



# **THE GOVERNANCE OF MACROREGIONAL PLANS AND THE BALANCE OF THE NORTHERN CONSTITUTIONAL FINANCING FUND (FNO) FOR SUSTAINABLE DEVELOPMENT IN THE AMAZON**

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Rafael Gonçalves Gumiero<sup>1</sup>

Received: 08/31/2024

Accepted: 05/13/2025

<sup>1</sup> PhD in Political Science (UFSCar).

Professor at the Federal University of Southern and Southeastern Pará. Marabá, PA – Brazil.

E-mail: gumiero84@gmail.com

### ABSTRACT

The increase in deforestation and the expansion of agricultural activities in the Amazon since 2016 has required efforts by the federal government to implement specific plans, programs, and lines of financing that are in line with sustainable development. Given this scenario, the objective of this paper is to compare the measures proposed by the federal government in the period from 2017 to 2022 for sustainable development in the Amazon, and to identify, in the main instrument for granting credit for regional development in the Amazon, the Northern Constitutional Financing Fund (FNO), the programs and lines of credit for financing projects and activities for the sustainable development of the Amazon. Based on the analysis of FNO data, the FNO-Sustainable Amazon and FNO-PRONAF programs mobilized the largest volume of financial resources, specifically in the first case for the production of soy and machinery complements for large-scale production, and in the second case, investments in diversified crops endogenous to the Amazon biome, such as açaí, cocoa, cassava, and oil palm, predominated. It was found that despite the counterpoint played by FNO-PRONAF in agricultural activities that reconcile management with environmental sustainability, there is a concentration of resources in commodities, such as soy, which can be positioned as a vector to expand the production process to the detriment of deforestation, causing latent environmental imbalances in Amazon.

**Keywords:** Amazon; PRONAF; FNO; deforestation; soy.

## RESUMO

O aumento do desmatamento e a expansão das atividades agropecuárias na Amazônia a partir de 2016, demandou esforços do governo federal para implementação de planos, programas e linhas de financiamento específicos que dialogam com o desenvolvimento sustentável. Diante desse quadro, o objetivo deste artigo é cotejar quais foram as medidas propostas pelo governo federal no período de 2017 a 2022 para o desenvolvimento sustentável na Amazônia, e identificar no principal instrumento para concessão de crédito para o desenvolvimento regional da Amazônia, o Fundo Constitucional de Financiamento do Norte (FNO), os programas e as linhas de crédito para o financiamento de projetos e atividades para o desenvolvimento sustentável da Amazônia. A partir da apreciação dos dados do FNO, os programas FNO Amazônia Sustentável e FNO PRONAF mobilizaram maior volume de recursos financeiros, especificamente no primeiro caso para a produção da soja e complementos de maquinário para a produção em larga escala, e no segundo caso preponderou investimentos em culturas diversificadas endógenas ao bioma amazônico, como o açaí, cacau, mandioca e dendê. Apurou-se que apesar do contraponto desempenhado pelo FNO-PRONAF em atividades agrícolas que conciliam o manejo com a sustentabilidade ambiental, há concentração de recursos em *commodities*, como o caso da soja, que pode ser posicionado como um vetor para expandir o processo produtivo em detrimento do desmatamento, proporcionando desequilíbrios no meio ambiente latentes na Amazônia.

**Palavras-chave:** Amazônia; PRONAF; FNO; desmatamento; soja.

## INTRODUCTION

Regional policy for Amazon has a long history that can be summarized by the agenda set by regional development institutions and their respective instruments, among which financing instruments have a fundamental strategy in implementing the actions provided for institutional documents. These different historical moments in regional development policies include the creation of the Superintendence for Economic Valorization of Amazon (SPVEA) in 1953 and continue to the present day through the Amazon Regional Development Plan 2024-2027 (PRDA). Among these moments, the problem of regional inequalities was addressed by different themes on the public policy agenda. The creation of the Superintendence for Development of the Amazon (SUDAM) in 1967 can be positioned as a moment in which the main key to development was national economic integration articulated by logistical main areas with other regions and mainly by the institutionalization of programs and plans, together with financing funds directed to strategic sectors of the economy. Regional inequalities in the Amazon were initially addressed by the Polamazônia specializing ingrams, which mobilized sectoral investments in territories with natural



resources, known as comparative advantages for exports, and determined a development model for the Amazon, called spurious, by specializing state investments in primary economic activities.

In the 1990s, the regional policy agenda for Amazon incorporated sustainability as a dimension for development and, consequently, regionalization for planning based on the specificities of the Amazon territories. The study by Becker and Egler (1996) entitled “Detailed methodology for implementing ecological-economic zoning by the states of the Legal Amazon”, produced in 1996, proposed a regionalization of areas consisting of basic territorial units for the selection of Ecological Economic Zones (ZEEs), determined by the diagnosis of the biome of the selected area equated with the interaction between society and nature.

The determination of the basic territorial units was formed by environmental attributes and dynamic links that articulate them with an integrated network of other territorial units. The ZEEs were classified according to a typology formed by river basins, municipalities, landscape units and geoeconomic regions. The importance of zoning was directed towards an instrument for sustainable development, which provided for the definition of ZEE by Geographic Information Systems (GIS), provided by the establishment of spatial relationships with georeferenced thematic information (Becker and Egler, 1996).

From 2003 onwards, during the government of Luís Inácio Lula da Silva, the agenda of regional inequalities was positioned in the Ministry of National Integration (MI), the Ministry of Planning, Budget and Management (MPOG), the Ministry of the Environment (MMA) and the Ministry of Agrarian Development (MDA), including these inequalities on a territorial scale. Due to the complexity of identifying the gradients of territorial asymmetries, there was a coalition effort by the respective ministries to formulate proposals for diagnoses and prognoses for public policies. The dimension of sustainability began to be adopted in the framework of regional policies, whether through the National Policy for Regional Development (PNDR), the Study of the Territorial Dimension for Planning, the Territorial Plan for Sustainable Rural Development (PDTRS), and the Amazônia Sustentável Plan (PAS), among other planning scales, mainly with regard to the mesoregional and subregional scales of the territories.

The repositioning of the priority of public policies was endorsed by the dimension of sustainable development for the environment due to the centrality of diagnoses and prognoses of territories, however, at the same time, the productive specialization in commodities in agriculture through the cultivation of soy, sugar cane, the extraction of iron ore and oil, absorbed investments, applied in logistics and energy infrastructure, to the detriment of those in activities that prioritize the management of sustainable productivity in family farming.

Thus, the regional policy agenda tends to be centered on the sustainable development dimension, whether at the international level with the Sustainable Development Goals (SDGs) or the 2030 Agenda, and at the national level by the centrality of the efforts of planning institutions in formulating a sustainable regional policy for the Amazon. However, at the territorial level, investments are mobilizing agricultural activities, consisting of a deforestation strategy for land occupation and ending the reproduction cycles of primary export activities. The modalities of capital accumulation have been redefined by the financialization of space through land use by real estate speculation with land subdivisions by real estate developers occupying peripheral areas in cities in the Amazon.

In the meantime, the objective of this paper is to compare the measures proposed by the federal government in the period from 2017 to 2022 for sustainable development in the Amazon, and to identify in the main instrument for granting credit for regional development in the Amazon, the Northern Constitutional Financing Fund (FNO), the programs and lines of credit for financing projects and activities endorsed by the development and sustainability of the Amazon.

In addition to this introduction and final considerations, the paper is divided into four topics. The first refers to the methodology applied in the organization of qualitative data, institutional documents of the federal government, and quantitative data related to the FNO, specifically in relation to environmental sustainability. The second topic compared the historical trajectory that helps to understand the drivers of deforestation in the Amazon, which has spread more acutely in the last decade, starting in 2016 in the federative units. The third topic took stock of the retrospective of the PNDR and macro-regional policies in the Amazon, analyzing the repositioning that sustainability has assumed for development. The fourth topic presented the balance of the FNO programs and financing lines and the resources from this fund that were allocated to economic activities.



## THE METHODOLOGICAL DIMENSIONS OF THE BALANCE OF PLANNING FOR THE SUSTAINABLE DEVELOPMENT OF THE AMAZON

The methodology applied in this paper sought to be influenced by the historical structuralist method of the Economic Commission for Latin America and the Caribbean (ECLAC), based on the studies of Raúl Prebisch in 1949, pioneeringly discussed in the paper that became called the Manifest of the Peripherals. Prebisch (2011) pointed out as a basic foundation the particular use of the historical-structural method giving logic to the type of approach that was called structuralism evidenced by the particularities of Latin American development, or underdevelopment, through the formation and reproduction of its structures vis-à-vis those of developed countries.

The historical-structural method allowed ECLAC thinking to have an evolutionary character in accordance with the transformations that took place in Latin America, which formulated a powerful repertoire consisting of a diversity of approaches based on the multiplicity of problems, economic, sociological, political, aggregation of new elements meeting the needs required by the differentiation of the different historical moments. In each moment or phase of ECLAC thinking there were central elements of the respective analyses, among them the complexity assumed by dependence, the risk of external debt, the limits to growth and stagnation, structural inflation and other macroeconomic conditions (Bielschowsky, 2000).

Inspired by the historical structuralist method of ECLAC, the format chosen was based on the dimensions of analysis, formed by the Dimension of the History of the Institutional Trajectory, the Dimension of Governance and the Dimension of the Economy. These dimensions elucidate the experiences of regional policies and contextualize the state of the art of the application of the FNO for the Northern region.

The first dimension addressed was the History of the Institutional Trajectory, composed of institutional documents that were the basis for regional policies and the critique of regional policy in academic literature. In this case, it was decided to address the conformation of the Eastern Amazon space, specifically by showcasing the vectors of expansion of deforestation, which occurred from 2017 to 2022, presenting the emergence of environmental sustainability policies in contrast to the economic activities practiced in line with the deforestation of the Amazon rainforest.



In this Dimension of the History of the Institutional Trajectory, I recall the ECLAC legacy in relation to the formation of economic and social structures in the territories. The authors Monteiro and Silva (2023) present that the conformation of space in the Carajás region, in Southeastern Pará, was the result of Northeastern migrations towards the humid lands of the Amazon hinterland, and the expansion of the agricultural frontier from the Central-West towards the North region, to expand production and occupy the territories. Authors Fernandes (2023) and Becker (2010) argued that the expansion of the frontier and migrations in the 1970s came concomitantly with the insertion of the modernization vector, triggered by logistics infrastructure and electricity generation projects, implemented by programs such as the Amazon Development Plan (PDA) and the Polamazônia projects and by the prospecting and extraction of iron ore by the Grande Carajás Program (PGA), creating economic integration with the Northeast and Central-West regions and boosting the raw material export corridors.

