



# AMAZONIAN TERRITORIALITIES

**SCIENTIFIC  
RESEARCH  
ABSTRACTS**

Editors

Ricardo Gilson da Costa Silva  
Viviane Vidal da Silva  
Marcelo Horta Messias Franco  
Matheus Pinto de Souza  
Wesley Henrique Garcia e Silva



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Technical committee  
Abel Sidney  
Original preparation and review

Rogério Mota  
Electronic typesetting and cover design  
Cover photos: Ricardo Gilson da Costa Silva

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## Presentation

The proposal of the *Symposium Amazonian Territorialities: Education, Human Rights, and Agrarian Geography in Question* was developed through dialogues with teachers and researchers from the Amazonian region<sup>1</sup>, stemming from collaborative studies, meetings, master's and doctoral committees, fieldwork, and seminars, always involving the team from the Research Group on Territory Management and Agrarian Geography of the Amazonia – GTGA/UNIR.

Initially, the theme of territorial organization and society was being considered. Subsequently, topics related to human and territorial rights became evident, given the issues studied in the Amazonian agrarian space. The dialogue with public education, guided by the question “What is studied about the Amazonia in schools?”, led to an expansion of the theme, forming the axis of education, human rights, and agrarian geography. It is known that the Amazonian agrarian landscape encompasses part of the traditional territories and peasant communities, making them places of conflicts over land, nature, and territory.

The objective of the Symposium, held at the Banzeiros Theater, in the heart of the city of Porto Velho, was to bring together the academic

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<sup>1</sup> For the guidance of students and beginning researchers, it is important to clarify the nomenclature surrounding the term “amazon”. In Brazil, in the north-northwest region, some terms intertwine or overlap geographically: the **Legal Amazonia** (and its macro-region, created by the federal government), the **Amazonia region** or simply **Amazonia** (which is confused, in popular knowledge, with the North Region) and the **state of Amazonas**. Whenever possible, we will use the nomenclature mentioned, as it is more accurate. Throughout the text, “Amazonia” is used instead of the English equivalent “Amazon.”

community, education professionals, researchers, leaders, and activists from social organizations to analyze the main territorial dynamics of the Amazonia; the challenges for the defense of human and territorial rights of indigenous peoples; traditional communities, and agrarian reform settlers, relating these processes to public education, understood as a socio-cultural action necessary to understand the contemporary transformations of the region.

Dialogues with faculty members from the Federal University of Rondônia – UNIR, Federal Institute of Education, Science and Technology of Rondônia – IFRO, University of the State of Amazonas – UEA, Federal University of Amazonas – UFAM, and Federal University of Acre – UFAC highlighted the imperative need for reflections and analyses regarding the diverse territorialities of Amazonian peoples, especially those living within the regional agrarian world. Often, these communities are subject to harassment, disruption, invasions, and violations of their territories of life, culture, and work.

For decades, the Pastoral Land Commission – CPT and the Indigenous Missionary Council – CIMI, two institutions connected to the National Conference of Bishops of Brazil – CNBB, have been conducting studies and denouncing various forms of violence and violations of the human condition of rural, water, and forest peoples, who enrich Brazil in its relationships with territories, social groups, and nature protection. In recent years, agrarian conflicts (involving squatters, landless workers, family farmers, agrarian reform settlers) and territorial conflicts (indigenous peoples, traditional communities, invasions of protected areas) have shifted to the Amazonia, shaping the region as a target for neo-extractive economies, especially agribusiness, which translates into large-scale appropriation of natural resources (land and nature).

In the Amazonia, our field of life and study, the shifting of so-called agricultural, energy, and mineral frontiers has introduced into social relations – from a Marxist perspective – land and nature as exchange value, with the production of regional space beginning the



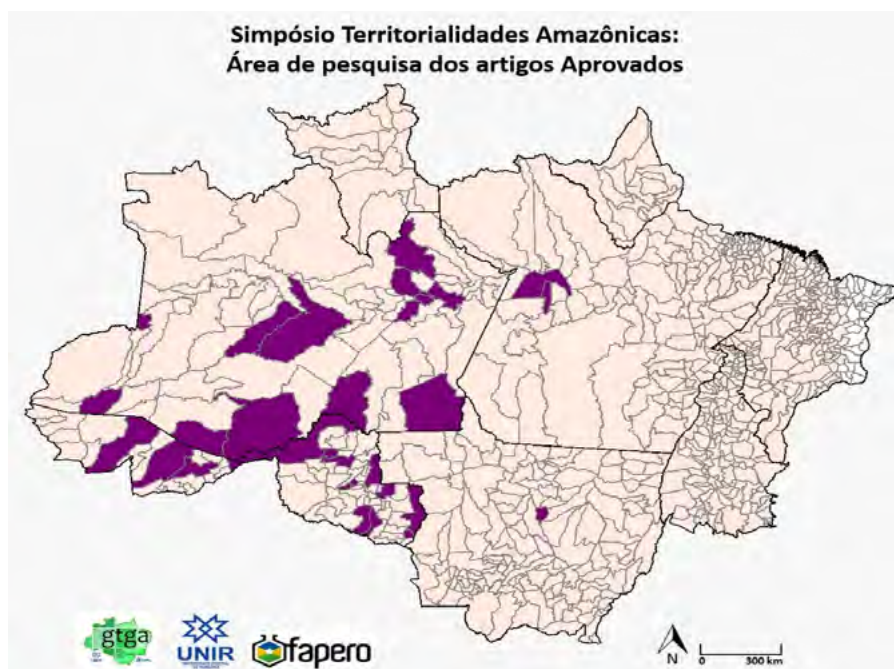
de-(en)velopment<sup>2</sup> of the Amazonia from its aesthetic and unique centralities, in other words, extracting from the Amazonia what makes it Amazonia. Over decades, Amazonia de-(en)velopment has resulted in deterritorializations and the greatest environmental impact produced by public policies. During field research in the region, it is common to observe the propaganda of public banks investing in “sustainable development” of agricultural economies that destroy the forest, eliminate animals, contaminate the soil, streams, and rivers, and displace people.

The contradictions of social and economic life produce unequal, conflicting, and challenging spatialities across various scales. In general, the articles presented in the Amazonian Territories Symposium represent this universe of researched, analyzed, experienced, and reflected situations, both by experienced educators and young researchers who venture into the region driven by discoveries, enchantments, beauties, and sorrows, which are now systematized in texts.

The book “Amazonian territorialities - scientific research abstracts” comprises **40 texts**, the result of generational scientific labor. We managed to map about 30 municipalities considered as the central geographic area of the research presented at the event. With diverse themes, the texts, in the form of academic papers, provide the audience with a comprehensive understanding of the socio-spatial processes affecting the region. Through these texts, the Amazonia can be understood as a space of conflicts, family production, deterritorializations, life in rural settlements, ways of forest life, deforestation frontiers, public policies, public schools, and education as institutions and processes of learning necessary for living in and understanding the region.

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<sup>2</sup> This is a compound word, “de-(en)velopment”, which means “the liberation from ‘wrappings,’ entanglements, and obstacles that hinder the assertion and full unfolding and flourishing of seeds and potentialities that are hidden, waiting to be realized.” In: **Development or post-development? De-(en)velopment and... noflay!** Rogério Roque Amaro (<https://doi.org/10.4000/cea.2335>).



### **Research area of approved articles**

The relevance of public higher education institutions should be highlighted. Without them and without financial support for research, technology, scientific development, and human resources training, it would be difficult to think about the region, comprehend it, and live within it. The state is important, the budget and public policies are important, therefore they must be contested.

The *Symposium on Amazonian Territories: Education, Human Rights, and Agrarian Geography in Question* owes its existence to the public policies guided by the Rondônia Foundation for the Support of Scientific and Technological Actions and Research – FAPERVO, to which we are immensely grateful for the institutional support provided to the event.

The Editors.

## THE CONTRIBUTION OF FAMILY FARMING IN RONDÔNIA'S FOOD PRODUCTION

Wesley Henrique Garcia e Silva

Master's and Doctoral Program in Geography, Federal University of  
Rondônia - PPGG/UNIR

wesley.geo.29@gmail.com

José Humberto da Silva Alfredo

Nasser University Center – UNIFAN

humberto@unifan.edu.br

### ABSTRACT

To investigate family farming, it is necessary to consider the temporal frameworks and the academic, political, and social axes that mark its ways of life, production, and spatial organization. Therefore, faced with the challenges experienced by family farmers who resist the capitalist transformations in the Brazilian countryside, the question for this study is: what is the contribution of family farming in Rondônia to food production? The objective of this study is to demonstrate the contributions of family farming in Rondônia to food production. To achieve this goal, the state of Rondônia was chosen as the spatial scope. The collected data were from the 2017 Agricultural Census of the Brazilian Institute of Geography and Statistics (IBGE), using the Gross Production Value (VBPA) variable. The results show that family farming contributes to food production in Rondônia, especially with food products such as milk, vegetables, fruits, rice, and beans. Furthermore, the percentage of this category in these foods is significant in relation to the VBPA of the total state production.

**Keywords:** Family farming. Agricultural census. Food production.

## **INTRODUCTION**

Family farming has been the subject of theoretical discussions that highlight its nuances regarding its spatial organization, agricultural production, and public policies. It is emphasized that family farming has played an important role in society, particularly in producing food that sustains the Brazilian population.

The profound transformations experienced in the countryside since the 1960s, with the introduction of technology in the production system under the pretext of economic development, redirected the productive categories in the countryside, including family farming. However, the entry of capital into rural areas led to new productive rearrangements, subordinating these categories to the production of commodities such as soybeans and corn, thus forming a framework of monocultures. This domination of the territory not only provoked production changes but also exacerbated rural exodus, particularly among small farmers. Nevertheless, family farmers have resisted this new globalized dynamic of capital in rural areas, emphasizing production diversification, polyculture, and agroecology, which are essential for the livelihoods and incomes of peasant families, as well as for contributing to food sovereignty.

In this context, the aim of this study is to demonstrate the contributions of family farming in Rondônia to food production. We consider the importance of this research in light of the growing production of monocultures by non-family agriculture such as soybeans and corn, as indicated by data from the Municipal Agricultural Survey (PAM/2022) of the Brazilian Institute of Geography and Statistics (IBGE), while family farmers supply food to Brazilians. Additionally, this study supports the existing literature on the subject, which emphasizes the importance of family farming in building a diversified and healthy diet.

## **MATERIALS AND METHODS**

For this investigation, the state of Rondônia, located in the Brazilian Amazonia, was chosen as the spatial scope. First, a search for specialized literature on the topic was carried out to provide the theoretical framework. Then, through documentary technique, secondary

data were collected from the 2017 Agricultural Census of the Brazilian Institute of Geography and Statistics (IBGE).

The collected data pertain to the Gross Production Value (VBPA), limited to the total state and compared to the participation of family agricultural production. The chosen products for examination were rice, beans, fruits, the five main vegetables with the highest horticultural production, cow's milk, and products processed in family agribusiness such as cassava flour, cheese, ground coffee, butter, etc. These products were selected because some of them are part of the basic food basket in Brazil, according to the Inter-Union Department of Statistics and Socioeconomic Studies – DIEESE, and they are also products that contribute to a diversified, sustainable, and healthy diet, according to Martinelli and Cavalli (2019). The study is descriptive, and a table was organized for the analysis and discussion of the results.

### **RESULTS AND DISCUSSION**

Defining family-based agriculture encounters two main perspectives that permeate rural studies. The first is advocated by Abramoway (1992), who does not necessarily see the category as exclusively family-based. According to the author, there is no need for agricultural production or property to depend strictly on a family unit. In this sense, this perspective also aligns with the idea that family farming is the result of state action, considering social and political events. Three basic characteristics are present in Family Farming: management, ownership, and family labor, requiring the presence of at least one family member, not the whole unit. This view also sees family farming as having a business character, using its property to produce and meet market demands, thereby transforming this into profitability.

On the other hand, departing from the first perspective, we find the studies advocated by Wanderley (1996; 2003) and Lamarche (1994), who argue that the category has its historical roots in peasant communities. According to them, family farmers are those who see production not directed at maximizing profit but at their family's subsistence. Family farming is based on their ways of life, how they produce, their relationship with the land, and how they organize their space.

However, it is essential to highlight that this terminology underwent a construction process over time, starting around the 1960s, with the introduction of technology in rural areas and the discourse of modernization. The Green Revolution, as the package of technological innovations promoted for the countryside was called, aimed to boost Brazilian rural areas, mainly in large-scale production. The state played an important and decisive role in this process, providing financial and fiscal incentives. However, these state actions favored large producers, who saw small-scale production as synonymous with backwardness and rudimentary techniques that contributed nothing to economic development (HESPAÑHOL, 2000). This achievement opened the way for small farmers (formerly known as family farmers) to remain on the margins of public policies for decades, exacerbating difficulties while land concentration was shaped in Brazil.

It was in the 1990s that a mosaic of events in the political, social, and academic spheres began to pressure the state to pay attention to the category and to initiate the first steps of public policies directed toward the sector. In the mid-1990s, the National Plan for Strengthening Family Farming (PLANAF) was created, followed by the National Program for Strengthening Family Farming (PRONAF). However, it was only in 2006 that specific legislation for this category was enacted, enabling more pronounced public policies and a clear distinction between family farming and non-family agriculture.

Thus, in July of that year, the guidelines of family farming were defined by Law 11.326/2006. Family farming then acquired its legislation that defined it as a technical category for accessing the state and also recognized its importance to the Brazilian agricultural sector, supporting regional economies. Understanding the agricultural and livestock production of family farming in Rondônia considers the importance of this category for local economies and reinforces the contribution and commitment of these farmers to the food supply of Brazilians.

In July of that year, guidelines for family farming were established by Law 11.326/2006. Accordingly, family farming acquired its own legislation that defined it as a technical category for access to the state and recognized it as an important sphere within the Brazilian

## The contribution of family farming in rondônia's food production

agricultural sector, contributing significantly to regional economies. The pursuit of understanding the agricultural and livestock production of family farmers in Rondônia considers the significance of this category for local economies and underscores the contribution and commitment of these farmers to the food supply of Brazilian households.

As preliminary results, we present the participation of family farming in Rondônia concerning the total agricultural production, as shown in Table 1. It is evident that family farming has a substantial presence, especially in the production of fruits, vegetables, and processed products from agribusiness.

**Table 1** – Participation of Family Farming in Rondônia's Food Production (2017)

<b>Products</b>	<b>Total (VBPA)</b>	<b>Family Farming (VBPA)</b>	<b>Percentage of Participation</b>
Fruits	70,472	61,881	88%
Rice	77,544	5,236	7%
Beans	7,211	6,216	86%
Cassava	45,834	41,455	90%
Cheese and Curd	31,522	21,069	67%
Cassava Flour	14,005	13,185	94%
Fruit Pulp	5,563	5,299	95%
Fruit Juice	1,620	1,545	95%
Roasted and Ground Coffee	220	213	97%
Butter	54	27	50%
Lettuce	11,756	8,319	71%
Green Onion	6,472	5,231	81%
Cucumber	4,170	3,616	87%
Staked Tomato	4,670	3,562	76%
Yam	33,94	3,131	92%
Cattle Farming	2,444,521	514,479	21%
Cow Milk	752,957	659,933	88%

**Source:** Authors' elaboration based on the 2017 Agricultural Census (IBGE)

The major contributions of this category in food production are observed in ground coffee and cassava flour. Among vegetables, yam and cucumber stand out. Furthermore, among the grains produced, beans account for 86% of the total production in the state. Notably, in terms of cow's milk, family farming contributes to 88% of the total production in the state, indicating the significant role of family farmers in dairy production.

It is also important to consider that family farming plays a significant role in the total production of cattle farming in Rondônia. According to the Agricultural Census, the state has 9,827 head of cattle, and nearly 50% of these belong to family farmers, accounting for 4,862 head of cattle. The Value of Agricultural Production (VBPA) for cattle farming corresponds to 21% of the total production.

### CONCLUDING REMARKS

The objective of this study was to demonstrate the contributions of family farming in Rondônia to food production. Thus, based on the findings and their subsequent analysis, it is evident that family farming has been making a significant contribution to food production in Rondônia. This category's notable contributions are primarily in the production of ground coffee, vegetables, beans, milk, cheese, and butter. Additionally, family farming shows substantial involvement in cattle farming for slaughter.

Moreover, it is important to highlight that despite facing challenges and the influence of capital in the agricultural sector, family farming has persisted and continued its production and organization, thereby contributing to food sovereignty.

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## FAMILY FARMING AND SPATIAL PRODUCTION CIRCUITS IN RONDÔNIA

Tiago Roberto Silva Santos  
Federal Institute of Rondônia – IFRO Cacoal  
tiago.santos@ifro.edu.br

### ABSTRACT

The constitution of Rondônia, involving the federal government's colonization project, has led to significant spatial transformation, with the incorporation of agricultural practices as a way of organizing and using space. Family farming has played a significant role in this process of transition, and even with the introduction of a globalized logic of commodity production, this social group has demonstrated its relevance through important agricultural activities such as coffee, cassava, and dairy and meat livestock, which promote spatial production circuits in Rondônia. Therefore, we aim to demonstrate the importance of family farming in the context of the socio-spatial formation of Rondônia, as well as in the formation of spatial production circuits.

**Keywords:** Family farming. Rondônia. Agriculture and livestock farming.

### INTRODUCTION

The context surrounding the directed colonization project implemented in Rondônia has promoted intense socio-spatial transformation in the state, which has shifted from the predominance of a natural space to a technical space (COSTA SILVA, 2014; SANTOS, 2014). Involved in this process, family farmers from various parts of the country were encouraged to migrate to Rondônia, forming a large contingent of families that contributed to the opening of the forest and the transformation of this into an agro-pastoral production space (COSTA SILVA, 2014; 2015; OLIVEIRA; AMARAL, 2017). The advance of commodity agribusiness has

transformed the dynamic of production in Rondônia, introducing new technologies and the logic of capital. Thus, we aim to demonstrate the importance of family agriculture in the socio-spatial formation of Rondônia, as well as in the formation of spatial production circuits, combining technology, quality, and quantity, without losing its character as a social class that gives life to the countryside, as is the case with agribusiness.

### **METHODOLOGY**

For the development of this research, we used secondary data provided by the IBGE, such as the Agricultural Census and the Municipal Cattle Survey, to obtain quantitative data. These data, together with theoretical analysis of the topic, allow for a qualitative-quantitative research, i.e., data and theory complement each other in the conception of the obtained conclusions (MINAYO, 1997), on the reality of family agriculture in Rondônia.

Therefore, in addition to data collection at the IBGE, a theoretical analysis was conducted around the colonization of Rondônia and its socio-spatial configuration, especially based on the works of Santos (2014), Costa Silva (2014; 2015), Porto-Gonçalves (2017), and our work on the spatial production circuit of coffee (SANTOS, 2021). Based on the theoretical concept and data, conclusions were organized about the role of family agriculture in Rondônia.

### **RESULTS AND DISCUSSION**

The context of directed colonization in Rondônia presents a heterogeneous space, where the coexistence of actors from various parts of the country, in contact with the traditional Amazonian population, results in a diverse environment in terms of cultural, social, and economic aspects. This logic expresses a “great sociometabolic transformation” (PORTO-GONÇALVES, 2017, p. 31), which Costa Silva (2014) presents as a transition from a natural space to a technical space, pointed out in Santos (2014).

## Family farming and spatial production circuits in Rondônia

From this relationship initiated in the colonization project, Rondônia begins to present an agro-pastoral productive dynamic, with the introduction of various agricultural crops to meet the demands of the population that arrived here, but also the use of livestock for the occupation of deforested areas without the need for large investment for its occupation. The data in table 1 demonstrate the evolution of agro-pastoral activities in Rondônia from 1970 according to the agricultural censuses.

**Table 1 – Agricultural and Livestock Production in Rondônia (1970/1975/1980/1985/1995/2006/2017)**

	1970	1975	1980	1985	1995	2006	2017
Coffee (Ton)	21	1.029	13.739	64.956	78.921	78.286	35.471
Rice (Ton)	9.593	125.589	117.016	224.917	87.654	93.759	83.953
Sugarcane (Ton)	1.847	1.074	3.074	4.486	23.027	32.501	83.689
Beans (Ton)	2.779	7.238	18.883	34.187	47.929	14.689	2.833
Cassava (Ton)	33.743	39.780	50.831	69.520	53.569	92.280	33.575
Corn (Ton)	8.675	36.119	67.023	116.558	133.727	155.734	647.413
Soy (Ton)	-	66	14	1.257	1.504	150.567	800.293
Poultry (heads)	310.000	1.140.000	2.378.000	3.813.000	4.896.000	4.904.000	6.262.000
Cattle (heads)	23.125	55.392	251.419	770.531	3.937.291	8.542.726	9.827.017
Milk (thousand liters)	824	3.240	18.241	47.279	343.069	639.437	899.981

**Source:** IBGE, 2017 Ed.: the author

From the data, it is observed that initially, the production of cassava in conjunction with rice and corn were the main productions in the first 15 years after colonization, i.e., they were productions aimed at meeting the demands of local food, as it involved the incorporation of this area into the productive logic. Coffee, which was also introduced

at this time, began to increase its production only from 1980, as it is a perennial culture that takes time to show production results.

Therefore, it is noted that the economic activity that sustained Rondônia's agriculture was centered in the hands of the family farmer, but from 1995, there is a high increase in soybeans, which until then had no representation, i.e., there is a new transition of the Rondônia space, moving towards the logic of global production of commodities and the incorporation of technical-scientific production and logistics (COSTA SILVA, 2014; 2015; SANTOS, 2014; OLIVEIRA; AMARAL, 2017).

When analyzing this evolution in relation to livestock, the data also reveal the transition of the predominance of family practices with the incorporation of a more globalized market. It is noteworthy from the data in table 1 that until 1985, family agriculture predominated with the creation of chickens, a characteristic of small establishments for self-consumption or local trade. However, during this initial period of opening up the forest, the cattle herd was low. But from 1985, with the intensification of environmental pressures on Rondônia and the "freatment" to deforestation, efforts began to effectively occupy the open pastures, resulting in an intense growth of the head of cattle and as a result, milk production, which is an activity characteristic of family agriculture.

This understanding of the periodic evolution of agro-pastoral practices in Rondônia allows us to visualize the real intentions behind the project of colonization of the state, which was to incorporate the capitalist logic of the commodity market of production, which is currently demonstrated in grains (soybeans and corn) and meat (OLIVEIRA; AMARAL, 2017). While it was necessary to occupy the territory and deforest, family farmers were encouraged to migrate to Rondônia, but currently the market logic prevails in the public policies and discourse aimed at the rural Rondônia, favoring land grabbers, large landowners, and territorialized agents of capital to the detriment of incentives for family farmers.

Despite the predominance of this logic, family agriculture is still an important agent in the socio-economic and spatial organization of the rural Rondônia, as it is the main productive agent of some

important production circuits in the state, such as coffee, cassava, and beef and milk.

According to data from the Agricultural Census (IBGE, 2017), family agriculture is responsible for 90% of coffee production and 88% of cassava and milk. In addition, it has almost 50% of the state's cattle herd, i.e., although this is an activity aimed at commodity production of meat, small farmers have an important participation, especially in the initial stages of creation and rearing, while large landowners develop the stage of fattening and sale for slaughter.

Rondônia's coffee has had a significant participation in the national and even international scenario, with a production of quality and that has also incorporated technical and scientific development in the production process, as we pointed out in Santos (2021). The cassava, on the other hand, has a more regional coverage, especially in meeting the demands of factories that produce flours and gums, which are part of the local culture. Finally, milk production, concentrated mainly in the central part of the state, has a significant production capacity, exceeding the mark of 1 million liters between 2017 and 2019, but between 2020 and 2021, it presented an intense reduction, as shown by the data from the Municipal Cattle Survey (IBGE, 2021).

Therefore, the activity performed by family agriculture fosters the formation of important spatial production circuits in Rondônia, circulating production in the territory and incorporating new objects that structure the fluidity and operation of these circuits, from technical innovations in production to storage and circulation structures. This whole logic around family activity demonstrates its important socioeconomic role, without decharacterizing it as a social group that gives life to the countryside, different from what is identified with agribusiness.

