Programa de Pós-Graduação
Desenvolvimento Regional
Mestrado e Doutorado

DOI: 10.17058/3283p242

Quae mutata sunt? In plant extractivism in the Amapá State, Amazon region, Brazil

Antonia Francisca da Silva Saraiva
State University of the Tocantina Region of Maranhão –Estreito – Maranhão –BraZil
ORCID: https://orcid.org/0000-0002-1428-5110

Nilton Marques de Oliveira
Federal University of Tocantins –Palmas –Tocantins – Brazil
ORCID: https://orcid.org/0000-0001-6485-314X

Antônio Sérgio Monteiro Filocreão
Federal University of Amapá – Macapá –Amapá – Brazil
ORCID: https://orcid.org/0000-0002-8259-8805

Walter Saraiva Lopes
Federal University of Maranhão –Imperatriz –Maranhão – Brazil
ORCID: https://orcid.org/0000-0003-4433-2384

Abstract

Throughout Brazilian history, extractivism has played a fundamental role in society, shaping a form of territorial organization in the Amazon region, that has been maintained by traditional peoples and communities. In this context, the Brazil nut (*Bertholletia excelsa*) extractivism in Amapá State has held historical, social, economic, and environmental significance since this state's formation. This paper aimed to analyze the historical process of Brazil nut extractivism and the changes that occurred after the creation of the Rio Cajari Extractive Reserve (Resex, Brazilian acronym) in Amapá. The methodology consisted of descriptive and exploratory research with a qualitative approach, carried out through twenty-six interviews with local stakeholders involved in Brazil nut in Amapá from 2023 to 2024. The data were analyzed by the Collective Subject Discourse (CSD) technique, with the support of the Web Qualitative Data Analysis (WebQDA) software. The results showed that the Brazil nut extractivism before the creation of this Resex was marked by reliance on patronage, absence of guaranteed land rights, and territorial monopolization. The establishment of this Resex enabled a new form of territorial management, the preservation of natural resources, the right to market products, and the organization of local institutions. It is concluded that the Brazil nut extractivism prior to this Resex was characterized by economic exploitation of the extractivists, and that, after its creation, the extractive

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practices were positively transformed, ensuring land rights, territorial management, improvements in quality of life, and the strengthening the extratvism in Amapá.

Keywords: Amazon. *Castanha-da-Amazônia*. Extractivism. Patronage. Territorial management.

Resumo

Ao longo da história do Brasil, o extrativismo vegetal teve um papel fundamental na sociedade, configurando-se como um modo de organização territorial na Amazônia, mantido por povos e comunidades tradicionais. Nesse contexto, o extrativismo da castanha-da-Amazônia no estado do Amapá tem representatividade histórica, social, econômica e ambiental desde a formação desse estado. Desta forma, o objetivo dessa pesquisa foi analisar o processo histórico do extrativismo da castanha-da-Amazônia e as mudanças ocorridas após a criação da Reserva Extrativista do Rio Cajari, no estado do Amapá. A metodologia foi uma pesquisa descritiva e exploratória, com abordagem qualitativa, realizada por meio de 26 entrevistas com os atores locais da castanha-da-Amazônia no estado do Amapá, nos anos de 2023 e 2024. E analisadas através da técnica do Discurso do Sujeito Coletivo (DSC), utilizando o software Web Qualitative Data Analysis (WebQDA). Os resultados evidenciaram que o extrativismo da castanha-da-Amazônia, antes da criação da Reserva Extrativista do Rio Cajari, foi marcado pela dependência do patronato, pela ausência de direitos assegurados à terra e pela monopolização do território. Após a criação da Reserva, possibilitou-se uma nova forma de gestão do território, a preservação dos recursos naturais, o direito à comercialização e a organização de instituições locais. Conclui-se que o extrativismo da castanha-da-Amazônia, antes da Reserva era caracterizado pela exploração econômica dos extrativistas e que, após sua criação a atividade extrativista foi positivamente impactada, assegurando o direito à terra, a gestão do território e melhorias na qualidade de vida e o fortalecimento do extrativismo no estado do Amapá.

Palavras–chave: Amazônia. Castanha-da-Amazônia. Extrativismo. Patronato. Gestão do território.

Resumen

A lo largo de la historia de Brasil, la extracción de plantas ha desempeñado un papel fundamental en la sociedad, configurando una forma de organización territorial en la Amazonía, mantenido por pueblos y comunidades tradicionales. En este contexto, la extracción de la nuez de Brasil (*Bertholletia excelsa*) en el estado de Amapá ha tenido una importancia histórica, social, económica y ambiental desde la formación de este estado. Por lo tanto, el objetivo de esta investigación fue analizar el proceso histórico de la extracción de la nuez de Brasil y los cambios ocurridos tras la creación de la Reserva Extractivista de Río Cajari en Amapá (Resex). La metodología consistió en una investigación descriptiva y exploratoria con un enfoque cualitativo, llevada a cabo mediante veintiséis entrevistas con actores locales sobre la nuez de Brasil en Amapá entre 2023 y 2024. Los datos se analizaron mediante la técnica del Discurso Colectivo del Sujeto (DCS), utilizando el software de Análisis Cualitativo de Datos Web (WebQDA). Los resultados mostraron que la extracción de nueces de Brasil antes de la creación de esta Resex se caracterizaba por la dependencia del clientelismo, la ausencia de derechos territoriales garantizados y la monopolización del territorio. La creación de esta Resex posibilitó una nueva forma de gestión territorial, la preservación de los recursos naturales, el derecho a comercializar productos y la

organización de instituciones locales. Se concluye que la extracción de nuez de Brasil antes de la creación de esta Resex se caracterizaba por la explotación económica de los trabajadores extractivistas, y que, tras su creación, la práctica extractiva se transformó positivamente, garantizando los derechos sobre la tierra, la gestión territorial, mejoras en la calidad de vida y el fortalecimiento de las prácticas extractivas en Amapá.

Palabras clave: Amazonía. *Castanha-da-Amazônia.* Actividades extractivas. Clientelismo. Gestión territorial.

1 Introduction

Extractivism is an activity characterized by the appropriation of natural resources, practiced since the dawn of humanity to meet the essential needs of native peoples, until the arrival of colonizers (Caselli *et al*., 2018; Silva; Pontes; Albuquerque, 2020). According to these authors, the arrival of the colonizers in the Amazon region introduced the view that the natural resources of this region could be exploited not only for survival, but also for commercial purposes in external markets.

