers for accessing money?
	Building the Capacity of Agriculture Finance Staff	
	Customizing Agriculture Financial Products and Services	
	Knowledge and tools	

4.2. “The Marajó Landscape” – data regarding PRONAF access on Soure, Salvaterra and Cachoeira do Arari

The main objective of this section is to present detailed data regarding access to public funding, namely PRONAF, on the three municipalities embodied in the proposal – Soure, Salvaterra and Cachoeira do Arari. As described in Section 2, PRONAF has a wide range of credit lines with subsidized rates that intends to foster family farming – however, due to the barriers to access credit in the region, the three municipalities have a really small credit record on the period hereby analysed (2017-2021).

It is important to remark that, due to the scope of the project, the analysis centred only on the PRONAF agricultural activities –disregarding the livestock ones– and its sub-programs. **Table 9** summarizes the number of working capital and investment contracts for the period 2017-2021 within the three municipalities and offers the same analysis for Marajó and the whole state of Pará for comparison. The total contract values were adjusted for inflation.

Table 9 - Number of working capital and investment contracts and total contract values on PRONAF for the period 2017-2021 in Cachoeira do Arari, Salvaterra, Soure, Marajó, and Pará.

	2017			2018			2019		
	Working Capital	Investment	Total Contracts Value	Working Capital	Investment	Total Contracts Value	Working Capital	Investment	Total Contracts Value
Cachoeira do Arari	-	-	-	-	-	-	-	2	R\$ 23,573.83
Salvaterra	-	6	R\$ 18,673.87	-	-	-	-	-	-
Soure	-	6	R\$ 18,673.87	-	10	R\$ 29,998.18	-	5	R\$ 14,379.34
Marajó	2	104	R\$ 2,564,426.52	3	53	R\$ 1,290,815.27	3	337	R\$ 7,462,147.63
Pará	191	1059	R\$ 21,292,098.51	178	1239	R\$ 21,591,484.06	121	1351	R\$ 25,835,245.74
	2020			2021			Total (2017-2021)		
	Working Capital	Investment	Total Contracts Value	Working Capital	Investment	Total Contracts Value	Working Capital	Investment	Total Contracts Value
Cachoeira do Arari	-	3	R\$ 48,469.90	-	4	R\$ 33,796.00	-	9	R\$ 105,839.73
Salvaterra	-	-	-	2	41	R\$ 200,817.55	2	47	R\$ 219,491.42
Soure	-	4	R\$ 11,006.00	-	58	R\$ 159,898.14	-	83	R\$ 233,955.52
Marajó	1	293	R\$ 8,394,275.55	12	746	R\$ 12,506,550.16	21	1533	R\$ 32,218,215.13
Pará	112	1200	R\$ 32,273,941.59	272	1904	R\$ 38,364,670.68	874	6753	R\$ 139,357,440.58

Source: SURECO & Partners based on data from Banco Central do Brasil.

Overall, within the three municipalities, there are two types of contracts that dominate the financing ecosystem: Working Capital (Custeio) and Investment (Investimento), with the latter representing the biggest share of contracts. That same tendency was found within the island of Marajó and through the whole state of Pará.

Among the three municipalities, in the period of 2017-2021, only Salvaterra accounted for a mixed share of contract types, with just two working capital contracts issued in 2021. The other two municipalities, Cachoeira do Arari and Soure, so far have only accessed investment contracts. Finally, in percentages, the total contracts values in Cachoeira do Arari represent a mere 0.33% of the total contracts values issued in Marajó, and 0.08% of all of Pará; for Salvaterra the percentages are 0.68% when compared with Marajó, and 0.16% of all of Pará; and in the case of Soure the corresponding percentages rise to 0.73% and 0.17% respectively. Thus, the findings show that the three municipalities so far have huge barriers to access PRONAF financing.

It is also important to analyse the PRONAF sub-programs that each municipality accessed in 2017-2021.

Cachoeira do Arari

After analysing the period of 2017-2021, what was found is that Cachoeira do Arari has only started accessing PRONAF financing in 2019 in two sub-programs: Pronaf ABC+ Floresta, which accounts for 55.6% (totalling five contracts) and represent 89.3% of the disbursed funds; and PRONAF B – “Microcrédito Produtivo”, which accounts for

44.4% (totalling four contracts) and represent 10.7% of the disbursed funds of the municipality.