## FINAL CONSIDERATIONS

In this brief scenario presented, it is possible to verify the important participation of family agriculture through the territoriality of its practice marked by productions of great relevance in the formation of spatial production circuits, contributing to the economic and social

development of the countryside, serving as a demonstration of the ability of this class to produce, integrating technology, quality, and quantity, without decharacterizing itself as a social group that occupies and gives life to the rural Rondônia space.

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## PRIMITIVE ACCUMULATION: REGIMES OF EXPROPRIATION, ENCLOSURES, AND DISPOSSESSION IN THE AMAZONIA

Lucas Ramos de Matos

Federal Fluminense University – UFF

lucasmatos.geouff@gmail.com

### ABSTRACT

This paper analyzes the territorial conflicts resulting from the current phenomenon of invasion of Protected Areas and community territories in the Amazon. It focuses on the main characteristics of land and timber conflicts, selecting the actions of agribusiness against peasants in Rondônia, Amazonia. It concludes that territorial conflicts over Protected Areas and community territories in the Amazonia are locally formed and driven by the clash of exogenous forces and endogenous territorial coherences, followed by the destruction of territories, ecosystems, and communities, ranging from the projections of political and economic groups (forest management, livestock, monoculture, mining, etc.) to regimes of expropriation, enclosures, and dispossession typical of a persistent primitive accumulation.

**Keywords:** Regimes of expropriation. Enclosures. Dispossessions. Amazonia. Rondônia.

### INTRODUCTION

In Chapter 24 of Volume I of “Das Kapital,” Marx opposes the transcendental speculation that the emergence of capitalism was due to the primitive accumulation of a greedy elite who, in their historical zeal, acted to the detriment of a lazy mass of spendthrift adventurers who accumulated money and constituted the origin of capitalism. This theoretical speculation has its origin in “The Wealth of Nations” by Adam Smith and has provided support for the emergence of a series of neoliberal theses, such as Laissez-faire, for example. In this classical

view, the accumulation of capital, as well as its historical genesis, follows a path of idyllic facts, i.e., to the extent that it does not recognize unilateralities of the historical process and the class conflict, it arises from the natural course (and passive) of history. Marx, in turn, suggests a new understanding of the theory of primitive accumulation, which, under criticism, deals with (not only) the historical process of separation between those who produce and the means of production. For Marx, unlike labor and zeal, primitive accumulation derives from theft, fraud, debt slavery; the most amusing, bloody, brutal and infinite forms of violence.

Motivated by efforts between those who want to “bury” Marxism and those who try to find a way in Marx’s work - beyond a “late Marx” (Theodor Shanin) - a series of arguments about the theory of primitive accumulation have emerged, either as a fact of the past or as a fact of the present, alive as never before. Unlike what was suggested in a series of prophecies about Marx’s theory, primitive accumulation expresses, in practice, the plundering of all forms of wealth in times of global investment crises of global capital (HARVEY, 2005), the regimes of dispossession of land-based resources (LEVIEN, 2014), the deterioration of working conditions and the destruction of human survival means, inseparable from the destruction of territories, ecosystems and the social metabolism with nature (MATOS, 2023).

To strengthen the debate on conflicts in the Amazon, based on the concept of “regimes of dispossession” (LEVIEN, 2014) - which seems to us the most appropriate approach to reconstructing the theory of primitive accumulation - without being tied to the term “dispossession” itself, we will illustrate an empirical debate on the different regimes of expropriation, enclosures, and dispossession expressed in the methods of primitive accumulation of rapacious groups on Protected Areas and peasant territories in the Amazon.

To illustrate a specificity in the Amazon, we selected a comparative study of the regimes of expropriation, enclosures, and dispossession: the conflict over land, territory, and nature in the Margarida Alves Settlement Project in the central region of Rondônia. After demonstrating our methodological option based on the ethnography of the

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territorial conflict, we will explore the dimensions of the empirical reality of the violence supported by the regimes of primitive accumulation on peasant territories in the Amazonia (expropriation, enclosures, and dispossession).

### **ETHNOGRAPHY: IMMERSION AND FIELDWORK**

The research was based on an ethnography of territorial conflicts to form a social map of the conflicts, entering the everyday life of settled families in the Margarida Alves Settlement Project. As part of the immersion, data collection was built from interviews, access to the study's locus (block reserve), and positioning in specific activities, places, occasions, and moments, as well as in meetings and assemblies held by settled families and also by families Without Land camped in the mentioned reserve. In this ethnographic immersion, there were several visits to the block reserve of the Margarida Alves Settlement Project between 2019 and 2023. At this time, the documentary archive of the conflict's history was also accessed: legal operations, judgments, documents from the cooperative of settled families, settlement project, and socio-spatial formation of the settlement. The profile and attitude of the main agents in the arena of disputes were identified here, and the social map of the territorial conflict was constructed. For this approach, the selected data are: legal proceedings, interviews with community leaders, participant observation, and image records.

### **AGRIBUSINESS, EXPROPRIATION, ENCLOSURES, AND DISPOSSESSION OF PEASANT TERRITORIES IN THE AMAZON**

In Brazil, after the 2016 parliamentary coup, the doors were opened to multiple hegemonic perspectives and authoritarian tendencies against the space of the peasantry, configuring an updated geopolitical scenario of territorial and economic transformations in strategic regions for the capitalist exploitation of natural resources. To give an example, in the Amazon, which has long been the stage of intense disputes and territorial transformations, conflicts of all kinds explode everywhere. After the political imprisonment of Lula da Silva, taking advantage of the

“perfect storm” of the post-coup, the radicalism to the right, strengthens a parallel power exercised by agribusiness (alliance of mercenary military, landowners, land grabbers, social groups, miners ...) linked to the “new right”, exacerbating conflicts, violating nature, territories, and human rights (COSTA SILVA et al., 2020).

The Amazon, which represents a rich sociobiodiversity in Protected Areas, inhabited or not by peasant communities, with edapho-climatic conditions for the expansion of the agricultural frontier (livestock, monoculture, extraction, etc.), as a result, assumes the role of a vital space for the projection of hegemonic groups (lumber companies, meatpacking plants, agribusiness, silos, confinements, etc.) linked to mercenary groups (agribusiness).

Costa Silva et al. (2020) demonstrate that agribusiness has expanded methods of expropriation/enclosures in strategic regions of the Amazon, formed by Protected Areas and community territories:

These processes are related to organized groups, veritable agribusiness that act through coordinated invasions to grill the indigenous land, trying to make the Karipuna Indigenous Land (T.I.) a laboratory of agribanditry in the Amazon, in order to produce a political dominion added to a social situation with a view to make irreversible the grill of lands, as occurred and occurs in the Jacy-Paraná Extractivist Reserve (RESEX) and the Bom Futuro National Forest. This is the apostle and territorial project of agribanditry that operates in Rondônia and the Amazonian Brazil. One of the strategies of agribanditry is to encourage the expansion of the frontier by inducing these groups to displace the peasantry (squatter), inducing these groups to deforest environmental areas that are regulated, with the intention of pressuring the government to alter the limits of Conservation Units and the types of uses described in the instruments of territorial management (COSTA SILVA et al., 2020, p. 266).

Therefore, the most awe-inspiring methods of a typically contemporary primitive accumulation are configured on Protected Areas and community territories in the Amazonia. Currently, the situation of

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community territories under conflict in the Amazonia is complex. Most of these conflicts also result from the structure of fixed/flows (material and immaterial) of globalized capital that advances on the frontiers of nature, marked by the territorialities of the peasant mode of production and reproduction, causing the intensification of competition for strategic natural resources; object of commodity of capital.

In the Margarida Alves Settlement Project, it is possible to observe the *modus operandi* of the so-called agribusiness on the invaded areas. The organization branched out in various regions of the Amazon, the geostrategies of territorial dominance, the irreversibility of ecological processes, and the multiple methods of enclosures, expropriations, and dispossessions and languages of violence determine the profile of these rapacious groups, as shown in a judicial sentence issued against members of the aforementioned agribusiness.

This criminal organization (ORCRIM) had the objective of invading an area of Union property and expelling from the location, through acts of violence, the people who were legally settled in the location; and that, through the Cooperative of Rural Workers of the Margarida Alves Settlement, they were economically and legally exploiting the legal reserve area of the mentioned Rural Settlement.

The investigations indicated that the Margarida Alves settlers' invaders hired militias (group of soldiers) from the city of Ariquemes/RO, with the purpose of providing weapons and a team of people to enable the practice of facts (Federal Public Ministry, p. 36, 2017).

**Figure 1** – Geostrategies of enclosures of mercenary groups on the Margarida Alves Settlement Project and Block Legal Reserve, mosaic of photos



**Legend:** A) The milk cooler located in the Margarida Alves Settlement Project, with numerous bullet marks, a result of vandalism methods in the Margarida Alves Settlement Project (author's collection); B) the result of the “Terra Roxa” and “Terra Legal” operations in the block reserve of the Margarida Alves Settlement Project (Rondônia); C) and D) peasants tortured by agribusiness inside the block reserve (Federal Public Ministry; Police Civil).

**Source:** Author's collection; Rondônia; Federal Public Ministry (MPF); Police Civil-Rondônia (2019-2023).

Beyond the ramification in various regions of the Amazon, these groups have ramifications in the institutions of the State itself. There are reports of the settler families themselves about the dialogue of the paramilitaries with public officials, the military corporations and political groups to access information about the settlement, aiming to guide the invasions.

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The access of agribusiness to the institutions of the State increases the “power quotas” of these groups at the expense of minority social groups. On this occasion, community groups deposit the responsibility for mediation/arbitration of disputes with public institutions and experience the flexibility of the rules. Agribusinesses only expand their methods of expropriation, enclosures, or dispossession when they are ramified in public institutions. In many cases, because they are represented by public officials, members of agribusiness receive information about ongoing operations and investigations, which allows for greater organicity to bypass the supervisory bodies and ensure advantages in the arena of conflicts. This is what happened in the Margarida Alves Settlement Project in recent years.

### **FINAL CONSIDERATIONS**

The current phenomenon of invasion of Protected Areas and community territories in the Amazonia generates, in turn, complex, ambiguous, and controversial conflicts, involving social/ecological movements of various agendas, public institutions, economic groups, agribusiness, settlers, social subjects, etc., which generates a series of interpretations according to the convenience of each actor involved in the arenas of conflict, especially between the rapine groups.

Another aspect of the conflicts in the Amazonia is the lack of resources of the social groups in the arena of conflict. The groups that integrate the rapine groups, in turn, have enough resources to invest heavily in the territorial domination strategies, resulting in a set of “power quotas” that put them in advantage over minority groups. The lack of resources of the social groups strengthens the methods of expropriation, enclosures, and dispossession of the rapine groups. In addition, what can be verified in other approaches, the daily exercise of violence practiced in the community territories, seems to be based on a superstructure of languages of violence justification of multiple forms of concrete violence, in which invading Protected Areas - especially those populated by diverse communities - has support, in addition to other symbolic dimensions, in what seems to be a moral issue of the “agricultural world”, in which the social groups are labeled as representing the “backwardness” while the rapine groups represent the “progress”. With this, these conflicts are

driven by a certain economic rationality of hegemonic groups: a clash of antagonistic symbolic values.

The clashes are locally driven by a broad sphere of exogenous forces, oscillate according to the action of the involved actors and political moments. It is the result of a complex of interactive causes and effects typical of the capitalist exploitation of nature and its corresponding primitive accumulation, which makes the areas of conflict an arena of long and intense clashes. Another issue involving these conflicts in general is the irreversibility of the ecological processes, since a large part of these areas have been converted into pasture for livestock breeding and monoculture. Therefore, it is appropriate to question the future of Protected Areas and community territories affected by these capitalist looting processes. It is necessary to speak of the social reappropriation of land, territories, and nature from the Amazonia.

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**ABOUT RESISTANCE IN LAND REFORM SETTLEMENTS:  
CATTLE RAISING IN THE MARGARIDA ALVES SETTLEMENT  
IN NOVA UNIÃO, RONDÔNIA**

Marcel Emeric Bizerra de Araujo  
Federal Institute of Rondônia – IFRO, Vilhena  
marcel.emeric@ifro.edu.br

William Kennedy do Amaral Souza  
Federal Institute of Rondônia – IFRO, Colorado do Oeste  
william.souza@ifro.edu.br

Claudinei Lucio Soares dos Santos  
Coordination of the Landless Workers Movement – MST and Via  
Campesina  
claudineisantos@mst.org.br

**ABSTRACT**

The Margarida Alves Settlement in the municipality of Nova União (RO) is the result of the struggle for land embraced by the MST in Brazil. The aim of this study was to present some of the resistance strategies used by the families of Margarida Alves to remain on the land, especially those related to cattle raising. We compared data from 2007 and 2019. The main result was that the settlers of Margarida Alves have dairy production as their main source of income, but there is a gradual gain in the importance of beef cattle, which has allowed families to progressively increase their monetary income from 2007 to 2019, which is one of the main strategies for staying in the settlement. This increase in income, combined with access to credit lines and other sources of income, guarantees settlers better quality of life and dignified permanence on lands of the land reform.

**Keywords:** Milk production. Staying on the land. Income in land reform settlements.

## **INTRODUCTION**

Agriculture practiced in land reform settlements in Rondônia is diverse and currently focused on meeting the demands of large rural capitalist groups involved in food production, such as dairy and multinational meatpacking companies. Rondônia has a favorable climate, soil, and terrain for dairy farming and is the ninth largest herd of milk cows and the seventh largest dairy basin in the country, the first in the North region, with an estimated production of 972 million liters in 2018, equivalent to 2.8% of national production and 47.7% of the volume of the North region (EMBRAPA, 2019).

According to Araújo (2015), based on data from IDARON<sup>3</sup> (2019), more than 80% of dairy producers in Rondônia are considered small family farmers (peasants), with the main difficulty being the low use of modern technologies such as genetically improved cows, lack of access to quality feed for each type of nutritional need of the animals, scant improvement of pasture with quality grass, and inadequate transportation, all of which leaves the product with low added value. These difficulties are greater in land reform settlements.

The municipalities with the highest daily milk production are located in the central region of Rondônia, with Ouro Preto do Oeste standing out with 82,461 liters/day and Jaru with 73,317 liters/day (IDARON, 2019). In the central region of the state, there are also large dairy and meatpacking plants, which constitute an incentive to the creation of cattle for both milk production and slaughter.

Nova União, a municipality also located in the central region of the state, was, until the 1970s, a Rural Support Center (NUAR) of the Integrated Colonization Project (PIC) Ouro Preto. In this municipality is located the Margarida Alves Settlement (research area of the present

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<sup>3</sup> IDARON is the acronym for Agrosilvopastoral Health Defense Agency of the State of Rondônia.

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study), which, to meet the increasing demand for milk and beef not only in the region but throughout the country, has modified over the years the way of producing and the type of production of the settlers.

In the Margarida Alves Settlement, we have verified the growing interest of the settlers in milk production and, currently, also in bovine cattle for slaughter. As this change in the way of producing and the type of production has modified the way of life and forms of resistance of the peasants? This study aims to investigate what is the main source of income of the settlers and whether it has improved from 2007 to 2019. We know, through other studies, that dairy production is the main source of income for families, but other factors such as access to credit lines and other non-agricultural income sources have also contributed to the settlers' permanence on the land. Comparisons between data from 2007, 2013 and 2019 allowed us to know the evolution of the production systems and the forms of commercialization used by the settlers, as well as their future prospects. These are important aspects to design the agrarian dynamics of the region and possible paths to strengthen the strategies of resistance (or even initiatives of protagonism) of the peasants in other regions of Rondônia and Brazil.

## **METHODOLOGY**

We conducted bibliographical research and consulted secondary data sources, and in a second moment, for primary data collection, we visited the Margarida Alves Settlement from February 3 to 14, 2019. On that occasion, we applied 77 forms with questions about production, marketing, technical assistance, and future prospects, with the aim of updating the data already available on the settlements surveyed in 2007 and 2013. We used the form as an important social research tool, as it constitutes a system of data collection directly from the interviewee: "what characterizes the form is the face-to-face contact between the researcher and the respondent, and the questionnaire being filled out by the interviewer during the interview" (OLIVEIRA et al., 2016, p. 9).

To define the number of individuals (visited families) participating in the research, we used the sampling methodology proposed by the

digital platform SurveyMonkey, which considers the sample size as the number of completed responses received in a questionnaire. It is called a sample because it represents only a part of the group whose opinions or behaviors are relevant.

We considered the sampling error (difference between the estimated value of the survey and the true value), defined by the researcher, with a suggested value of 10%. The confidence level is the probability that the sampling error will be less than the sampling error accepted by the survey, at a level of 10%. A 90% confidence level, for example, indicates the probability that the error committed by the survey will be less than the value established by the survey in 90% of the cases. People who responded to the form were considered heads of household or those who represented them at the time of data collection. In total, we applied 77 forms, not just 70, as suggested by the sample calculation, to adjust to the surveys previously carried out in the same Settlement.

We analyzed the data using descriptive statistics, constructing tables and graphs, in order to have a detailed view of the composition of the families and the production data of the Settlement, in order to understand the strategies of the settlers to remain on the land and guarantee a better quality of life.

## RESULTS AND DISCUSSION

During our research visit to the Margarida Alves settlement in 2019, we visited Mr. “ST’s” lot, who was eager to show us his lot and tell us how his financial situation had improved since 2013 (the year of the last survey we conducted in the settlement). He told us that, in addition to access to financing through the National Program for Strengthening Family Agriculture (Pronaf), he could now count on some equipment belonging to the Mixed Cooperative of Extractivism, Family Agriculture, Ecologism, and Service Provision (Coomeafes) of the Settlement, such as tractors, trucks, and grinders.

In his lot, he currently has a mechanical milking machine and a cooling tank belonging to the Cooperative of the Settlement, and he has acquired more heads of dairy cattle (now with a total of 90 heads,

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with a milk production of 80 liters/day) and uses pasture rotation for his herd (a project designed by a technician from MST who advises settlers on some services, according to the interviewee). Mr. “ST” is an example of improved income and, as a result, improved living conditions. He told us that access to credit lines such as Pronaf helped him improve the infrastructure of his lot and, consequently, milk production, ensuring him better income and the ability to pay off his loans. This is what we call economic investment strategies (SANT’ANA, 2003), used as a way of maintaining the peasant on the land.

The families of Margarida Alves are increasingly investing in dairy production. This investment is related to access to credit and other types of income, including non-agricultural ones.

This research showed that in Margarida Alves, family agricultural work predominates within the establishment (90.94% of survey participants). A relevant factor was the finding that 84.06% of those surveyed who do not perform agricultural activities outside their lot, while only 15.94% perform work on other properties through exchange of service days, receipt of daily wages, or other forms of payment.

Expanding the analysis to incomes considered non-agricultural, 44.16% of the interviewees have another type of income in addition to that from agricultural activities within their lot. Among those who have non-agricultural income, the sources are diverse (41.56% of the total), but retirement/pension predominates, with 65.62%, followed by salary from public employee, with 21.9% of the total.

Among the families that have resorted to credit lines, we see that almost all (93.3%) have used financing for the purchase of cattle (dairy and beef). Most of these have used financing to invest in the purchase of beef cattle (54.24%) and 38.9% to invest in the purchase of dairy cattle. This result indicates a trend towards a change from dairy production to beef production, which is also becoming one of the main economic activities of the settlement. Although Araújo (2015) states that the main source of income for families is milk production, we can currently see that the mixture of dairy and beef cattle tends to result in higher income for the settlers, contributing to their permanence on the land.

## FINAL CONSIDERATIONS

As we finalize this work, we consider the maintenance of milk production and the adoption, albeit slow, of cattle farming for meat as productive strategies for remaining on the land. We understand that other sources of income and access to credit lines serve as support for the continuation of cattle farming in the Margarida Alves Settlement.

We also verify that the Margarida Alves Settlement continues its process of transition in the way of producing, adapting more and more to the demands of the milk and meat market in Rondônia. We emphasize that this adaptation to the market does not occur in a submissive way, because the organicity of the settlers and the social movement that is present there allows for the possibility of discussion with the market about the production and final price of these goods. The income of the families remains mainly from milk production and has been increasing in relation to previous years. The settled families, in their majority, want to remain on the land, which shows a good perspective for the continuity of the settlement without projecting losses in relation to the number of families settled compared to what was proposed in its creation.

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## THE CONCEPTUALIZATION AND DEFENSE OF LIFESTYLES AS A FORM OF AFFIRMATION AND RESISTANCE FOR FARMERS AND TRADITIONAL COMMUNITIES AND PEOPLES

William Kennedy do Amaral Souza

Rondônia Federal Institute of Education, Science and Technology of  
Rondônia – IFRO, Colorado do Oeste  
william.souza@ifro.edu.br

Marcel Emeric Bizerra de Araújo

Rondônia Federal Institute of Education, Science and Technology of  
Rondônia – IFRO, Vilhena  
marcel.emeric@ifro.edu.br

### ABSTRACT

Starting from the foundations of historical materialism, this work highlights the ways of life of traditional peoples and communities in the Guaporé and Madeira river valleys in Rondônia. We also provide a definition of the concept of “ways of life”. Resisting the destructive production process of capital, which in the Amazonia appears mainly as agribusiness and neo-extractivism, and attempts to destabilize these communities, workers insist on maintaining forms of being in the world that require the production of knowledge in harmony with nature, with the expanded reproduction of life as the horizon. The research procedures included observation of daily practices, semi-structured interviews, and conversation circles. The communities in Porto Velho and Costa Marques were the focus of this research. The results indicate that, as a form of resistance, the ways of life manifest the relationships that these people, mediated by lived and inherited experiences, establish with the territory.

**Keywords:** Ways of life. Destruction. Experience. Culture.



## INTRODUCTION

In Rondônia, the valleys of the Guaporé and Madeira rivers are home to riverside<sup>4</sup> dwellers, peasants, indigenous people, descendants of quilombolas<sup>5</sup>, and extractivists who make up various multi-ethnic communities. These rivers naturally form the border between Brazil and Bolivia, a fact that has facilitated intermingling in the region. To sustain themselves, those living along these riverbanks create (and recreate) work strategies and knowledge that have been and continue to be passed down to their successors, making the region an inexhaustible source of wisdom deserving of respect.

These populations have been continuously confronted with the advances of colonizing fronts, occupying the lands that were theirs by use and custom, with the agribusiness and neo-extractivism currently responsible for the destruction of nature, causing residents of traditional communities to migrate to urban centers, swelling the ranks of the unemployed or underemployed.

Because it is a “pioneer front” and at the same time an “expansion front” (MARTINS, 2019) for soil-based production, with much of its subsoil still intact, the Amazonia is seen by capitalists as a territory to be conquered, whose histories of those who see themselves as conquerors are made of violence against traditional peoples and communities.

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<sup>4</sup> “Ribeirinho” in the original text. Specifically, it refers to people living along the riverbanks in the Amazon region.

<sup>5</sup> “Quilombola” refers to the descendants of Afro-Brazilian people who escaped from slave plantations that existed in Brazil until the late 19th century. These escaped slaves established independent settlements known as “quilombos.” The most famous of these quilombos is Quilombo dos Palmares, which was a self-sustaining republic of escaped slaves that existed for almost a century.

Over time, many of these quilombos were destroyed or assimilated, but some survived and are still inhabited by the descendants of their founders. Today, these descendants, known as “quilombolas,” often live in communities that retain a distinct cultural identity, including practices, traditions, and social structures that trace back to their ancestors’ resistance to slavery.

The Brazilian government recognizes the rights of these communities, especially regarding land tenure, and there have been legal and social efforts to ensure that quilombola communities can continue their traditional ways of life and maintain their cultural heritage.

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However, traditional peoples and communities resist, reaffirming their identities, customs, and ways of life.

### **IDENTITY AND WAYS OF LIFE: AN ATTEMPT AT CONCEPTUALIZATION**

The constitution of the population of the Guaporé and Madeira valleys is a mixture of identities. We have remnants of quilombolas, Brazilian indigenous peoples, Bolivian indigenous peoples, northeastern migrants, farmers, agro-extractivists, fishermen, and riverside dwellers. Identity concepts change over time and the same community may assume various facets of a broader identity that is necessarily not exclusive. We can say that we are dealing with multi-ethnic communities.