This scenario has led extractivism to align with the global trend of productive expansion and relocation (Bernardo *et al*., 2016; Souza *et al*., 2024), following the capitalist logic of expansion and the pursuit of new markets (Marx, 2024). The economic importance attributed to extractivism through natural products played a key role in reshaping the economic, social, and political structure of the Amazon region (Freitas *et al*., 2017; Homma, 2012, 2017).

Historically, extractivism has been regarded as an alternative for the development and integration of Amazonian states into the national and international economy (Silva *et al*., 2016). Thus, extractivism represents a form of territorial organization in the Amazon, characterized by a pre-colonial activity that is still practiced, especially by *caboclos* (mixed whites and Indigenous descendants), Indigenous peoples, and other forest dwellers (Gonçalves, 2012).

Extractivism encompasses both subsistence practices and market-oriented supply, through the processing or industrialization of natural resources (Almeida Filho; Carvalho, 2022). Extractivism is characterized by the extraction of natural resources and may involve products of plant, mineral, or animal origin. Lemes and Gomes (2021) emphasize that plant extractivism has played the most prominent role in environmental preservation.

In this context, according to the Brazilian Institute of Geography and Statistics (IBGE, 2021), plant extractivism is defined as the exploitation of plant resources through conscious harvesting, which enables continuous production over time, although it generally results in only a single yield. In this sense, extractivism is understood in a broader perspective, integrating social, economic, and environmental dimensions (IBGE, 2024b).

Plant extractivism plays a significant role, mainly in the Legal Amazon region, constituting both a natural resource exploitation activity and an economic alternative for regional development (IBGE, 2024a; Saraiva *et al*., 2025). From this perspective, Amapá State, which is part of the Legal Amazon region, stands out in the landscape of plant extractivism.

Extractivism in Amapá is diverse, with mining and plant extractivism standing out as particularly relevant activities. Thus, the historical context of this state has been marked by a subsistence economy, the exploitation of natural resources, such as Brazil nuts, and livestock farming (Lobato, 2014; Sousa; Euler, 2009). It is important to emphasize that Brazil nut extractivism is primarily carried out by traditional populations in the Amazon region contributing to local economic development and promoting forest preservation (Batista *et al*., 2019; Homma, 2012; Saraiva, 2025).

Given this context, this research addresses extractivism from the collection of *Castanha-da-Amazônia* in the state of Amapá, especially in the Rio Cajari Extractive Reserve, hereinafter appointed to as Cajari Resex. In this paper, the terrm *castanha-da-Amazônia* is being adopted, considering that this product is known by diverse names (*Castanha-da-Amazônia* and Brazil nut); there is an ongoing movement to consolidate the use of *castanha-da-Amazônia* as a way to acknowledge and represent some states within the Amazon region (EMBRAPA, 2022; Wadt *et al*., 2023).

Considering the importance of extractivism in Amapá, the following research question was formulated: how was *castanha-da-Amazônia* extractivism structured in the period preceding the creation of the Rio Cajari Extractive Reserve in Amapá and what changes occurred after its establishment? Therefore, this paper aimed to analyze the historical process of *castanha-da-Amazônia* extractivism and the changes that occurred after the creation of this Resex.

Therefore, understanding that these transformations indicate that extractivism, once seen solely as a subsistence practice, has become integrated into sustainable development strategies in the Amazon region and is essential for evaluating sustainability policies and the socioeconomic inclusion of traditional populations.

2 *Castanha-da-Amazônia* extractivism and its dynamics in Amapá

Throughout the history of plant extractivism, diverse names have been attributed to the *castanha-da-Amazônia*, each reflecting meanings and identities shaped by different times and places (Fonseca, 2024), including *castanha, castanha-da-Amazônia, castanha-do-Maranhão, castanha-verdadeira, castanha-do-Pará, castanha-da-terra, castanha-do-Acre, noz-amazônica, tucuri, tocari, júvia, castanha-mansa e amêndoa-da-américa* (Almeida, 1963; EMBRAPA, 2022).

Within this framework, this paper adopts the term *castanha-da-Amazônia*, acknowledging the existence of a movement aimed at consolidating this name as a way to redress the historical exclusivity attributed to certain states (Felzke, 2007; Wadt *et al*., 2023). It should be noted that this species of nut is officially registered under the name of *castanha-da-Amazônia* in the Brazilian Ministry of Agriculture, Livestock and Supply, (Brazil, 2025). *Castanha-da-Amazônia*, scientifically known as *Bertholletia excelsa*, belongs to the *Lecythidaceae* family (Lorenzi, 2022).

The earliest records of the *castanha-da-Amazônia* date back to 1567-1569, during an expedition led by the Spanish explorer Juan Alvarez Maldonado, in *Madre de Dios*, which today belongs to Peru (Filocreão, 2007; INCRA, 1987). These authors emphasize that, during the expedition, the soldiers fed on nuts found in the lands of the *Cayanpuxes* Indigenous people.

The *castanha-da-Amazônia* tree is native and is found throughout most of the Amazon region in South America, specifically in the countries of Guyana, Colombia, Venezuela, Peru, Bolivia, and Brazil (EMBRAPA, 2022). The leading producers of these nuts-are Bolivia, Peru, and Brazil (CONAB, 2022; Coslovsky, 2014). The *castanha-da-Amazônia* tree in the Amazon rainforest covers a total area of 325 million hectares, of which 300 million are in Brazil. The Countries such as Colombia, Venezuela, and Ecuador do not have occurrences of *castanha-da-Amazônia* trees to support economically viable exploitation (Almeida, 2015; EMBRAPA, 2022).

The *castanha-da-Amazônia* tree in Brazil is found in the states of Amazonas, Acre, Pará, Mato Grosso, Rondônia, and Amapá, where it serves as a resource of economic exploitation (EMBRAPA, 2022; IBGE, 2025a). The areas with the highest concentrations of *castanha-da-Amazônia* trees are found in the middle reaches of the Tocantins and Trombetas Rivers (Pará State), along the Jari River (Amapá), and in the groves of Acre State (EMBRAPA, 2022).

In this context, Amapá is one of the nine states that make up the Legal Amazon (IBGE, 2024a) and is in Brazil's Northern region. Its geographical boundaries are French Guiana to the north, Suriname to the northwest, the Atlantic Ocean to the east, and Pará State to the south and west (IBGE, 2021).

The economic sectors of Amapá with the greatest representation are trade, services, civil construction, manufacturing, agriculture, plant extrativism, hunting, and fishing (MTE/RAIS, 2025). The most prominent products of plant-based practices are *açaí*, *castanha-da-Amazônia*, and palm hearts (IBGE, 2024b).