The expansion of economic activities in the 1970s was followed by productive modernization in the 2000s. Michelotti (2019) warns about the effects resulting from the installation of large logistics and electricity generation projects, when they were directed towards strengthening large-scale production branches, such as commodities from the 2000s onwards. The authors Monteiro and Rodrigues (2023) substantiate the reverberations of the accelerated deforestation process in recent years in relation to the loss of biodiversity in the Amazon rainforest, influencing the change in the social trajectories of the population, which was aligned with biodiversity, through the productive culture of forest extractivism and family farming.

Therefore, the aforementioned authors were positioned in the Dimension of the History of the Institutional Trajectory as a critical hurdle in relation to the effects of productive modernization, whether due to large logistics infrastructure projects or the expansion and modernization of the agricultural frontier, resulting in changes to the landscape of the Amazon biome and the economic and social relations of the population with the arrival of the occupation of migrations from the South-Central border of Brazil.

The second Dimension of Governance was centered on the analysis of institutional documents, Decree No. 6,047 (February 22, 2007), Decree No. 9,810/2019 and Decree No. 11,962/2024 of the National Policy for Regional Development (PNDR). The macro-regional policies established by the Amazônia Sustentável Plan (PAS) and the Amazon Regional Development Plan (2024-2027). The analysis of the



Northern Constitutional Financing Fund (FNO) was supported by the investigation of the governance system and the sustainable development programs embodied in the implementation of the FNO in the Amazon territories, by the Management Report of the Northern Constitutional Financing Fund – FNO (2017 to 2022) with an emphasis on environmental sustainability proposals for the territories.

The purpose of the review of the aforementioned documents was to identify the policy implementation instruments in the PNDR governance structure, in its new decree no. 11.962/2024, with emphasis on the Policy Chamber and the Regional Intelligence Center (NIR), respectively fulfilling the functions of a space for deliberation of policy guidelines and for monitoring and evaluating the policy. The PNDR strategy is multi-scale, and for this reason, the Amazônia Sustentável Plan (PAS) and the Regional Development Plan for the Amazon (PRDA) were positioned as fundamental to understanding the proposals for development in the Amazon region. The analysis of the FNO management reports assumed central importance to assessing the programs that addressed environmental sustainability, seeking to frame the position that the programs occupied based on the environmental sustainability policy agenda.

In the Economic Dimension, the analysis was based on quantitative data on FNO financing in the Amazon, obtained through the Information Transparency Law from Banco da Amazônia S.A. (BASA). Based on the assessment carried out in the FNO Governance Dimension in relation to its programs and based on the priority main areas established by the PRDA, it sought to calibrate the analysis of the distribution of FNO financial resources in relation to the implementation of the priority given to environmental sustainability programs. The economic activities of two programs were prioritized due to the amounts spent in relation to the others, Amazônia Sustentável and PRONAF. The Quantum Geographic Information System (QGIS) program was used to spatialize the data on the distribution of resources among the economic activities that received the most funding from the aforementioned FNO programs. The spatialization of these data allowed for progress in the argument about the effects generated by the expansion or contraction of FNO economic activities in the Amazon.



## VECTORS OF PRODUCTIVE MODERNIZATION AND DEFORESTATION IN THE AMAZON

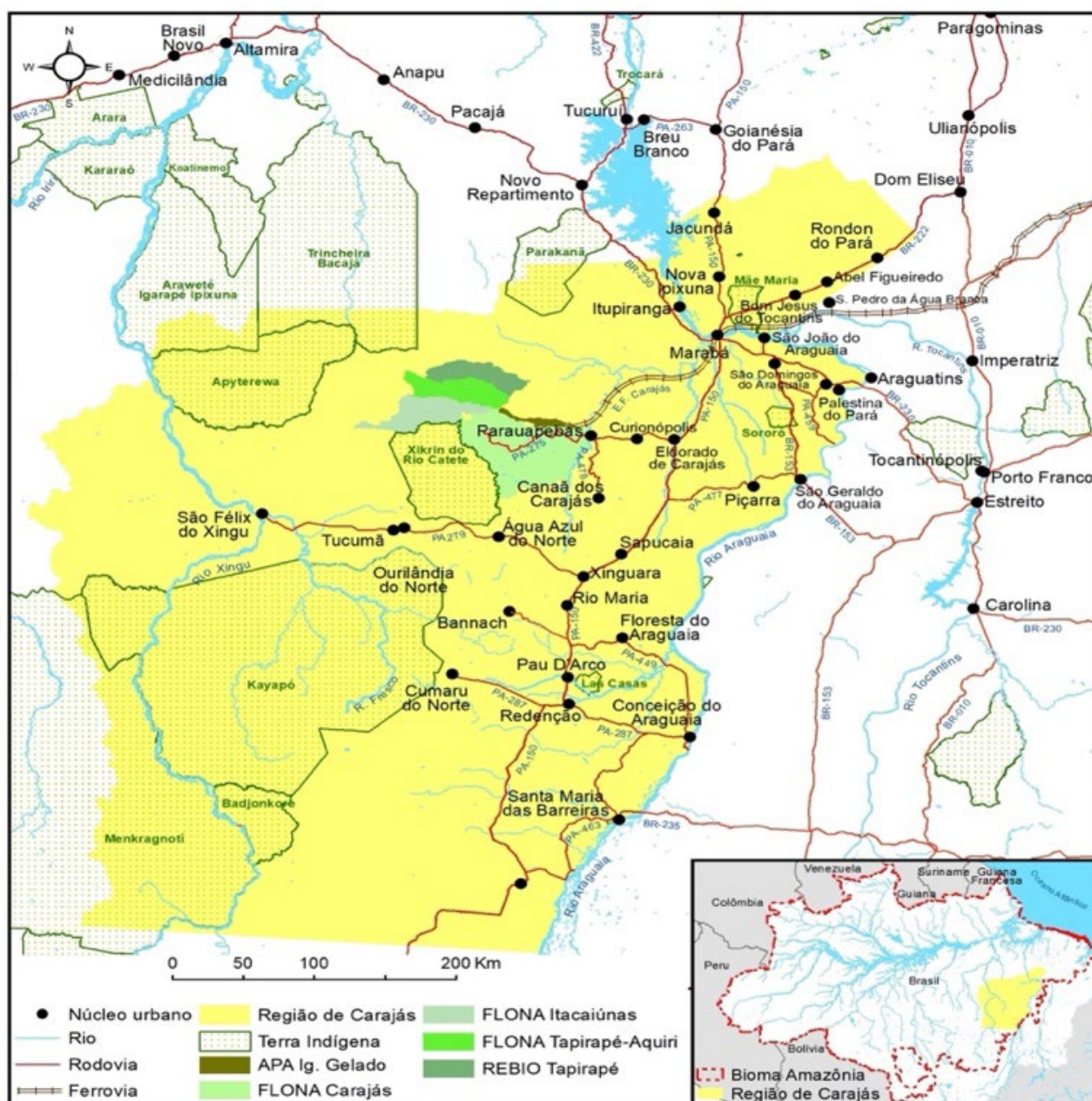
According to Becker (2010), the main vector of expansion of the Amazon frontier was the insertion of Brazil into the global capitalist system at the end of the 20th century, characterized by the interests of industrial and financial capital, with State mediation. According to Becker, the forms of occupation of the frontier can be divided into: a) projects encouraged by the State with the purpose of rapid regional integration, such as large-scale speculative commercial capital, individual farmers, settlers and small capitalized agricultural producers; b) direct appropriation by the State linked to its legitimacy through the implementation of official colonization aimed at distributing land, creating territories for its direct management in areas of land conflicts, management associated with private companies – as in the case of the Grande Carajás Program. The expansion of the Amazon frontier allowed financial capital to establish itself and be incorporated into the global logic and fragment the nation in this space.

The first dimension analyzed is the Dimension of the History of the Institutional Trajectory, supported by the critical analysis of the actions institutionalized by the State. In the period from 1966 to 1988, the Superintendence of the Development of the Amazon (SUDAM) guided the economic integration of the Amazon with the other regions of Brazil, demarcating the trajectory of regional policies in the Amazon. One of the fronts of economic integration of the Amazon in the national economy was the mesoregion of Carajás, in Pará, by reconciling sectoral state investments in the economy and infrastructure from 1968 to 1982 in the implementation of mining projects, such as the Polamazônia Carajás, of 1976, the Carajás Amazônia Mineração S.A. Project (1973), the Grande Carajás Project (1982), and the Master Plans of the Industrial Districts of Barcarena, Tucuruí and Marabá (1982).

Monteiro and Silva (2023) argue that the Carajás mesoregion, located in Southeastern Pará, was logistically integrated at the intersection of the Northeast connected to Maranhão with Tocantins and Mato Grosso, interconnecting the connecting branches with the Central-West, both articulated with the logistics modes for insertion in the Amazon.



Figure 1 | Regionalization of Carajás (PA)



Source: Monteiro and Silva (2023).