Table 10 - Number of working capital and investment contracts and total contract values on PRONAF for the period 2017-2021 in Cachoeira do Arari.

Cachoeira do Arari								
Sub-program	2019		2020		2021		Total (2017-2021)	
	Total Contracts	Investment Value	Total Contracts	Investment Value	Total Contracts	Investment Value*	Total Contracts	Investment Value
Pronaf ABC+ Floresta	1	R\$ 20,697.97	3	R\$ 48,469.90	1	R\$ 25,296.00	5	R\$ 94,463.86
Microcrédito	1	R\$ 2,875.87	-	-	3	R\$ 8,500.00	4	R\$ 11,375.87

Source: SURECO & Partners based on data from Banco Central do Brasil.

Salvaterra

After analysing the period of 2017-2021, what was found is that Salvaterra has accessed PRONAF financing throughout the whole period, with only 2019 as a void year without contracts. Furthermore, of the three municipalities, Salvaterra is the municipality that has received the most varied forms of financing from different sub-programs, where "Custeio" accounts for 3.8% of the total contracts (totalling for two working capital contracts in 2021), which represent 0.4% of all the disbursed funds; Pronaf ABC+ Floresta accounts for 3.8% of the total contracts (totalling two investment contracts in 2021), but represents only 0.8% of all the disbursed funds; PRONAF B - Microcrédito accounts for an overwhelming share of contracts of 84.9% (totalling 45 investment contracts, with the majority issued in 2021) but that only represent 1.9% of all disbursed funds; and the last is Financiamento sem Vínculo a Programa Específico with only a share of 7.5% (totalling 4 contracts for both working capital and investment contracts) but where the overwhelming 96.9% of all funds were directed.

Table 11 - Number of working capital and investment contracts and total contract values on PRONAF for the period 2017-2021 in Salvaterra.

Salvaterra										
Sub-program	2017		2018		2020		2021			
	Investment	Total Contracts Value	Working Capital	Total Contracts Value	Investment	Total Contracts Value	Working Capital	Investment	Total Contracts Value	
Custeio	-	-	-	-	-	-	-	2	-	R\$ 29,961.55
Pronaf ABC+ Floresta	-	-	-	-	-	-	-	2	-	R\$ 53,856.00
Microcrédito	6	R\$ 18,673.87	-	-	-	-	-	39	-	R\$ 117,000.00
Financiamento sem Vínculo a Programa Especifico	-	-	2	R\$ 4,799,699.92	2	R\$ 2,119,755.60	-	-	-	-

Salvaterra			
Total (2017-2021)			
Subprogram	Working Capital	Total Contracts	
		Investment	Value
Custeio	2	-	R\$ 29,961.55
Pronaf ABC+ Floresta	-	2	R\$ 53,856.00
Microcrédito	-	45	R\$ 135,673.87
Financiamento sem Vínculo a Programa Especifico	2	2	R\$ 6,919,455.52

Source: SURECO & Partners based on data from Banco Central do Brasil.

Soure

Finally, for the period of 2017-2021, Soure is the only municipality that has accessed PRONAF financing throughout the whole period with investment contracts exclusively. There have been two sub-programs in Soure that have been executed: Mais Alimentos with 1.2% of the contracts share (totalling 1 contracts in 2021) which overall accounts for 7.4% of all the disbursed funds; and PRONAF B - Microcrédito with the overwhelming share of 98.8% contracts (totalling 82 contracts through 2017-2021, with the biggest share issued in 2021) accounting for 92.6% of the total funds disbursed within the municipality.

Table 12 - Number of working capital and investment contracts and total contract values on PRONAF for the period 2017-2021 in Soure.

Soure											
Sub-program	2017		2018		2019		2020		2021		
	Investment	Total Contracts Value									
Mais Alimentos	-	-	-	-	-	-	-	-	-	1	R\$ 17,398.14
Microcrédito	6	R\$ 18,673.87	10	R\$ 29,998.18	5	R\$ 14,379.34	4	R\$ 11,006.00	57	R\$ 142,500.00	

Soure		
Total (2017-2021)		
Subprogram	Investment	Total Contracts
		Value
Mais Alimentos	1	R\$ 17,398.14
Microcrédito	82	R\$ 216,557.38

Source: SURECO & Partners based on data from Banco Central do Brasil.