In the case of our research, we cannot discuss identity solely in terms of skin color, but rather in terms of the ways of producing material and immaterial life. In other words, we need to understand their lifestyles, recognizing that we must take into account, on the one hand, the analysis of the relationship between different daily practices, such as work, family life, consumption, and leisure, and on the other hand, the relationships that the set of these practices establish with the more general social relations (GUERRA, 1993).

The locus of the research focuses on the Guaporé Valley, specifically in the Quilombola Communities of Forte Príncipe da Beira and Santa Fé, as well as the Extractive Reserve of the Cautário River, all in the municipality of Costa Marques, bordering Brazil with Bolivia, as shown in figure 1.

Figure 1 – Cutout of the research in the Guaporé Valley

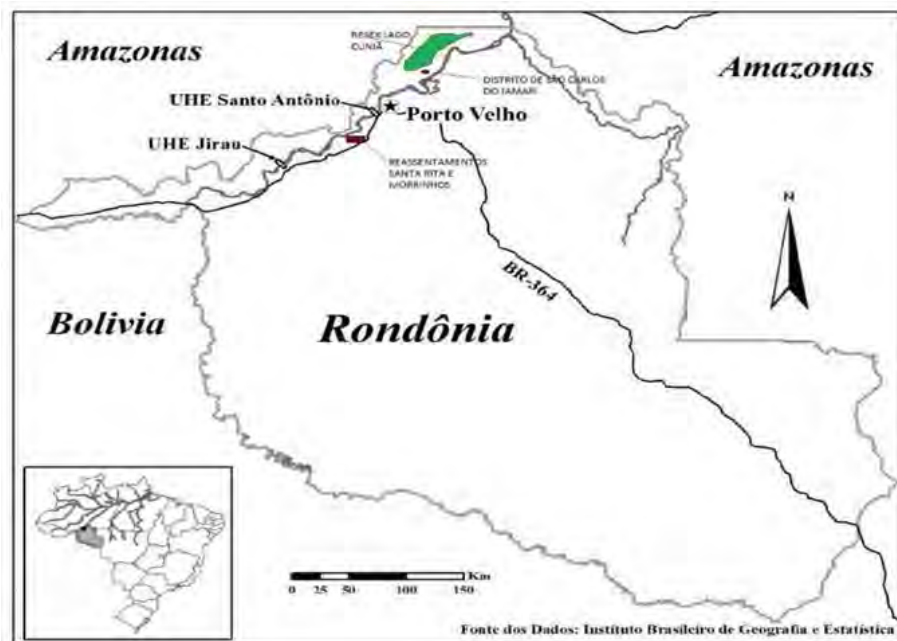


Source: IBGE, 2023; Org. J. A. B, 2023.

In the municipality of Porto Velho, along the Madeira River, the research locus was the Cuniã Extractive Reserve, the riverside community of São Carlos do Jamari, the Morrinhos Resettlement, and the Santa Rita 2 Resettlement.

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Figure 2 – Hydroelectric and communities of research in the Madeira Valley.



Source: IBGE, 2023; Org. J. A. B, 2023.

The research procedures were observation of daily practices, semi-structured interviews, and conversation circles. We start from the assumption that the affirmation of their ways of life is an element of structuring their identity and resistance to the difficulties of life, it is a condition for their existence, which cannot be guided by the logic of social processes of capitalism. Therefore, if agents of the capitalist mode of production succeed in affecting the way of life, they interfere by weakening the resistance of traditional peoples and communities to the advance of capitalism in their territories. In the process of attempting to deconstruct communities, the capitalist mode of production attacks the ways of producing, consuming and distributing the fruits of labor, making it difficult for traditional peoples and communities to relate to their territories and those around them. The relationship with the

territory is the nuclear action in the constitution of the ways of life of these communities.

These ways of life are formed in the relationships between work and education and between economy and culture. Given that: a) culture has a materiality and that economic relations are not separate from cultural relations; and b) the work-education links constitute themselves as a dialectical unity, we believe that the analysis of the ways of life of the traditional peoples and communities of the Guaporé Valley and the Madeira Valley will provide an understanding of their social reproduction processes and their resistance to the encroachment of capital on their territory.

Unfortunately, the attack on the ways of life goes directly to the structures, the foundations of community life, so we speak of the deconstruction of ways of life. When traditional peoples and communities lose their territories, they must enter new social spaces and restructure their ways of life again. The big problem is that they already do so on new bases, usually with the interference of the capitalist mode of production. But what are ways of life?

By ways of life, we understand the set of daily social, economic and cultural practices shared by a certain social group in the process of producing material and symbolic life. As an expression of culture, it relates to customs, traditions, values, beliefs and knowledge that guide the norms of coexistence in family life, work and community. **It relates to the ways of producing, consuming and distributing the fruits of labor, taking into account the forms of feeling and thinking about life and the world.** The ways of life manifest the relationships that working men and women, mediated by collective memory and by lived and inherited experiences, establish between themselves and the territory in which they produce their existence. (SOUZA, 2020, p. 131, authors' emphasis).

The affirmation of ways of life, understood as cultural heritage and at the same time as a condition of human existence, is an element of resistance and denial of other ways of producing social life, which, to

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some extent, are intertwined according to the historical contexts of struggles for hegemony, struggles that take place in all spheres of social life.

### **TO CONTINUE THINKING...**

As the “men of business” advance on the territories, they declare themselves the owners of the means of production of life, the rivers, the seas and the forests, exactly contrary to the economies and cultures of traditional peoples and communities who, historically, live from the defense of the common, of what is collective, community-based. For Dardot and Laval (2017, p. 16), “the common has become an effective principle of the struggles and movements that have resisted the dynamics of capital for two decades and have led to original forms of action and discourse”. Perhaps the concept is not defined by traditional peoples, but the idea has already been incorporated into the life of these communities for a long time.

Traditional peoples and communities weave their ways of life daily in the work-education relationship, where economy and culture are fundamental elements of this relationship. This expands the experience and ensures the reproduction of the material and immaterial life of this people. We highlight that it is through the joint concepts of work, territory, education, economy, culture, experience, knowledge and identity that it is possible to grasp the ways of life and, with them, the resistance. This combination is dialectical, a constant movement between the concepts since the work-education relationship brings knowledge and experience, articulates the economy and culture, reinforces the identity and thus the struggle for the territory. But it is also the territory that allows the work-education relationship, the economic relations, the cultural relations, marks the identity, brings experiences and knowledge, in short, it is in the production of material and immaterial life that these concepts are mixed and form the ways of life in the communities. And these ways of life must continue.

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## SETTLEMENT PROJECTS IN ACRE: AGRARIAN REFORM OR COUNTER-REFORM?

Elias Pedroso da Silva

Federal University of Acre – UFAC, Rio Branco

elias.pedroso@sou.ufac.br

Carlos Estevão Ferreira Castelo

Federal University of Acre – UFAC, Rio Branco

carlos.castelo@ufac.br

### ABSTRACT

In this communication, the proposal was to develop a discussion about the purpose of the settlement projects created during the military regime (1964-1985) in the state of Acre, starting from a provocation created by Ariovaldo Umbelino de Oliveira in his work “Integrar para não entregar” (Integrate to not deliver) (1988). In Oliveira’s view (1988), the projects served as a counter-agrarian reform, aimed at mitigating the movements of struggle for land and their demands and also safeguarding the domains of latifundium in the northeast and southeast regions of Brazil. This communication is part of a larger research project being developed in the Postgraduate Program in Geography at UFAC (PPGeo). In this text, it is sought to demonstrate in a succinct manner the actions of the organs that were created exclusively to conduct this process, as well as the actors who made it possible for the actions of the military government to succeed, and mainly, to evoke the interests of international big capital over the then unexplored Brazilian Amazon. In the ongoing research, bibliographic research and the methodological strategies of oral history are used. The dialectical method is also used for the analysis of the collected data.

**Keywords:** Agrarian reform. Counter-agrarian reform. PIN. INCRA. COLO-NACRE.



## **INTRODUCTION**

In this communication, we aim to develop a discussion about the purpose of settlement projects created during the military regime (1964-1985) in the state of Acre, starting from a provocation created by Ariovaldo Umbelino de Oliveira in his work: *Integrar para não entregar*, from 1988. For this author, settlement projects served as a counter-agrarian reform, aiming to mitigate the movements of land struggle and their demands and also to safeguard the domains of latifundium in the northeastern and southeastern regions of Brazil. It is noted that this communication is part of a larger research project being developed in the Graduate Program in Geography at UFAC (PPGeo).

In Acre, 151 projects were implemented between PAs (Settlement Project) and PADs (Directed Settlement Project), with 150 of them by National Institute of Colonization and Agrarian Reform – INCRA and 1 by the body that was created exclusively to manage these settlements: the Acre Colonization Company - COLONACRE (LIMA; FIGUEIREDO, 2020). Why did they create a state agency if there already was a federal agency to handle the issue? What was the interest in implementing agro-livestock in Acre, then isolated from the rest of Brazil by the lack of roads or their precarious conditions? Where did the settlers in Acrean projects come from? These are the questions we aim to answer during the communication.

## **METHODOLOGY**

With the aim of problematizing and answering the questions, we use as methodology the bibliographic research in documentary sources and also the methodological strategies of oral history (MARCONI; LAKATOS, 2020). The oral sources are being produced through interviews with settlers in the Redenção Project, conducted and directed by COLONACRE. As a temporal cutoff, we worked with the period from 1970 to 1990, and the spatial cutoff was restricted to the state of Acre.

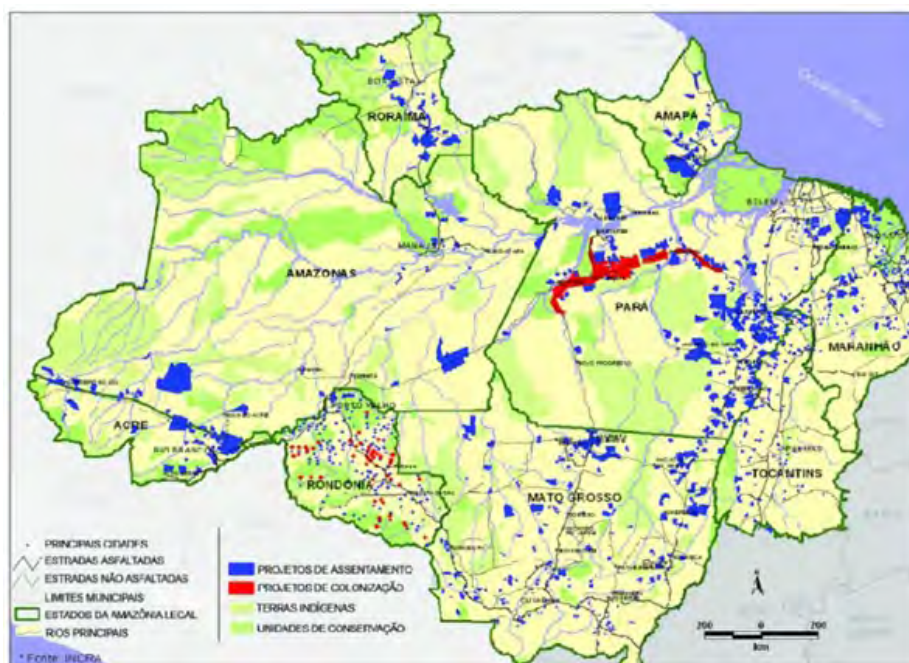
## **HISTORICAL OVERVIEW OF SETTLEMENT PROJECTS**

As the capitalism advanced in Brazil, the territorial organization forms changed, and the population became more urban and less rural, resulting in a disorderly occupation of cities and increasing tensions between social classes, leading to the creation of movements that demanded various “improvements” or reforms in the laws that would benefit workers.

However, in 1964, a civil/military coup occurred that sank Brazil into a 21-year dictatorship. The main objective of the military was to prevent the reforms that the government of the time promised to the people. The main reform, perhaps the most feared, was land reform, which had been the main pledge of reclamation of the workers and Brazilian rural movements for a long time.

The military had a doctrine of national security and saw the specter of communism in all movements that dared to contest the Brazilian status quo, so they developed a strong repressive policy against these movements. However, it was not enough to end the organizations, much less prevent adhesions to the movements, so in an attempt to mitigate potential conflicts, the dictatorial government decided to make its own land reform and created the INCRA from the National Integration Program – PIN.

Figure 1 – Settlement projects in the Amazonia (1970-1990)



PIN (NATIONAL INTEGRATION PROGRAM), THE INCRA (NATIONAL INSTITUTE OF COLONIZATION AND AGRARIAN REFORM) AND THE COLONACRE (COMPANY OF COLONIZATION OF ACRE)

The PIN was created by Decree-Law 1.106 of June 16, 1970, and its main guideline was to open roads to connect the Brazilian territory, an example of these roads is the Trans-Amazonian and Belém-Brasília. Another guideline was the massive propaganda in the media that this project would be a way to safeguard the Brazilian territory from a possible foreign invasion (OLIVEIRA, 1988). From the PIN, the federal government began mapping strategic areas for mining and also established increasingly deep exploration zones within the forest, not only along the riverbanks but also on solid ground, alongside highways.

The INCRA was created by Decree-Law 1.110 of July 9, 1970, from the merger of the IBRA (Brazilian Institute of Agrarian Reform)

and the INDA (National Institute of Agricultural Development), according to Oliveira (1988, p. 74), the main objective of the INCRA was to fix people to serve as labor within the projects of mining and agro-mining development that were already being developed under what he called "Operation Amazon". In Acre, the INCRA implemented and administered more than a hundred settlements, these projects followed a pattern, with lots cut to a similar size, located along a road or highway and a small village that would serve as a pioneer city or a city. Another characteristic of these projects were their settlers, coming from various places in Brazil, but mainly from Paraná, Espírito Santo, São Paulo, Minas Gerais and Rio Grande do Sul.

COLONACRE was created by Law 560 of July 10, 1975, by the Government of the State of Acre, with the aim of planning, implementing and administering the Redenção Settlement Project. The lands that served as the basis for the project were donated by the federal government through Decree-Law 6.591, of November 17, 1978 (BRAZIL 1978), which allocated 30,000 hectares of land that corresponded to the rubber plantations: Bagajo, Vila Rica and Novo Acordo.

Initially, the Redenção Project was to receive local residents who worked in rubber exploitation, in an attempt to restore the rubber economy in Acre. However, after the initial failure, the Government of the State of Acre took advantage of a unique opportunity to promote the Redenção Project among the inhabitants of the south of Brazil: the construction of the Itaipu hydroelectric dam. Its dam flooded a vast area of land and displaced many families in the region. The government of Acre created an office in Cascavel in Paraná and from there registered people interested in "winning" a "piece" of land in Acre.

## **FINAL CONSIDERATIONS**

In light of the above, we consider that the hypothesis raised in the text based on the writings of Oliveira (1988) is indeed valid, as we have found numerous elements that support its assertiveness. The settlement projects were created in a vertical manner, from the top down, mainly in military cabinets. The execution of the projects was carried

out through official organs that served not only to colonize or neocolonize the Amazon, but also to propagandize the benefits of the dictatorial regime.

The main settlers were from regions considered sensitive for the central government, which always sought to amputate any movement that could put the established order at risk. Therefore, it would be unthinkable that this was a land reform with popular participation in all its phases; instead, it was a counter-agrarian reform that alienated social movements and land struggle groups from the process of creating and planning these settlements. We can say that the settlement projects created in Acre during the studied period served directly to the benefit of large capital, the military government, and its national security doctrine.

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## THE PROTAGONISM OF INDIGENOUS YOUTH IN GEOTECHNOLOGIES: EXPERIENCES WITH DRONES IN RONDÔNIA

João Bosco Salles da Silva Júnior

Federal University of Rondônia – UNIR, Porto Velho

joaoboscosalles12@gmail.com

Lidiane de Oliveira Moraes

Federal University of Rondônia – UNIR, Porto Velho

lidiane\_18moraes@hotmail.com

Jucileno Durgo dos Santos

Federal University of Rondônia – UNIR, Porto Velho

djucileno@gmail.com

### ABSTRACT

This study aims to address the protagonism of indigenous youth in the use of geotechnologies, based on the experience with drones in Rondônia. This technology was initially used for military purposes and later opened to the civilian sector for commercial exploration and technological improvement. Indigenous communities are constantly pressured in their territories. In order to ensure the defense of their land, indigenous communities, through partner institutions such as Kanindé and WWF-Brazil, are taking ownership of the use of tools in territorial management and protagonizing the monitoring of their territories, as well as ensuring environmental preservation. The methodology of the research is a report of experiences, based on participation in two workshops training the youth in the use of drone, territorial and environmental monitoring of the Indigenous Lands of Rondônia. The right to land, a human and constitutional right, is a condition for the continuity of indigenous ways of life.

**Keywords:** Territorial monitoring. Drone. Indigenous youth. Indigenous Lands of Rondônia.

## **INTRODUCTION**

The right to land for indigenous societies is guaranteed by the Federal Constitution of 1988, in its article 231, which recognizes their social organization, traditional and cultural ways of life, mainly about the occupied lands, with the Union responsible for demarcation and guarantee of their property. The constant pressures suffered by indigenous territories reflect the current scenario of state entity neglect in combating anthropogenic and aggressive practices against the environment, especially in the Amazon.

Geotechnologies are important components in the effectiveness and guarantee of the territorial rights of indigenous peoples. Among them, we can highlight drones, unmanned aerial vehicles, initially created to serve military purposes, which are now part of numerous activities in civil society, regulated by the National Civil Aviation Authority - ANAC (NASCIMENTO; DENADAI, 2021). Currently, drones are composed of a variety of activities, including environmental conservation. It is a very effective technology for environmental and territorial monitoring, reducing the costs of terrestrial missions and access difficulties (WWF-BRASIL, 2020).

With the dissemination of these technologies on a global scale, it is necessary that the spaces are adequate with infrastructure to receive these tools and ensure their use. One of the challenges is to ensure that indigenous lands are equipped to receive these tools and guarantee their use.

Given the above, the following problem is presented: What are the challenges in training young indigenous people in the use of drone technology for monitoring and territorial and environmental defense in Rondônia? The objective of this text is to analyze the use of the technological tool drone in the monitoring, territorial defense, and environmental protection of the indigenous communities of Rondônia, from the training of young indigenous people.

The contribution of this experience report indicates two central processes: the importance of youth education and protagonism in territorial defense, and the ability of indigenous peoples to expand their



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territorial control and resistance against the various threats that currently occur in the Amazon.

### **METHODOLOGY**

The study site occurred in a report of experience in the Igarapé<sup>6</sup> Lourdes Indigenous Land (2023) and the Uru-Eu-Wau-Wau Indigenous Land (2019), with the development of courses in territorial and environmental monitoring with the use of drone, located in Rondônia, whose objective was the training and training of young indigenous people in the use of geotechnologies.

In this sense, the research focuses on two methodological axes: 1) the importance of young indigenous people's participation in territorial management, from the use of new geotechnologies; 2) and the potential of indigenous groups to expand their technological knowledge capabilities for the protection of the territory against threats, invasions, deforestation, and anthropic pressures.

With a qualitative approach, documentary and bibliographic analysis, it was found that there are few bibliographies related to the use of drones by indigenous groups in territorial management. Thus, consultations with the APIB, Jornal (o) ECO, WWF Brasil, Kanindé, among others, made it possible to access information related to geotechnologies in indigenous lands.

The importance of the territory to indigenous peoples is the guarantee of their living conditions, as well as the balance and protection of the local ecosystem. This set integrates the natural environment into the goods, values, cosmogonies, knowledge, and traditions of these communities and enables individual and collective life. The land is a factor of struggle and resistance for indigenous peoples, as it unifies, mobilizes,

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<sup>6</sup> Igarapés are narrow, shallow Amazonian watercourses that run through the interior of the forests. Most streams have dark waters, like the waters of the Negro River. The waters are dark due to the acids released during the decomposition process of leaves and trunks. In indigenous language it means "water path".

strengthens this subject around a flag, a common good, the struggle and defense of territorial (LUCIANO, 2006).

## **RESULTS AND DISCUSSION**

The United Nations Declaration on the Rights of Indigenous Peoples (2008) emphasizes in its article 26 the right to land: "Indigenous peoples have the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired." The role of the state is to ensure this recognition and protection, respecting and ensuring the possession of their territories to indigenous peoples.

Constant pressures are being exerted on indigenous lands, with the most recent being the legal tese of the Temporal Marker (PL 490-2007), which argues that indigenous peoples only have the right to demarcate their land if they were occupying it on October 5, 1988, the date of the promulgation of the Federal Constitution. According to this thesis, lands that were occupied by other people or unoccupied on this date cannot be demarcated as indigenous lands. It would be private or state property. Faced with these and other threats to indigenous land rights, there is a search and strengthening of these subjects in the defense and vigilance of their lands. In this sense, geotechnology can be an ally to enhance these actions.

For indigenous youth, technological insertion is making them protagonists in this struggle for their rights, as evidenced by the environmental activism, very well represented by various leaders such as Txai Suruí and Samela Sateré-Mawe who are the representations of the COP climate in discussions on mitigating the effects of environmental and climate impacts. On the role of technology and indigenous protagonism, Luciano highlights:

With them, indigenous peoples are increasingly overcoming social invisibility, the main cause of ignorance, prejudice and discrimination. The process of appropriation of technologies and other knowledge of modernity is allowing these people to reorient and plan their futures, reaffirming and strengthening their own knowledge. (...) Technological and digital resources represent new possibilities for the recovery and

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consolidation of autonomous processes of indigenous peoples, to the extent that they can decisively contribute to the self-management of their territories. (LUCIANO, 2006, p. 91-92).

One of the works carried out was the course and workshops in 2019 in the Uru-Eu-Wau-Wau Indigenous Land, in Rondônia, with a partnership between WWF and Kanindé (Figure 1). These non-governmental organizations, with the capture of resources from the Amazonia Fund, have been performing important work in the training of young indigenous people in the use of geotechnologies to support management, environmental monitoring and territorial defense.

In this activity, the indigenous people themselves learned to pilot drones and use tools to support territorial management and environmental monitoring. Awapy, an Uru-Eu-Wau-Wau indigenous person, spoke about the importance of learning and bringing this knowledge to relatives who have a facility to assimilate and dominate technologies:

Before, without the drone, we collided with invaders in the activities of monitoring the Indigenous Land. And, many times, they were armed. Now, we send the drone to an area two kilometers away, for example, and see the camps of the invaders, how many they are and if they are armed. We locate precisely, we record and make denunciations with images and georeferencing “(WWF-BRASIL, 2023).

**Figure 1** – Drone course in the Uru-Eu-Wau-Wau Indigenous Land (2019)



**Source:** Marizilda Cruppe / WWF-Brasil (2019)

A recent activity was carried out in March 2023 in the Igarapé Lourdes Indigenous Land in Ji-Paraná-RO, a training course on environmental and territorial monitoring using drones, conducted by Kanindé and WWF-Brasil, and attended by 6 indigenous communities in the state. The dexterity and quick assimilation of young representatives were observed, as well as the geotechnologies that comprised the entire theoretical and practical structure of the course.

Many practical activities were carried out, and at each moment, each group spoke of their perceptions and experiences, pointing out the biggest difficulties in using the tools. The positive balance was the generation of flight plans by the indigenous people themselves, where they delimited the specific places of their territories that are suffering pressure, whether from loggers, land grabbers, miners or farmers, and will count on the support of governmental and non-governmental organizations to carry out these actions and not just stay on paper.

### FINAL CONSIDERATIONS

In some villages, there is still discussion about the use of geotechnologies, mainly among the wise men and some leaders. This access can be beneficial in the sense of contributing and strengthening their cultures and traditions in order to improve living conditions, ensuring the maintenance of their identity and ways of life.

The use of drones by the indigenous people themselves, in addition to making them protagonists, enhances the mapping of their areas and the environment and helps in the conservation of nature, as well as in studies on climate, water quality, and the monitoring and combating of deforestation and land invasion. For the youth, it is a crucial factor and a continuity of their ways of life, as they are the future leaders and managers of their communities.