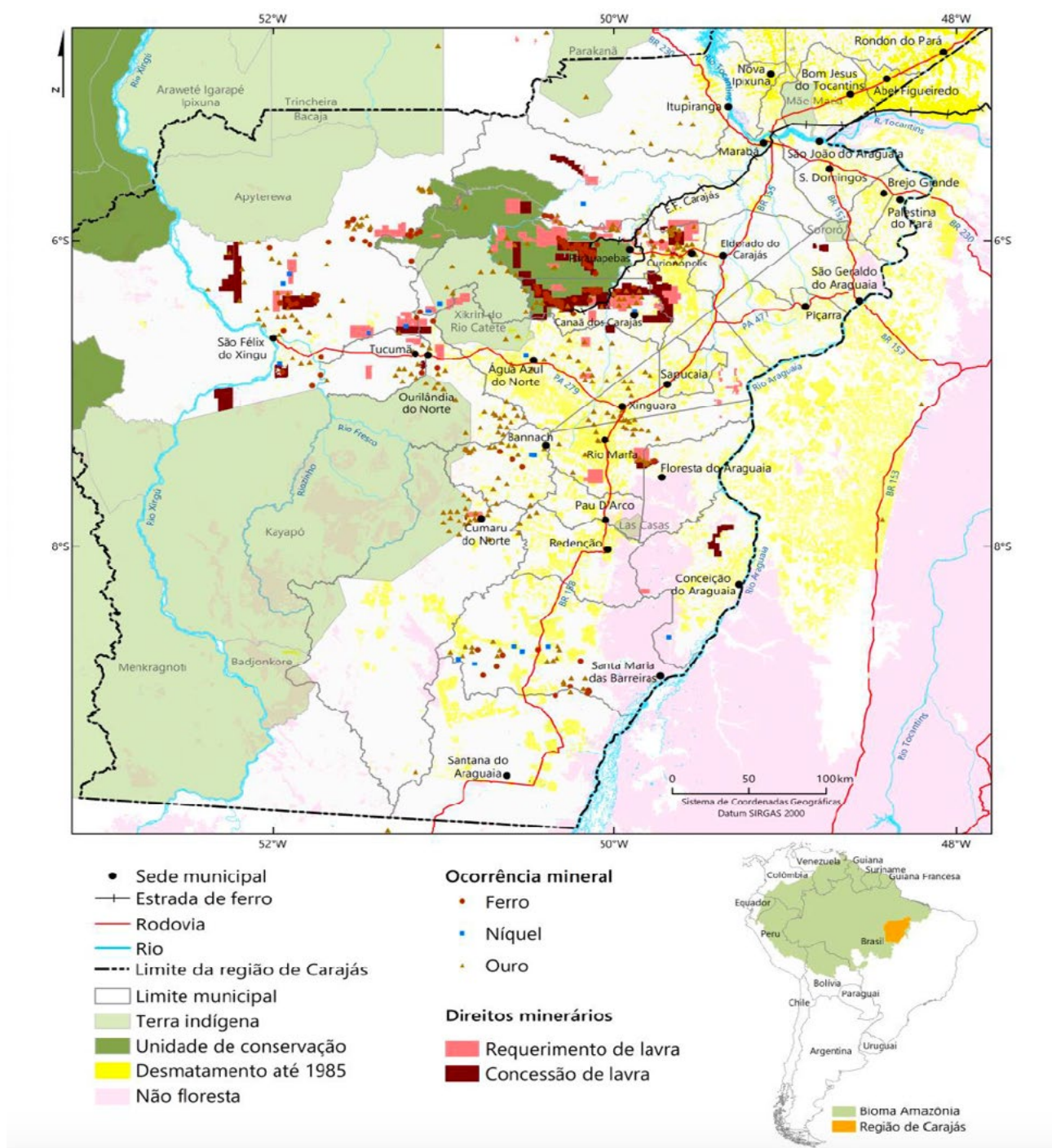
The authors mentioned above position the determination of the productive configuration in the Amazon, specifically in Carajás, as vectors of modernization of expansion and extension guided by the productive forces for the accumulation of capital in the space. In 1896, there was the insertion of the exodus of cattle to Araguaia and the institutionalization of colonization in the valleys of the Pau d'Arco and Itacaíunas rivers. Later, at the beginning of the 20th century, the vector mobilized by the demand for rubber extraction drove the installation of the Tocantins railway, and the exploration of Brazil nuts strengthened the insertion of the occupation by the migration of a regional oligarchy, followed in the last quarter of the 20th century by investments in infrastructure by the State to strengthen the productive structure of mineral extraction in Carajás.

The aforementioned authors position the frontier as a fertile space for the articulation of the accumulation and absorption of surplus capital and labor, especially in times of crisis, with productive restructuring guided by the relationship between lower production costs and (re)valuation based on the demand for commodities. In the meantime, the advance of capital to the frontier comes from investments in capital by the State and private initiative, mainly in new spatial infrastructures, which are positioned in the region as articulating backbones for the extraction and production of commodities, directed towards exports. It is in this context that the Carajás region is the result of productive modernization combined with its insertion in two scales related to the spatialization of commodity production: the first is related to the national scale due to economic integration in the labor market; and the second is the global scale determined by the position in the international division of labor of the country (Monteiro and Silva, 2023).

Fernandes (2023) pointed out the transformation of Amazon space by highlighting the infrastructure projects that were related to the process of integrating Amazon into the national economy. The projects that were part of this strategy were related to infrastructure logistics through highways and railways, to support the installation of production centers specialized in mineral extraction and agricultural production. This transformation of the space in the Amazon throughout the 1970s until 2007 drove migration and urbanization in the wake of the widespread deforestation practices in the Amazon rainforest.



**Figure 2** | Deforestation of the Amazon rainforest in Carajás-PA until 1985



Source: Fernandes (2023).



The main state sectoral investments in infrastructure logistics guided by projects from 1970 to 1986 were the Trans-Amazonian Highway (BR230), PA150 (BR155), PA-477 (OP-1), BR-153 (OP-2), PA-279 PA-275, Marabá Airport, Tucuruí Hydroelectric Plant, and Carajás-Ponta da Madeira Railway, which were intended to support mining projects combined with projects to settle immigrant labor through urbanization and colonization. The effects of this process resulted in the expansion of migration, mainly of workers from the Northeast, and in the deforestation of the Amazon rainforest along highway main areas with the emergence of new municipalities. From 1987 to 2007, the installation of steel mills, the expansion of the Tucuruí Hydroelectric Plant and the Carajás Railway advanced deforestation in the Castanhais Polygon with the insertion of livestock expansion in the Southern Pará, in São Félix do Xingú (Fernandes, 2023).

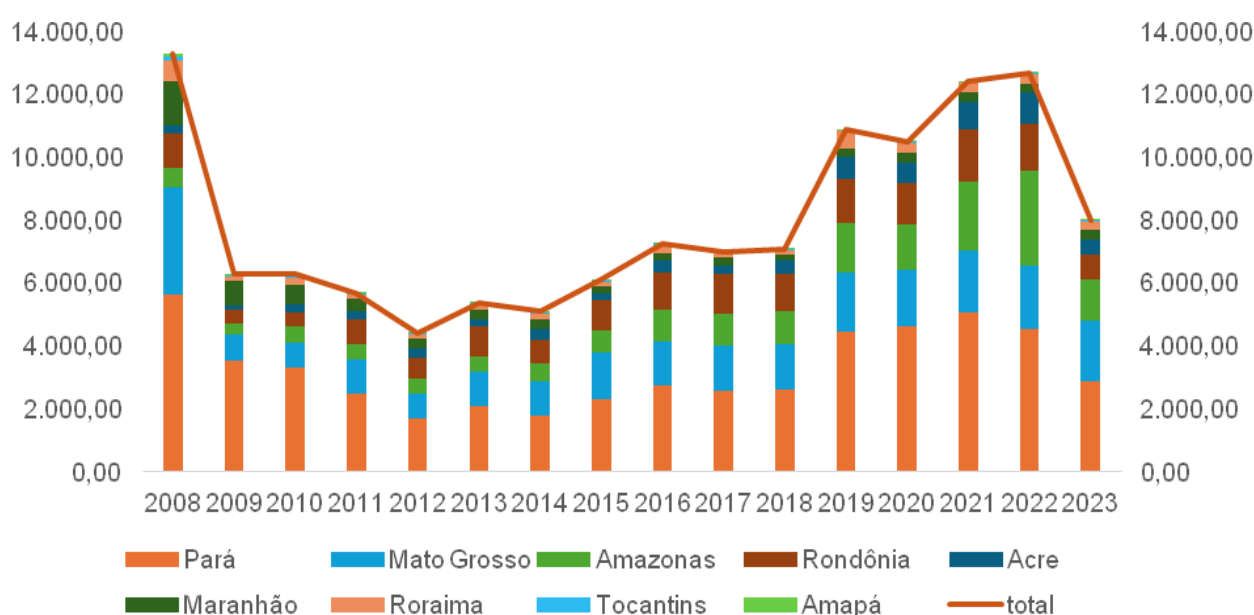
Becker (2010) endorses the strategy for implementing the mining extraction process in Southeastern Pará, which had strong state participation in the construction of infrastructure and logistics, such as the Tucuruí HPP, between 1974 and 1984, which allowed the integration of the transnational space with the local space, through the global logistics transport system. According to Michelotti (2019), the territorial dynamics of infrastructure projects in Southeastern Pará have different effects, namely, the first is the consolidation of centrality through the installation and connection that the logistics and electricity generation infrastructure branches exert between adjacent territories and with the global circuits of production and reproduction of capital. The Carajás mesoregion can be positioned as the epicenter of the polarization exerted by road, rail, waterway and air transport routes, giving the urban network and productive projects an important point of integration between the Amazon, the Northeast and the Eastern part of the Central-West.

Rodrigues and Monteiro (2023) highlight the deforestation and environmental degradation of the Amazon resulting from the vectors of modernization of the region. In this process, biological diversity is replaced by the construction of industrial plants for the commodification of natural resources and logistical infrastructures and the generation of electricity, substantiating the logic of capital accumulation subsidized by natural resources. Another important vector to be pointed out that puts pressure on this deforestation process is the predominance of the agricultural paradigm, supported by cattle ranching and soy agriculture, which hegemonize the agrarian paradigm, compromising the sustainable development of the Amazon.



In the historical series of Figure 1, the movement of deforestation of the Amazon rainforest initially reduces from 2008 to 2014, to later contrast with the increase from 2015 to 2022, in which Pará led the deforestation ranking among the federative units of the North. Pará expanded from 2,306 km in 2015 to 5,086 km in 2022, the year in which it reached the highest deforestation, followed by the state of Amazonas, which increased deforestation in 2016 compared to the series of previous years, 1,003.49 to 3,047.68 in 2022. In third place was the state of Mato Grosso, which increased from 1,496.18 (2015) to 2,020.62 (2022).

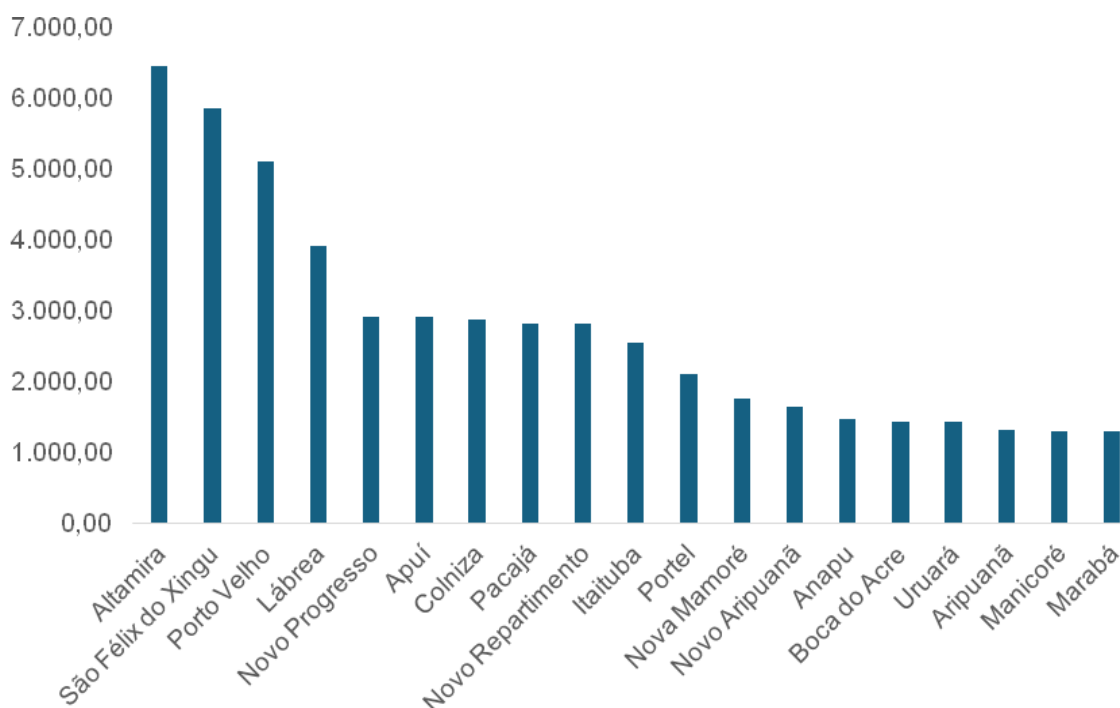
**Graph 1** | Total deforestation and deforestation by federative units from 2008 to 2023 (area km<sup>2</sup>)



Source: Prodes INPE (2024).