Amapá has sixteen municipalities (IBGE, 2025b). Extensive groves of *castanha-da-Amazônia* trees are concentrated in the southern part of the state, and their exploitation has shaped Amapá since its formation (Paula Filho *et al*., 2024). The historical development of southern Amapá occurred in three phases: (a) expropriation and individual control; (b) control by extractive commercial enterprises; and (c) control by large-scale capital (Amorim, 2019; Picanço, 2005, 2009, 2019). According to these authors, these phases reflect the transformations that have taken place in the region, including the area where the Rio Cajari Extractive Reserve is located today.

It is needed to revisit the historical status of Amapá as a federal territory before its designation as a state to understand the dynamics of *castanha-da-Amazônia* extractivism in that region. The expropriation of land enabled Colonel José Júlio de Andrade to take possession of the entire region along the Jari River until 1948, becoming the sole owner (Filocreão, 2007; Lins, 1997, 2001). José Júlio became a merchant of extractive products and a rubber tapper, becoming the region's most prominent patron, with a significant concentration of land and properties (Picanço, 2005).

Colonel José Júlio sold the land to a group of Portuguese merchants in 1948, (Picanço, 2005; Rangel, 2017). According to these authors, this fact has marked the beginning of a phase in which expropriation and territorial control were carried out by a commercial-extractive enterprise. This period lasted nineteen years (1948-1967).

In 1967, the control of the region was sold to American Daniel Ludwig, who implemented an agro-industrial initiative known as the Jari Project (Jari Forestry and Agriculture) (Chelala; Chelala, 2023; Filocreão, 2007; Lins 2001).-The Jari project was

implemented along the border between the states of Amapá and Pará, bringing significant changes and impacting the population's way of life (Picanço, 2005).

The Jari Project aimed to establish a large-scale enterprise in the region focused on the exploitation of the natural resources, including plans to clear over 200,000 hectares for reforestation with species intended for pulp production (Filocreão, 2007; Jari Celulose, 1994; Picanço, 2005). According to these authors, plans were also made to develop livestock farming and exploit the mineral resources found in the region.

The Jari project was consolidated through the installation of a pulp factory assembled from components imported from Japan. A hydroelectric power plant was planned and installed for the Jari River to meet the factory's energy demands (Filocreão, 2007; Jari Celulose, 1994). This project brought irreversible changes to the socioeconomic and environmental landscape of southern Amapá. Later, *Jari Florestal e Agropecuária* company took on the role of commercializing extractive products through one subsidiary, *Serviços Agrários e Silvicultura Ltda.* (SASI) (Filocreão, 2007; Rangel, 2017). The company began purchasing *castanha-da-Amazônia* and gradually established dominance over the local market (Lins, 1997).

Jari Florestal e Agropecuária was sold to the Orsa Group in the late 1990s, (Filocreão, 2007). In this context, southern Amapá was originally inhabited by Indigenous peoples and was later suitable for the extractivism exploitating of natural resources. The changes in the region became more pronounced from 1980 onwards, characterized by territorial disputes, shifts in production methods, and the growing dominance of large corporations, which gradually transformed its social and economic dynamics (Lomba; Silva, Filocreão, 2021; Picanço, 2019).

In the extractivism context in southern Amapá, three reserves were established: (a) the Maracá Agroextractivist Settlement Project (PAE, Brazilian acronym) in 1988 (INCRA, 2004); (b) the Rio Cajari Extractivist Reserve in 1990 (Brazil, 1990); and (c) the Rio Iratapuru Sustainable Development Reserve in 1997 (Amapá, 1997). These reserves were established for traditional populations, enabling them to utilize natural resources in ways that are both economically viable and ecologically sustainable.

3 Methodology

3.1 Characterization of the study area

The study area of this research was in Amapá, especially the southern region, where the Rio Cajari Extractive Reserve (Cajari Resex) is located, encompassing the municipalities of Laranjal do Jari, Mazagão, and Vitória do Jari. This research was carried out during 2023 and 2024.

This Rio Cajari Extractive Reserve was established by Federal Decree No. 99.145 of 12 March 1990 to ensure the sustainable exploitation and preservation of renewable natural resources (Brazil, 1990). This Cajari Resex aims to support the extractivist communities within its municipalities, whose traditional way of life is based on the sustainable use of natural resources in addition to environmental preservation. The main natural resources exploited include *castanha-da-Amazônia*,

açaí, bacaba, uxi, and other fruits. Manual farming and animal husbandry such as sheep and pigs are also prominent (Teixeira *et al*., 2018).

This Cajari Resex area covers upper Cajari, middle Cajari, and lower Cajari. Upper Cajari consists of non-flooded upland forest, predominantly covered with extensive *castanha-da-Amazônia* groves (Filocreão 2007; Paula Filho *et al*., 2024). According to these authors, the middle and lower Cajari regions consist of seasonally flooded lowlands with a high concentration of *açaí* palm groves. This research was carried out in the upper Cajari region with thirteen communities and presents a distinct social and economic dynamic compared to the middle and lower Cajari regions.

3.2 Local extrativists of *castanha-da-Amazônia* in Amapá

The research participants were local individuals involved in the *castanha-da-Amazônia* extrativism and were selected considering their involvement in this activity in Amapá.

These local extrativists were categorized into three groups, political, social, and economic. This categorization was based on the institutional approach, in which institutions play different roles in society and encourage collaboration among extrativists (North, 1990).

According to North (1993), the incentive structure of a society is supported by its political, economic, and social institutions, which play a decisive role in determining economic outcomes. According to this author, organizations are composed of groups of individuals who come together to pursue a common goal. Finally, this author states that the relationship between institutions and organizations influences economic behavior. The studies by Oliveira, Piffer, and Strassburg (2018), Strassburg, Oliveira, and Rocha Junior (2020), and Oliveira and Queiroz (2021) stand out for adopting the institutional approach.

Maximiano (2011) classified the organizations as political, economic, and social, since local extrativists (individuals) are better represented through organizations, that is, through collective actions, than by acting independently to pursue their own interests.

In this context, the Table presents the political, economic, and social organizations and institutions along with their respective representatives. The institutionalist approach points to the importance of these groups as contributors to the transformations in the historical context of *castanha-da-Amazônia* extractivism in Amapá.