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## TO SHELTER THE AMAZONIA WITHIN THE AMAZONIA AND WITHIN ONESELF

Cláudia Queiroz de Assis

Federal University of Rondônia – UNIR

assisclaudia.geo@gmail.com

### ABSTRACT

This article aims to raise awareness among the academic community and, in particular, undergraduate and graduate students in Geography Licentiate<sup>7</sup> and Bachelor of Unir, around the stories and experiences, observed empirically, through characters who actually live the Brazilian Amazon. Men and women, environmental leaders, quilombola leaders, small farmers, coffee and flour producers, fishermen, forest and water protectors, holders of culture and therefore the true wealth of the region, who need to be heard and respected as subjects and subjects who bring with them unique experiences of those who were born and lived intensely and in all senses the Amazonia, so that we participate in the engagement to save the Amazonia with the certainty that it is a necessary, infinite and urgent work.

**Keywords:** Amazon. Preservation. Fight. Education.

### INTRODUCTION

Sheltering the Amazonia within oneself is an easy task. It just requires knowing, observing, experimenting, and experiencing. Tasting the flavors in a sort of authorized hypogeusia. Bathing in its igarapés<sup>8</sup> on hot days and spending hours “soaking.” Listening to the birds and

<sup>7</sup> Licentiate - Although this word exists in English, in the context of a Brazilian educational program, it often refers to “Licenciatura”, a degree or course related to education.

<sup>8</sup> “Igarapé” is a term of Tupi-Guarani origin used in the amazonia region to describe small watercourses or streams.

watching them project, conceive their nests in non-stop flights to and from. Making oneself sway to the music, even without taking one's feet off the ground. Looking at the moon for almost the entire night, without realizing how much time has passed and feeling as if, for the first time, it is looking only at you. Listening to stories, conversing without haste, making one's own discoveries, and certainly loving and sheltering it within oneself.

Now, the Amazonia in the Amazonia? Difficult. How to shelter this immensity with its 6.7 million km<sup>2</sup>? How to hide - and here hide means only to defend - the largest tropical forest in the world from the multitude that wants to exploit it? Subjects who feel the fragrance of wealth that it exhales and enter without asking permission and when they leave, leave a trail of chaos, the stench of death, and the trace of corruption.

History has always proven that humanity has destroyed, devastated, and exploited until it could no longer take anything, until it dominates the other, appropriates the other and what belongs to the other. In a long repetition of acts that culminate in the worst possible scenario, we can only conclude that we are indeed "a pest on the planet."

As we were named by Krenak (2020, p. 7):

We are the pest of the planet, a giant ameba. Throughout history, humans - in fact, this exclusive club of humanity - have devastated everything around them. It's as if they have elected a caste, humanity, and everyone who is outside of it is sub-humanity.

In Rondônia, in the Guaporé Valley, the municipality of Seringueiras, we observe the systematic advance of soybeans to the limit of the Uru-Eu-Wau-Wau Indigenous Land. Thus, we confirm in loco how the exploiters of the extractive economies of the Amazonia approach the Indigenous Land without the slightest modesty.

**Figure 1** – Soybean plantation next to one of the gates of the Indigenous Land Uru-Eu-Wau-Wau. Guaporé Valley-RO (2022)



**Source:** Photo by Cláudia Queiroz de Assis - out/2022

Without the intention of advancing every day being blocked by the public power, as if they continued to wait for the best moment to enter the territory and expand their border, as they have done since the 1960s, with the so-called economic modernization of the Amazon, which means reducing the forest to make way for soybean cultivation. As described by Costa Silva (2021, p. 4):

The economic modernization of the Amazon, initiated with the opening of the forest in the military dictatorship (1964-1985), has presented a very high socio-environmental cost for the Amazon biome, indigenous peoples and traditional communities. From large infrastructure projects (hydroelectric plants, mining poles, agribusiness poles, ports and roads) to colonization policies, the entire territorial system has fueled the expansion of the border, which in general has meant the subtraction of the forest to give way to pastures, agriculture, mining and other forms of extractive economies.



For there to be preservation - of what still exists - and protection of the Amazon, it is necessary to prioritize and observe groups that are characteristic of the region, forgotten by the public power and exploited by capitalist society. Groups that are part of a time long passed by technologies, but are a set of knowledge and more than any other embodies the Amazonia within themselves: riverine populations, small farmers and remnants of the period of rubber collection. As well as the urgency of knowing and observing these subjects and subjects that are part of the Amazonia and are therefore the Amazonia itself. As Silva (2022, p. 1-2) states:

If we are going to talk about the struggle for preservation and protection of the Amazon, it is necessary to prioritize these ways of life, knowledges, and their subjects as essential and important agents in the face of deforestation and water depletion. In the same way, it is necessary to give the opportunity to know, dialogue, and experience the enchantments and beauties of a set of knowledge, knowledges, and landscapes that volatilize at an accelerated pace.

In this context, if knowledges and landscapes volatilize at an accelerated pace, how do we measure the time that remains until we can no longer keep this Amazonia standing? Time, time, how to count it here? How much time does it take for an exploiter to cut down and trade the equivalent of ten, a hundred, a thousand football fields without forest management planning? For contaminating the water of a river, the soil and the crops around it with mercury? And how much time for invading or buying land - often grilled - hiring or displacing from other camps workers - often people living in conditions equivalent to slavery - cutting everything that grows there and planting soy or corn? Believe me, very little time.

Thus, speculators go breaking the doors, taking over, and enjoying an Amazonia that every day leaves less and less of what we need and want, losing space and culture.

Many who fought alongside the people of the forests and water have already run out of time. In this brutal and cowardly fight, many

have fallen by the wayside. They are men and women, environmental and indigenous leaders who were erased from the fight, from life, from the Amazonia that they loved and defended so much. Known leaders in the media, such as Chico Mendes (1944-1988), Dorothy Stang (1931-2005), Rieli Franciscato (1964-2020) and Bruno Pereira (1980-2022), but also names that few of us know or remember, such as Nilce de Souza Magalhães (1967-2016), Edilene Mateus Porto (1984-2016), Adna Senhora Teixeira (1964-2016), Jane Julia de Oliveira (1974-2017), Paulo Paulino Guajajara (1992-2019), Cacique Francisco de Souza Pereira (1966-2019), Zezico Rodrigues Guajajara (1964-2020) and many others who will never be forgotten, who can never be forgotten and are part of the Amazonia and certainly it will always be part of the lesson they left and sowed, even though for exploiters their lives had little meaning. As Silva (2022, p. 2) states:

The systematic attack by loggers, miners, agribusiness on indigenous lands and traditional peoples causes frequent assassinations of environmental leaders, indigenous leaders. Leadership, lives are silenced. The lives of those who resist seem to have little meaning in this conflict, in this space of struggle. The space and culture of traditional peoples, riverine populations, small farmers suffer with the forest being cut down and experience the loss of diversity in an uncontrolled way to fire and biopiracy.

We need, more than ever, to talk about the Amazon, mobilize protection, preservation and environmental education groups, be part of collectives, and write articles. It is necessary to raise awareness of ourselves and others: The Amazonia is to be loved, cared for, and allowed to live all beings.

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## ADVANCEMENT OF CAPITAL FRONTIER IN THE BRAZILIAN AMAZONIA: PERSPECTIVES FOR THE ITUXI RIVER BASIN IN LÁBREA IN SOUTHERN AMAZONAS

Marcelo Horta Messias Franco

Federal University of Rondônia – UNIR

marcelo.franco@unir.br

### ABSTRACT

The environmental crisis experienced by humanity in the 21st century has been alarmed with some emphasis since at least the second half of the 20th century, and given the dynamics of the media, its evidence has been recorded in real-time. In this essay, the idea is to present the research being developed in the PhD program in Geography at the Federal University of Rondônia, which aims to trace, for the Ituxi river basin in southern Amazonas, a panorama of the territorial processes underway, with emphasis on two major aspects, namely agricultural violence and the advance of the economic frontier over protected areas. In this sense, the big question that is made, cause of concern and that drives the present research is: What are the development perspectives for a region under intense pressure from the economic frontier coming from Rondônia?

**Keywords:** Amazonia. Territorial dynamics. Frontier. Southern Amazonas.

### INTRODUCTION

The environmental crisis experienced by humanity in the 21st century has been alarming since at least the second half of the 20th century. With the dynamics of the media, its evidence is being recorded in real-time. Thus, annual episodes of temperatures above average with severe forest fires in Europe, North America and Australia, strong heat waves in India, torrential rains in Brazil, increasingly exaggerated

snowstorms in the United States, all recurring events causing material damage and deaths.

However, the news is discredited by growing denialism and the perversity of political agents who bet on disinformation as a game for power and consequently on easy ways to accumulate capital (SANTI; BARROS, 2022). These are restricted groups seeking to accumulate private profits at the expense of the suffering of the collective.

In Brazil, the 1988 Constitution's Article 255 guaranteed an ecologically balanced environment as a collective right, a common good of the population essential to a healthy quality of life. The Constitution assigns to the public power the responsibility for defending the healthy environment and preserving it for the benefit of the present and future generations (BRASIL, 1988).

However, there were systematic attacks on the constitutional device from 2014. In 2016, with the abrupt change in the presidency of Brazil (impeachment), there was a rapid attack on labor rights in favor of corporate interests with influence in parliament. In the same direction, the entire social-environmental legal framework was directly attacked (CRUZ, 2022; VERDUM, 2019), an offensive that intensified with the ascent to power in 2019 of the neo-fascist government of Jair Messias Bolsonaro.

President Bolsonaro, since his first day in office, has sought to implement a policy of total opening of the Amazonian border to agribusiness, mining, and infrastructure projects (CARRERO et al., 2022; OLIVEIRA, 2021). As a result of this unconstitutional policy, there have been records of alerts for deforestation in the Amazonia, with a high increase in heat sources (fires) every year. Also, violence exploded, particularly against indigenous peoples, traditional populations, and environmentalists throughout the biome (COSTA SILVA, 2022).

In this context, the Ituxi river basin in the municipality of Lábrea, southern Amazonas state, is the research topic of a PhD thesis in Geography currently underway at the Federal University of Rondônia. The work aims to trace a panorama of the territorial processes underway in this Amazonian frontier with a focus on agrarian violence and

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the advance of the economic frontier over protected areas. In the development of the thesis, we will seek to explain the structural reasons for the permanence of socio-environmental conflicts in a region with already defined territorial ordering, with ecological economic zoning, federal conservation units, and indigenous lands (FRANCO, 2014).

### **METHODOLOGY**

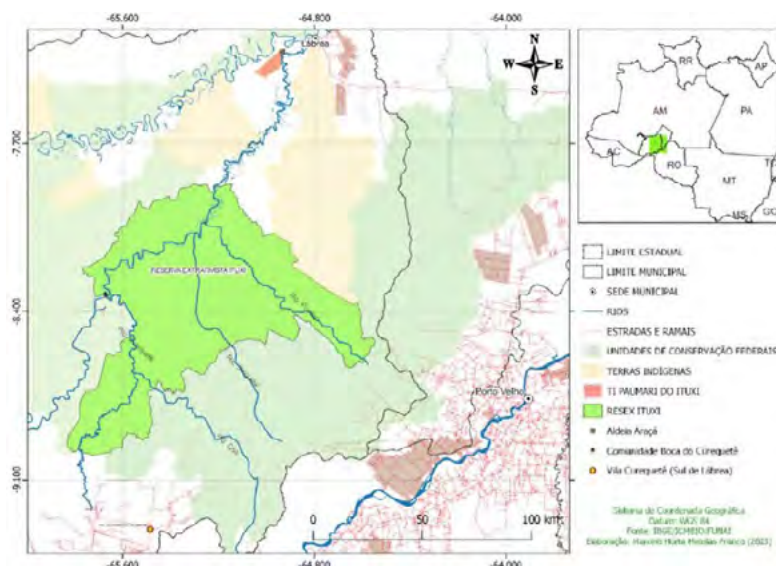
The research emphasizes the collection of primary data through fieldwork, covering specific zones within the Ituxi river basin according to the following criteria: (a) type of territory, which includes an indigenous land, an extractive reserve, and a village/settlement; (b) type of community, encompassing an indigenous people (ethnic group), an extractive community (riverside way of life), and finally the settler, within the framework of plots connected by access roads for transport and communication.

Interviews are also being conducted with public agents from the three levels of government, members of associations and non-governmental organizations with incidence in the territory, as well as dialogue and exchange of information with other researchers in the same theme.

Cartographic analyzes, satellite image analysis, as well as document analysis of secondary sources are essential in this study. Finally, social cartography methodology will be applied, when appropriate, along with the accessed communities, with the intention of returning useful material for environmental and territorial management of the territories, if it is of interest to the communities and supporting institutions.

The figure below is a location map of the Ituxi watershed, highlighting the protected areas within this space. The map pinpoints the three locations that will be visited during the field phase of the research: the Araçá village in the Paumari Indigenous Land of the Ituxi River, the Boca do Curequetê community in the Ituxi Extractive Reserve, and the Curequetê Village, located in the southern portion of Lábrea's territory.

Figure 1 – Ituxi River Hydrographic Basin – Planning for Fieldwork (2023)



## PROSPECTS AND WORRIES

The research is ongoing and has not yet reached the expected results. However, the progress of the bibliographic survey and document analysis stages allowed for the preparation of the methodological and first theoretical chapters. The hypothesis being worked on is that the persistence of social conflicts and violence in the Ituxi river region has to do with the dynamics of the advance of capitalism over strips of the Amazonia region.

In this aspect, we are paying attention to what Novoa Garzon *et al.* (2022) said about what has happened in the northern border of Rondônia, which they concluded that:

What is at stake today in the Amazon is the creation of para-state and para-military devices that perpetrate continuous genocides and eco-genocides. It is not about isolated events, but a method that reorganizes productive processes under the impetus of maximum profitability, appealing to the synthesis

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of people and territories in the form of financial and risk costs  
(p. 118, with author's emphasis).

In other words, in this logic, the Ituxi river region, like the entire southern region of the Amazonas state, would be within the radius of expansion of already consolidated economic frontiers that continuously move, seeking to appropriate new areas, viewing the current legislation, especially the environmental and indigenous legislation, which protects biodiversity and traditional peoples and communities, as mere barriers to be overcome, one way or another, legally or illegally (CARRERO et al., 2022, p. 5).

It should be noted that the border being studied is in the influence zone of BR-364, which connects Porto Velho to Rio Branco (AC), an “axis of expansion that has made Rondônia an extension of Mato Grosso in longitudinal direction, with frontiers succeeding each other in the same order: timber industry, deforestation, extensive livestock, soybean monoculture” (NOVOA GARZON et al., p. 126). With this, the results observed in the north of Rondônia are the same results observed in the south of the Lábrea municipality, which is always among the highest deforestation rates in Brazil.

The term introduced by Costa Silva (2022) when speaking of the “desamazonization of the Amazonia” (p. 108) fits perfectly with one of the regions of this study illustrated in Figure 1, which is the Vila Curequetê (south of Lábrea). Situated in the territory of Lábrea, the settlement lives the contradiction of being situated in a direct influence zone of the economic frontier, tending to become a vector of penetration in the federal conservation units to the north, exploiting timber, cutting cinnamon and opening new pastures.

In relation to this and the pressure that reaches the communities of the Ituxi Extractive Reserve, as in the community of Boca do Curequetê, also addressed in the study, it is worth mentioning the author's statement that:

The common features of the Amazonian social formation (nature, rivers, work, culture, and community/populations) are increasingly appearing as strangers and



obstacles to the logic that is intended to be hegemonic in the region, assumed in the flag of agribusiness and extractive economies. There is a gluing of economic/political groups in all states of Legal Amazonia that direct a regional coalition in political-economic terms with a view to the desterritorialization of originating peoples and traditional communities (COSTA SILVA, 2022, p. 108).

This political scenario put forward for the Amazonia could be experienced with greater intensity from the Michel Temer government (2016-2018), worsening in the Jair Bolsonaro government (2019-2022), a period in which, it is worth noting, not only was there total paralysis in the recognition processes of new indigenous lands and territories of traditional peoples and communities throughout Brazil, but also systematic attacks in the legislative chambers against environmental protection laws of biomes, with proposals for reviewing limits and even the extinction of protected areas (VERDUM, 2019). During this period, the federal constitution of 1988 also suffered attempts at modification, always in the name of economic interests active in the political sphere.

In this way, with the land acquisition movement, with natural and human resources underway, this economic front acts with force in converting everything into a commodity, within the hegemonic logic, which is the logic of the market. In this sense, our hypothesis in the present research can be complemented with the question: What are the development prospects for a region under intense and direct pressure from the agro-pastoral frontier coming from Rondônia?

## **FINAL CONSIDERATIONS**

This research aims to contribute to the understanding of social and territorial dynamics in a border still little studied in the Amazonia region. We hope to offer with this work a qualitative collection of cases of violence related to the land issue in the southern state of Amazonas through the categorization of the types of violence experienced by traditional peoples and communities in this region, seeking to confirm, or even add new questionings to the hypothesis and questions raised as research concerns.

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NOTES ON THE CREATION OF THE SETE DE SETEMBRO  
INDIGENOUS LAND IN THE CONTEXT OF THE EXPANSION OF  
AGRICULTURAL FRONTIER IN RONDÔNIA

Carlos Alexandre Barros Trubiliano  
Professor of the Intercultural Licentiate Course  
at the Federal University of Rondônia (UNIR)  
carlos.trubiliano@unir.br

Hgaibiten Surui  
Graduated in Intercultural Licentiate  
at the Federal University of Rondônia (UNIR)  
gaibitensurui@gmail.com

**ABSTRACT**

Thinking about recent history in Rondônia is thinking about the process of colonizing the territory. The recent history of Rondônia and the history of the Paiter Suruí people are intertwined with policies of occupation and exploitation of space. Traditionally, the Paiter Suruí settled to the northwest of Mato Grosso and the southeast of Rondônia. As the expansion fronts advanced, the Paiter Suruí came into contact with non-indigenous people. The study that follows is the result of research that aimed to understand the process of creating the Sete de Setembro Indigenous Land in a general way. Specifically, it sought to identify the political and economic projects, as well as the conflicts that involved non-indigenous people and the Paiter Suruí people.

**Keywords:** Frontier, Territory, Paiter Suruí.

**INTRODUCTION**

Thinking about recent Rondônia history is thinking about the colonization process of the territory. Theoretically, Becker's studies (1991,

1999, 2004) allow us to discuss the advance of capitalism in Rondônia's frontiers. According to the geographer, the capitalist advance occurred through two state policies that interconnected.

The first refers to the construction of BR-364 in the 1970s - we can also include the more recent construction of hydroelectric plants and small hydroelectric plants (PCHs) -; the second refers to population settlement programs, such as the Directed Settlement Projects (PADs) and the Integrated Colonization Projects (PICs). In any case, these policies were responsible for the voluntary and involuntary displacement of a large population of workers, investors and adventurers who migrated to Rondônia in search of opportunities.

#### **SETE DE SETEMBRO INDIGENOUS LAND AND THE EXPANSION OF THE AGRICULTURAL FRONTIER**

Although the state created a bureaucratic/legal apparatus to organize, discipline and assist migrants, the migratory flows exceeded the state's control capacity, which generated conflicting situations, especially with regard to land ownership. The population's advance on the forest generated one of the main economic activities of the Legal Amazonia, the wood industry.

According to Browder (1986) and Terezo (1990), the industrial extraction of wood began in 1960, the year in which the existence of approximately 89 sawmills in the Legal Amazonia was recorded. Already in 1981, there were cataloged about 1,600 sawmills and, just three years later, in 1984, the number of legal sawmills doubled and reached 3,000 enterprises. Specifically in the state of Rondônia, companies linked to the timber industry evolved from four companies in 1953 to 781 in 1987.

When we study the causes of the expansion of the timber industry in Rondônia, we identify among them the advance of the road network. Until the mid-1960s, the extension of the Rondônia road network was practically inexistent; however, in 1988, the state registered more than 44,000 km of roads. The construction of road networks served the policy of national integration, facilitating the development of capitalist activities (Kitamura, 1994; Browder, 1986).

## Notes on the creation of the Sete de Setembro Indigenous Land in the context of the expansion of agricultural frontier in Rondônia

As with the advance of the roads, the encouragement through subsidized credit and tax incentives granted to the activity also contributed to the expansion of the timber industry. Between the 1960s and 1980s, the Superintendence of the Amazon Development (SUDAM) financed the installation or reformulation of 131 industrial timber projects; the total investment was in the order of half a billion dollars (US\$ 500 million) in direct subsidies (Browder, 1986, p. 8).

The advance of deforestation is directly linked to the history of the Paiter Suruí people. The contact of the Paiter Suruí with non-indigenous people was more intense in the 1960s, with the creation of the PIC Gy-Paraná. At the end of the 1960s, the Itaporanga Company (of the Melhorança brothers) began selling lots illegally, introducing several families in the indigenous area (MINDLIN, 1985). The irregular settlement of colonists generated conflicts and marked the history of the Paiter Suruí.

The research that follows aimed to historicize the contact between the colonizers and the Paiter Suruí, a decisive episode in the creation of the Sete de Setembro Indigenous Land. We sought to identify the economic motivations of this process and how the Paiter Suruí saw themselves in it.

**Figure 1** – In the highlighted green area is the Sete de Setembro Indigenous Land in relation to the state of Rondônia



Source: Ferronato; Nunes, 2010.

Between the 1970s and 1990s, in addition to the groups that migrated and were settled with some type of state assistance and regulation, there was a large influx of people attracted by the prospect of land ownership. As this mass of dispossessed people arrived, they settled on their own, often acquiring irregular lands through colonization companies, burning or occupying demarcated lands. As Becker (1991) notes, the migratory flow exceeded the state's capacity to control it.

As an illustration, in the 1950s, Rondônia had an estimated population of 37,000 inhabitants; by 1984, the population was approaching the mark of 900,000 inhabitants, evidence of an explosion in population growth in just over three decades. Population growth, coupled with policy failures to address, direct, and discipline migrants, intensified conflicts over land possession (BECKER, 1991). In this context, disputes between settlers and the Suruí began to be registered from 1969, especially after the implementation of the Integrated Colonization Project (PIC) Gy-Paraná, which was installed around the Sete de Setembro Indigenous Land. On August 21, 1976, the newspaper *O Globo* reported: "FUNAI wants the army to bring peace to the indigenous area":

For the first time in the country, the army may act to put an end to a dispute over land between Indians and whites (...). The president of FUNAI argues that the Federal Police's action in that region has been insufficient to contain the settlers' anger, who have settled in the indigenous area created by President Geisel's decree. He estimates that there are one hundred thousand settlers in the area, all armed. (*O GLOBO*, 21/08/76, p. 8).

On the other hand, settlers claimed that the FUNAI armed the Indians:

With arrows, they were humble and inspired confidence. Many of us went hunting with them in Espigão do Oeste. The catch was shared, and the Indians were satisfied. Now, only armed Indians with carbines are seen wandering around. - one of the settlers from the 11th line says (*O GLOBO*, 21/08/76, p. 9).

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It is worth noting that the Paiter Suruí people were in a constant state of war with neighboring peoples as part of their experiences in intertribal relations; the Paiter, due to their extreme territorialism, soon after contact, understood that their lands were under attack and began to retaliate with raids “to the houses of settlers on the demarcation lines of the INCRA” (O GLOBO, 21/08/76, p. 9), as well as attacks and killings of settlers, as Mindlin also reported: “Cadio and Itabira Suruí leaders armed themselves with bows, arrows, and rifles and began to resist the occupation of the reserve. There were Indian and settler deaths” (MINDLIN, 1985, p. 133).

Between the first official contact and the demarcation of the Sete de Setembro Indigenous Land, seven years passed. The demarcation process was initiated in 1976, and was the responsibility of the company Plantel S/A, headquartered in Goiânia, Goiás – which was also responsible for the demarcation of the Igarapé Lourdes Indigenous Land, of the Arara and Gavião peoples, and the Roosevelt Indigenous Land, of the Cinta Larga people. However, as Itabira Gapoi Suruí remembers: “this Plantel, a company that at that time took care of the demarcation, also demarcated INCRA lands. It was a private company linked to the government” (PAPPIANI; LACERDA, 2016, p. 121). In uncovering the plot that resulted in the demarcation of the Igarapé Lourdes Indigenous Land, researcher Lediane Fani Felzke reveals documents from the working group established by FUNAI to monitor the demarcations, stating:

After a detailed explanation in the area, with the presentation of various maps at different scales, including navigation maps used by the FAB, acquired by me in Rio, we reached a common agreement on the necessary area for the survival of the Indians in the Indigenous Posts: IGARAPÉ LOURDES (my emphasis), 7 de SETEMBRO, and ROOSEVELT, without any concern for what might exist there, INCRA, ITAPORANGA, land grabbers, etc. (FUNAI, 1975 apud FELZKE, 2017, p. 295).