The ranking of the five municipalities with the highest deforestation rates recorded Altamira (PA) 6,445 km<sup>2</sup> and São Félix do Xingú (PA) 5,836.89 km<sup>2</sup>, later Porto Velho (RO) 5,091. km<sup>2</sup>, Lábrea (AM) 3,905 km<sup>2</sup>, and Novo Progresso (PA) 2,910 km<sup>2</sup>. Pará emerged as the state with the largest number of municipalities in the deforested area, also represented by Pacajá 2,813 km<sup>2</sup>, Novo Repartimento 2,812 km<sup>2</sup>, Itaituba 2,533 km<sup>2</sup>, Portel 2,100 km<sup>2</sup>, Anapu 1,471 km<sup>2</sup>, Uruará 1,421 km<sup>2</sup> and Marabá 1,286 km<sup>2</sup>.

**Graph 2** | Deforestation Ranking by Municipalities in the Amazon (area km<sup>2</sup>)



Source: Prodes INPE (2024).

Based on this configuration, it is possible to understand that Pará has marked differences in terms of the polarization of primary activities, related to the agricultural paradigm related to mechanics, chemistry and genetics, mobilizing the effect of homogenization of species, supporting gains in production, productivity, income and scale in agricultural systems guided by monoculture, covering an increasingly larger number of lands that are subjected to this productive dynamic. The deforestation process occurs as a first movement of this process for the subsequent implementation of the agricultural paradigm in the territories (Folhes and Fernandes, 2022).

## **POLICY AND REGIONAL GOVERNANCE INSTRUMENTS FOR THE AMAZON: THE PLACE AND TIME OF SUSTAINABILITY IN THE PUBLIC POLICY AGENDA**

The Governance Dimension systematized the multi-scale analysis of the institutional structure of the PNDR, related to the policy guidelines and objectives, covering the Amazon macro-regional plan, and the implementation instruments through FNO financing resources. The systematization aimed to assess the repositioning of environmental sustainability in the regional policy agenda and how FNO financing programs were revised based on the importance of the sustainability policy agenda for the environment.

In 2003, regional policy in Brazil was resumed on new bases and strategies, through the National Policy for Regional Development (PNDR) to reduce territorial asymmetries with prognoses based on the territorial specificities of Brazilian regions. The PNDR has different versions that are embodied in different moments delimited by the institutional context of the federal government, endorsed by three important decrees that supported its existence from 2007 to 2024: Decree No. 6,047 (February 22, 2007) which created the National Policy for Regional Development (PNDR); Decree No. 9,810 (May 30, 2019) which instituted the second phase of the PNDR and revised the methodology of the typology of microregions; and Decree No. 11,962 (March 22, 2024) which inaugurated the indicators for monitoring and evaluating the PNDR.

The three PNDR decrees were compared in relation to strategies for environmental sustainability as a decisive factor in relation to territorial inequalities and ongoing climate change in Brazil and specifically in the Amazon.

The PNDR governance system implemented in the first version of the policy, by Decree No. 6,047 (February 22, 2007) and more systematically by the document “National Policy for Regional Development PNDR”, published by the Secretariat for Regional Development Policies (SDR), of the Ministry of National Integration (MI), in 2007, presented as a system of institutional organization on a national scale, two instruments: the Chamber for National Integration and Regional Development Policies and the Federative Articulation Committee, both under the coordination of the Civil House of the Presidency of the Republic (Brazil, 2007).





At the macro-regional level, the Superintendence for the Development of the Amazon (SUDAM), the Superintendence for the Development of the Northeast and the Superintendence for the Development of the Central-West (SUDECO) were responsible for producing macro-regional plans directly related to the objectives and methodology of the PNDR. The Amazônia Sustentável Plan (PAS), the Strategic Plan for Sustainable Development of the Northeast (PDNE) and the Strategic Plan for the Development of the Central-West (PDCO) were positioned as strategic for the formulation of projects for the territories (Brazil, 2007).

Decree No. 9,810 (May 30, 2019) of the PNDR reinforced the principles of social participation in the formulation and deliberations of policy actions in the territories, federative cooperation between the federative units and the union, the intersectoral nature of the policy by proposing to be transversal, multi-scale action in the territories, sustainable development, priority in the specificities of biomes due to the environmental, social, cultural and economic diversity of the regions, promotion of productive dynamics that prioritize equity and competitiveness, and the sustainability of productive processes (Brazil, 2019).

Among the strategies recommended by Decree No. 9,810/2019, the PNDR governance system provided for the formulation of the Regional Intelligence Center (NIR), supervised by the former Ministry of Regional Development and current Ministry of Integration and Regional Development (MIDR) in dialogue with the SUDAM, SUDECO and SUDENE Superintendencies, which was tasked with formulating a monitoring and evaluation system for the PNDR (Brazil, 2019).

The governance system began to be operated by the Chamber of National Integration and Regional Development Policies, proposed since Decree No. 6,047/2007. The Chamber of National Integration and Regional Development Policies became responsible for reviewing the PNDR and regional development plans, so that it has autonomy in the approval and review of sub-regional plans, programs and actions, and in the characterization of the territorial limits of the PNDR priority areas and their typology (Brazil, 2019).

The PNDR intervention scales established by Decree No. 6,047/2007 remained the S.A.me, considering the macro-regional and sub-regional scales. The PNDR typology will be reviewed every

ten years by the IBGE Demographic Census, and the immediate geographic regions were positioned as a guideline for the territorial division adopted by the typology (Brazil, 2019).

The areas of action of the PNDR are divided into sectoral themes, namely, “productive development; science, technology and innovation; education and professional qualification; economic and urban infrastructure; social development and access to essential public services; and strengthening of the governmental capacities of the federative entities” (Brazil, 2019, p. 4).

Responsibility for formulating the PNDR macro-regional plans remains under the tutelage of the Regional Superintendencies, of which SUDAM is responsible for the Amazon Regional Development Plan, SUDENE is responsible for the Northeast Regional Development Plan, and SUDECO is responsible for the Northeast Regional Development Plan. Consequently, the instruments that make available for the operationalization of the actions of the PNDR objectives and plans come from the Northern Constitutional Financing Fund (FNO), the Constitutional Fund for Financing the Northeast (FNE), and the Central-West Constitutional Fund for Financing the (FCO) (Brazil, 2019).

The monitoring and evaluation of the PNDR are the responsibility of the NIR, regarding the financial instruments, plans and programs of the regional policy. The National Information System for Regional Development is responsible for the qualitative and quantitative indicators of the FCFs. The Ministry of Regional Development is responsible for preparing the Quadrennial Evaluation Report of the PNDR, which will be prepared jointly by SUDENE, SUDAM and SUDECO, in relation to the measurement of inequalities and indicators that are assessed by the new parameters of the regionalized goals (Brazil, 2019).

Decree No. 11,962/2024 of the PNDR maintained the governance system formulated in Decree No. 9,810/2019, constituted by the Chamber of National Integration and Development Policies and its Executive Committee. The instruments remained divided into PNDR planning, which are articulated according to the macro-regional plans, divided by the Amazon Regional Development Plan, the Northeast Regional Development Plan, the Central-West Regional Development Plan and the sub-regional development plans. And the financing instruments are anchored in the Constitutional Financing Funds (FCFs) and by the general budget of the Union (Brazil, 2024).



The responsibility for planning, managing and evaluating FCFs lies with the Regional Superintendencies, SUDAM, SUDENE and SUDECO, to later be organized into reports for the insertion of this data for the management and maintenance of the National Regional Development Information System.

In Chapter V, Decree No. 11,962/2024 of the PNDR, the Regional Intelligence Center was established with the function of producing knowledge and information related to the PNDR, constituted by members of the Ministry of Integration and Regional Development, SUDAM, SUDENE and SUDECO for the formulation of information about monitoring and evaluation of regional development. The National Information System for Regional Development has the function of monitoring and evaluating the financial instruments on the regional and sub-regional plans, programs and actions of the PNDR. They are complemented by qualitative and quantitative indicators to measure the performance of the FCFs (BRASIL, 2024).

The annual monitoring reports of the PNDR are referenced by the indicators contained in each strategic axis and goals proposed by the Deliberative Councils of the Superintendencies for the Development of the Amazon, the Northeast and the Central-West. The Executive Committee of the Chamber for National Integration and Regional Development Policies is responsible for approving the annual report.

The issue of environmental sustainability and its leading role emerged in the macro-regional plan for the Amazon and in its sub-regional plans. The PAS follows this path as a strategic plan containing sub-regional plans such as the Sustainable Regional Development Plan for the Area of Influence of Highway BR-163 (Cuiabá-Santarém), the Sustainable Territorial Development Plan for the Marajó Archipelago and the Sustainable Regional Development Plan for Xingú.

The Amazon regional policy for sustainable development has as its preamble the tactical level, provided by programs, and the operational level, applied by projects. The thematic main areas of the PAS programs are: (i) Territorial Planning and Environmental Management, (ii) Sustainable Production with Innovation and Competitiveness, (iii) Infrastructure for Development and (iv) Social Inclusion and Citizenship. There was a greater focus on the following main areas, the

implementation of actions related to environmental sustainability. The thematic axis of Territorial Planning and Environmental Management prioritized the land regularization of rural settlements, the preservation of conservation units, the demarcation of Indigenous Lands, and environmental monitoring and control. The thematic axis of Sustainable Production directed efforts to the financing of sustainable projects, covering technical assistance and science and technology, through forest management and forest extraction for fauna and flora, prioritizing traditional populations, associating sustainable tourism and ecotourism (Brazil, 2008).

The PNDR is structured in macro-regional plans, among which it is worth highlighting that the MIDR, in dialogue with SUDAM, formulated the reference document Regional Development Plan for the Amazon (PRDA) for the four-year period 2024 – 2027, established by Law 5787/23, under analysis by the Chamber of Deputies.

The PRDA (2024-2027) was institutionalized based on the premises of the version of the aforementioned plan in 2020-2023, embodied by the sustainable use of biodiversity through the production chains of the bioeconomy, with an emphasis on the strategic main areas called productive development; research, innovation and education; economic and urban infrastructure, strengthening of the government capacities of subnational entities, education and social development and access to essential public services.