Table 1 - Local organizations and stakeholders involved in extractivism in Amapá

Organizations	Local stakeholders as representatives and institutions of extractivism
Politicians (five participants)	Chico Mendes Institute for Biodiversity Conservation (ICMBIO, Brazilian acronym) Macapá City
	Laranjal do Jari Municipal Council
	Municipal Secretariat of Agriculture, Livestock, and Supply
	Institute for Rural Extension, Assistance, and Development of Amapá, Laranjal do Jari office (RURAP, Brazilian acronym)
Social (nine Participants)	Extractivists
	Federal University of Amapá (UNIVAP, Brazilian acronym)

	Federal Institute of Education, Science, and Technology of Amapá (IFAP, Brazilian acronym)
	Association of Agroextractivist Women of Upper Cajari (AMAC, Brazilian acronym)
	Association of Women Residents and Workers in the Socio-biodiversity Product Chain in the Upper Cajari Resex (AMOBIL, Brazilian acronym)
	Association of Agroextractivist Workers of Cajari (ASTEXCA, Brazilian acronym)
Economic (twelve participants)	Extractivists
	Former manager of Jari Cellulose company
	Amapá Cooperative System (OCB-AP, Brazilian acronym)
	Mixed Agro-extractive Cooperative (Vegetable Products) of Farmers from Laranjal do Jari (COMAJA, Brazilian acronym)
	Mixed Cooperative of Agroextractivists of Upper Cajari (COOPERALCA, Brazilian acronym
	Women's Cooperative of Upper Cajari (COOPEMAC, Brazilian acronym)
	Mixed Agroextractive Cooperative of Producers from the Jari Valley (COOPERFLORA, Brazilian acronym)

Source: Prepared by the authors (2025).

Organizations and institutions perform the function of development agents, influencing the context. Thus, it is possible to infer new interpretations about the changes occurred in extractivism in Amapá after the creation of Cajari Resex in accordance with the discourse of local individuals involved in the *castanha-da-Amazônia* extractivism.

3.3 Characteristics, methodological approaches, and analysis of the Collective Subject Discourse (CSD)

This research was classified as exploratory. According to Palagi *et al*. (2017), this type of research aims to explore the object of study to generate greater knowledge about the subject. This research presents descriptive characteristics within the historical context of *castanha-da-Amazônia* extractivism in Amapá, considering the intention to describe and interpret the event found (Osorio; Lobato; Castillo, 2009).

This research adopted a qualitative approach. According to Yin (2016), qualitative research is oriented toward verification and is characterized by diverse methodological aspects. According to this author, this type of research is able to capture the perceptions of the participants involved. Therefore, this paper aimed to characterize aspects of the historical evolution of *castanha-da-Amazônia* extractivism in Amapá from the perspective of local individuals.

Qualitative research allows the use of different methods and enables a more in-depth analysis (Flick, 2017). In this sense, the analytical method employed was the qualitative technique of Collective Subject Discourse (CSD), grounded in the Theory of Social Representation (TSR) developed by the French scholar Serge Moscovici (Moscovici, 2015).

According to Moscovici (2015), social representation signifies that the individual is actively involved in shaping social reality, contributing individually to its

construction, instead of merely passively reproducing it. Social representations generate tools to explore the content of a given element (Jodelet, 2013). In this way, it was possible to define the identity of local individuals involved in *castanha-da-Amazônia* extractivism in Amapá, as well as to individually identify the elements that influence the investigation of collective dynamics.

The CSD interpretation technique aims to analyze qualitative data of a verbal nature. It is needed to collect the data, in this case, verbal statements, to construct the discourse (Lefevre; Lefevre, 2005; 2012).

Therefore, the data collection instrument used in this research was the interview in a semi-structured format with open-ended questions. It was applied to local individuals involved in the *castanha-da-Amazônia* extrativism in Amapá, integrated into political, economic, and social groups (see Table). In this sense, the interview script consists of two parts: (a) identification of the individuals and their relationship with *castanha-da-Amazônia* extractivism in Amapá; and (b) questions concerning the historical context of *castanha-da-Amazônia* extractivism, before and after the establishment of Cajari Resex.

Various steps were required to develop the CSD. In this regard, according to Lefevre and Lefevre (2005) and Lefevre, (2017), the construction of CSD consists of four elements, three operational and one resulting element. The operational elements are: (a) Key Expressions (KEs); (b) Central Ideas (CIs); and (c) Anchors (As). The outcome of these operations is the CSD. According to these authors, connectives may be used in the CSD construction to sequence the KEs and ensure textual cohesion throughout the discourses.

The first step to carry out the CSD analysis in this paper was the transcription of the twenty-six audio-recorded interviews with each question transcribed separately. The online version of Web Qualitative Data Analysis (WebQDA) software was applied to construct the CSD of local individuals involved in *castanha-da-Amazônia* extractivism. The WebQDA software enables the creation of categories, coding, data management, and analysis with the purpose of addressing the research questions (Freitas, F. *et al*., 2016; Souza; Costa; Moreira, 2011).

The interviews were transcribed into files with Microsoft Excel in the first step. The data were organized so that each question was saved in separate documents along with the corresponding responses from each interviewee. Subsequently, the *castanha-da-Amazônia* project was registered in the WebQDA software, and the interview questions along with participants' responses were entered into the system.

The second and final step involved selecting the KEs and CIs identified in the responses, followed by categorization process in which the responses were grouped according to similar and complementary meanings. Thus, the responses were organized into categories, and each category generated a CSD. Accordingly, six CSDs were formulated on the basis of the second part of the interview script, reflecting the perspectives of local indiviuals involved in *castanha-da-Amazônia* extractivism in Amapá, which guided this study.

3. 4 Ethical aspect

As this research involves human beings, it was submitted to the Research Ethics Committee of the Federal University of Tocantins/Palmas Campus with

CAAE Registration under No. 70394423.0.0000.5519 and received a favorable opinion for its accomplishment.

4 Results and discussion

4.1 Historical context of *castanha-da-Amazonia* extractivism in the period preceding the creation of the Rio Cajari Resex in Amapá

This section presents the results and discussion of the research data, taking into account the historical process of *castanha-da-Amazonia* extractivism and the changes occurred after the creation of Rio Cajari Extractive Reserve (Cajari Resex) in Amapá. The data were obtained from twenty-six interviews carried out with local individuals involved in extrativist practices, which enabled the application of the CSD analysis technique.

In this first part, the data concerning this historical context in the period preceding the creation of this Cajari Resex were taken into consideration. So, for that, local extrativist participants were asked to share their memories or recollections about *castanha-da-Amazonia* extractivism in that period. The analysis of responses to Question 1 resulted in three categories. The category titled 'Struggles and resistance' includes five interviewees (19%) who reported that their perception of this activity in that period was marked by conflicts. The CSD for this category is presented as follows:

> I remember it was a very difficult situation. Before the creation of the reserve, [...] the word is violence. And this word reminds me of historical facts about the population, workers who were beaten as punishment when they tried to leave, escape, or switch to another employer who offers better conditions. We hear a lot, especially from those who lived through that phase of the struggle for the creation of the Resex, that they lived subjugated.