4.3. The “Marajó Landscape” - qualitative analysis regarding credit access in Marajó

As shown in the previous section, the data regarding PRONAF access at the three municipalities covered by the project corroborates the hypothesis that only a small number of local smallholders can effectively be benefited by the existing credit public policy. Considering the results shown by quantitative analysis, this section has the objective to present some qualitative arguments regarding the barriers to credit access at Marajó.

First, the reduced presence of bank branches in the three municipalities can be considered a challenge for credit access. As discussed in Section 1, considering the importance of public banks in the Brazilian credit system, the fact that bank branches are strongly concentrated in the most developed regions of the country is a factor that also explains the unequal distribution of rural credit resources alongside Brazil. **Figure 5** shows that BASA is the main credit provider in Marajó – however, the bank has only a small branch in Soure for attending Soure, Salvaterra, Cachoeira do Arari and Santa Cruz do Arari.²⁰

The regional presence regarding Banco do Brasil, the main rural credit provider in the country, is similar to BASA – the bank has just one small branch in Soure responsible for supporting the three municipalities covered by the project. Finally, Caixa Econômica Federal, another important public bank in Brazil, has no branches in the three municipalities.²¹ Considering the scenario of low financial education of smallholders in Marajó, the regional presence of banks should be even more important for improving credit access – this lack of capillarity of financial institutions in the region is another important barrier to be considered.

It is important to remark that Banpará, the regional bank controlled by the Pará state government, has branches in the three municipalities. However, since the institution is not eligible to offer PRONAF, its cost of funding – and, consequently, the interest rates on the rural credit products offered by Banpará – are higher than the available PRONAF credit lines and thus less attractive for smallholders.

Land ownership is another important barrier to credit access that should be considered in Marajó since the vast majority of family farmers do not have proper documentation regarding their land possessions. There are already some mechanisms deployed by local financial institutions to overcome this question, such as the exigence of a signed endorsement declaration (“aval”) by the producer to be eligible for accessing existing credit lines. However, the maximum limit on credit lines operating in these schemes is reduced, due to the high-risk embodied for banks to operate without having the land as a real guarantee, especially for small producers with reduced financial history.

At this point, it is important to remark that the financial solution proposed by the consultant team intends to directly address this issue, with a structure that will act

²⁰ <https://www.bancoamazonia.com.br/index.php/component/edocman/rede-de-agencias/viewdocument/4915>.

²¹ The list of Banco do Brasil branches can be found at <https://www49.bb.com.br/encontreobb/s001t026p001.500830.507361.1.1.1.bb#/>; Caixa’s at <https://www.caixa.gov.br/atendimento/Paginas/encontre-a-caixa.aspx> and Banpará’s at <https://www.banpara.b.br/encontre-seu-banpara/>.

as a risk mitigation mechanism. The Community Fund, which shall be structured in partnership with a regional development finance institution and funded by the Green Climate Fund grant awards embodied in the project, is designed to be used as collateral to smallholders. This structure will be fundamental to overcome barriers that hinder smallholders' access to credit, namely lack of appropriate documentation regarding land ownership and lack of financial history, which are fundamental to banks when calculating risks to provide credits to these beneficiaries. Since the Community Fund will guarantee eventual defaults of project beneficiaries, acting as collateral with high liquidity for the financial institutions, this will significantly enhance the credit ratio of beneficiaries and facilitate their access to PRONAF existing lines, with appropriate tenors and interest rates for the implementation of agroforestry systems, adding inclusiveness and effectiveness to public policy instruments that already exist.

The lack of knowledge from smallholders regarding available financial lines and basic concepts of financial education was already discussed in this document as a relevant barrier to credit access in Marajó. In addition, the knowledge regarding the implementation of agroforestry systems is also limited and derives more from peer-to-peer communication than from structured training assistance. In this sense, technical assistance definitively could play a major role in enhancing the implementation of climate-friendly practices with appropriate access to the already existing credit lines.

However, as corroborated in the field trip made by the consultant team in the first week of October 2022, EMATER, which is the main public local stakeholder responsible for conducting technical assistance in the three municipalities, faces several challenges to provide proper assistance. Despite having a strong institutional background, with the capacity to generate high quality data on land use and agricultural techniques on Marajó, and the existence of qualified personnel, the structure is limited considering municipalities' scenario.