The PRDA (2024-2027) activities are organized into six areas of action. Its programs are defined as intersectoral in order to create a coalition between the different federal government departments.

**Table 1. PRDA main areas and programs (2024-2027)**

Main area	Program
Productive Development	Bioeconomy for Sustainable Development
	Inclusive and Sustainable Agriculture
	Sustainable Industry and Services
Research, Innovation and Education	Scientific, Technological and Innovative Development of the Amazon
	Human Capital Qualification
Economic and Urban Infrastructure	Logistics and Integration
	Rural and urban infrastructure
Environment	Environmental Conservation and Sustainability
Strengthening the Governance Capacities of Subnational Entities	Strengthening Municipal Public Management
Social Development and Access to Essential Public Services	Productive Inclusion
	Social Welfare

Source: SUDAM (2023).

The PRDA (2024-2027) governance model operates at different government scales, orchestrated by the Chamber of National Integration and Regional Development Policies guided by the PNDR, and agreed upon with the projects coordinated by the SUDAM CONDEL for application in the Amazon states.

The organization of functions in the PRDA (2024-2027) governance system includes the preparation and review of the planning carried out by MIDR and SUDAM. The sources of financing for the PRDA (2024-2027) are the Northern Constitutional Financing Fund (FNO), the Amazon Development Fund (FDA) and the General Budget of the Union and the Amazon states. The following is an analysis of the FNO programs and projects that are subsidizing projects in the area of environmental sustainability through financial resources.

## THE DISTRIBUTION OF FNO INVESTMENTS IN ENVIRONMENTAL POLICIES IN THE AMAZON IN THE 21ST CENTURY

The Economic Dimension assessed data on resources financed by the FNO according to its programs. The analysis was supported by the filters applied in the analysis of the financial resources of the FNO and the following balance movements were compared: a) analysis of financing data by programs for the Northern states; b) balance of economic activities financed by the Amazônia Sustentável and PRONAF programs; c) application of cartography to assess the spatial distribution of resources financed by the FNO in the aforementioned programs.

The management of the Banco da Amazônia follows the hierarchy established by the Ministry of Integration and Regional Development (MIDR) and the Deliberative Council of the Superintendence for the Development of the Amazon (CONDEL/SUDAM). According to the guidelines of Act No. 34 (August 12, 2016) of CONDEL/SUDAM, FNO resources must be guided by the National Policy for Regional Development (PNDR) and the Regional Plan for the Development of the Amazon (PRDA). The focus is to economically encourage the local and regional production base supported by sustainable and inclusive development policies, considering the scope of the FNO.

The regulations that established the Banco da Amazônia's programming were formulated by the following institutional documents: MDR Ordinance No. 1,369 (July 2, 2021) CONDEL/SUDAM Proposition No. 128 (July 30, 2021) and CONDEL/SUDAM Resolution No. 90 (August 13, 2021). The guidelines for the operation of the aforementioned bank are Law 10,177/2001, Law No. 13,530/2003, Law No. 14,227/2021 and the resolutions of the National Monetary Council (CMN) that specifically deal with the interest rates of the Constitutional Funds and Interministerial Ordinance No. 279 (July 20, 2020) on investment, working capital, innovation, water and sewage infrastructure and investment logistics operations for individuals (Basa, 2022).

The origin of the FNO is a result of the Federal Constitution of 1988, instituted by Law 7.827/1989, and later amended by Laws 9.126/1995, 10.177/2001 and Law 14.227/2021. The financial resources of the FNO are allocated according to article 6 of Law 7.827/1989, 0.6% of the proceeds from the collection of Income Tax (IR) and Tax on Industrialized Products (IPI) (Basa, 2022).



The promotion of production and environmental management strategies must be defined in Ecological Economic Zoning (ZEE) through local production arrangements to stimulate regional production chains, support family farmers, promote the formation of the regional scientific and technological base through the sustainable use of natural resources and in areas for the recovery of legal reserves and degraded areas, and in projects that reduce greenhouse gas emissions to consolidate a low-carbon economy (Basa, 2017).

The policy used by Banco da Amazônia regarding the foundations for sustainable development is linked to the procedural standards “Socio-environmental Aspects in Credit”, named Socio-environmental Policy in Credit, updated in 2018, which established social and environmental sustainability criteria for offering credit lines for sustainable economic development (Basa, 2018).

Credit operations carry out socio-environmental analysis guided by the use of remote sensing for inspection, registration of geodetic coordinates, in addition to the analysis of socio-environmental risks of rural credit operations in the Legal Amazon. The geodetic coordinates of the financed projects generate a registry of information on the rural producer, analysis of the Rural Environmental Registry (CAR), analysis of changes in land cover and the socio-environmental compliance of rural projects (Basa, 2018).

The balance of the FNO management reports by Banco da Amazônia from 2008 to 2022 presented the following financing line programs, including new programs over these years.



**Table 2 | FNO programs and financing lines (2017-2022)**

	Financing Programs	Environmental and sustainability financing line
2017 - 2019	<p>The programs remained and financing lines were included from 2018 onwards, as outlined by the PRDA.</p> <p>National Program for Strengthening Family Farming (FNO-PRONAF);</p> <p>Amazônia Sustentável Development Financing Program (FNO-Amazonia Sustainable);</p> <p>Financing Program for Biodiversity Maintenance and Recovery Amazon (FNO-Biodiversidade);</p> <p>Micro and Small Business Financing Program;</p> <p>Individual Microentrepreneurs (FNO-MPEI); and</p> <p>Financing Program in Support of Low Carbon Agriculture (FNO-ABC).</p>	Family Farming granting credit to guarantee minimum prices and income guarantee
		Sustainable Agriculture distributed through credit directed to medium-sized rural producers in the Northern Region by the National Support Program for Medium-sized Rural Producers, expanding access to rural credit, knowledge formation and adoption of low-carbon agriculture and financing for cooperatives and rural associations to guarantee sustainability.
		Regional Culture – territorial planning through occupation and use of space in a sustainable way.
		Regional and Territorial Development – granting of credit to promote sustainable productive activities.
		Micro and Small Businesses - Granting credit to micro and small businesses and individual microentrepreneurs.
		Tourism - Granting credit for regional tourism.
		Conservation and Sustainable Use of Biodiversity - Financing of projects in forest management, maintenance of commercial forests and reforestation..
		Fishing and Aquaculture - Stimulate the expansion of aquaculture and fishing production in a sustainable and competitive manner.
		Promotion of Decent Work and Solidarity Economy - granting credit directed towards entrepreneurial activities and productive microcredit.
		Promote Sustainable and Inclusive Development by financing low, stagnant and middle-income municipalities, and dynamic low-income municipalities of the PNDR.
		FNO-Biodiversidade implementation of the regional scientific and technological base to finance afforestation, reforestation and sustainable management.
		Support projects aligned with production and environmental management strategies defined in Ecological Economic Zoning (ZEE).
		Financing for family farmers, mini and small rural producers from associations and cooperatives and individual microentrepreneurs.
		FNO-ABC Financing activities to reduce greenhouse gas emissions, for a low-carbon economy.
2020	<p>Inclusion of programs and new financing lines. Maintaining the traditional PRONAF and ABC/Bio lines.</p> <ul style="list-style-type: none"> <li>• Infrastructure Support Program (FNO-INFRA);</li> <li>• Oriented Productive Microcredit Financing Program (FNO-MPO);</li> <li>• Student Financing Program (FNO - FIES).</li> </ul>	PRONAF.
		ABC/BIO.
		Green Energy.
		Science.
		Other Rural.
		Agribusiness.



2021	The programs incorporated as new were divided into the themes of financing the agricultural sector and business initiatives. Financing Program in Support of the Rural Sector (FNO-AMAZÔNIA RURAL); Financing Program to Support the Business Sector (FNO-AMAZÔNIA EMPRESARIAL).	Guidance of the FNO and the federal government's sectoral and macroeconomic policies in accordance with the PRDA and PNDR .
		Promote Sustainable and Inclusive Development with an emphasis on the regional production base in a competitive manner in the national and international economy.
		Qualify and train the workforce in the region to work in accordance with the guidelines for regional development through FIES.
		Use of Science, Technology and Innovation to recover degraded and altered legal reserve areas on rural properties.
		Support for activities aligned with production and environmental management strategies defined by the Ecological Economic Zoning (ZEE).
		Promotion of tourism and productive activities that value regional culture.
		Financing activities to reduce greenhouse gas emissions, for a low-carbon economy.
2022 - 2023	The programs were maintained without changes. Inclusion of the FNO Irrigation program.	PRONAF Rural Amazon.
		Green Rural Amazon Business Amazon.
		Green Business Amazon Infra Amazon.
		Amazon Infra Green.
		FIES.
		Amazon MPO.
		FNO CT & I.
		FNO IRRIGATION.

Source: BASA (2017); BASA (2018); BASA (2019); BASA (2020); BASA (2021); BASA (2022).

Prepared by the author. The balance of FNO programs and financing lines from 2017 to 2022 can be grouped into two possible analytical perspectives: programs with a traditional focus on the economy and those that included new sectors for project financing. The programs that remained in the FNO financing framework throughout the aforementioned period are: FNO-PRONAF, FNO-Amazônia Sustentável, FNO-Biodiversidade, FNO-MPEI, and FNO-ABC. These programs can be subdivided into two groups: those that meet market dynamics due to credit demand, in the specific case of FNO-PRONAF, FNO-Amazônia Sustentável, and FNO-MPEI. The second group seeks to reconcile a portfolio of economic activities that subsidize the financing of economic activities directly related to environmental sustainability, in the case of FNO-Biodiversidade and FNO-ABC, which have low demand for credit in the market, given the impositions