This discourse leads to understanding the initial characteristics of *castanha-da-Amazônia* extractivism in the period preceding the creation of the Cajari Resex. Considering the historical context of land occupation throughout the Amazon region, this period was marked by land grabbing, during which companies and large landowners benefited from favorable conditions and concentrated vast areas of land (Oliveira, 2022). In this context, L. Pinto (1986) and Oliveira (2022) emphasize that these dominant groups later became traders of extractive products, especially rubber, economically exploiting local labor through coercive and violent practices.

The developmental model imposed by the military government stood in contrast the dense forests, replacing them with pastures and monoculture plantations aimed at cellulose production (Picanço, 2005). Against this process, the rubber tappers organized a form of resistance that began around the 1970s and 1980s (Drummond, 1996; Filocreão; Silva; Lomba, 2022). According to these authors, the mobilization involved the rubber tappers, the Catholic Church through the Pastoral Land Commission, and environmentalists that played a key role in driving changes in extractivism.

The category 'Dependence on patronage' includes sixteen (62%) respondents and points out that *castanha-da-Amazônia* extractivism in the periodo preceding the

creation of this Resex was marked by subordination to patrons. The CSD for this category is as follows:

> First, before the creation of the reserve, the issue with the nuts was that we were subordinate to the patrons, the so-called old patrons. The history of this Resex emphasized the tradition and authority exercised by the patrons at the time, a power so strong that the workers were virtually compelled to work in exchange for food and basic sustenance for their families. Back then, it was all about rubber, *balata, maçaranduba* wood, and *castanha-da-Amazônia*, and each one who worked in a *colocação* was under the patron control. You could harvest the nuts and sell them to him; you couldn't sell it to anyone else, no matter the price. The *castanha-da-Amazônia* extrativist worked like a slave. These nuts was practically given away; a hectoliter (100 liters), which today equals six buckets, was traded for nearly a kilogram of sugar. You would exchange a barrel (120 liters) of *castanha-da-Amazônia* for a can of milk. And you used to trade a kilo of dried meat for a barrel of nuts; a pair of boots could cost the same. To sell their nuts and see some money, they had to do it in secret, late at night, measuring the nuts at the bottom of the river so the boss wouldn't hear the noise, because he always bought their nuts, and they weren't allowed to sell to anyone else. This way, nut production served as a form of currency; they get food in exchange for nuts.

This discourse confirms the dependence of the extractivists on their patrons. The patron would provide food, tools, and other goods in advance to carry out the work, always at inflated prices, which generated a debt for the *castanha-da-Amazônia* extrativist that could never be repaid (Oliveira, 2022). This issue of dependence on patrons is intrinsically linked to the *aviamento* system (commercialization) and to colonization, in which a persistent debt relationship is established (Meira, 2017).

The dependence on patronage system was tied to the fact that the landowners considered themselves the rightful owners of the land, assigning families to exploit natural resources and work in agriculture for the benefit of the patron, a system that became known as *colocação* (land settlement). According to Wawzyniak (2000), *colocação* is a non-linear territorial space shaped by the traditional historical dynamics of land use by social groups in the processes of producing and reproducing their ways of life. The *colocação* is historically associated with a territory sustained by extractivism, family farming, and small-scale animal husbandry (Silva, J.; Alves, 2022). Community members of this Cajari Resex still refer to their plots of land as *colocações*, a legacy of the former patronage system.

The category 'Land controlled by private companies' is composed of five (19%) respondents. The CSD for this category is as follows:

> While Amapá was still a territory, the nut groves had an owner, and that owner sold them to the Portuguese. Later, the Portuguese sold nearly the entire region to Daniel Ludwig, from the private company's land to the areas of both reserves, both federal and state, belonged to the Portuguese private group. We didn't own our property; everything belonged to the private company, because that entire territory was under its control.

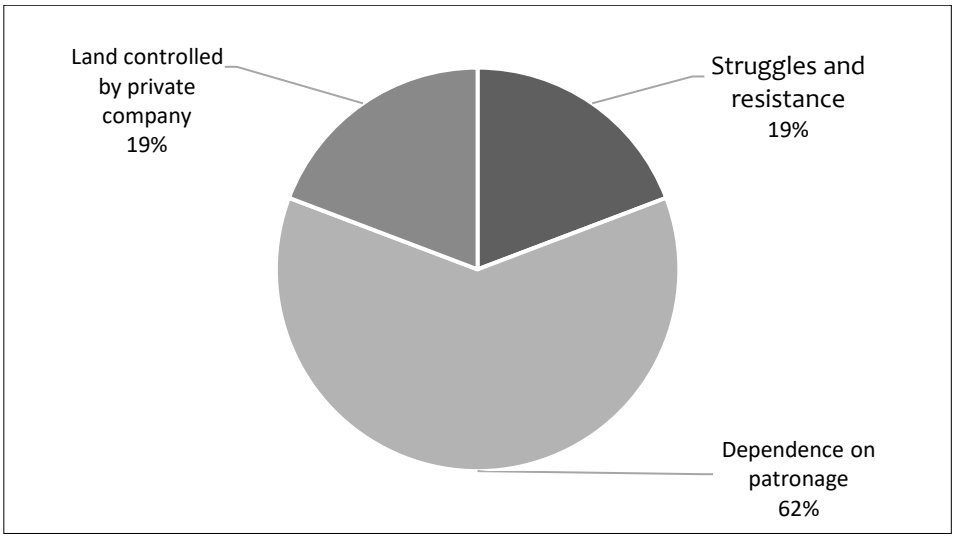
Therefore, this discourse discloses the historical context of the early companies that owned the *castanha-da-Amazônia* groves involved in the exploitation

of southern Amapá, highlighting the economic and social dynamics that shaped the region's population growth. José Júlio de Andrade was one of the early owners of the *castanha-da-Amazônia* groves. After decades of irregular land appropriation, he became a prominent political figure and came to be known as Colonel José Júlio (Picanço, 2005). Still within this context, Colonel José Júlio exercised violent control over the land and exploited the region's workers (Lins, 2001; Saraiva, 2025). According to these authors, Colonel José Júlio later sold part of southern Amapá to a group of Portuguese businessmen.