Although further research is necessary, it is possible to raise the hypothesis that the Plantel S/A demarcation team arrived at the villages aware of the limits to be demarcated, with the aim of ensuring the ownership of settlers and the Colonizadora Itaporanga Company.



## FINAL CONSIDERATIONS

The interaction between indigenous and non-indigenous peoples has established a milestone in the history of the Paiter Suruí people. In addition to disputes, invasions, and conflicts, there was the creation of the Sete de Setembro Indigenous Land. Contact with non-indigenous peoples has deeply altered inter-ethnic relations with neighboring peoples and within the Suruí community itself. These changes will be topics for future research.

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## THE ECONOMIC FRONTIER OF SOUTHERN AMAZONIA: FORMS OF EXPANSION, CONFLICTS AND SEIZURE OF TERRITORY

Silvio Simione da Silva

Federal University of Acre – UFAC

ssimione@gmail.com

### ABSTRACT

The purpose of this work is to understand how the current expansion of the economic frontier, driven by the agribusiness, fosters transformations in the production of regional space, promoting the formation of strong conflict zones and acceptances. To do this, we relied on the collection of information reported in newspapers; informal conversations; bibliographic and documentary review; access to the CPT/AC information archive; and fieldwork. It was noted that this region has been affected by the expansion of the Brazilian economic frontier since the 1960s, with migratory currents coming from the Brazilian Center-south. Currently, this also occurs due to the internal forces' rearrangements, coming from the old rural areas taken by agribusiness and seeking new forested areas. Therefore, the frontier experiences a new moment of internal articulation, with conflicts taking on broader forms, producing diverse territorial scenarios with actions promoted by agribusiness on areas already transformed but advancing on forest tracts occupied by natives and peasants.

**Keywords:** Economic Frontier. Conflict. Agribusiness. Peasant resistance. Amazonia.

### INTRODUCTION

The Southwestern Amazonia (Figure 1) experienced the advancing edges of Brazil's economic frontier beginning in the 1970s, exhibiting diverse characteristics over time and across different areas. During the last three decades of the twentieth century, this expansion was characterized by migratory flows from the Central-South, driven both by

population surpluses relocating from other regions and by the activities of investors, speculators, and land grabbers. Consequently, in areas previously inhabited by indigenous communities and long-established squatters, conflict became an inherent part of this territorial evolution.

Currently, more than four decades after this conflicting beginning, the frontier experiences a new moment of internal articulation, in which the conflicts take on more diversified forms. Characterized by diverse scenarios in territorial fractions that range from actions promoted by already established agribusiness, areas of agribusiness that are being taken, to those that advance on forested areas occupied by natives and farmers.

It is in this universe of complex actions that the consolidation of areas of expansion of agrarian capitalism takes place, under a very strong weight of conflicts that are characterized from the struggle for land for work, to the actions of territorial usurpations of farmers and traditional populations by agents of agrarian capitalism (SILVA, 2005; OLIVEIRA, 2016). In all of this, one can already see the territorialization of renewed features of the regional agrarian question in these initial three decades of the 21st century.

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**Figure 1 – Southwestern Amazonia**  
– road axes as a factor in the expansion of the frontier



Source: DNIT – Multimodal Maps Google Maps.  
Drawing and re-elaboration: author, 2022.

Therefore, this work comes as part of a study on the new spatial features of the reproduction of space in areas of the current frontier of the Southwestern Amazonia, aiming to focus on the types and forms of conflicts that have marked this process in more recent times. It is understood that the dynamics of the occupation of this frontier already goes back more than a century; however, here we opt to treat more specifically the situation in these initial decades of the 21st century, without, of course, denying its principles that date back to the final decades of the 20th century.

In general, the focus of the study is on this universe of complex actions, ranging from the struggle for land for work to actions of territorial usurpations. With this, one can understand the geographical faces in which the conflicts are configured in each of the territorial fractions, dynamizing the current moment of the frontier in the face of new forms of regional insertion in the national and global economy.

## **DEVELOPMENT**

Based on the principle that the territory of the economic frontier referred to was already occupied by native populations and, after the end of the 19th century, by pioneer rubber extractors (Silva, 2005), from 1960 onwards, it began to be articulated by the dynamics of the economic agricultural frontier, which came from the Center-South to the North and West in Amazonian soils, as a form of expansion by occupation and incorporation of new agricultural spaces into the production process. This was done through the expropriation and usurpation of territories lived by local populations, once again, conflict is rooted in the formation of the frontier.

It is in this socio-spatial context that we highlight the vector formed by the axes of highways, such as BR-174, next to BR-364. This vector, which cuts the extreme west of Mato Grosso, goes through Rondônia and ends in Acre, where it is integrated with BR-317, incorporating the southern part of the state of Amazonas. Thus, they describe a circuit of expansion and settlement through the agricultural frontier that dates back to the 1960s/70s. These road circuits, since then, have been characterized as an induction vector to agribusiness, but also as an open vein to agrarian conflicts in the heart of Southwestern Amazonia, from the late 1970s.

Therefore, it can be said that in the regional formation process, the roots of conflicts have always been part of the new dynamics that were being implanted in the socio-spatial reproduction, always denying the forms of pre-existing occupations, both of indigenous peoples and rubber tappers, and even of colonists who arrived in the last decades of the 20th century. This has transformed this region into an area of strong social tensions that lasted for the following decades, coming to a decrease in the last century and the beginning of this one.

However, after these final stages of the 20th century, the strip of encounter between occupied areas and areas of forests, where rubber extraction was exhausted, remained as potential spaces for the continuity of agricultural expansion. These are incorporated, within these limits, forest segments (including in Conservation Units - UC and Indigenous

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Lands - TI) that continue to be taken, albeit more slowly, by agents of the agricultural frontier (CPT, 2021).

Therefore, the foci of conflicts would perpetuate, and, in the face of the new articulations of the frontier in this beginning of the 21st century, became more intense, drawing trails of violence and death that reach the present day, especially in the southern Amazonia region, but articulated as agents of the situation coming from Acre and Rondônia in search of new lands for the expansion of their businesses.

In this way, the formation of new “areas of friction” can be seen in the reformulation of the economic frontier, where the pressure is intensely placed on areas of expansion of agribusiness, as well as in the search for land for work by farmers (subjects expropriated from the land who have settled in other times), squatter or settled, in areas sought by agents of capital who seek to expand their land domains by legal and illegal means, such as land grants (OLIVEIRA, 2016).

All of this has led us to understand that the advance of these fronts of occupation by forces of capital, made throughout the centuries, always occurred as a way of usurping the lands already territorialized by the indigenous peoples, traditional communities and farmers. These are lands that were already occupied by native and peasant populations, or even public lands that were not yet assigned. Therefore, it is seen that, even though they are part of the process of expanding the economic frontier, farmers and indigenous peoples are integrated into the way of life of the hegemonic society, whether in the condition of settlers, in the struggle for land for work, or even as victims of land grants, speculation (OLIVEIRA, 2016) and finally, of mechanisms operated by the State, which is complicit in the usurpation of already occupied areas by the set of workers. Territorially, this is a process that goes far beyond the political boundaries of Brazilian Amazonia, reaching other countries of the Pan-Amazonia.

## FINAL CONSIDERATIONS

We can say that the advance of the frontier(s), from the beginning to the present moment, has always been through forms of social conflicts and environmental impacts in the various phases of construction and reconstruction of this territory. It is important to address the mechanisms of usurpation of territory in the process of incorporation of new rural areas by the logic imposed by agribusiness in its appropriation of the Amazonian space. We have seen how this occurs, even with diverse forms of space use, given the different temporalities in which they articulate the dynamics of this frontier, forming “territorial fractions” in which there are marks of different conditions that capitalism has imposed and imposes in its socio-spatial and socioterritorial reproduction.

Therefore, considering that the process of territorial formation is made up of actions of legalities and illegalities, we can say that the socio-territorial construction that derives from it brings in itself the basic central conditions of a process that is usurper of territories, in which conflicts constitute the marks of these dynamics.

The roots of the recent Amazonian formation are not different from prehistoric times, placing themselves as forms of disputes over areas in which many properties that are formed are products of illegal actions, but that over time and through various mechanisms, the public organs of the states recognize, giving them a documental legalities.

Such situations mark the discredit of land laws and the fragilities of the public organs in acting by the legal formation of all the real estate properties of the country. However, actions of usurpation also come from public policies in large-scale development projects that occupy or displace populations from areas where they have lived for a long time.

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**OVERLAPPING THE RURAL ENVIRONMENTAL REGISTER:  
SCENARIO IN THE SOUTHERN AMAZONAS IN THE  
MUNICIPALITIES OF BOCA DO ACRE AND LÁBREA**

Daniel Alves de Araujo Filho

Federal University of Amazonas – UFAM

dfilho02@gmail.com

Aline Lessa de Souza

Federal University of Amazonas – UFAM

alinelessa@ufam.edu.br

Rakcelainy Mendonça Beleza

Federal University of Amazonas – UFAM

rakyebeleza98@gmail.com

Viviane Vidal da Silva

Federal University of Amazonas – UFAM

vivianevidal@ufam.edu.br

**ABSTRACT**

In 2012, the Rural Environmental Register (CAR) was implemented as an environmental conservation policy as per the changes made in the Forest Code. However, the overlapping between the areas declared by the rural properties and the public areas has become a challenge. This research aims to analyze the territorial conflicts resulting from the CAR in the south of Amazonas. As a methodology, spatial digital data and the software ArcGIS were used to generate maps representing the conflicts and the calculated area of overlapping between the CAR and the public forest areas. The results reveal that approximately 40% and 43% of the rural property areas in the municipalities of Boca do Acre and Lábrea, respectively, are

overlapped with Conservation Units (CUs). This overlapping presents concerning implications, allowing irregular land occupations and contributing to environmental degradation and illegal exploitation of natural resources.

**Keywords:** Amazonia. Deforestation. Conservation Units.

## **INTRODUCTION**

Economic development in the Amazonia over the past three decades has been characterized by two opposing views: on the one hand, the creation of Conservation Units aimed to protect large areas of forests, while on the other hand, a development model that includes livestock, mining, and agriculture has advanced, intensifying the exploitation and expropriation of nature (NOBRE, 2019).

This exploitation has resulted in the deforestation of areas originally covered by the Tropical Forest, which has led to attempts to reconcile development policies with few environmental policies. One of the initiatives in this direction was the implementation of the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAm) from 2005, contributing to the control of deforestation in the region.

In 2012, at the initiative of the Ruralist Bloc in the National Congress, modifications were made to the Forest Code, Federal Law 12.651/2012, establishing the need for the Environmental Rural Registry (CAR). The CAR was regulated by Decree 7.830/2012, which created the Environmental Rural Cadastre System (SFB<sup>9</sup>, 2022), responsible for integrating the CAR of all States. The CAR is an obligatory registration for all agricultural properties located in cadastral areas, excluding Indigenous Lands (TI), Public Domain Conservation Units (UC) and urban areas. The environmental information contained in the CAR forms an essential database for control, monitoring, environmental planning, and combating deforestation (FARIAS et al., 2018).

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<sup>9</sup>SFB is the acronym for Brazilian Forest Service, a unit of the basic structure of the Ministry of Environment and Climate Change, in accordance with the modifications promoted by Law No. 14,600/2023.

## Overlapping the rural environmental register: scenario in the southern Amazonas in the municipalities of Boca do Acre and Lábrea

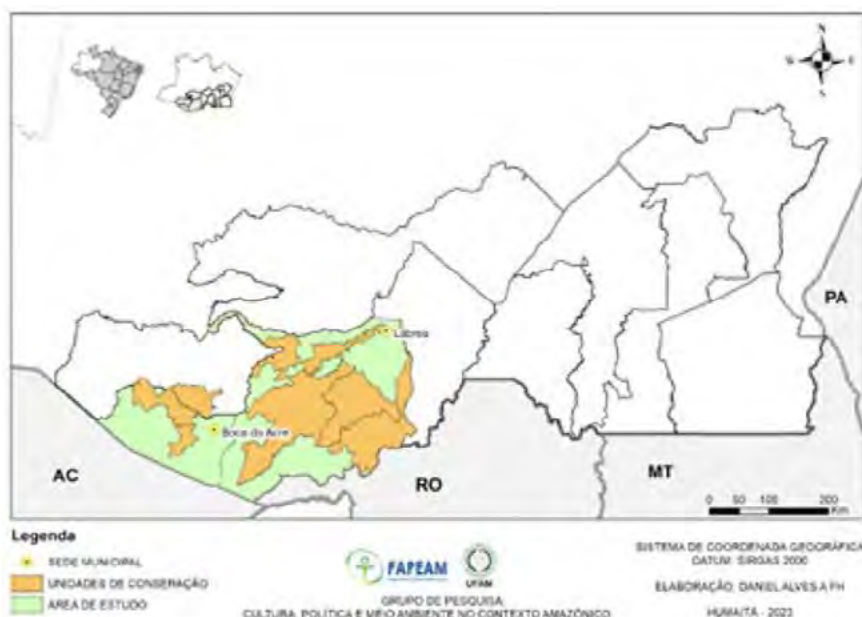
Currently, Brazil already has 6.5 million rural properties registered in the Environmental Rural Cadastre System, totaling an area of 618.821.449 hectares. The state of Amazonas has 68.081 registered properties (SICAR, 2022). However, although the CAR is not a land registry, its implementation allows grievors and invaders to benefit inappropriately.

To ensure the effectiveness of the CAR, it is essential to evaluate the situation of the cadastre in critical areas, such as the southern border of the state of Amazonas. This study aims to analyze the overlaps of the Environmental Rural Registry in protected areas, focusing on the municipalities of Boca do Acre and Lábrea.

### METHODOLOGY

The study was conducted in the municipalities of Boca do Acre and Lábrea, located in the south of the state of Amazonas, covering the Intermediary Geographic Region of Lábrea according to the classification of the Brazilian Institute of Geography and Statistics (IBGE, 2017).

Figure 1 – Map of location (2023)



Source: Araújo Filho (2021)

The methodology adopted in this study used geoprocessing techniques to quantify the overlaps in the conservation units of these municipalities. Information about the conservation units and the data from the Environmental Rural Registry (CAR) were obtained through the National Environmental Rural Cadastre System (SICAR).

The geographic limits of the conservation units and the rural properties were overlaid to identify areas of overlap. Subsequently, analyses were conducted to evaluate the environmental and socio-environmental implications of these overlaps.

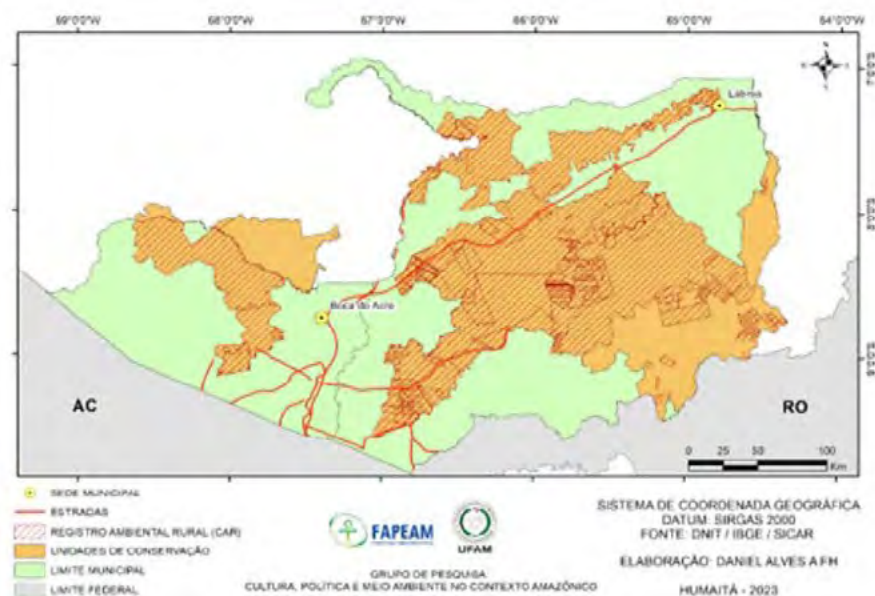
## **RESULTS AND DISCUSSION**

The Rural Environmental Register (CAR) is an important instrument for monitoring and controlling agricultural activities in border regions, especially in the Amazonia, where illegal exploitation of natural resources is a recurring problem. However, the overlap between Conservation Units (UCs) and rural properties registered in the CAR has been a cause for concern. Although the CAR is not a land registry, it has been used as a way to legitimize irregular land occupations, including areas that overlap with UCs.

The presence of occupants in these areas is evident, and often occupants establish verbal contracts with land grabbers and invaders to exploit the timber resources under their control, contributing to deforestation. Although the responsibility for monitoring and protecting UCs is with the public authorities, irregular occupations and attempts to “legalize” these areas still occur, as shown in Figure 2.

## Overlapping the rural environmental register: scenario in the southern Amazonas in the municipalities of Boca do Acre and Lábrea

Figure 2 – Overlaps of the CAR (2023)



Source: Araújo Filho (2021)

Analyses show that approximately 40% and 43% of the areas of rural properties in the municipalities of Boca do Acre and Lábrea, respectively, overlap with Conservation Units (UCs), contributing to environmental degradation and illegal exploitation of natural resources. Therefore, greater control and monitoring by the competent authorities are necessary to ensure the protection of these areas and the conservation of the environment.

Table 1 – Quantitative of areas (2019)

Classes Boca do Acre	Sum of areas (hectares)	%
CAR Properties	520796.1156	40.54%
Mapis Inauin National Forest	371639.0278	28.93%
Purus National Forest	257610.5348	20.05%
Arapixi Extractive Reserve	134550.9672	10.47%
<b>Grand total</b>	<b>1284596.645</b>	<b>100%</b>

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Classes Lábrea	Sum of areas (hectares)	%
CAR Properties	4695258.39	43.82%
Ecological Station	89364.60	0.83%
Balata-Tufari National Forest	1087510.00	10.15%
Iquiri National Forest	1474870.00	13.76%
Mapinguari National Park	1785840.00	16.67%
Canutama Extractive Reserve	198943.00	1.86%
Medium Purus Extractive Reserve	605363.00	5.65%
Ituxi Extractive Reserve	778939.00	7.27%
<b>Grand total</b>	<b>10716087.99</b>	<b>100%</b>

Source: Araújo Filho (2023)

## FINAL CONSIDERATIONS

The Rural Environmental Register (CAR) is an important tool for monitoring and controlling agricultural activities in border regions, such as the Amazonia. However, the overlap between rural properties and Conservation Units (UCs) registered in the CAR has been a concern, allowing for irregular land occupations. This contributes to environmental degradation and illegal exploitation of natural resources. It is crucial to increase the control and monitoring by the authorities to protect these areas and promote environmental conservation in the region.

## ACKNOWLEDGMENTS

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## AMAZONIA: THE FRONTIER BETWEEN CATTLE BREEDING AND HUMAN RIGHTS

Francisco Gomes da Rocha  
Federal University of Acre – UFAC  
fco.g.rocha@gmail.com

Silvio Simione da Silva  
Federal University of Acre – UFAC  
ssimione@gmail.com

### ABSTRACT

The Amazonia has been widely discussed, studied and reported in Brazil and abroad, after all, it draws attention to its size, diversity and relevance of its biome. Illegal deforestation and burning of forests cause global repulsion. Cattle breeding, which has grown the most in the last sixty years in the region, is responsible for the largest destruction of the biome, since it accounts for about 75% of deforestation. Brazilian environmental legislation has brought some advances in terms of preservation, although constant violations of the rights of traditional populations are not uncommon. Generally, federal and local governments have not implemented projects and programs that truly prioritize the region and its population. The development models implemented are environmentally predatory and socially exclusive. The process of occupation and exploitation of the Amazonia was conducted by large capital and based on land grabbing, expropriation and violation of the rights of traditional populations in the region.

**Keywords:** Cattle breeding. Environmental legislation. Illegal deforestation. Human rights.

### INTRODUCTION

The purpose of this study is to promote reflections on the implementation of livestock in the Amazonia region, verifying the

environmental impacts caused by this activity. To this end, we sought to see how production in this space is taking place in disregard to Brazilian environmental legislation, causing violations of fundamental rights of the populations of this region. For this purpose, a bibliographical research and data collection were carried out with some public institutions, with the aim of grounding the study and emphasizing the construction of new spaces in the region, notably in the last decades of the 20th century and the first of the 21st century.

We consider that the process of settlement of the Amazonia by non-indigenous people should be seen as a product of the expansion of capitalism in the region. Thus, it can be noted how the reproduction of this space was promoted through the articulation of capital, aiming to facilitate the exploitation of the natural resources of the region. Among these articulations, the construction of highways stood out as the most impactful strategy implemented. With this, river transport became obsolete before the opening of the roads and the arrival of cars, a symbol of modernity and progress, from the second half of the 20th century. Therefore, it is essential to understand in greater depth the relationship that was established between the road integration of the Amazonia with the rest of Brazil, the overwhelming growth of livestock and, proportionally, deforestation, almost always illegal, in defiance of the rights and dignity of the local populations.

## **THE ADVANCEMENT OF LIVESTOCK AND VIOLATIONS OF HUMAN RIGHTS**

When we talk about the Amazonia region, we first refer to the natural resources that exist and the potential volume of business that can be generated from its exploitation. As a way of justifying the suppression of these resources, the discourse of economic and social development is adopted. Analyzing the projects designed for the Amazonia in more depth, we verify that the main objective, regardless of the ideological corollary, was always predominantly exploitative. Unfortunately, the economic activities that prevailed in the region, particularly from the second half of the 20th century, followed a neocolonialist logic of occupation, expropriation, massacre and appropriation of riches. Implemented activities were highly predatory to the environment and, as a rule, illegal.

The strategy was a total success, and it implemented in the region activities that met the interests of the great capital. As accurately observed by Gonçalves (2018), the Amazonia occupies a peripheral position within a peripheral country, so that the projects and conceptions about the region are external to it.

Based on this scenario, it can be affirmed that there is a kind of “internal colonialism of the Amazon”, as Gonçalves (2018, p. 26) accurately speaks of it, because the policies implemented for the region have always been imposed from the outside to the inside and with the intention of serving external interests, initially in relation to other countries and later also in relation to other Brazilian regions. Considering the historical context in reference, it would not be an exaggeration to affirm that until recently, a kind of geopolitics of colonialism prevailed for the Amazonia, initially from Europe and later from Brasília and the Southeast region.

With the discourse of a demographic vacuum, despite the occupation of the native peoples, economic activities were implemented in the Amazonia that were environmentally predatory and socially excluding. The right to life, property, dignity, and to be recognized as a person were constantly denied to native peoples, especially indigenous peoples.

Livestock, by becoming the predominant economic activity in the Amazonia, has potentiated deforestation, so that in the last 40 years, it has deforested 49 times more than in all of Brazilian history, that is, each decade post-highways has deforested the equivalent of a century before them, the suppression of forests has multiplied by 50.

Reflecting on the subject, Becker (2005, p. 73) affirms that “all know how the national integration project has caused perversities in environmental and social terms”. In terms of deforestation, livestock is by far the activity that leads the statistics, bringing with it serious violations of human rights and the environment. The success of livestock in the Amazonia is due to a combination of factors that have benefited local and federal governments and large capital, although more recently it has also reached small property.

To governments, the possibility of greater control over tax collection and the large capital, the low population density is beneficial,

making it possible to occupy the region without rigorous fiscalization, with large social convulsions and offering credits and tax incentives.

The professor Loureiro (2009, p. 58/59) makes this analysis in a masterly way, pointing out the benefits of livestock for governments, but also accusing the environmental damage caused by the activity: “if the governments of the states consider livestock [...] profitable, it is only because they do not account for the environmental damage [...]; and because they collect taxes through it, which they cannot do equally with traditional activities”.

The high productivity and quality of meat are associated with the low cost of land and the high level of pasture, given the high rainfall and the extensions of the properties. This ensures a supply of quality and quantity of food for the herd, resulting in excellent quality meat. It was the combination of these factors that led to the “cattle farming” of the Amazonia.