Considering the size of the municipalities, the number of rural properties demanding rural assistance and the huge physical distances that should be covered by EMATER technicians, these difficulties can be summarized as a question of limited resources. The availability of personnel, measured in number of available technicians, and of proper equipment – considering not only physical equipment for the agricultural activities themselves, but also support equipment such as cars, GPS and even oil for the field visits – is considerably limited. Since EMATER can be classified in legal terms as a public enterprise²², as an autarchy, the company has significant budgetary constraints and should comply with a huge spectrum of bureaucratic norms for hiring personal, executing resources and other tasks.

In this sense, as it will be discussed on the governance structure of the proposed solution, EMATER has an important role to play in the stakeholders' ideal arrangement for project implementation. However, considering these constraints, EMATER's role should be more strategical, discussing guidelines based on the company data knowledge and institutional mission, instead of a more executing profile.

²² According to the Brazilian law, EMATER is classified as a public enterprise (or *autarquia*) and thus is inserted in the Indirect Public Administration.

Another point that should be considered in the qualitative analysis is the cultural background of Marajó regarding cooperatives and associativism. Considering the development level of the municipalities covered by the project and the difficulties of smallholders to be inserted in a bankable approach, cooperatives could play a major role to mobilize access to credit lines. However, the perception of the role played by cooperatives among local smallholders is strongly negative, due to unsuccessful past experiences.

In a simplified explanation, when a cooperative is formally and legally structured, the institution has access to an enterprise registration, which is independent of its individual members and their financial background and responsibilities.²³ Normally, this registration enhances the availability of credit lines for the cooperative; however, in case of default, the financial responsibility is limited to the cooperative cadastre, with no financial responsibilities for the individuals. As discussed with several stakeholders on the field trip, this structure incentivizes the creation of cooperatives that access credit and do not apply the resources on productive activities – instead, due to governance fragilities on these newly created cooperatives, there are several local experiences of personal use of the resources, without individual accountability. These experiences not only generate negative credit history and perception regarding cooperatives in local financial institutions, but also hinders smallholders organization on associative schemes.

Given this scenario and considering the other components of the project, the proposed solution, with the structuration of a community fund, intends to foster associativism among local family farmers. However, the idea is to utilize a structure of contracts where being part of a cooperative is mandatory for acceding the fund as a collateral, but the credit line is still tied to the individual personal cadastre (CPF), with individual accountability as a consequence.

Finally, it is also important to mention the Law Project 486/2020, popularly known as “PRONAF Marajó”. Considering the local level of development and the barriers to access effectively PRONAF, the main objective of this initiative is to adequate the program requirements and legislation to municipalities in Marajó, with the objective to facilitate local access to PRONAF credit lines.²⁴ It is important to remark that this initiative corroborates the hypothesis presented in this assessment – PRONAF’s offer of credit lines with appropriated rates and tenors can play a major role in income generation, inequality reduction and empowerment of local family farmers. According to the Brazilian Federal Senate website, the Law Project was approved on the Senate’s Plenary on March 3th 2022 and is pending to be appreciated at the Brazilian Chamber of Deputies.²⁵

²³ This enterprise registration is called in Portuguese Cadastro Nacional da Pessoa Jurídica – CNPJ, while the individual registration is called Cadastro Nacional da Pessoa Física – CPF.

²⁴ <https://www12.senado.leg.br/noticias/materias/2022/02/17/aprovado-na-cra-credito-rural-e-assistencia-tecnica-para-agricultura-familiar-em-marajo-pa>.

²⁵ The evolution of the Law Project can be followed at <https://www25.senado.leg.br/web/atividade/materias/-/materia/140937> and <https://www.camara.leg.br/proposicoesWeb/fichadetramitacao?idProposicao=2317628>.

5. Brief report of the consultant team field trip on Pará - October 2022

The last section of this assessment presents a brief report of the field trip made by Sureco consultants on the first week of October 2022 (October 4th to 7th), where several meetings were held with relevant local actors - financial institutions, cooperatives, technical agencies, among others. **Table 13** below presents a stylized version of the mission agenda. The meetings and interviews were guided by a list of general questions, discussed with all interviewed stakeholders, together with specific tailored questions prepared for each institution considering its expertise and area of intervention. In addition, the consultant team presented a general background of the project and its components together with a preliminary version of the financial model for discussion and feedback with interviewed stakeholders.