This area, acquired by a group of Portuguese from the J. Fonseca company in 1948, now corresponds to part of the Rio Cajari Resex (Rangel, 2017). According to this author, the company managed the extractivism related to *castanha-da-Amazônia* in the region. The group of Portuguese sold the area to American billionaire Daniel Ludwig a decade later. In this new phase, the agro-industrial initiative known as the Jari Project was launched (Filocreão, 2007).

In this context, extractivism was shaped by the development policies of the Brazilian military government aimed at the Amazon. These policies promoted the exploitation of natural resources and encouraged the occupation of the region through agricultural and industrial projects (Silva; Silva; Silva Filho, 2022). Figure 1 illustrates the representativeness of three categories derived from Question 1.

Figure 1 - Extractivism of *castanha-da-Amazônia* before the creation of the Cajari Resex



Source: Prepared by the authors (2025).

Figure 1 presents three categories, emphasizing the perceptions of local *castanha-da-Amazonia* extractivists in the period preceding the establishment of the Cajari Resex. The category that stood out the most was 'dependence on patronage, which had the strongest representation in relation to extractivism. Historically, the Amazon region has been shaped by large-scale capitalist enterprises and marked by socio-environmental exploitation.

In this context, *castanha-da-Amazonia* extractivism in the period preceding the establishment of this Resex was marked by the exploitation, often resembling slavery, when extrativists were subjected to abusive labor relations, being forced to trade their production for goods under disadvantageous conditions.

It is important to highlight that this historical context was characterized by land conflicts and appropriation by private companies, which threatened the permanence of the communities living in southern Amapá (Filocreão, 2007; Rangel, 2017).

In addition to the Jari Group's role in the *castanha-da-Amazonia* economy present in the region since 1967, it is important to consider its broader influence on the historical context (Picanço, 2005). According to this author, although *castanha-da-Amazonia* extractivism was not the Jari Group's main activity, it was one of the largest sources of local employment. However, the company's primary interest was in the land itself, which led to conflicts with the extractivists who already occupied the area and used it mainly for *castanha-da-Amazonia* extractivism.

The *castanha-da-Amazonia* trade dynamic also involves the Mutran family of entrepreneurs, recognized as the oldest *castanha-da-Amazonia* buyers in southern Amapá, with nearly a century of involvement in the extractive practice (Diniz *et al*., 2023). They consistently work with local intermediaries and establish commercial relationships with individuals engaged in *castanha-da-Amazonia* extractivism.

Thus, *castanha-da-Amazônia* extractivism in the period preceding the creation of this Cajari Resex was characterized by unequal power relations, strong economic dependence, and domination of extractivists by large landowners through land appropriation and regional merchants. Although extractivism was essential for the subsistence of local populations, it developed under exploitative conditions, often resembling slavery, reflecting the historical concentration of land ownership and the prevailing social exclusion in the Amazon region.

4.2 *Castanha-da-Amazônia* extractivism after the creation of the Rio Cajari RESEX in Amapá

This section discusses the changes that took place in *castanha-da-Amazônia* extractivism following the creation of the Cajari Resex in Amapá. In this context, the analysis focused on memories or recollections related to *castanha-da-Amazônia* extractivism, with particular emphasis on the period following the creation of the Resex, as referenced in Question 2. This question generated four categories. The CSD for the first category 'Autonomy and self-management' is presented, in which ten (39%) local *castanha-da-Amazônia* extravists consider that the creation of this Resex brought greater freedom in their actions and new opportunities for extractivism in the region. The considerations are as follows.

> And, after the reserve, **the territorial management is a different reality.** It shows another moment with freedom, dialogue, and negotiation. First, **it provided security to the man from traditional community** that he didn't have, and every day he used to pray that the thug from the private companies wouldn't come to destroy his house or set fire to his crops. Locals have gained control over these areas. **We experienced greater freedom and autonomy.** Families began to have their own plots of land to work on. It's not theirs, it belongs to the Conservation Unit, but the person owns that piece of land, and no one will go there and say it is not hers. The Resex brought a sense of security to them, the feeling of being in a territory where, if well cared for and if the government's rules and requirements are respected, they remain protected. **They currently have a deliberative**

> **council managed by ICMBIO. After we created the reserve, we have gotten the freedom and are no longer slaves.**

From the perspective of extrativists, the creation of the Cajari Resex provided greater security and territorial autonomy to them. Accordingly, it was found that the creation of the Resex introduced a new form of territorial management.

It is noteworthy that the Resex granted the "real right of use to populations with an extractivism tradition" (Brazil, 1990, p. 01, our translation). In this case, the traditional communities engaged in *Castanha-da-Amazônia* extractivism, who lived within the boundaries of the Resex and were committed to the sustainable use of the region's natural resources, were granted the legal right to utilize these resources in accordance with their historical practices and customs. This extractivism, which had previously taken place on private lands and under violence conditions, gained formal recognition following the creation of the Resex, which was "declared of ecological and social interest" (Brazil, 1990, p. 01, our translation).

The regularization of the Cajari Resex enabled the viability of extractivism, ensuring environmental protection and empowering local traditional communities as key players in the conservation of natural resources. According to Diegues (2023), the relationship between humans and nature, as expressed by traditional peoples and communities, reflects an ecological perspective and plays a positive role in the preservation of biodiversity.

In this context, the creation of Resexes contributed to the land regularization occupied by social groups who relied on the forest for their subsistence and commercial activities, while respecting the Amazonian environment and the cultural traditions of these communities (Allegretti, 1988). The regularization process also prevented the reconcentration of land in agrarian reform areas by establishing that these lands should remain public, with exclusive usufruct rights granted to traditional residents (STR/CNS/CUT, 1989). According to these authors, this measure was promoted by the National Council of Rubber Tappers (CNS, Brazilian acronym), taking the model of Indigenous land as reference.

According to Allegretti (1994), Resexes were named to emphasize the extractive economic practice, but other practices such as agriculture and domestic animal husbandry may also be carried out. Ultimately, the forest remains fundamental to livelihoods. Therefore, the forest continues to serve as the essential foundation for sustaining these practices, whether through the provision of natural resources, environmental preservation, or the safeguarding of local inhabitants' traditions and ways of life.

Within this context, *castanha-da-Amazônia* extractivism fostered environmental conservation and enhanced the economic value of local communities following the creation of the Cajari Resex. The second category 'Preservation of natural resources' had four (15%) participants; they emphasized environmental concerns regarding the preservation and sustainable use of the *castanha-da-Amazônia* within this Resex. The following section presents the CSD for this category, outlining the main considerations and evidence brought forth by the participants, as follows:

> The reserve was established with the purpose of preserving and sustainably exploiting the nuts, which represents a major potential

> resource within its territory. Because it is an area with the **highest concentration of native** *castanha-da-Amazônia* **trees**, forming a grove, its protection was also guaranteed, as were the other trees. So, because the local people helped to create the reserve to preserve the area and prevent outsiders from advancing on, **they removed the issue of slavery in relation of the** *castanha-da-Amazônia* **extractivism**, the area couldn't be sold to anyone else, and you didn't own the land.