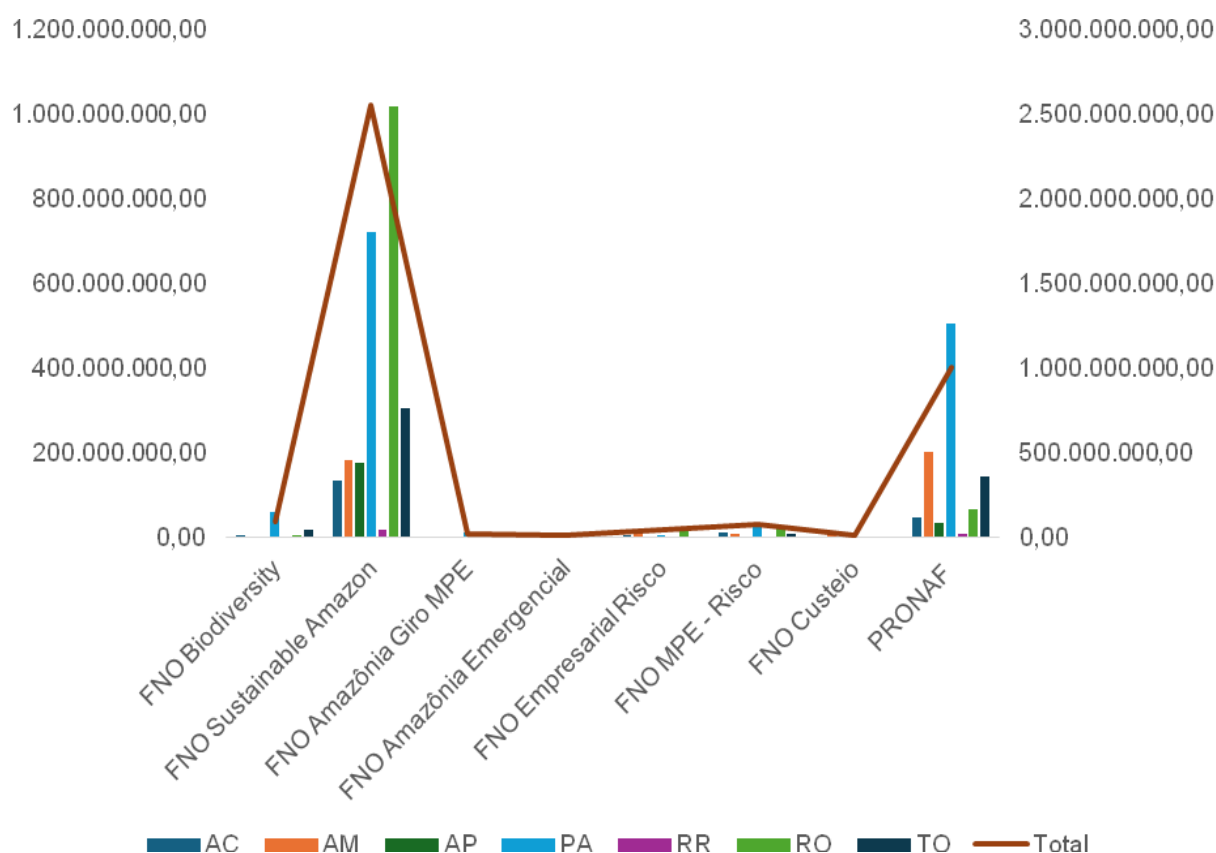
and attributions required by the specificities of the programs. However, over the years, financing lines have been created, which has allowed the design of these programs to be adapted to the PNDR and PDRA, strengthening the key to sustainable and inclusive development.

The programs that were launched from 2020 onwards sought to cover a larger set of sectors and social services to which resources would be applied through financing lines, such as FNO-Infra, FNO-MPO, FNO-FIES, FNO-Amazônia Rural and FNO-Amazônia Empresarial, including FNO-Irrigação last.

The FNO financing lines cover productive segments that directly dialogue with the PNDR and PDRA guidelines, but the analysis of the balance of the data presented shows that in from 2017 to 2022 there was a predominance of traditional programs, such as FNO-Amazônia Sustentável, specifically intended for rural activities, and FNO-PRONAF, responsible for subsidizing family farming. The FNO distribution data for the accumulated period from 2017 to 2022 by programs indicate that FNO-Amazônia Sustentável held 66.89% of the resources distributed, while FNO-PRONAF obtained 26.36% of the resources disseminated, which totals 93.25% of the total available resources that were applied during the referred period.

The balance of data presented in relation to the distribution of the FNO by federative unit recorded the largest volume of resources from the Amazônia Sustentável Program for Rondônia, represented by the amount of BRL 1,014,972,123.90, followed by Pará, which received the amount of BRL 718,803,779.65, and Tocantins received the amount of BRL 305,887,586.84, together accounting for 80 percent of the total value of FNO resources in the Amazônia Sustentável Program. The FNO-PRONAF Program distributed the resources equitably, when compared to the Amazônia Sustentável Program, which concentrated the resources in three states. Pará received BRL 504,183,579.42, followed by Amazonas, which invested BRL 200,359,441.53, followed by Tocantins, which received BRL 143,990,248.74. Rondônia received BRL 67,326,419.50, and Acre received BRL 47,231,739.66. The FNO-PRONAF democratizes credit if it considers the number of operations and the spatial scope it reaches in a more diversified territorial circuit, seeking to implement the prospect of reducing asymmetries in heterogeneous territories in relation to municipal per capita income, one of the main variables used by the PNDR to identify the typologies of microregions.

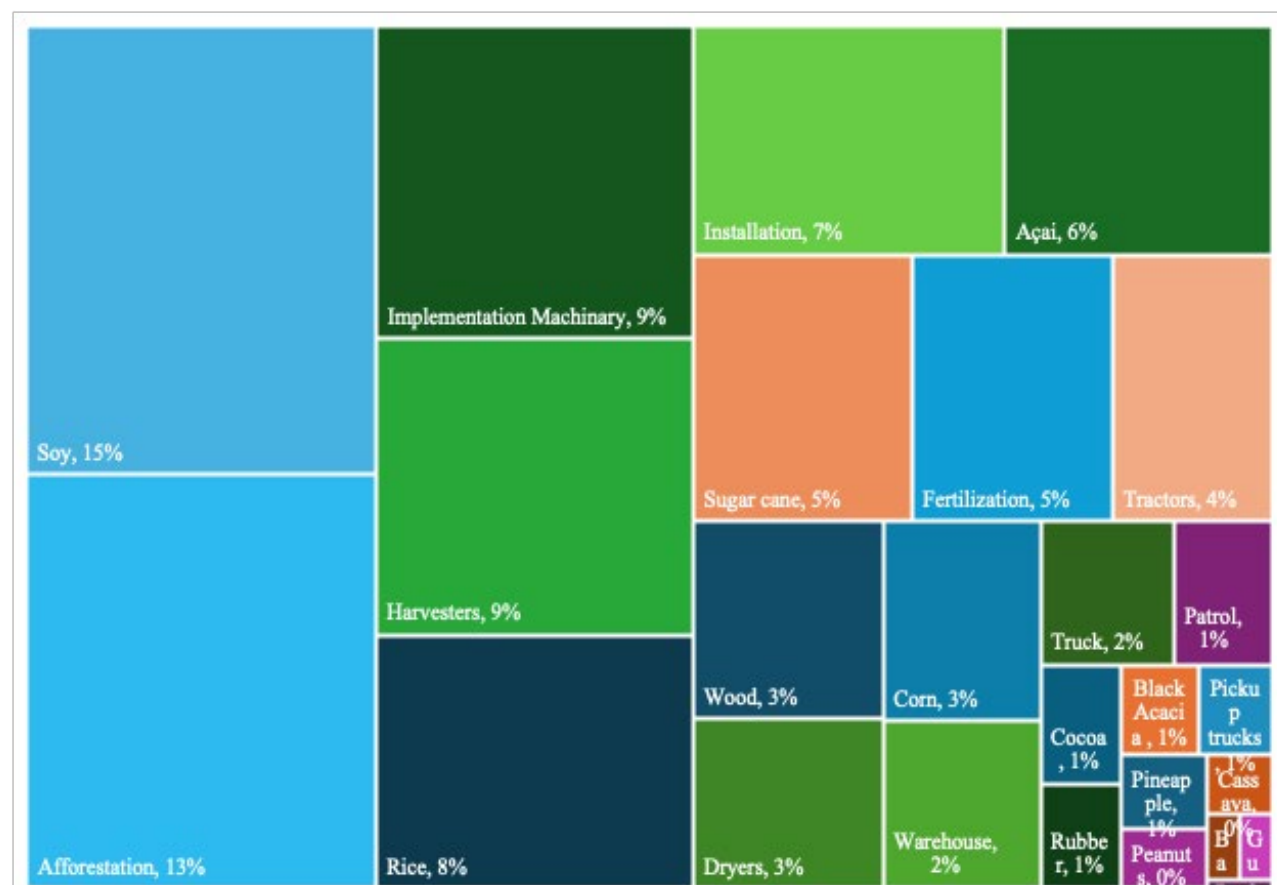
**Graph 3** | FNO Financing Programs by State and total from 2017 to 2022 (in R\$ million)



Source: SUDAM (2022). Prepared by the author.

Based on the concentration of resources spent by the FNO in the FNO-Amazônia Sustentável and FNO-PRONAF programs, the aim was to identify the main economic activities encouraged by the projects formulated within the scope of the financing of this fund. In the Amazônia Sustentável program, the main economic activities financed were soy production with 15%, represented by the value of BRL 19,826,429.83; forestry occupied the second position with 13%, described by the value of BRL 18,342,078.70; the item machinery implements occupied the third position with 9%, represented by the value of BRL 12,553,691.39; harvesters occupied the percentage of 9%, with a nominal value of BRL 11,883,026.81. Despite covering diversity in agricultural crops encouraged by the program, with the exception of forestry activities, there is a bias in strengthening economic activities that mainly dialogue with productive specialization in commodities, knowing that the intensification of investments in soy strengthens the production chain through adjacent segments, such as mechanization of the production process by harvesters and implement machines, together with dryers, warehouse, fertilization, and trucks.