The Universal Declaration of Human Rights, among others, ensures the right to property and health and well-being, which has been violated in the Amazonia region due to the expansion of economic activities, especially livestock, as it has expanded through the expropriation of traditional populations and land grabbing.

It should be noted that the Brazilian Constitution of 1988 in Article 225 determines that everyone has the right to enjoy a balanced and healthy environment. To make this right possible, the Brazilian legislature approved Law No. 12.651 of May 24, 2012, known as the “New Brazilian Forest Code” and instituted, among other things, the “Reserve Legal” and the “Environmental Registry of Rural Property” (CAR).

Traditional sectors of the Brazilian economy, especially agribusiness, which represents the great capital, have made strong lobbying against the approval of this legislation. The main argument used was that if the reserve legal was approved in the proposed terms, it would compromise the Brazilian economic development, especially in the Amazonia region. However, producing wealth is not synonymous with economic development, especially in the forms that have occurred in the Amazonia region. There is no development of any kind when the

accumulation of capital is the result of indiscriminate devastation of nature, land grabbing, and expropriation of traditional populations.

In general, the New Forest Code established the rules for the protection of native vegetation, including the Permanent Preservation Areas, the Reserve Legal, and the areas of restricted use. Law No. 12.651, of May 25, 2012, also regulates the exploitation and control of natural resources and their protection.

In the case of the Amazonia Legal, the object of our research, the reserve legal was fixed at 80% of the rural property area, which represents, in general, a percentage 75% higher than the average of the other regions.

Recent studies and research have confirmed that the environmental degradation caused by the capitalist development model generates natural imbalance, which in turn results in more acute crises, whether environmental, social, economic or legal, as warned by Becker (2005, p. 72) among the riches that prevail in the Amazonia is also the “knowledge of its traditional populations that have a secular accumulated knowledge to handle the humid tropics. This richness must be better used. Stopping this pattern of frontier economy is an international, national and regional imperative.”

Thus, by the critical positions expressed by the author mentioned, it can be affirmed that it is necessary to modify the development pattern for the Amazonia, so that the rights of the populations are respected and the concept of development meets the interests of the region and its inhabitants.

## **CONCLUSION**

It was seen that from the second half of the 20th century, notably after the 1964 Coup, under the discourse of National Integration, the Amazonia was torn apart by roads and the frenetic pace of capitalist exploitation imposed itself. The progress touted for the region was a one-way street, serving almost exclusively to take wood, gold, meat, and other riches, with no significant counterparts.

Livestock farming was introduced at a rapid pace. The rate of destruction of the Amazon biome, especially deforestation, was no less swift. Environmental laws were enacted. The concepts of the legal reserve and Rural Environmental Registry were established, requiring the preservation of 80% of a property's area and aiming at oversight, respectively. While these measures mitigated environmental degradation to some extent, they did not directly address the severe human rights violations that devastated the traditional populations of the Brazilian Amazon.

It is concluded that the development project implemented in the Amazonia was predatory for the environment, socially exclusive, and based on transgressions of rights. Therefore, there was no development project for the Amazonia and its population, but a process of appropriation of its riches by big capital, facilitated by the Brazilian state and at the expense of its people and their rights.

#### **ACKNOWLEDGMENTS**

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**FRONTIER AND DEFORESTATION IN THE NORTHWEST OF  
RONDÔNIA: IMPACTS ON PROTECTED AREAS BETWEEN  
HIGHWAYS BR-364, BR-421 AND BR-425**

Luciano Ítalo Tavares de Souza

Federal University of Rondônia – UNIR

lucianoits22@gmail.com

**ABSTRACT**

The spatial metamorphoses that transform natural areas into territories of capital in the north/northwest of Rondônia have gained strength in the eyes of the State and hegemonic agents that produce the expansion of the agricultural frontier. The objective of this study was to relate the agricultural frontier and deforestation in the protected areas in the north/northwest of the state, qualifying the socioterritorial impacts in the Indigenous Lands Igarapé Ribeirão, Karitiana and Karipuna and the Conservation Units National Forest Bom Futuro (FLONA Bom Futuro) and Extractivist Reserve Jaci-Paraná (RESEX Jaci-Paraná). The municipality of Porto Velho has the largest cattle herd, with 1,353,947 animals and the largest volume of extracted timber, 936,212 m<sup>3</sup>. Additionally, the accumulated deforestation in the protected areas around the highways was 175,474 ha in 2022. Therefore, the data implies initiatives by institutions that are favorable to the human and territorial rights of Amazonian peoples.

**Keywords:** Agricultural frontier. Socioterritorial impacts. Protected areas.

**INTRODUCTION**

The spatial metamorphoses in the agricultural space of northern/northwest Rondônia are structured from the transformation of natural areas into territories of capital for the social and economic reproduction of hegemonic agents. In this panorama, beef cattle farming stands out, which, being displaced by the expansion of soy, opens paths in areas

with little deforestation and original forest formations (COSTA SILVA, 2016), adding to the legal and illegal extraction of wood that accompanies the displacement of the agricultural frontier (MICHALSKI, 2018).

The objective of this article is to analyze the socio-territorial impacts caused by the expansion of the frontier, evidenced in the actions of farmers, land grabbers and other agents, practiced in the surroundings of protected areas in northern/northwest Rondônia.

The study area comprises three Indigenous Lands (Karipuna, Karitiana and Igarapé Ribeirão) and two Conservation Units (Jacy-Paraná Extractive Reserve and Bom Futuro National Forest), located in the area of influence of highways BR-364, BR-421 and BR-425. The actions of hegemonic agents and the ways of life of Amazonian peoples reflect a dialectic that takes into account the use, appropriation, production, ordering and organization (SANTOS, 1994).

## **METHODOLOGY**

The qualitative and cartographic research method is adopted, with bibliographic and statistical data analysis related to the concepts of used territory, describing the use and appropriation of territory by different agents (SANTOS, 1994); and frontier, which refers to the space of conflict (MARTINS, 1997), the boundary between the vision of capital and the ways of life of indigenous peoples and traditional communities (COSTA SILVA, 2015; COSTA SILVA; CONCEIÇÃO, 2017).

The dialectical method is adopted, which provides a way to understand the production of the agricultural space and the transformations of protected territories. The data will be systematized in the light of the epistemological approaches of geographic science.

## **THE AGRO-PASTORAL FRONTIER ADVANCES IN NORTHERN RONDÔNIA**

Soybeans, cattle farming, and timber exploitation advance in northern Rondônia. This dynamic is established from the increase in grain production in the southern part of the state around the 1990s, which results in the displacement of pastures (MICHALSKI; BORGES,

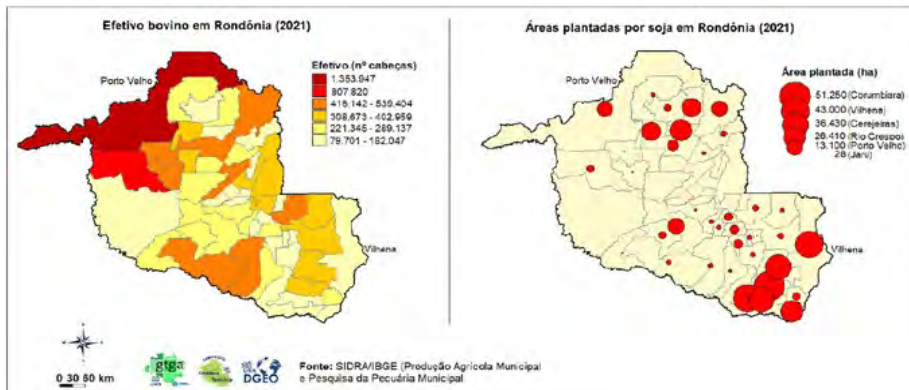


## Frontier and deforestation in the northwest of Rondônia: impacts on protected areas between highways BR-364, BR-421 and BR-425

2022) in the direction of the north of the state so that this transforms, along with timber extraction, natural areas into pastures.

The figure 1 shows the spatial relationship between areas of soybeans and the effective bovine, pointing out the concentration zones of the variables. Since the southern part of the state is the epicenter of the soy, the new area of expansion is inserted in the micro-region of Ariquemes, a condition that impulses the displacement of the cattle to the north, making Porto Velho and Nova Mamoré the leaders in the state's bovine population.

**Figure 1 – Soybean areas (ha) and bovine population (units) in Rondônia (2021)**



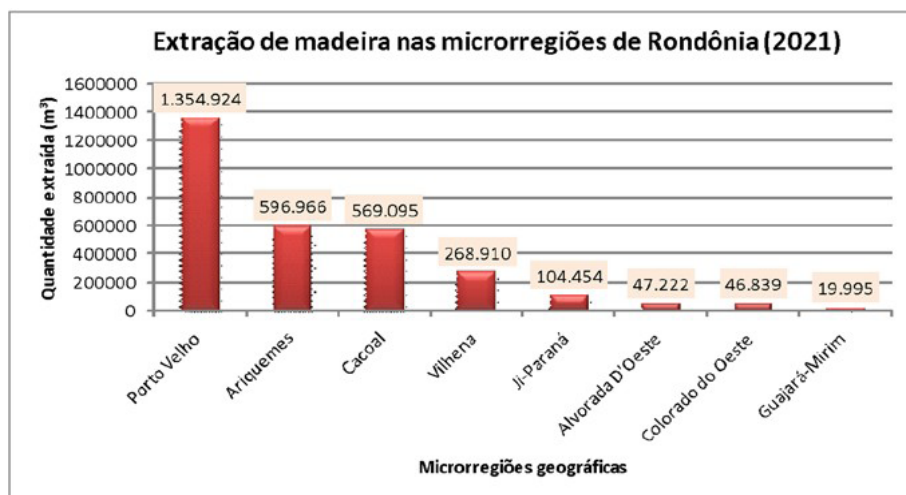
Source: PAM/IBGE and PPM/IBGE (2021) – organized by the author (2023)

According to the IBGE (2021), the areas dedicated to soybeans cover 39 municipalities, reaching a total of 400,459 hectares. The municipalities of the new expansion area, Rio Crespo, Cujubim, Alto Paraíso, Machadinho d'Oeste, Porto Velho and Ariquemes, total 99,662 hectares of soybean areas. The state's bovine population totals 15,110,301 animals, among which 2,701,171 occupy the municipalities of Porto Velho (1,353,947), Nova Mamoré (807,820) and Buritis (539,404), which contain the protected areas under study.

Rondônia has one of the highest deforestation rates in Brazil due to unsustainable practices of economic activities linked to agriculture

and timber exploitation, as well as population growth without planning for occupation (PEDLOWSKI et al, 2005). According to the chart of figure 2, the information obtained through IBGE data illustrates the strong presence of timber extraction in the municipality of Porto Velho in 2021.

Figure 2 – Logging (m3) in Rondônia - microregions (2021)



Source: PEVS/IBGE (2021) - organized by the author (2023)

In 2021, the state of Rondônia extracted 3,008,405 m3 of wood, according to IBGE. The microregion of Porto Velho was responsible for 45% of this volume (1,354,924 m3), followed by the microregion of Ariquemes, with 19.8% (596,966 m3). Among the municipalities of the state, Porto Velho was responsible for 31% of this volume (936,212 m3), ahead of Espigão d'Oeste, which extracted 362,462 m3 of wood (12%). “Legal and illegal timber extraction follows the expansion of the agricultural frontier, as the action of sawmills is revealed as a mechanism for opening up new areas” (MICHALSKI, 2018, p. 95) for the expansion of capital.

The north/northwest of Rondônia is part of the trajectory of capitalism in the Amazonia. Therefore, this region of the state assumes dense

## **Frontier and deforestation in the northwest of Rondônia: impacts on protected areas between highways BR-364, BR-421 and BR-425**

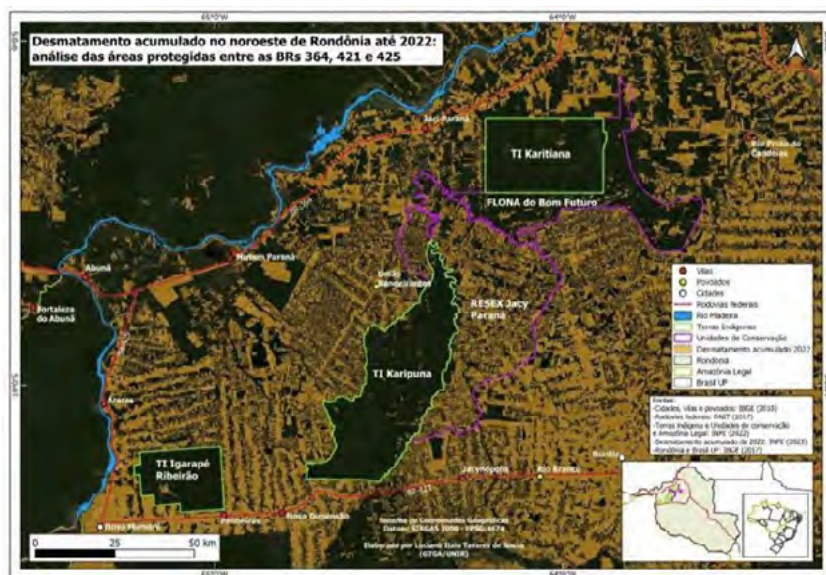
territorial dynamics that “amplify pressures on social, political and economic spaces institutionalized [protected areas] to ensure collective forms of land and nature use that directly guarantee the protection of environmental services to society” (COSTA SILVA et al, 2020, p. 254).

### **THE EXPANSION OF THE FRONTIER AND DEFORESTATION AFFECT PROTECTED AREAS SURROUNDED BY FEDERAL HIGHWAYS**

The expansion of the space of capital stimulates the advance of pioneering fronts (cattle and wood) on fronts of expansion (indigenous territories and conservation units) (MICHALSKI, 2018). In this perspective, it is worth noting that the subjects involved move in contradictory parameters as the hegemonic agents contribute to invasions, threats, and pressures while the indigenous peoples and extractivists fight for the permanence and way of life in their territories.

As part of these occurrences in the Legal Amazonia, the north/northwest of the state of Rondônia comprises a region composed of protected areas surrounded by road axes. It is notorious that the practice of deforestation in protected areas affects both environmental services and the human and territorial rights of the people who inhabit and live there. The information on the map below (Figure 3) shows the magnitude of deforestation in the north of Rondônia and its presence in the protected areas under study.

Figure 3 – Accumulated deforestation in the Protected Areas of the north of Rondônia (2022)



Source: The author (2023)

According to data from Instituto Socioambiental – ISA, the accumulated deforestation in the PAs in 2022 was 175,774 ha, including 1,828 ha deforested in the TI Igarapé Ribeirão; 7,154 ha in the TI Karipuna; 922 ha in the TI Karitiana; 147,365 ha in the RESEX Jaci-Paraná, and 18,505 ha in the Bom Futuro FLONA. It is noted, according to information from the figure, that deforestation spread with the opening of vicinal roads in the highways that surround the PAs under study. “This phenomenon reveals the search for new areas in the production of agro-livestock, exposing pressures, tensions, and conflicts over protected areas in the northwest of the state” (MICHALSKI; BORGES, 2022, p. 73).

## FINAL CONSIDERATIONS

The frontier that reaches the north/northwest of Rondônia is part of this scenario in the Amazonia. The centrality of geographical soy is evident in the expansion zones, after consolidated in the southern

cone of the state. The demand for areas of commodity had as one of its spatial effects the displacement of cattle to natural areas. Both cattle and wood exploitation have entered the surroundings and interior of protected areas, contributing to deforestation, pressures, and threats.

Conflicts produced from the frontier affect indigenous lands and conservation units, extinguishing the human and territorial rights of indigenous peoples and extractivists. Deforestation caused by the expansion of agro-livestock contributes to the decrease in the possibility of life of these people. Therefore, it is essential to articulate between geographic science, political and social agents, movements, and other institutions for debates and solutions that value the ways of life of the people of the forest and their relationships with nature.

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## THE FRONTIER OF HOPE: AN ANALYSIS OF THE HUMAN RIGHTS OF INTERNATIONAL MIGRANTS IN THE AMAZONIA

Maria Sandra Xavier Gelpke

Master's student in the Graduate Program  
in Geography at the Federal University of Acre – PPGeo/UFAC  
msandrax20@gmail.com

José Alves

Federal University of Acre – UFAC  
jose.alves@ufac.br

### ABSTRACT

The general objective of this work is to analyze the human rights of international migrants in the Amazonian Acrean border, considering the importance of the concept of territory as the hope that goes far beyond the simple spatial or geographical demarcation. The migratory process addressed is not simply linked to spatial displacement, but to a series of factors, such as cultural, historical, social, gender, age, and respect for human rights. The bibliographic research and collection of official data allowed the realization of this study with a better understanding of the aforementioned theme.

**Keywords:** Border. Human rights. Migration. Amazonia.

### INTRODUCTION

Reflecting on the human rights of people who leave their countries in search of better living conditions, with the hope of having rights to territories where they can rebuild their lives, is a great challenge. According to Milton Santos (2007), territoriality does not come from simply living in a place, but from the communion we maintain with it. After all, for this author, “the territory in which we live is more than just

a collection of objects through which we work and live, but also a symbolic given, without which we cannot speak of territoriality” (SANTOS, 2007, p. 83-84). Emphasizing still, regarding conceptions of territory, Haesbaert (2012) groups four basic currents: the political, cultural, economic, and natural. The first current, the political, is linked to space-power relations and is the most widespread. In it, the territory is seen as a demarcated and controlled space by a certain power that, in most cases, refers to the political power of the State. The second current, cultural or symbolic-cultural, prioritizes the symbolic dimension in which the territory is seen “as a means of appropriation and symbolic valorization of a group in relation to its lived space” (HAESBAERT, 2012, p. 40). The third current, the economic, little spread, highlights the territorial dimension of economic relations. Thus, the territory is seen as a source of resource linked to social classes and in the capital-labor relation. The fourth and final current is the natural or naturalistic that prioritizes the relationship between society and nature, mainly “in relation to the ‘natural’ behavior of men in relation to their physical environment” (HAESBAERT, 2012, p. 40).

Thus, focusing on the reality of international migration, which occurs through the Amazonian borders and with the aim of analyzing the human rights of this population, it is evident that there are violations of the rights of these migrants, considering that the migratory movement is a human right, which guarantees the condition of equality with national citizens, the inviolability of the right to life, liberty, security, and property, contained in the Constitution of 1988, as well as the Migration Law (n. 13.445/2017), however, it is still necessary to advance in the protection of foreigners against discrimination.



## **A fronteira da esperança: uma análise dos direitos humanos do migrante internacional na Amazônia**

**Figure 1** – Immigrants on the Bridge of Integration, on the border between Brazil and Peru, located in Assis Brasil-Acre



Source: Available at: <https://vermelho.org.br/>.

### **METHODOLOGY**

In order to conduct a quantitative and qualitative analysis, data was collected from the National Migration Registration System (SisMigra) and the Observatory of International Migrations - OBMIGRA. This research is based on a qualitative and quantitative study, whose methodological axis aims to “understand phenomena through the collection of numerical data, pointing out preferences, behaviors, and other actions of individuals who belong to a certain group or society” (MINAYO and SANCHES, 1993, p. 34).

## **RESULTS AND DISCUSSION**

The state of Acre is one of the main entry and exit points for Haitian immigrants in Brazil, starting from 2010, when they began to arrive in the city of Brasileia, on the border with Bolivia, as well as the border with Peru. The period of greatest flow of incoming foreigners through the Acre border occurred between the years 2013, 2014 and 2015, with the arrival of, respectively, 10,779, 14,333 and 9,011, with the largest contingent of Haitian origin, followed by Senegalese, Dominicans and, recently, Venezuelans (MAIA, 2018).

This movement, however, was conditioned by the economic dynamics of the period, driven by humanitarian factors. This complexity of factors, which acted at different times, allows the division of this period into two subperiods, as they present distinct characteristics: a) 2010 to 2014, when there was a significant increase in the volume of immigrants, a movement that was linked to the high dynamics of the economy and the heating up of the Brazilian labor market; and b) 2015 to 2018, when the volume of immigrants underwent fluctuations, due to the effects of the economic crisis, but also the entry of new migratory flows, especially from Latin America.

According to the National Migration Registration System (SisMigra), the records of temporary and permanent residence granted to international immigrants can be used as a good approximation of the regular migration flows that have destined to Brazil. From these data, it was possible to perceive the transformations in the participation of women, children and adolescents in international migration that arrived in the country in the middle of the last decade. From the analysis of the data, it was observed that in 2011, a total of 74,339 immigrants were registered in SisMigra, of which 24,262 were women (32.6%), 4,363 were children (5.9%) and 4,959 were adolescents (6.7%). In the beginning of the following decade, in 2021, a total of 151,155 immigrants were registered, of which 67,772 were women, corresponding to 44.8% of the immigrants registered, 29,795 children (19.7% of the total) and 14,555 adolescents (9.6% of the total), which means that in 2021, almost 30% of the immigrants registered in the country were under 18 years old. The year 2019 was the one with the highest number of women immigrants

registered in the historical series analyzed with 80,711, comparing the years 2011 and 2021, the number of women immigrants registered in 2021 is approximately three times higher than that of 2011, taking into account that the year 2021, even with the impact of the pandemic of Covid-19, but already recovered the number close to 2019, with 67,722 records - the second highest number in the decade. (CAVALCANTI, OLIVEIRA, MACEDO, 2022).

The Observatory of International Migration - OBMIGRA also released data on refuge in Brazil in 2022, where there were 50,355 requests for refugee status from 139 countries. The main nationalities requesting refugee status in 2022 were Venezuelans (67%), Cubans (10.9%) and Angolans (6.8%).

In 2022, the National Committee for Refugees (Conare) recognized 5,795 people as refugees. Men accounted for 56% of this total and women for 44%. Additionally, 46.8% of the people recognized as refugees were children, adolescents and young people up to 24 years of age.

The total number of requests for refugee status evaluated by Conare was registered in the Federative Units (UFs) that make up the northern region of Brazil. The state of Roraima concentrated the largest volume of requests for refugee status evaluated by Conare in 2022 (41.6%), followed by Amazonas (11.3%) and Acre (3.3%).

In the year 2022, the category of justification most applied for the recognition of the refugee status was “Serious and Generalized Violation of Human Rights (GGVDH)”, responsible for 82.4% of the total justifications, followed by “Political Opinion”, which represented 10.9% of this total. (CAVALCANTI, OLIVEIRA, MACEDO, 2022).

## **FINAL CONSIDERATIONS**

From the analyses, it's evident that the immigration of Haitians, Senegalese, Dominicans, Venezuelans, Cubans, and Angolans to Brazil, specifically to the state of Acre, is rooted in historical, social, and territorial construction. The demarcation of the border reflects expansive power relations and takes on different meanings depending on the purposes it serves. In essence, the border symbolizes the various territorialities.

Given these observations, Brazilian legislation on migratory movements should undergo revision. It's vital to contemplate the provision of public policies in border regions, ensuring rights and reaching this population with a compassionate reception aligned with current laws. Some efforts in welcoming migrants seem lacking, possibly due to communication gaps between political spheres in devising effective strategies.

The Migration Law, underpinned by its humanitarian nature and the principle of non-discrimination, addresses the most significant humanitarian crisis since World War II, where thousands perished. It is paramount that we don't hinder these individuals from crossing the 'border of hope' in pursuit of a life of dignity and happiness.

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**THE HUMAITÁ NATIONAL FOREST  
CONCESSION: A PRELIMINARY ANALYSIS**

Victor Ferreira Inácio

Federal University of Amazonas – UFAM

ferreirainacio40@gmail.com.br

Viviane Vidal da Silva

Federal University of Amazonas – UFAM

vivianevidal@ufam.edu.br

Katarina Moraes Cardoso

Federal University of Amazonas – UFAM

kmorais53@gmail.com

Aline Lessa de Souza

Federal University of Amazonas – UFAM

alinelessa@ufam.edu.br

**ABSTRACT**

National Forests are Conservation Units with the objective of conserving the environment under special regime of Public Administration. Thus, the Humaitá National Forest, created by Decree No. 2.485, on February 2, 1998, with an official area of 468,790 (four hundred and sixty-eight thousand, seven hundred and ninety) hectares, located in the municipality of Humaitá/AM, has its main threats according to Chico Mendes Institute for Biodiversity Conservation – ICMBio and National Institute of Space Research – INPE, a total of 716 (seven hundred and sixteen) hectares of identified deforestation accumulated until 2019. With this, in 2019, they

analyzed the possibility of a forest concession, which is allowed by Law No. 11.284/2006. This work was carried out through a bibliographic review of forest concessions and observations of the management council meetings of the Humaitá National Forest between the years of 2019 and 2023.