On the basis of this discourse, the participants underscore the significance of the Resex in preserving the *castanha-da-Amazônia* groves, emphasizing its role in safeguarding local ecosystems. Considering the historical context surrounding the creation of the Cajari Resex, its establishment was driven by the need to safeguard the environment, protect natural resources, and guarantee sustainability of local extractive communities.

In this way, the Resex emerges not only as a conservation strategy, but also as a mechanism for promoting social justice, by ensuring the sustainable use of natural resources by traditional populations that depend directly on extrativism (Almeida, M.; Allegretti; Postigo, 2018Santos; Brannstrom, 2015).

The creation of the Cajari Resex brought the protection to *castanha-da-Amazônia*, ensuring not only environmental preservation but also the economic and cultural valorization of this natural resource that is essential for traditional communities. This discourse shows the socio-environmental struggle process of the forest peoples, carried out through educational, continuous, and permanent way, promoting an intrinsic and harmonious relationship with the forest.

In this sense, it can be concluded that the Cajari Resex enhances the resilience of these populations and favors the preservation of biodiversity and ecosystem services in the region by integrating the traditional knowledge of extractivist communities with environmental conservation practices.

The third category 'Commercialization and Institutions' of the *castanha-da-Amazônia* had eight (31%) participants from local extrativists. It highlights progress in the autonomy of them with freedom to choose how to sale their products and to organize their institutions to facilitate these transactions. The CSD for this category is presented as follows.

> Today, there is the reserve, there are more laws; **there are still a lot of middlemen**, the buyers of the nuts; and today you see that your money is little, but you already see it, you can already see it. **You can do the harvesting and not sell it in retail**; for example, we can sell 150 barrels of nuts to a single buyer. We have made significant progress in increasing the autonomy of extractivists regarding the cultivation, harvesting, and sale of nuts. **Today we already decide who we sell to**; even though we're selling at a very low price, we know who we're selling to. You sell your production to whoever you want, because you're free; there is no patron telling you that you cannot work today because it belongs to him. **The creation of the reserve also got rid of that patron issue, and other buyers started to appear.** Today, you go to someone's house, there is milk; you leave with a barrel of nuts, and you can sell it anywhere and put the money into your pocket. The Resex also brought peace of mind, and they **managed to get organized, both through associations and cooperatives**. There's been some progress in setting up institutions to help with this sale. **Before the**

> **creation of the Resex, nuts did not have much value in the state; what really mattered was *balata* and rubber.**

The CSD highlights the freedom to deal *castanha-da-Amazônia*, meaning that, now with the Cajari Resex, the extractivist can sell it to anyone; while the area was privately owned, that nuts belonged to the patron. Even with the middleman's role in the commercialization process, selling *castanha-da-Amazônia* still brings positive outcomes for the extrativists. The economic value of the *castanha-da-Amazônia* has long been significant in the region, playing a central role in generating income for extractivist communities.

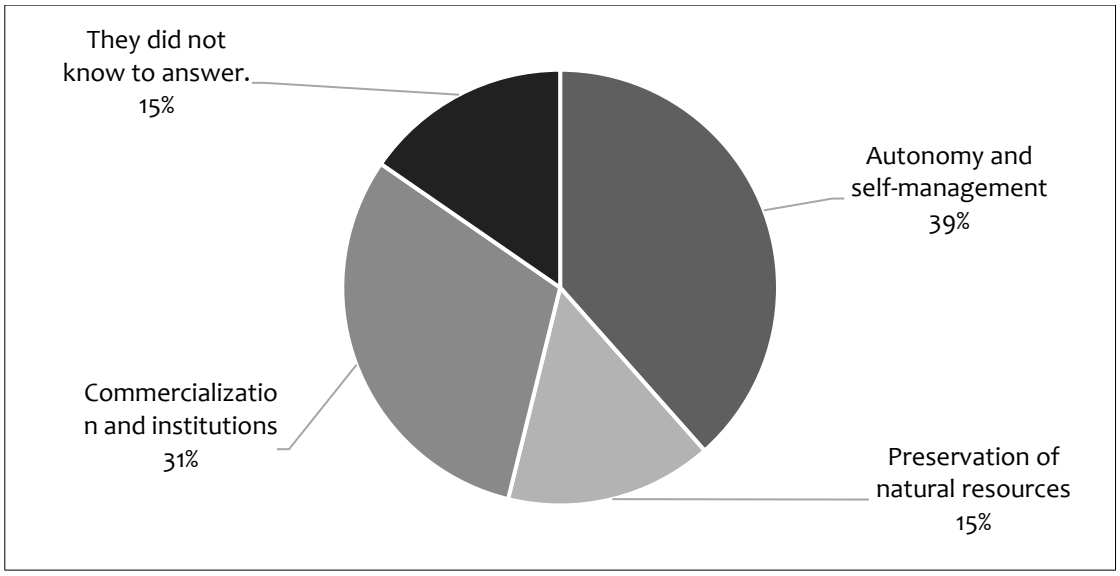
The discourse highlights that the creation of the Resex led to advances in the autonomy of the extractivists and helped to overcome dependence on former employers, in addition to having encouraged the organization of associations and cooperatives. In this way, this context confirms the objectives of the creation of the Resex, as they not only ensured the right to use the land, but also enabled the continuation of the extraction and commercialization of products, making these areas economically viable (STR/CNS/CUT, 1989).

In this sense, the creation of institutions linked to the commercialization of extractive products, mainly the *castanha-da-Amazônia* from the Resex, such as the Mixed Cooperative of Agroextractivists of Upper Cajari (COOPERALCA); the Women's Cooperative of Upper Cajari (COOPEMAC) and the Mixed Agroextractivist Cooperative of Producers of the Jari Valley (COOPERFLORA), brought more freedom and value to that commercialization.

Still within the context of the *castanha-da-Amazônia* extractivism associated with the creation of the Cajari Resex, it was noted that four (15%) of the interviewees did not know how to answer and therefore did not provide a response to the question under analysis.

Figure 2 presents the percentages of participants classified according to categories of *castanha-da-Amazônia* extractivism, within the context of the creation of this reserve.