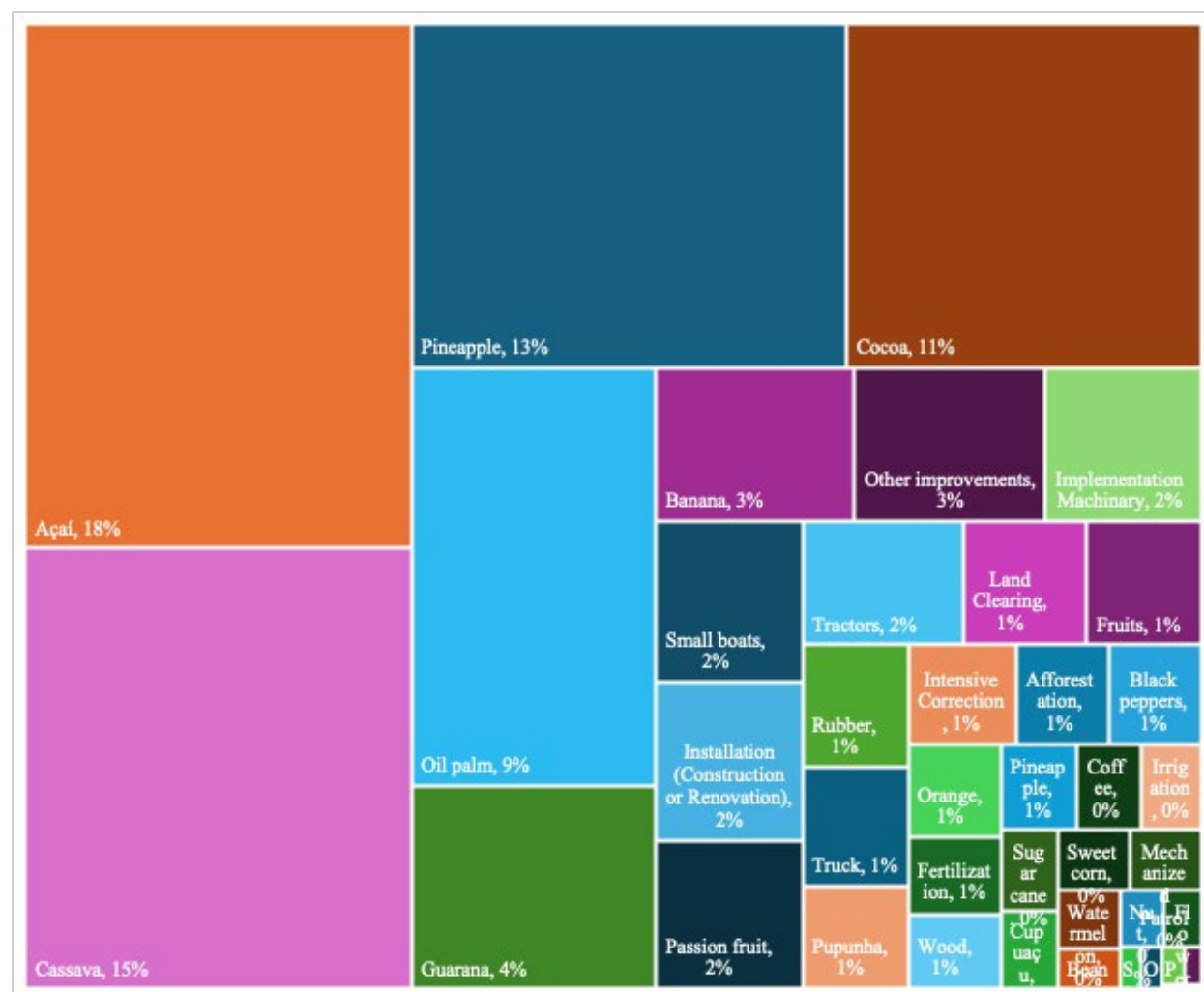
**Graph 4** | Economic Activities incentivized by the FNO-Amazônia Sustentável from 2017 to 2022 (in %)



Source: SUDAM (2022). Prepared by the author.

The FNO-PRONAF Program presented a diversified portfolio in its resource distribution, when compared to the FNO-Amazônia Sustentável, so that the productive crops that predominate have a greater relationship with the specificities of the Amazon biome, in the case of *açaí*, which occupied the first position in relation to the distribution of resources spent with 18%, denominated by the value of BRL 58,852,422.58; cassava was positioned in second place with 15%, represented by the value of BRL 58,852,422.58; pineapple was in third place with the percentage of 13%, considering the value of BRL 43,423,034.44; cocoa occupied the fourth position with 11% of the value, represented by BRL 35,403,052.73; and palm oil appeared in fifth place with 9%, valued at BRL 29,700,586.92.

**Graph 5** | Economic Activities financed by FNO-PRONAF 2017 to 2022 (in %)

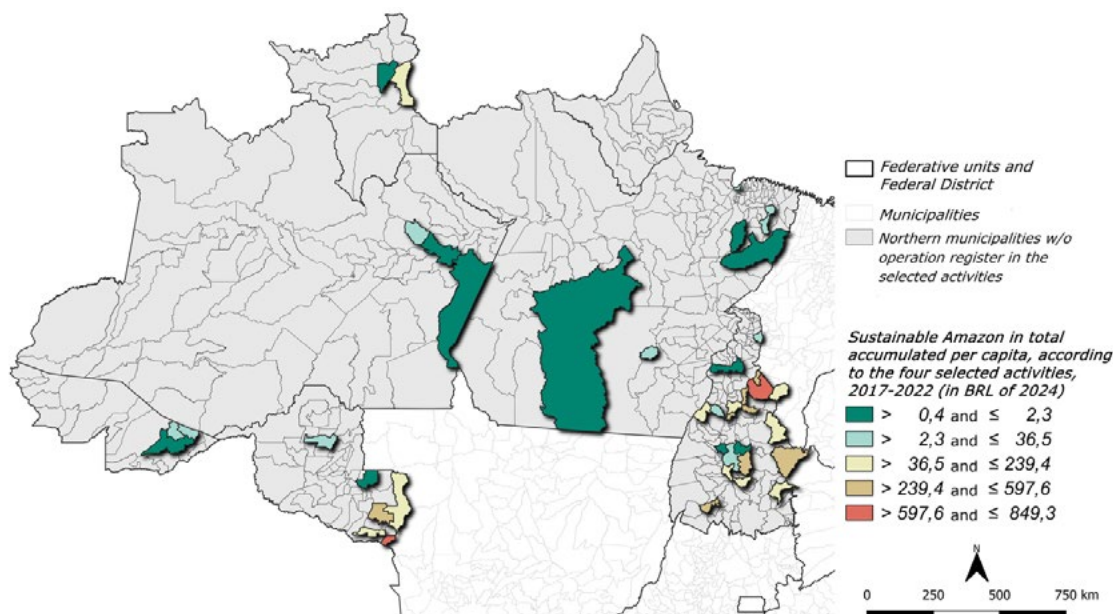


Source: SUDAM (2022). Prepared by the author.

The FNO data were mapped to spatialize and obtain the results related to the FNO programs in relation to the implementation of projects in the territories of the Amazon region. The values of the financial resources of the FNO-Amazônia Sustentável Program and PRONAF were deflated by the value of the Broad National Consumer Price Index (IPCA), from 2024.

The spatial distribution in figure 3 refers to the per capita value of the economic activities that stood out in receiving financial resources from the FNO, in the Amazônia Sustentável Program: soy; machinery and implements; harvesters; and installation.

**Figure 3** | Spatial distribution of the accumulated FNO by the Amazônia Sustentável Program 2017-2022 (per capita in BRL, values deflated from 2024)



Source: SUDAM (2022). Prepared by Quaglio (2025).

At first glance, it is noticeable that the spatial distribution of resources was polarized in some municipalities in the Amazon. In the productive soy crop, the following stood out: Campos Lindos BRL1,981,709.73; Barra de Ouro BRL1,960,875.42; Monte do Carmo BRL1,811,019.84; Figueirópolis BRL1,475,656.25 (Tocantins); and Chupinguaia BRL1,978,428.28 (Rondônia).

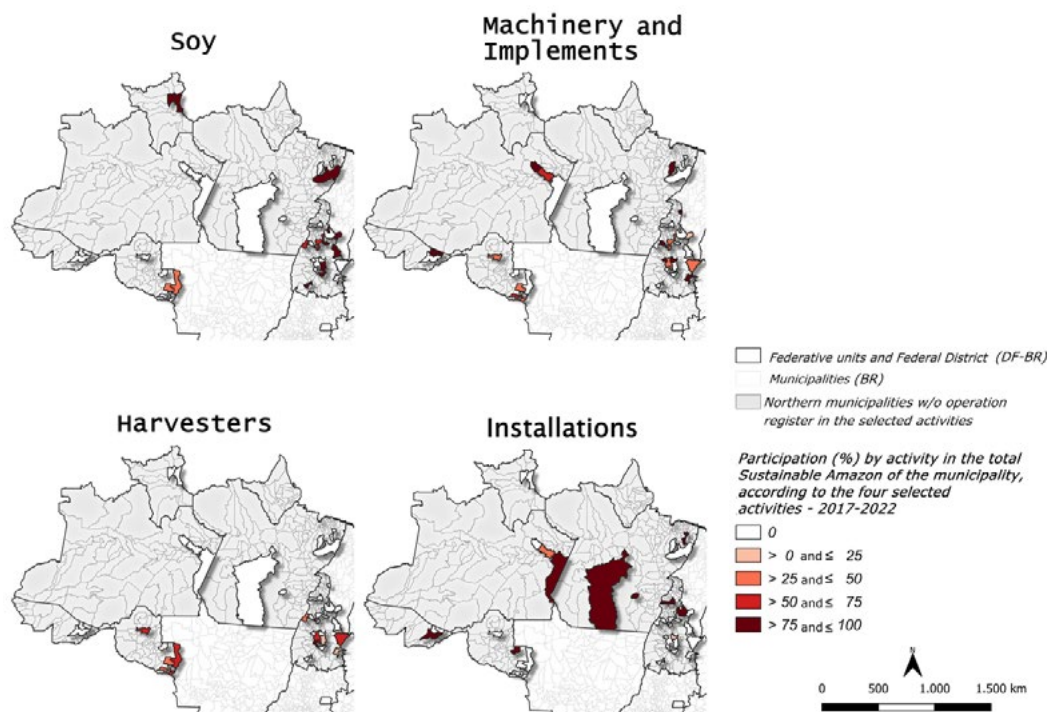
In the purchase of machinery and implements, the municipalities that stood out were Cerejeiras BRL2,209,756.14, Cabixi BRL1,580,240.00, and Chupinguaia BRL1,572,581.97 (Rondônia), and Rio dos Bois BRL1,113,395.40, and Dianópolis, BRL1,648,353.00 (Tocantins).

The financial resources of the FNO in relation to activities related to the purchase of harvesters were highlighted in the municipalities, Vilhena BRL2,718,854.23, Chupinguaia BRL2,334,970.05, Cabixi BRL1,909,231.13 and Ariquemes BRL1,089,720.00 (Rondônia) and Mateiros with BRL833,000.00 (Tocantins).

Furthermore, the financial resources of the FNO directed to the installation of equipment were highlighted in the municipalities, Goiatins BRL7,899,206.30, Araguaia BRL377,408.56 (Tocantins), Rio Branco BRL242,029.02 (Acre), Capitão Poço BRL193,087.50, and Colares BRL186,426.79 (Pará).