**Keywords:** Forest concession. Sustainable management. Private sector.

## **INTRODUCTION**

National Forests (FLONAs) are units of sustainable use conservation, which are defined as a “territorial space and its environmental resources, including jurisdictional waters, with relevant natural features, legally established by the Public Power, with conservation objectives and defined limits, under a special management regime, to which adequate protection guarantees are applied” (SNUC, 2000).

In the Amazonia region, the FLONAs designated for forest concession are those located in the states of Pará and Rondônia. In the state of Amazonas, despite the timber potential of the state, the process of forest concession is recent, and the National Forest of Humaitá (FLONA Humaitá) will be the first conservation unit to meet the objectives of the National Forests, starting the process of forest concession in the state.

The FLONA Humaitá was created on February 2, 1998, through Decree 2.485/98, with an area of 468.790,000 hectares and entirely located in the municipality of Humaitá, on the banks of the Trans-Amazonian Highway, in the southern agricultural region of the state of Amazonas. In addition, it has its main threats identified by ICMBio and INPE, a total of 716 (seven hundred and sixteen) hectares of accumulated deforestation until 2019.

Therefore, in 2019, the PAOFS (Annual Output Forest Concession) was included, as described by the Federal Court of Auditors through administrative process n. TC033.616/2020-5. Considering the environmental difficulties faced, seeking as a perspective of solution the possibility of Forest Concession.

The forest concession presents itself as a model of development in poor regions aligned with forest conservation and combating illegal timber market. Regulated by Law n. 11.284/2006, also known as the Public Forest Management Law. Furthermore, the forest concession is

the way in which the Public Power transfers the management of public forests to third parties through bidding processes. Once this concession is made, this third party becomes responsible for exploiting the area of the forest conceded, paying for its use to the federal entity.

Given the above, this study aimed to make preliminary considerations about the forest concession process of the FLONA Humaitá, based on the documents already available.

### **METHODOLOGY**

This work was carried out through a literature review on national forest concessions. For this, research was conducted on the subject in journals, government official websites, and Brazilian legislation that regulates forestry activities that will be applied in the Humaitá National Forest. Observing the meetings of the management council of FLONA Humaitá between 2019 and 2023.

### **RESULTS AND DISCUSSION**

Law No. 11.284, of March 2, 2006 (BRASIL, 2023), which governs public forest management for sustainable production, provides that the public power can grant forestry concessions to private companies for sustainable timber extraction. Presenting three modalities of public forest management: the allocation of public forests to traditional communities, direct management by the state, and forest concession.

In the case of the Humaitá National Forest, forest concession will be carried out based on a set of regulations, such as the ICMBio Ordinance No. 47, of June 17, 2010, which opened the Preliminary Technical Study for the possibility of concession, the Ordinance SFB No. 6, of October 7, 2010, which describes the chain of custody system, Ordinance SFB No. 4, of December 2, 2011, which deals with bonuses in concession contracts, Ordinance SFB No. 11, of May 9, 2012, which deals with the labeling of possible UMFs, Ordinance SFB No. 16, of August 7, 2012, which deals with contractual guarantees in forest concessions, Ordinance No. 20, of February 8, 2013, which deals with the

measurement of forestry products, Ordinance SFB No. 5, of December 7, 2018, which deals with forest audits, and Ordinance CONAMA<sup>10</sup> No. 406, of February 2, 2009, which deals with sustainable forestry management plans. These regulations govern the possibility of forest concession in FLONA Humaitá.

Understanding all the aspects that describe the forest concession in FLONA Humaitá, it is submitted to the process to meet the premise that the forest concession can make it difficult to deforest, land grabbing of public lands and disorderly occupation of the forest, and simultaneously provide a sustainable management of these, increasing income and improving the quality of life of the local population (GODOY, 2006; SILVA et al., 2009).

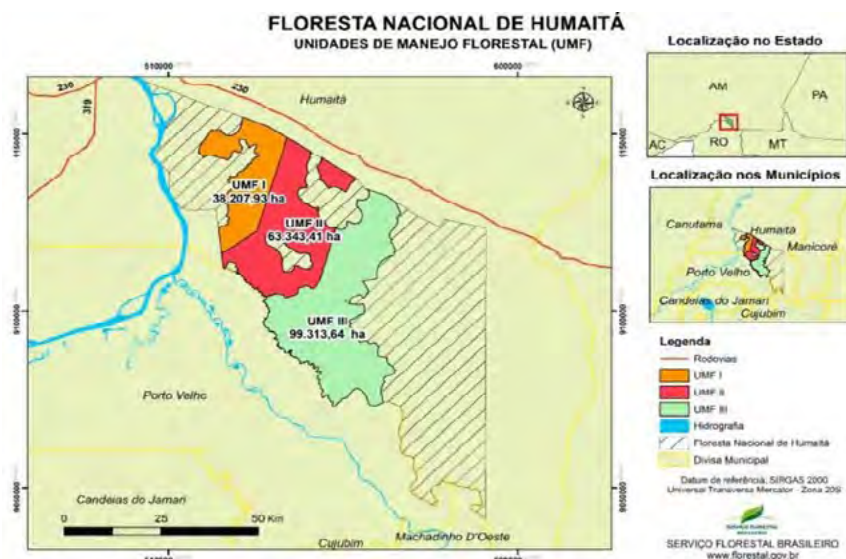
In the course of dissemination and submission of the forest concession process of FLONA Humaitá, the SFB identified the existence of Indigenous Lands adjacent to the area of one of the UMF. After the necessary negotiations with the National Foundation of the Indian, as well as meetings with representatives of the Tenharim-Marmelo and Jiahui ethnicities, Technical Information No. 50/2020/Copam/CGGAM/DPDS-FUNAI was issued, by which, in summary, the organ cites the ethnicities adjacent to the area of FLONA, as well as the existence of overlapping in relation to one of the areas initially foreseen by SFB with indigenous lands. Therefore, the Forest Management Units were delimited, as shown in Figure 1.

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<sup>10</sup> CONOMA is the acronym for National Environmental Council, the consultative and deliberative body of the National Environmental System – SISNAMA. In other words, CONAMA exists to advise, study and propose to the Government the guidelines that government policies should take for the exploration and preservation of the environment and natural resources.



**Figure 1 – Forest Management Unit - Humaitá National Forest/AM (2020)**



Source: SFB (2020)

In addition, the 200,282 hectares to be granted were divided into three Forest Management Units (UMF). UMF I, closer to the municipality of Humaitá, has an area of 38,207.93 ha, considered a small UMF, with an effective management area of 29,514.55 ha, and an estimated annual production of 19,676.36 m<sup>3</sup> of wood. UMF II falls into the concept of medium UMF, with an area of 62,242.38 ha, an effective management area of 48,886.15 ha, and an estimated annual production of 35,590.76 m<sup>3</sup>. UMF III, also classified as a medium UMF, has an area of 100,412.31 ha, an effective management area of 78,104.58 ha, and an estimated annual production of 52,069.72 m<sup>3</sup> of wood.

It is worth noting that to define this delimitation, it was necessary to hold several meetings of the consultative council of the FLONA, composed of traditional residents, environmental protection agencies, universities, and other invitees, hearing and respecting each information. The FLONA of Humaitá expressed interest in the forest concession in the PAOF of 2016, but the process started only in 2019, and the meetings were held only in 2020.

Therefore, it went through all the administrative procedures, as demonstrated by TC033.616/2020-5, of the Federal Court of Accounts - TCU, until the 1st Ordinary Meeting of the National Forest Council was held on June 7, 2023, where an update on the forest concession process and the presentation of the FLONA de Humaitá Management Plan were presented. The winning companies of the forest concession were Apice Consultoria E Projetos LTDA. CNPJ<sup>11</sup> 19.116.550/0001-07, responsible for UMF I, and Forest Ark Investimentos LTDA. CNPJ: 74.002.056/0001-11, responsible for UMFs II and III. The proposals for financial incentives for the region were highlighted with clauses in the concession contract for job generation in the region and a fund for the municipality that will be managed by the Municipal Environmental Secretariat.

### FINAL CONSIDERATIONS

Forest concessions represent a step forward in the management of public forests in Brazil. In addition, the policy in question also has a function of protecting forests, as it prevents the advance of disorderly occupation and land grabbing, common practices in the northern region of the country. The forest concession of FLONA de Humaitá will be the first in the state of Amazonas. Therefore, the monitoring of this process is fundamental for effective analyses of this type of public forest management.

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<sup>11</sup> The Brazilian National Registry of Legal Entities (Portuguese: *Cadastro Nacional de Pessoas Jurídicas*, “CNPJ”) is a nationwide registry of corporations, partnerships, foundations, investment funds, and other legal entities, created and maintained by the Brazilian Federal Revenue Service (*Receita Federal do Brasil*, “RFB”) (Wikipedia).

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**PROJECT MANAGEMENT AND INNOVATION  
IN PUBLIC SERVICES WITH A FOCUS ON AGRICULTURE  
AND LIVESTOCK FARMING INSPECTION IN RONDÔNIA**

Uéverton Fraga de Paula

Federal University of Rondônia – UNIR

fragosopvro@gmail.com

**ABSTRACT**

According to measures aimed at reducing poverty, protecting the environment, and promoting climate-friendly behaviors to ensure the prosperity of people, the United Nations proposed the Sustainable Development Goals (SDGs). Therefore, this study adopts the systematic use of Administration Theories and one of its tools, the SWOT analysis, to demonstrate that the measures being taken to focus on agricultural inspection in Rondônia are respecting global measures. In this context, the study analyzes the impacts of innovation in agricultural inspection in Rondônia on sustainable agricultural production in society as a whole, using the SWOT analysis tool. The study was based on bibliographic research and content analysis. As results, proposals for innovation in agricultural inspection focused on sustainability are proposed.

**Keywords:** Agricultural inspection. SWOT analysis. Sustainability.

**INTRODUCTION**

The global scenario requires measures to reduce poverty, protect the environment, and promote climate-friendly behavior to ensure people's prosperity. These are the requirements pointed out by the United Nations Organization (ONU) to achieve the Sustainable Development Goals (ODS). In this system, PEDRO FILHO et al. (2022, P.190) cite that the New Public Management (NGP) requires state efficiency through

public support for the private sector and the promotion of education and training of qualified labor to stimulate integrated local development.

In this context, Rondônia, with great potential in agribusiness and a heavily influenced economy by agricultural production, carries out extension and inspection actions to safeguard its image, both in Brazil and abroad, as a state with social and environmental responsibility and with its active agro-livestock inspection agencies.

Da Costa Silva et al. (2017, p. 47) claim that there is a continuous transformation of natural areas into agro-livestock and market space in Rondônia, moving towards protected territories. In general, agro-livestock inspection is committed to the task of regularizing property from irregular to regular, from areas of agrarian conflict to even indigenous areas, precisely to help mitigate the sanitary risk before the production of animal and vegetable products in the Rondônia economic scenario.

Therefore, an innovative action in agro-livestock inspection emerges in line with the ODS. In this context, the general objective of this study is to analyze the innovation process in the agro-livestock inspection of Rondônia for sustainable agro-livestock production with impacts on society as a whole.

The specific objectives are: To identify the technologies used in agro-livestock inspection in Rondônia and their application in improving the quality of agro-livestock products (1). To evaluate the impacts of innovation in agro-livestock inspection in Rondônia in reducing sanitary and environmental risks (2). To propose innovation in agro-livestock inspection considering increased competitive sustainable productivity (3). This study is composed of this introduction, a theoretical-conceptual structure, a methodology section, and results.

## **METHODOLOGY**

The research methodology adopted in this study is qualitative. According to Medeiros (2012), in this type of approach, a competent theoretical background with methodological rigor is necessary. However, the author notes that the researcher's creativity must be present throughout the research process.

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The research develops through the selection of relevant studies in the theme, seeking a deeper understanding. Rodrigues (2002) speaks of the importance of meta-analysis, which even offers a paradigm from the moment the researcher is willing to adopt a new approach, incorporating studies and conclusions, seeking their improvement.

Research was carried out on the World Wide Web to search for public consultation archives, so there was a selection of materials. Thus, access was made to the Sucupira platform to guide and identify relevant journals for research. Other platforms used were Google Scholar and SCIELO. There was a deepening in the analysis of models, or SWOT analysis, which is a benchmarking tool that adds value in the perception of strengths, weaknesses, opportunities, and improvements to be implemented (NÓBREGA, 2021).

## **RESULTS**

### **ECONOMIC ASPECTS OF RONDÔNIA AND INNOVATION IN AGRICULTURAL INSPECTION**

The development actions of the state of Rondônia are updated on the official website (RONDÔNIA, 2022). The data is part of the “Agro Seagri”<sup>12</sup> Information Bulletin, prepared through Agrodados. The Gross Value of Agricultural Production (VBP) of Rondônia reached a total of 50.93 billion reais until July 2022, with emphasis on the following crops: soybeans, corn, coffee, and cattle. To monitor the increase in agricultural production, actions in extension and agricultural inspection must improve, as the production of agriculture increases, the risks of pests and diseases also increase.

In this sense, public administration is always looking for ways to innovate. Bini et al. (2019) highlight the role of Information Technology (IT), with the ability to process data, produce and disseminate information and knowledge. In general, technological innovation allows the development of remote monitoring systems, drones, remote

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<sup>12</sup> Seagri is the acronym for State Secretariat for Agriculture of Rondônia.

sensing, among other forms of technology. The trend is for regulations to follow this technological advancement, incorporating it into agricultural inspection actions, with a focus on guiding towards mitigating the sanitary risk.

## SWOT ANALYSIS IN AGRICULTURAL INSPECTION

According to Brugnolo (2018, p. 48), SWOT analysis is the integrated understanding of the external and internal environment of an organization, as the analysis of the external environment must move in line with the internal knowledge of the organization. In this sense, SWOT analysis aims to facilitate the analysis of the forces, weaknesses, opportunities and threats involved in the agricultural inspection process (p. 60).

In the development of the study, the applicability of the SWOT matrix was analyzed to identify and point out the strengths, weaknesses, opportunities and threats in relation to the work of agricultural inspection in Rondônia, as shown in figure 1.

**Figure 1** – SWOT analysis, agricultural inspection in the state of Rondônia

SWOT Analysis		
Internal	Strengths	Weaknesses
	<ol style="list-style-type: none"> <li>1. Qualified and specialized team of inspectors.</li> <li>2. Cooperation and partnerships with research organizations and academic institutions.</li> <li>3. Advanced technology use, such as monitoring and tracking systems.</li> </ol>	<ol style="list-style-type: none"> <li>1. Lack of financial resources for investment in infrastructure and equipment</li> <li>2. Shortage of personnel to cover the necessary inspection areas</li> <li>3. Lack of integration and sharing of information between different entities and sectors involved in the inspection.</li> </ol>



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<b>External</b>	<b>Opportunities</b>	<b>Threats</b>
	<ol style="list-style-type: none"><li>1. Increasing demand for quality and safe agricultural products.</li><li>2. Expansion of international trade in agricultural products.</li><li>3. Growing awareness of sustainability and animal welfare.</li></ol>	<ol style="list-style-type: none"><li>1. Advancement of diseases and pests that can affect agricultural production.</li><li>2. Changes in national and international legislation that require adaptation and constant updating of inspection processes.</li><li>3. Pressure from political and economic interests that can interfere with the effectiveness of inspection.</li></ol>

Source: Adapted from Nobrega (2021)

**INNOVATION PROPOSALS IN AGRICULTURAL INSPECTION**

Innovation in agricultural inspection occurs when there is the introduction of new management methods, as these can bring significant improvements in planning and organization of work. With this, the tendency is that they bring economic, and why not say, social and environmental benefits.

Some alternatives to improve innovation are little used, such as remote sensing, which can obtain a classification of the best area to find inconsistency in what is being inspected. Becker (2013, p. 3761) cites, for example, the practice of orbital sensing, which has been incorporated into research. It is a type of sensing that reaches the intended results with greater anticipation, greater accuracy, and lower operational cost than traditional techniques.

Another way of innovation used in the agribusiness sector is the use of blockchain in the production chain. Cabral (2021, p. 19) informs that this method is ideal for providing these information in a fast and shared way, with storage in a ledger that is immutable and totally transparent. This adds information with confidence and efficiency.

## CONCLUSION

The search for innovation in agricultural inspection becomes fundamental to mitigate sanitary risks, bringing effects in animal welfare and consequently in food safety and public health. Due to the technological advancement, there are a variety of actions aimed at more efficient and accurate agricultural inspection.

It is perceived that not only Rondônia, but also other states with an agro-pecuary profile, are assimilating technological innovations. The theory of the New Public Management proposes exactly that, better efficiency and transparency in the provision of public services.

Therefore, in parallel to the technological innovations, the tools of administration are used, which are capable of pointing to the evaluation of the impact of this innovation in agricultural inspection and proposing improvements and relevant evaluations to the public service.

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<sup>13</sup> PROFIAP is the acronym for Professional Master's in Public Administration. It is a course offered nationally. It aims to train professionals with a clear understanding of the role of the State in Brazil, the exercise of citizenship and concerned with ethical, social and environmental issues that will subsidize public policies that impact society. In this context, this professional will bring together the scientific and technical conditions to promote improvements in public management.

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## RURAL COOPERATIVISM: A CASE STUDY OF THE ACRE EXTRACTIVIST PRODUCERS' CENTRAL COOPERATIVE (COOPERACRE)

Antonia Roselí Nogueira Matos  
Federal University of Acre – UFAC  
antonia.matos@sou.ufac.br

### ABSTRACT

This article is a case study that aims to analyze the extractivist cooperative of the state of Acre – COOPERACRE in a qualitative way, through bibliographic references. The literature analyzed points to the important role of Cooperacre in the socio-economic development of the state of Acre, contributing to the creation of jobs and income, as well as promoting sustainable economic growth through the strengthening of family agriculture and the valorization of local products. The references also highlighted the importance of small producers living in the rural area of the state of Acre, who promote sustainable production, which collaborates with the preservation of the environment. Therefore, it can be observed that Cooperacre is an example of popular organization in the state of Acre, whose objective has been achieved both economically and socially.

**Keywords:** Cooperativism. Cooperacre. Acre. Development.

### INTRODUCTION

Cooperative companies are becoming increasingly popular around the world, and in recent years, the state of Acre has undergone transformations driven by the increase of these cooperation companies, which have proven to be a viable alternative for dealing with obstacles and building a sustainable and inclusive economy in the country, including the main one that governs the state, the Cooperacre.

It is noted that the socioeconomic development of Acre has been mainly helped by companies that have the ability to unite efforts for cooperation between their members and promote local entrepreneurship through this model, as stated by Barbosa and Moret (2015):

COOPERACRE serves approximately ten municipalities in the state of Acre, covering around 1,800 families of extractivists. The management of COOPERACRE is participatory, based on sustainability and educational training of the inhabitants of the extractive reserves (BARBOSA; MORET, 2016 p. 5).

Therefore, the main objective of this work is based on the perspective of demonstrating a cooperative trade in the state of Acre, where this remains a reservation of great relevance for the government and the population resident in the state. In this field, the main question is revealed through the theme, and it is worth mentioning authors who support what is stated during the writing of this article, such as Keil and Monteiro (1982) and Marx (1975).

### **METHODOLOGY**

The research in question is a written report of a case study, which aims to note some analytical considerations and questions about rural cooperatives, with a qualitative approach of the descriptive type, which brings the trajectory and expansion of the Cooperative Central of Extractivists in the state of Acre.

Nevertheless, it is worth mentioning that the information collection for this article was mainly through bibliographical and documentary research, in public access databases, as well as from information provided by the Cooperative itself on its website and magazines.

It is worth mentioning the databases used for this research, which is Google Scholar, through articles published in journals, as well as the company's own website. I also mention the keywords used for the research, which are: cooperative, case study, extractivist and extractivist.

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### **RESULTS AND DISCUSSIONS**

It is known that the first cooperative movement took place in 1844, when 28 weavers sought a better economic situation and founded the Society of Proven Pioneers of Rochdale, where from this movement, the Basic Principles of Cooperativism were established in doctrine (KEIL; MONTEIRO, 1982).

Therefore, it is understood that:

The power of a man alone is minimal, but the union of these minimal forces generates a total force greater than the sum of the forces reunited. It is enough for the simple union of these forces to reduce the time and increase the space in which the operation is executed (MARX apud CARLI, 2008, p. 382).

It is perceptible through its results how the cooperative helps farmers to form and improve, giving them the best production and management skills. This action improves the personal development of the cooperatives and strengthens family agriculture, making it possible through this study to have a better understanding of the relationship between the operation of an agricultural cooperative and the regional economic growth as a result of visiting the Cooperacre. By learning about consumption practices and appreciating local products, it is perceptible how the Cooperacre plays an important role in strengthening the local economy.

Cooperacre Cooperative is an organization that significantly contributes to the socioeconomic development of the state. An organization composed of local producers, working to increase family agriculture and promote sustainability, where it has stood out for its ability to offer job and income opportunities for the cooperatives, in addition to promoting entrepreneurship, as most of its cooperatives, which sum up more than 2500 families, live in hard-to-reach areas, but through the cooperative, they can promote local trade and promote agricultural production in an environmentally correct and responsible way.

In various articles, theses, monographs, and other works that involve the subject, it is possible to perceive the importance that work has for those who live from the income of this means, let's see:

Being a cooperative member from the perspective of those who are part of the Cooperative means being perceived in a broad network of meanings, forms of organization and unity, with income improvement as a farmer/woman, because for them: "It's good, it brings benefits, it facilitates sales" (J. A. R. - Cooperative member of the Cooper, 49 years old); "It's a way of being rewarded for the work you do (...) there's somewhere to sell" (A. A. da S. - Cooperative member of the Cooper, 45 years old); "It was good, a union, a way to organize more" (C. A. da S. - Cooperative member of the Cooper, 50 years old); "It's a type of union of small producers (...) gathers the group to make the production collectively" (F. de P. R. - Cooperative member of the Cooper, 74 years old); "It's ease of selling the product, improvements for the property being a cooperative member and adding value to production" (R. D. C. - Cooperative member of the Cooper 30 years old); "I liked to join, I don't regret it (...) the group sells and receives a quota, who is not a member, only receives the money" (G. F. P. da S. - Cooperative member of the Cooper, 66 years old); (SILVA; MORALES; LUCAS, 2022, p. 13).

All these aspects can go hand in hand, the cooperativism, sustainability, and the strengthening of relations between local producers, we also note the importance that is highlighted in each activity performed.

Nevertheless, we note that not only by income is the work and constant labor lived, the desire for improvement, the desire to add quality and also, to grow together with the cooperative, which goes to meet what is evidenced in the Cooperacre, as the cooperative's objectives as extractivist and agriculture.

The promotion of entrepreneurship and income generation is another important consideration. Access to the market and the promotion of the products of the cooperative members help to strengthen the local economy. This significantly improves the quality of life of farmers,



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as they can now count on a diversified and stable source of income. In addition, Cooperacre helps preserve the environment by implementing ecological agricultural practices that minimize harm to the local ecosystem. Through training programs and technical assistance, cooperative members are encouraged to adopt more ecological and sustainable production methods, promoting the preservation of natural resources.

### **FINAL CONSIDERATIONS**

It was possible to note, in the researched works, that the creation of cooperatives in the state of Acre occurred in a disorderly manner, with simple and humble people who sought a way to insert themselves in the labor market through the union of common interests.

In summary, it became possible to understand the relationship between the operation of an agricultural cooperative and the economic growth of the region as a result of the study. By learning about sustainable practices, appreciating local products and supporting family farmers, it is possible to understand how Cooperacre plays an important role in strengthening the local economy and promoting more just and sustainable development.

Finally, we note that the cooperative members promote the valorization of natural resources, create job and income opportunities, and strengthen local communities. In this aspect, understanding and discussing the influence of this model of cooperativism is of vital importance for the improvement of agricultural geography studies.