Figure 2 - *Castanha-da-Amazônia* extractivism after the Cajari Resex



Source: Prepared by the authors (2025).

Figure 2 highlights the categories that play a key role in the creation of the Cajari Resex located in southern Amapá. The category that stood out the most was 'autonomy and self-management' as the Resex enabled territorial management. According to A. Silva (2024) and M. Almeida, Alegretti, and Postigo (2018), the Resex is founded on the recognition of the territory, guided by a vision of self-management and autonomy, prioritizing local knowledge.

Thus, the creation of the Resex has favored the sustainability, land security, and the appreciation of the traditional ways of life within these communities. The Resex made possible territorial management, which, according to Ostrom (1990) and Capelari *et al* (2017), involves the state participation, local communities, and the guarantee of property rights, offering a solution for communities to manage their common resources.

Therefore, the *castanha-da-Amazônia* extractivism after the creation of the Cajari Resex, represents a turning point in the social, economic, and territorial relations of the extractivist communities in southern Amapá. The autonomy consolidation, the expansion of forms of collective organization, and institutional strengthening have contributed to the transformation of extractivist from a condition of subordination and dependence to a position of leadership in territorial management.

Thus, by ensuring the sustainable use of natural resources and recognizing the cultural and economic value of extractivism, this Resex reaffirmed its relevance as a public policy for conservation and social inclusion. Furthermore, it promoted a development model grounded in socio-environmental justice, the appreciation of traditional knowledge, and, above all, continuity of extractivism and the permanence of extractivists on their lands.

5 Final Considerations

The *castanha-da-Amazônia* extractivism has historical significance in Amapá, in addition to favor the strengthening community dynamics, social organization, and a model of sustainable local development. Therefore, understanding how the *castanha-da-Amazônia* extractivism has been structured in this state, driving and shaping local dynamics.

In this way, the proposed objective was achieved, as the research made it possible to understand the historical context of *castanha-da-Amazônia* extractivism before the creation of the Rio Cajari Extractive Reserve, as well as the transformations that followed its creation, which impacted the social, economic, and environmental conditions of the state.

The research results showed that the *castanha-da-Amazônia* extractivism was embedded in a context of deep inequality before the creation of the Cajari Resex. It was characterized by the economic exploitation of nut groves, the absence of guaranteed land rights, and the territorial monopolization by private companies. These nuts have already being commercially exploited, but dominant groups were mainly focused on the appropriation of the land to ensure control of territorial domains.

The creation of the Cajari Resex has emphasized territorial management, natural resource preservation, commercialization rights, and institutional organizations to support and organize local communities. This process brought about the presence of the State, enabling access to public policies directed at these populations, environmental conservation, and the preservation and appreciation of the cultural identity of the extrativists. This Resex represented a turning point for the *castanha-da-Amazônia* extractivism in Amapá, strengthening the local economy, promoting the sustainable use of resources, and guaranteeing better living conditions for local communities.

Thus, the *castanha-da-Amazônia* extractivism before the establishment of the Rio Cajari Resex was characterized by patronage and economic exploitation of the extractivists. The creation of this reserve ensured land rights for extractivists and reduced conflicts in the region, leading to changes in the local context and contributing to an improved quality of life, socioeconomic development, and the preservation, especially of the *castanha-da-Amazônia* groves in southern Amapá.

It can be concluded that the Cajari Resex presents elements of an environmentally sustainable management model, providing a way of life with dignity and autonomy to extractivists, while simultaneously preserving the environment and strengthening local communities. However, conflicts marked by their historical characteristics still persist. The collective management and governance of common resources have consolidated important achievements and strengthened the *castanha-da-Amazônia* extractivism, which continues to contribute to the development of the Amapá State.

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Antonia Francisca da Silva Saraiva. PhD in Regional Development (UFT). Professor at the State University of the Tocantina Region of Maranhão. Av. Brejo do Pinto, S/N – Brejo do Pinto, Estreito-MA. antoniafc@hotmail.com.

Nilton Marques de Oliveira. PhD in Regional Development and Agribusiness (UNIOESTE). Professor at the Federal University of Tocantins. Palmas - TO, Brazil. Quadra 109 Norte Avenida NS 15 - Prédio do PGDR Plano Diretor Norte - Palmas, TO - Brasil. niltonmarques@uft.edu.br.

Antônio Sérgio Monteiro Filocreão. PhD in Sustainable Development (UFPA). Professor at the Federal University of Amapá. Macapá - AP, Brazil. Rodovia Juscelino K. de Oliveira, km 02, bairro Universidade, no Campus Marco Zero do Equador – Macapá-AP, Brasil. afilocreao@gmail.com.

Walter Saraiva Lopes. PhD in Biomedical Engineering (UMC). Professor at the Federal University of Maranhão. Imperatriz - MA, Brazil. Rua Urbano Santos S/N, Centro - Imperatriz-MA, Brasil. W.saraiva@yhaoo.com.br.

Submetido em: 24/11/2025 Aprovado em: 23/06/2026

CONTRIBUIÇÃO DE CADA AUTOR

Conceituação: Antonia Francisca da Silva Saraiva, Walter Saraiva Lopes.
Curadoria de Dados: Antonia Francisca da Silva Saraiva.
Análise Formal: Antonia Francisca da Silva Saraiva.
Obtenção de Financiamento: Antonia Francisca da Silva Saraiva
Investigação/Pesquisa: Antonia Francisca da Silva Saraiva, Walter Saraiva Lopes
Metodologia: Antonia Francisca da Silva Saraiva, Walter Saraiva Lopes, Nilton Marques de Oliveira.
Administração do Projeto: Nilton Marques de Oliveira, Antônio Sérgio Monteiro Filocreão. Recursos: Antonia Francisca da Silva Saraiva
Software: Antonia Francisca da Silva Saraiva

Supervisão/orientação: Nilton Marques de Oliveira, Antônio Sérgio Monteiro Filocreão.
Validação: Antonia Francisca da Silva Saraiva e Walter Saraiva Lopes, Nilton Marques de Oliveira, Antônio Sérgio Monteiro Filocreão.
Visualização: Antonia Francisca da Silva Saraiva e Walter Saraiva Lopes, Nilton Marques de Oliveira, Antônio Sérgio Monteiro Filocreão.
Escrita – Primeira Redação: Antonia Francisca da Silva Saraiva.
Escrita – Revisão e Edição: Antonia Francisca da Silva Saraiva, Walter Saraiva Lopes, Nilton Marques de Oliveira, Antônio Sérgio Monteiro Filocreão.

Fontes de financiamento: Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES). Código de financiamento 001 (durante o doutorado).