**Figure 4** | Spatial distribution of the main economic activities of the FNO in the Amazônia Sustentável Program (in %)

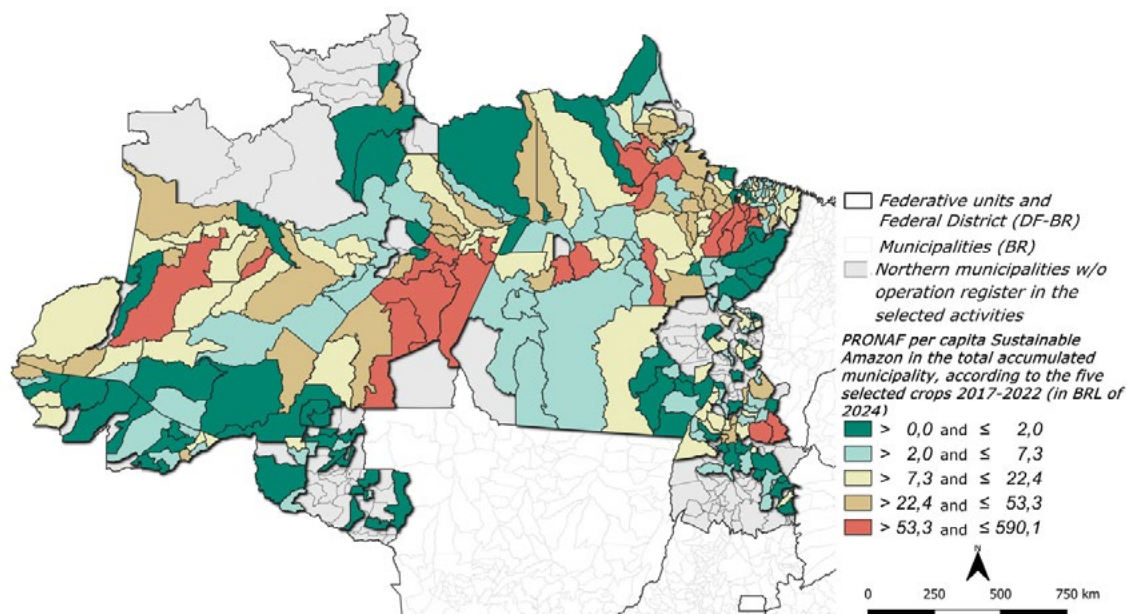


Source: SUDAM (2022). Prepared by Quaglio (2025).

The distribution of FNO data by the PRONAF program covered a larger area of the Amazon, marked by different productive crops in production chains with greater territorialization. The PRONAF data were measured in Figure 1 by per capita distribution considering the activities with the highest percentage of participation, such as *açaí*, cocoa, palm oil, pineapple and cassava.

The data presented revealed little territorial concentration in the municipalities, due to covering a greater number of municipalities, housing demands for financing productive activities in a greater spatialization than in the case of the Amazônia Sustentável Program.

**Figure 5** | Spatial distribution of the accumulated FNO by PRONAF 2017-2022 (per capita in BRL, values deflated from 2024)



Source: SUDAM (2022). Prepared by Quaglio (2025).

The PRONAF data were spatialized into five different productive crops, making it clear that the distribution was close to possible equity. In the case of pineapple, there was a greater concentration of resources in Itacoatiara BRL40,419,692.50 (Amazonas), Miracema do Tocantins BRL564,701.52 (Tocantins), Porto Grande BRL359,001.36 (Amapá), Barreirinha BRL194,138.22, and Itapiranga BRL148,931.73 (Amazonas).

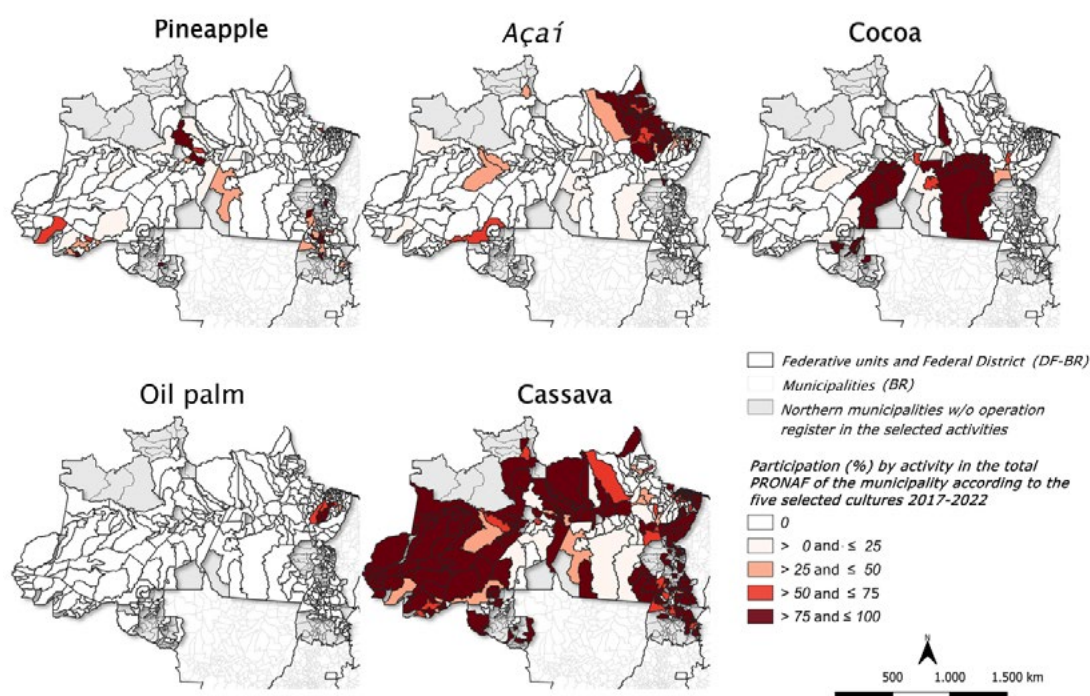
The municipalities that stood out in the distribution of PRONAF resources for the *açaí* economic activity were Igarapé-Miri, with BRL 15,175,910.58, Gurupá BRL4,336,911.46, Barcarena BRL3,217,245.18, and Abaetetuba BRL2,760,046.82 (Pará) and Mazagão BRL5,496,075.63 (Amapá). In the productive culture of cocoa, the spatialization of the financial resources of the main municipalities is located in Borba, BRL6,084,709.60, and Nova Olinda do Norte BRL3,875,480.20, and Autazes BRL2,740,429.72 (Amazonas), Uruará BRL3,808,177.76, and Placas BRL 3,797,943.49 (Pará).



The municipalities that stood out most in receiving financial resources from the FNO for the productive cultivation of palm oil were Tomé-Açu BRL8,524,072.23, São Domingos do Capim BRL8,379,759.37, Tailândia BRL4,357,412.53, Moju BRL3,002,264.31, Acará BRL2,864,321.37 (Pará).

And finally, the resources directed to the productive culture of cassava covered the largest area of municipalities in the Amazon, with emphasis on Maués BRL6,994,670.84 (Amazonas) Aurora do Pará BRL2,512,656.87, Acará BRL,346,231.98, Novo Repartimento BRL1,152,630.40, and Óbidos BRL979,381.36 (Pará).

**Figure 6** | Spatial distribution of the main economic activities of the FNO in PRONAF (in %)



Source: SUDAM (2022). Prepared by Quaglio (2025).

Considering the spatial distribution of economic activities financed by the Amazônia Sustentável and PRONAF programs, the following conclusions can be drawn. First, the economic activities financed by the Amazônia Sustentável Program are aligned with soy production, the demand for machinery and equipment installations used in production, strengthening few municipalities, given that spatialization was concentrated. In the case of PRONAF, the dispersion of financial resources in the Amazon is greater and covers a larger number of municipalities.

It is worth noting that PRONAF made it economically and culturally viable, in accordance with the cultural identities of the territories in the Amazon, for the permanence and strengthening of economic activities. In the case of pineapple, its dispersion is localized in the municipalities of Tocantins, while in the case of *açaí*, it is localized in the lower Amazon, focusing on the productive culture of the river floodplains. Cocoa is localized in the mesoregions of Southeastern Pará, with a dispersion at the intersection with Amazonas. Oil palm covered the Northeastern portion of Pará, while in the case of cassava, there is a strong dispersion throughout the municipalities of the Amazon.

The analysis of the distribution of resources financed by the FNO, represented by the maps produced, reinforces the finding that, although the amounts allocated to PRONAF are smaller in terms of financial volume per project, they are directed to productive crops whose management contributes significantly to the generation of income in family farming. These investments are aligned with the sustainability of the biome, aligning themselves more concretely with the guidelines of inclusive sustainable development, as defined by the FNO.

## FINAL CONSIDERATIONS

The balance of macro-regional policies for the development of the Amazon at the beginning of the 21st century was guided by the repositioning as centrality of the sustainable development dimension guided by the PAS and the PRDA, considering the strengthening of subnational state capacities for the implementation of actions for sustainable development, considering as a preamble the bioeconomy, sustainable agriculture, with scientific, technological and innovative support for the implementation of environmental conservation and sustainability.

The upward trend in deforestation in the Amazon since 2016 has been a priority in diagnoses regarding the spread of regional inequalities and especially in relation to the risks to maintaining environmental sustainability. One of the fronts of deforestation expansion is concentrated in the South and Southeast of Pará, represented by the municipalities of São Félix do Xingú, Novo Progresso, Pacajá, Novo Repartimento, Itaituba, Portel, Anapu, Uruará, Marabá and Altamira, which together contributed to 57% of the deforestation calculated up to 2023.



Based on this context, the methodology used was dimension analysis, the Dimension of the History of the Institutional Trajectory, the Dimension of Governance and the Dimension of Economy, to compare the programs and the financing of economic activities by the FNO, considering as an analysis filter the incentive to the production of economic activities related to environmental sustainability. Among the programs in the FNO business portfolio, two stood out due to the concentration of business operations and volume of committed capital: the Amazônia Sustentável Program and the FNO-PRONAF .

In the first case, the Amazônia Sustentável Program has little diversification in relation to the productive segment incentivized, prioritizing in its financing lines the production of soy and sugarcane combined with the equipment necessary for the cultivation of commodities. In the second case, the FNO-PRONAF housed a diversity of productive crops consistent with the different territorial economic dynamics, which are endorsed by the sustainable management of the biome, so that it increased productivity in the crops of *açaí*, cassava, pineapple, cocoa, oil palm, among other productive crops with an endogenous bias of the Amazon biome.

The governance system of the Amazon macro-regional policy, the PRDA, has advanced in the agenda of sustainable policies for development and the FNO credit lines have been expanded to include new types of project financing related to sustainability. However, there is little acceptance among institutional financing regulations regarding the granting of FNO credit, demonstrated mainly by the concentration over the years 2017 to 2022 of resources from two traditional programs, the Amazônia Sustentável and the PRONAF. The investments of financial resources from the FNO-Amazônia Sustentável exceeded the resources distributed by the PRONAF, which has a greater impact on the reverberation of project financing in agricultural crops with greater adherence to the territorial characteristics of the Amazon biome.

The balance of the financial resources of the FNO can be positioned as a relevant piece for investigations into regional development, as it correlates, through analysis, the advances in relation to the governance of the PNDR, in the institutional field, while also allowing us to assess the extent to which the Constitutional Financing Funds (FCFs) have been applied in recent years.

The assessment allows us to develop numerous impressions, but I will highlight two of them. The first is in relation to the economic activities that are financed by the funds, which in the specific case of the Amazon has shown the advance of agriculture and livestock farming and related activities on the effect of productive homogenization in the territories, which works as a trigger for other spurious effects of productive deconcentration, such as effects of blockage and destruction, as we sought to show with the maps. At the S.A.me time, it allows us to show the productive cultures that resist this advance, as illustrated by PRONAF, which plays a fundamental role in resisting the unbridled advance of agribusiness and dialogues with the foundations of the PNDR for the sustainable and territorial development of the Amazon.

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