These meetings reassured the previous hypothesis and lead to a more rigorous comprehension of local reality, which led to refinements in the financial structure proposal. The more relevant insights and feedback obtained in the field trip is detailed below, organized by stakeholder.

Table 13 – Mission agenda for the consultant field trip to Pará – October 4th to 7th, 2022

	October 4th	October 5th	October 6th	October 7th
Morning	Briefing and Mission Preparation - Consultant Team (Marcelo and Érico)		Boat to Salvaterra, Marajó Island, Pará (7am) Meeting with EMATER local technicians for Soure, Salvaterra and Cachoeira do Arari - Salvaterra, Pará - 10 am	Meeting with BASA regional manager, SOURE branch - Soure, Pará - 11 am
Afternoon	Meeting with EMATER – State Director Level - Marituba, Pará - 2 pm	Meeting with BASA - Regional Superintendent and BASA’s Legal, Credit and Product teams - Belém, Pará - 2pm		Meeting with CAFAS (President and associates) and field visit (local family farmer with agroforestry system) - Salvaterra, Pará - 3 pm

- i) *Meeting with EMATER Marituba (October 4th) and EMATER local technicians for Soure, Salvaterra and Cachoeira do Arari (October 6th)*

The first field trip meeting was held at EMATER state office, located in Marituba, a municipality nearby Belém. The meeting had the objective to deep knowledge regarding EMATER institutional focus and intervention areas and had a macro approach, since it was conducted on the level of the State Director of the company. The main findings of the meeting were:

- EMATER is an important stakeholder concerning data primary and secondary data generation and *in-situ* knowledge for agricultural practices not only on the three municipalities covered by the project, but also in the whole state of Pará.
- Intending to better organize resource allocation and plan interventions on the field, the company generates annually an acting plan both at the regional dimension and for each municipality of the Pará's state, called Proater (Programa de Assistência Técnica e Extensão Rural).
- At the regional level, Soure, Salvaterra and Cachoeira do Arari are included in the "Proater Regional Ilhas"; besides that, each municipality has an acting plan specifically designed considering its agricultural productive scenario, land tenure organization, among other specificities. The documents for 2022 were made available for the consultant team by EMATER at <https://drive.google.com/drive/folders/10ihKun1O5wcX3H0MVWAWIDcVB2xA--s8> and could be an interesting source of information for the project when designing potential beneficiaries at the covered municipalities.
- Since EMATER can be classified in legal terms as a public enterprise, as an autarchy, the company has significant budgetary constraints and should comply with a huge spectrum of bureaucratic norms for hiring personal, executing resources and other tasks. The discussions held at Marituba made clear that EMATER could play an important role in the stakeholders' governance arrangement for project implementation. However, considering these constraints, EMATER's role should be more strategical, discussing guidelines based on the company data knowledge and institutional mission, instead of a more executing profile.
- The institution executives demonstrated a high level of interest and capacity in supporting the development and implementation of the project, acting as a local partner with strong expertise. Again considering the characterization of EMATER as an autarchy and the legal implications for directly executing financial resources, the institution executives pointed out that partnerships with Fundación Avina and other project stakeholders should be designed considering providing resources to enhance capacities to EMATER operation (for example, providing types of equipment such as cars, GPS or even oil for field visits). In legal terms, this partnership should be formalized by a technical cooperation contract and follow the rules established at [Law 13,303](#), published on June 30th 2016 and popularly known as "Lei das Estatais".
- Regarding successful experiences that should be studied in the project development, EMATER technicians mentioned the [Programa Territórios Sustentáveis](#) and the experience of a social community fund for açai production established in Portel, Marajó.²⁶

On October 6th, the consultant team had a meeting in Salvaterra, located in Marajó island, with EMATER local technicians responsible for providing technical assistance for producers located in the three municipalities covered by the

²⁶ For more information regarding *Fundo Solidário Açai* established in Portel, see <https://www.beiradorio.ufpa.br/index.php/nesta-edicao/572-acai-cria-opportunidades-em-portel> and <https://transforma.fbb.org.br/tecnologia-social/fundo-solidario-acai>.

project. The analytical perspective utilized to plan the meetings with EMATER was the following: after better understanding the institution's focus and expertise at the management/regional level, the objective was to validate the macro subsidies at the micro level, thus having a more focused approach to deep knowledge regarding the difficulties for acting directly on the territory. The main findings of the meeting were:

- Considering the size of the municipalities, the number of rural properties demanding rural assistance and the huge physical distances that should be covered by EMATER technicians, the institution faces several challenges to provide proper technical assistance on the field.
 - These difficulties can be summarized as a question of limited resources. The availability of personnel, measured in number of available technicians, and of proper equipment – considering not only physical equipment for the agricultural activities themselves, but also support equipment such as cars, GPS and even oil for the field visits – is considerably limited.
 - The local technicians stated that the development of the app [BASA Digital](#) was an important initiative by Banco da Amazônia in order to reduce bureaucratic issues that hinders access to credit in Marajó; however, since the level of formal and financial education and the difficulties regarding land ownership and other documentation by local family farmers are a structural challenge, the effectiveness of this new technological solution is reduced.
 - Regarding successful experiences that should be studied in the project development, EMATER technicians mentioned the *Manejaí* initiative developed by EMBRAPA for açai production in Marajó²⁷ and the experience of [CAMTA](#), an agricultural cooperative located at Tomé-Açu, Pará.
- ii) *Meeting with BASA Belém (October 5th) and with BASA regional manager SOURE (October 7th)*

On October 5th, the consultant team met with BASA executives at the Belém regional branch of the bank. Considering that BASA is the most important financial institution and the main credit provider at the North region in Brazil, the meeting had the objective to deep knowledge regarding barriers to credit access in the region with a special emphasis on Marajó. In addition, considering BASA's expertise regarding financial products and successful experiences on Amazon, the intention was also to validate and receive feedback regarding the real effectiveness of the proposed financial model to overcome these barriers and foster credit access in Marajó.

It also important to remark that the meeting was conducted by BASA's Regional Superintendent for Pará and Amapá states and counted with the presence of the

²⁷ For more information regarding *Manejaí*, see <https://www.undp.org/pt/brazil/news/maneja%C3%AD-h%C3%A1-um-ano-fazendo-diferen%C3%A7a-na-vida-dos-produtores-de-a%C3%A7a%C3%AD-do-par%C3%A1>, https://novo.ufra.edu.br/index.php?option=com_content&view=article&id=2705:conheca-o-manejai-projeto-de-manejo-sustentavel-do-acai&catid=17&Itemid=121 and <https://www.embrapa.br/busca-de-noticias/-/noticia/43668010/manejo-de-acaizais-nativos-ganha-centro-de-referencia-no-arquipelago-do-marajo#:~:text=Manejo%20de%20a%C3%A7aizais%20nativos%20ganha%20centro%20de%20refer%C3%Aancia%20no%20arquip%C3%A9lago%20do%20Maraj%C3%B3.-Compartilhar&text=Algumas%20not%C3%ADcias%20publicadas%20no%20Portal,ser%C3%A1%20restabelecido%20ap%C3%B3s%20as%20elei%C3%A7%C3%B5es.>

institution managers for Legal, Credit Analysis and Product Development teams. The main findings of the meeting were:

- BASA has a strong knowledge regarding credit business in the Amazon, with relevant regional capillarity and qualified personnel. The institution executives demonstrated a high level of interest and capacity in supporting the development and implementation of the financial facility for the project, including offering legal structuring, risk management and product development assistance.
- BASA's executives affirmed that land ownership is the main barrier to credit access that should be considered in Marajó, since the vast majority of family farmers do not have proper documentation regarding their land possessions. The bank already deploys some mechanisms to overcome this question, such as the exigence of a signed endorsement declaration ("aval") by the producer to be eligible for accessing existing credit lines. However, the maximum limit on credit lines operating in these schemes is reduced, due to the high credit risk embodied on operating without having the land as a real guarantee, especially for small producers with reduced financial history.
- BASA's team had extreme positive impressions regarding the effectiveness of the financial solution proposed by the consultant team, with a Community Fund that could act as a risk mitigation mechanism. This fund, that could be structured in partnership with BASA and funded by the Green Climate Fund grant awards embodied in the project, is designed to be used exactly as collateral to smallholders. Since the Community Fund will guarantee eventual defaults of project beneficiaries, acting as collateral with high liquidity for the financial institution, this structure shall significantly enhance the credit ratio of beneficiaries and facilitate their access to PRONAF existing lines, with appropriate tenors and interest rates for the implementation of agroforestry systems, adding inclusiveness and effectiveness to public policy instruments that already exist.
- Regarding the contract design and parametrization for the fund implementation, BASA's legal team assured that the process could rely on already existing successful similar experiences for reducing implementation schedules. Another important insight obtained from the Legal team is that the fund should be used as a mechanism to foster associativism among local farmers. In order to promote the proper incentives, the structure of contracts should be designed considering being part of a cooperative as a mandatory requisite for the individual for acceding the fund as a collateral, but the credit line should be still tied to the individual personal cadastre (CPF), with individual accountability as a consequence.
- Regarding possible arrangements for project implementation, BASA's team indicated its satisfaction with the use of Credit Agents, contractors engaged in partnerships with the bank to provide local support to clients and potential clients, including new cooperatives, improving credit standards and inclusivity. In the case of Pará, specific mention was made to [Conexsus](#) as an agent that provides technical support to enhance and enable credit access to smallholders in the region.

- Since the data provided in this assessment relies on public information, mainly from the Central Bank of Brazil, the conversation with technicians from BASA's Credit Analysis team were important to validate the numbers elaborated by SURECO and to confirm the small number of users of financial products and services among the producers from the communities involved in the project.

Finally, on October 7th, the consultant team met with BASA regional manager at Soure, in Marajó Island. The branch located in Soure intends to assist four municipalities in Marajó - beyond Soure, it is the regional branch also for Salvaterra, Cachoeira do Arari and Santa Cruz do Arari. Following the same analytical perspective utilized to plan the meetings with EMATER, the main objective of the Marajó meeting was to validate the macro subsidies at the micro level, thus having a more focused approach to better understand the difficulties for acting directly on the territory. The main findings of the meeting were:

- BASA's regional manager reassured the small number of users of financial products and services among the producers from the communities involved in the project, based not only on publicly available information but also on the data of the internal BASA system. The regional manager recognized that BASA Digital initiative was an important achievement, but even with this new technology solution, the regional branch could not reach its established goal of PRONAF credit contracts on its area of intervention.
- An additional information obtained in Soure was the validation of the importance of a gender-based approach, as the credit profile of women debtors was recognized to be less risky and more reliable than that of male debtors in the region.

iii) Meeting with CAFAS (October 7th)

On October 7th, the consultant team met with representatives from CAFAS (Cooperativa dos Agricultores e Agricultoras Familiares de Salvaterra), a local agricultural cooperative located at Salvaterra, Pará. Besides having a meeting at the cooperative office on the rural area of Salvaterra, the consultant team also visited a rural property of a cooperative associated that already implements agroforestry techniques.

It is also important to remark that the consultant team recorded in video the meeting held at CAFAS office - the video can be used as an important associated material to the project, adding value as a trustworthy representation of the local reality. The main findings of the meeting were:

- Considering the definition of potential beneficiaries for project assistance, CAFAS represent only a small number of producers in the municipalities covered by the project. However, the cooperative is already organized for associative agricultural production, and have already undertaken capacity building efforts to increase productivity and efficiency, including the initial steps to develop climate appropriate agroforestry methods. At the same time, the vast majority of local farmers remain reliant on government income assistance and subsistence farming.

- CAFAS representatives confirmed the concerns regarding availability of resources for expansion by government rural assistance agency EMATER and the difficulties faced by family farmers to obtain effective support from the agency. However, the conversation gave insights into an assortment of other technical institutions (universities, governmental and private agencies) which have already interacted and provided support to the cooperative initiatives. Specific mention was made to UFRA (Universidade Federal Rural da Amazônia); UFPA (Universidade Federal do Pará), with a campus in Soure; UEPA (Universidade do Estado do Pará), with a campus in Salvaterra; and SEBRAE (Serviço Brasileiro de Apoio às Micro e Pequenas Empresas) and the Salvaterra Municipal Government.
- Regarding access to PRONAF credit lines, CAFAS associates confirmed accessing PRONAF B “Microcrédito Produtivo Rural” for working capital financing. However, as shown by the data previous organized by SURECO, this access is limited to a small number of operations and is diffculted by documentation requirements, especially regarding land ownership. The absence of individuals financial credit history and knowledge regarding financial education was also posed as a challenge to effectively access PRONAF lines.
- An important insight brought by CAFAS was that the perception of the role played by cooperatives among local smallholders is strongly negative, due to unsuccessful past experiences. The role played by intermediaries (*atravessadores*) is another important barrier that hinders initiatives regarding cooperative organization on the region.