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## THE REORGANIZATION OF CAPITAL IN AGRICULTURE: THE CASE OF AMACRO

Claudinei Lucio Soares dos Santos  
Landless Workers Movement – MST,  
Via Campesina and Institute for Land and Justice – Interjus  
claudineisantos@mst.org.br

Renata da Silva Nobrega  
Federal University of Rondônia – UNIR  
renatanobrega@unir.br

Luís Fernando Novoa Garzon  
Federal University of Rondônia – UNIR  
luis.garzon@fao.org

### ABSTRACT

Various interventions of the State in the land use policy in the Amazonia region have been created under the discourse of promoting territorial ordering for development, but in reality, they sought to ensure the expansion of capital in agriculture, guided by the debate on legal security. Under this set of executive, legislative and legal measures, violent conflicts and disputes have been produced for the governance of territories, and it is on these premises that we intend to treat the theme of our investigation, presenting what we can call the latest reorganization of capital in agriculture, which has been conventionally called the Sustainable Development Zone (ZDS) Abunã-Madeira, which includes the states of Amazonas, Acre and Rondônia, also known as AMACRO.

**Keywords:** Capital. Agriculture. Territory. Conflicts.

## **INTRODUCTION**

In the 1970s, the National Integration Program (PIN) was applied in the Amazonia region. The name itself suggests the intention of the program to a typical reader. The main idea was to promote the occupation of the Amazonia, with a great program of road construction and distribution of lands through directed colonization and varied exploitation of natural resources. All these initiatives were based on a humanitarian argument, given the great drought of the Northeast of that period, but which camouflaged economic and geopolitical rearrangements.

Regarding the land issue, in 1971, the Program was grafted through the Land Distribution Program (PROTERRA). Although this program provided for the redistribution of idle lands, its greatest legacy was undoubtedly to forge the formation of a range of large, small and medium landowners based on agricultural contracts, inducing them in these to “culture” the pioneer, where they saw nature as something to be felled in search of such development, becoming later an antagonistic model to the various forms of subsistence agriculture.

In 1980, the Northern Belt Program (PCN) began, and was resumed in 2003 with the following premises: colonization and development, territorial control and national defense.

Therefore, we can extract that the Program had as its main objective to contribute to the maintenance of national sovereignty in the Amazonia and promote its development in an orderly manner. The PCN sought to develop actions that were socially just and ecologically sustainable. For this, according to the Ministry of Defense (2007), it was essential to respect regional characteristics and the interests of the Nation, occupying the strategic empty spaces.

In 2009, Law 11.952/2009 was instituted, which is commonly referred to as the Legal Land Program.

The Legal Land Program descends from previous normative initiatives that promoted successive expansions in the maximum legal limit for the grant or real right of use of public lands located in the Legal Amazonia, with dispensation of bidding, to private individuals who resided and produced there. Fixed initially at 100 ha by Law No.

8.666/1993, this limit was increased to 500 ha by Law No. 11.196/2005; then, by Law No. 11.952/2009 - which established the Terra Legal - the limit extended to areas of up to 15 fiscal modules or whose surface area did not exceed 1.500 ha. Initially, the program aimed to transfer to private ownership, via regularization, approximately 67.4 million hectares of federal public lands. This estimate, made on the basis of data from the National Cadastre System (SNCR), was revised, still with an estimate, to 58.8 million hectares after the removal, from the original cartographic base, of areas with defined destinations, such as protected areas – Conservation Units (UCs) and settlement projects. (VALADARES, 2013, p. 27/28).

The total would represent 11.6% of the Amazonia Legal territory. The program would be present in almost 60% of the municipalities of the region, with the initial expectation of regularizing up to 300,000 occupations. It can be perceived that the land issue is constantly activated as a way of dynamizing the actions of capital on agriculture. In the case of Terra Legal, the legislative/legal justification rolled around the land regularization and legal security, but it concealed a true flagrant of privatization of public property in objective state agency, since it acted with total dexterity in the search for the depredation of what should be a special asset, where the STATE should be the owner and its nationals temporary users.

In this sense, Meirelles (2003) when discussing public property from the perspective of administrative law, presented the following definition:

[...] public domain, in a broad sense, “corresponds to the power of domination or regulation that the Public Power exercises over its own goods, the particular or those of general enjoyment (*res nullius*). The eminent domain is the result of political power, by which the Public Power submits to its will all things in its territory (manifestation of internal sovereignty), covering all goods and legitimizing interventions in property, subject, however, to the public administration regime (public), and not to the private law (civil) “ (MEIRELLES, 2003, p. 132).

The land, like the other goods of nature, was born free and the man through his force (state of nature) made it “his”. But it is with the state in its legal form (Mascaro, 2013) that it will gain the status of legally recognized private property, imposing a duty of respect by all.

But for our conference, we want to present the latest alteration in the race for territorial governance of the Amazonia region, which has been conventionally called AMACRO.

## **METHODOLOGY**

Regarding the approach to the problem theme, it is a comprehensive and qualitative research. The adopted procedures passed through bibliographic research. At the end of the work, we identified that this phenomenon is inserted in a new cycle of expansion of capital in agriculture, resulting in the advance on “new” agricultural frontiers, causing an increase in land prices and the exacerbation of land and territorial conflicts.

## **RESULTS AND DISCUSSION**

The Program for the Special Economic Development and Nature Conservation Zone between the States of Amazonas, Acre and Rondônia, AMACRO, covers a triple border that brings together the states of Acre, Amazonas and Rondônia, a region that has become a frequent scene of land grabbing, deforestation, illegal mining and timber extraction. This region became the object of the cravings of large companies, being converted into an agricultural development zone in the North, replicating the MATOPIBA model, which brings together the states of Maranhão, Tocantins, Piauí and Bahia.

With the rhetoric of marrying protection and sustainable development, with territorial organization and legal security, agribusiness, its representations in agriculture and state agencies, have discussed and consolidated a proposal for the reorganization of capital in agriculture, materialized in AMACRO.

The AMACRO area of coverage and its socioeconomic dimensions give us a dimension of its ambition and potentially conflicting. Because within this geographical-territorial space there is also a human territoriality, with its various forms of agriculture, with its various forms of relating to nature, with its cultures, traditions and accumulated knowledge over time.

AMACRO is being thought based on a set of multisectoral actions aimed at promoting environmental sustainability through the socio-economic development of an area covering about 32 municipalities scattered in southern Amazonas, eastern Acre and northwestern Rondônia, encompassing a total of approximately 465,800 km<sup>2</sup> and a population estimated at approximately 1.7 million people.

Its composition is basically made up of the Superintendence of the Manaus Free Zone - SUFRAMA, Superintendence of the Development of the Amazonia - SUDAM, Bank of Amazonia - BASA, Technical Assistance and Rural Extension Company - EMATER, agriculture and environment secretariats of the member states, representation of agribusiness through its federations, academy, Brazilian Agricultural Research Corporation - EMBRAPA and federation of rural workers and rural workers.

### FINAL CONSIDERATIONS

AMACRO focuses on four major fields of action, namely: (a) Agribusiness, whose main objective is to expand the presence of the cattle herd. (b) Sustainability, which aims to develop various economic activities, having in natural resources the raw material necessary, capturing financial assets through the commodification of nature. One of these forms would be the expansion of the sale of carbon credits. (c) Urban dimension, aimed at addressing issues related to city infrastructure. (d) Land regularization, is at the forefront of the dispute for territorial governance.

Given everything presented so far, we can observe that the various attempts of the State to create conditions for the expansion of capital through macroeconomic actions aimed at guaranteeing these

interests have produced in the Amazonia region an evident conflict space for territorial domination, growing plundering and strangulation of nature, and suffocation of agricultural practices based on collective subsistence.

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## VIOLATED TERRITORIES IN THE AMAZONIA: THE RESISTANCE OF THE KATXUYANA PEOPLE AGAINST THE CACHOEIRA PORTEIRA HYDROELECTRIC PLANT

Luciene Monteiro Penha

Federal University of Rondônia – UNIR

lucienemonteiro30@gmail.com

Adnilson de Almeida Silva

Federal University of Rondônia – UNIR

adnilson@unir.br

### ABSTRACT

This research analyzes the resistance of the Katxuyana indigenous people against the Cachoeira Porteira hydroelectric project (Trombetas River region, western Pará). As methodological procedures, the collective subject's discourse was used, with open questions, fieldwork, and bibliographic and documentary review. The research made a territorial cutoff of the Katxuyana indigenous people, who lived for more than 30 years in other territories in the region. The resumption of the Cachoeira Porteira hydroelectric project, which was planned during the military dictatorship period (1964-1985), due to development policies, was the cause of great concern for the Katxuyana people, especially for the uncertainty of their territory, which is threatened because it is located in the area of influence of the Hydroelectric Power Plant.

**Keywords:** Desterritorialization. Katxuyana people. Amazonia.

### INTRODUCTION

In recent years, various infrastructure projects have been installed in the Legal Amazonia, with a focus on hydroelectric plants,

under the justification that the region has great hydropower potential for electricity generation (BRASIL, 2013). In the western part of Pará, in the Trombetas River basin, the announcement of the resumption of the Cachoeira Porteira hydroelectric project violates the territorial rights of populations that have traditionally occupied the area, such as the Katxuyana people, whose territory is directly affected because it is located in the area of influence of the dam (PENHA; SILVA, 2022).

The implementation of a hydroelectric plant (UHE) represents changes in land use, as it is a large infrastructure capable of mobilizing a large volume of capital (CAVALCANTE, 2018). In general, UHEs aim to meet national energy demands, which are usually directed towards serving large companies and corporations linked to macro-economic scale, disrupting the entire historical, social, and environmental order of the territories where they are installed (COSTA SILVA, 2022).

Among the various impacts caused by UHEs, the desterritorialization of the affected population is the most violent, especially in remote areas, leaving communities with losses that do not only consist of material value, but also include immaterial and cultural losses (FERNANDES, 2005).

Therefore, the aim of this text is to analyze the resistance of the Katxuyana people against the Cachoeira Porteira hydroelectric project in the face of imminent desterritorialization and its possible material and immaterial losses.

Indigenous peoples have distinct sociocultural characteristics, attributing to their territories values that are characterized by identity and cultural belonging (ALMEIDA SILVA, 2015, p. 29), and may therefore feel the effects of the expansion of hydroelectric projects in their territories more drastically.

Based on bibliographic and documentary research, combined with empirical observation, the following questions emerged: I) how do the “actors” involved in the hydroelectric project (state and capital) articulate, particularly in decision-making with the potentially affected subjects in the local sphere? II) how do the Katxuyana indigenous people resist the potential desterritorialization caused by the hydroelectric plant?

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These are some of the concerns that underlie the research, as the Katxuyana people have recently been concerned about their territory of origin, ending a whole history of forced migrations in the study region.

### **METHODOLOGY**

The research was conducted in three (3) stages: a) documentary and bibliographic research, which allowed for an understanding of the potential impacts on human populations caused by the implementation of hydroelectric plants, relating them to the Katxuyana indigenous people to, then, develop questions about the activities carried out by the local community; b) fieldwork, aimed at understanding the reality of the indigenous community and its territory, as well as conducting recorded interviews and field observation notes related to the observations made; c) analysis of the collected information, with a view to identifying the material and symbolic impacts for the Katxuyana people and their territory.

### **RESULTS AND DISCUSSION**

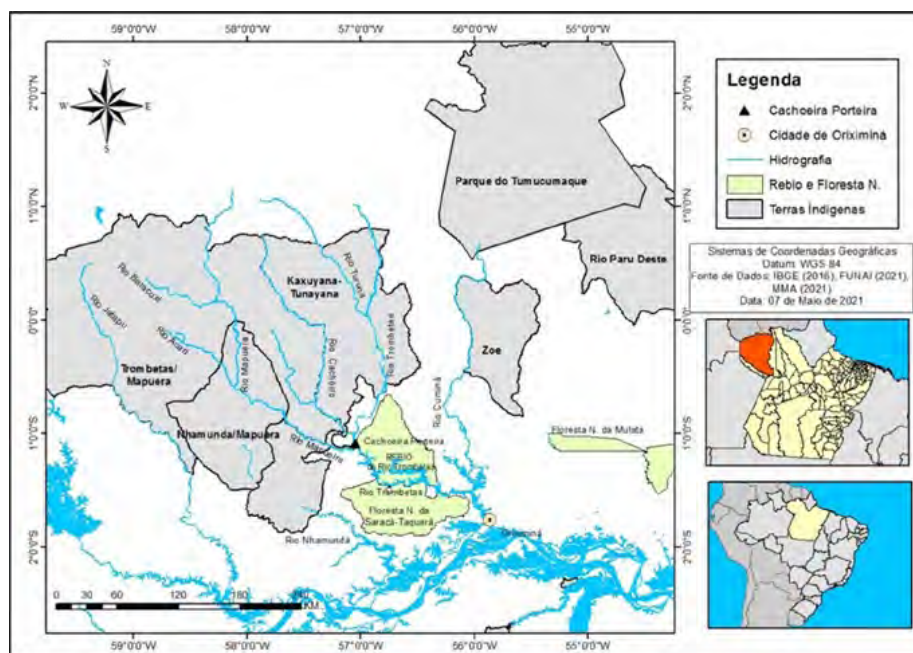
The recent concern of the Katxuyana in their territory of origin, in the region of the Trombetas River basin, on the banks of the Cachorro River and other tributaries, in the municipality of Oriximiná (Figure 1), began in the early 2000s, leading to recognition by the National Indian Foundation - FUNAI<sup>14</sup>; However, since 2018, the Katxuyana people have been waiting for the end of administrative procedures for recog-

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<sup>14</sup> Since January 1, 2023, there has been a change in the name of the Brazilian federal institution whose institutional mission is to protect and promote the rights of indigenous peoples in Brazil. The previous name - National Indian Foundation - ceased to exist. The new name is National Foundation of Indigenous Peoples. The acronym remains unchanged (FUNAI). For context, the word "Indian" is considered pejorative when referring to the indigenous people because it's a generic term, not taking into account the characteristics, values, culture, and diversity of these peoples. On the other hand, the word "indigenous" refers to the origin, the place from where these people came, and encompasses the entire diversity of the original peoples.

nition by the President of the Republic and registration in the Property Registry Office<sup>15</sup> (CPISP, s / d).

**Figure 1** – Map of the Trombetas River basin, 2021



Source: Penha (2022)

However, in early 2019, the Special Secretary for Strategic Affairs of the President of the Republic, General Santa Rosa, made a statement regarding the resumption of an old hydroelectric project in Porteira Cachoeira, which was halted at the end of the 1980s, leaving the population living in this area concerned about the future of their territory.

The Katxuyana people have two villages, Santidade and Chapéu, in the area of influence of this dam, which will have their lands flooded, added to the possible restrictions on natural resources and changes in

<sup>15</sup> Its function is to archive the complete history of properties, recording all property data in a safe and authentic way.

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economic, social, and cultural relationships carried out by the collectives, if the project is implemented (PENHA; SILVA, 2022).

As a theoretical category, the territory should be understood through power relations, considering that in the studied area, these relationships are manifesting themselves in two distinct geographical scales: one by the indigenous community, and the other by the hydroelectric (government and company) that constitute themselves as perturbing agents of the territory.

The territory should be understood beyond its material control, as a geometric space, being incorporated also in its immaterial and cultural dimension, through an identity assigned to the social groups that are inserted in the collective space (HAESBAERT, 1997; SAQUET, 2007).

Territories are built and destroyed, and are disputed daily at the most diverse levels of interest and in different scales that delimit the area of influence, through the social relations of power established. While the territory emerges as a fixation, annexation, or rooting, the desterritorialization appears as disconnection, separation, change, transformation, and break in the symbolic and material level, mainly in the use of natural resources, where the spontaneous or forced abandonment of territorialization can occur (HAESBAERT, 2004).

In the study area, the territorialization of the Katxuyana occurred centuries ago, and the Cachoeira Porteira hydroelectric power station, if implemented, could permanently alter the region, flooding important areas for the social maintenance of this population. This process is manifested in distinct scales of power, either in the territorialization of capital and the state, from the construction of the hydroelectric power station, which may imply the desterritorialization of the Katxuyana people, evidencing unequal power relations.

Generally, in the process of installing these projects, various conflicts arise, mainly due to the lack of participation of local subjects. This is because the policies are decided at the governmental level, involving only managers, state agencies for research and regulation, entrepreneurs, and, in some cases, consultancies or institutions contracted to conduct feasibility studies, which only at the beginning of implementation, hold

public hearings with the local population, when they become aware of the project and its implications for their territory.

As soon as they arrive in these locations and the public hearings are held, there is already a “package” of pre-established actions to be executed, with little chance of modification. Despite this, in some cases, especially regarding relocations, social works of collective use in the municipality, property valuation, among others, with much resistance and organization of the local community, some changes can occur during the negotiation period.

For the Katxuyana, the territory has specific characteristics, where their productive and subsistence activities are directly linked to the use of natural resources (river, forest, soil), which are essential elements of the territorial organization of the villages. Currently, 43 families reside in the territory, with approximately 418 people (IBGE, 2010). Most families live in wooden houses, distributed in nine villages in the Alto Paru do Oeste region, in the Nhamundá River and the Cachorro River (Katxuru), tributaries of the Trombetas River basin.

Thus, the possible implementation of the Cachoeira Porteira hydroelectric power station will mark the beginning of impacts on the analyzed territory, whose main justification for its implementation in the Amazonia is based on the developmentalist discourse. However, as previously stated, the appropriation of the area directly affects the way of territorial organization of the Katxuyana people, in order to crystallize the conflicts resulting from the scales of action and objectification of social interaction. Therefore, concerns arise among the Katxuyana people, through their social organizations, for their territory lived, which will be intensely affected by the construction/installation of this hydroelectric power station.

The implementation of hydroelectric power plants in the Amazonia has generated conflicts that affect riverine and indigenous communities. In this context, interests collide in the territory, as there is an incompatibility in the use of natural resources.

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### **FINAL CONSIDERATIONS**

In general, the implementation of a hydroelectric power plant in the Amazonian context becomes a controversial issue due to the profile of the communities that live along the rivers where these works are installed, as is the case of the community analyzed, since for the Katxuyana indigenous people, the river is related to the subsistence of their people. With the insertion of the work of the hydroelectric power station, the river becomes a national demand. It is in this context that interests collide in the territory, as there is an incompatibility in the use of the same resource.

The Katxuyana exercise differentiated relations with the territory, where they have a social, cultural, and economic connection. Thus, indigenous communities, through their representations and social organizations, use symbolic forms as elements related to the defense of their territorialization, carried out by the cosmogony, social experience and ancestral construction of the world.

This action is the only means available to them to defend their territory and culture. Desterritorialization will produce deep fissures in their way of life, as they cannot count on the help of the powers that are in place in solving the problems, since they are the agents of this process. Therefore, it is not possible to speak of promoting local development without considering the local actors in the formulation of strategies, in the economic decision-making process, and in its implementation.

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## THE NEW TERRITORIAL DYNAMICS OF THE PIONEER FRONTS IN THE SOUTH OF AMAZONAS: LÁBREA, HUMAITÁ, AND APUÍ

Ana Beatriz Castro de Jesus

Federal University of Amazonas – UFAM

castrob491@gmail.com

Thiago Oliveira Neto

Federal University of Amazonas

– UFAM/ University of São Paulo – USP

thiagoton91@live.com

Fredson Bernardino Araújo da Silva

Federal University of Amazonas – UFAM

fbernardino1997@gmail.com

### ABSTRACT

The territorial transformations in contemporary Amazonas present characteristics that refer to the displacement of the pioneer fronts along the highway axes, such dynamics present new elements, mainly with the internal displacement of capital and migrations within the consolidated fronts of Rondônia and Mato Grosso for the new fronts in the south of Amazonas, presenting articulations marked by the economic appropriation of a pioneer strip that follows the paths of the BR-230 (Transamazônica), BR-319 (Manaus-Porto Velho) and AM-174 (Apuí-Novo Aripuanã) highways. In this context, this text addresses the transformations in the pioneer strip that presents intense territorial transformations with the insertion of new technical contents such as ports, cold storage and improvements in the traffic of the mentioned highways. To address this topic, the research was conducted through fieldwork along the mentioned highways, corresponding to a strip of intense mutations.

**Keywords:** Pioneer fronts. Highway axes. Transformations.

## **INTRODUCTION**

The dynamics of transformation in the Amazonia continue to progress, presenting new spatial features with the displacement of the pioneer frontier to the interior of the region, presenting, in the current period, a pioneer frontier that corresponds to the route of the Trans-Amazonian Highway (BR-230), moving to present new technical contents and flows that articulate different places.

These dynamics correspond to the advances of economic occupations of the territory, that is, with economic flows, of people and of vehicles, following existing land routes. In order to verticalize this understanding, it was identified in field work that this pioneer frontier presents economic activities mainly focused on the transformation of forests and already altered areas into areas of production of grains, wood and livestock, with new technical contents marked by the presence of cold storage, improvements in road infrastructures and new private river ports.

In this context of an Amazonia in constant mutation related to the dynamics of pioneer frontiers of occupation, this research aimed to bring together a set of analyses of these transformations, highlighting the formation of a pioneer frontier with intense recent occupation marked by the displacement of capital and people to the axes of the highways BR-319, BR-230 and AM-174, constituting three main vectors of expansion of the pioneer frontiers in the South of Amazonas.

## **METHODOLOGY**

The realization of the research was carried out in three main stages, which included bibliographic research, the realization of field-work along the highways BR-319 and BR-230 and, finally, the systematization of the identified information and territorial transformations, as well as the theoretical contributions to understand such changes, as well as represent the various systems of engineering existing and the new pioneer strip that exists in the Amazonia. The bibliographic research was centered on discussions about pioneer frontiers and the recent process of territorial transformation in the Amazonia.

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The second stage consisted of fieldwork conducted between September 17 and 22, 2022, with data collection through open interviews with residents of the cities of Lábrea, Humaitá and Apuí. In addition to the road routes, there were river trips on the Madeira River, on foot in the mentioned cities and car trips on the AM-174 highway.

The third stage consisted of the systematization of the data obtained in fieldwork and the return in readings on spatial transformations in the South of Amazonas. In this stage, it focused on the elaboration of representations of this new pioneer frontier that has been outlined in the last decades along the route of the Trans-Amazonian highway.

### **ROADS AND PIONEER FRONTIERS**

The process of occupation of various areas of the country was marked by the expansion of the pioneer frontiers linked to the opening of new land routes for the expansion of economic activities in the Brazilian territory, as highlighted by Monbeig (1984) for the case of Paulista and Théry (2010 [1976]) when analyzing the state of Rondônia. The mark of this movement of occupation in the Amazonia since the 1960s is based on territorial policies. One of the faces of this movement of territorial structure was the expansion of the road network, the insertion of various incentives for migration, the promotion of economic activities and government projects such as hydroelectric plants, colonization and industrial projects, which constituted fundamental elements to drive the pioneer frontiers towards the Amazonia, in a displacement that accompanied the established road routes in the region from 1960.

In the Brazilian Amazonia, several road projects were inserted, which had geopolitical objectives of enabling territorial integration, access to borders and the main existing urban centers, geopolitical facts that are related to economic objectives such as access to natural resources, lands for crop production, livestock and other creations, colonization and speculation, and expansion of services such as the case of bus lines (BECKER, 1982; NETO, 2019). This expansion of pioneer frontiers in the Amazonia began in the 1960s with the opening of the Belém-Brasília and Brasília-Acre

(current BR-364 Araraquara/SP-Mâncio Lima/AC) highways, followed by the construction of the BR-174 and BR-319 highways in 1968, and the construction of the BR-163 and BR-230 highways in 1970. These projects aimed not only at territorial integration but also at reducing social pressures due to the need for land for agriculture in the Northeast and South regions, with the creation of various colonization projects aimed at carrying out land reform, but according to Ianni (1979), there was a counter-agrarian reform, constituting the expansion of capitalism in the region, as pointed out by Muller and Cardoso (1977).

In the context, it can be highlighted that in the southern Amazonas there has been the insertion of territorial policies that have resulted in the materialization of two road axes: BR-230 and BR-319. The first corresponds to the old project of colonization and territorial integration between the Northeast and the Amazonia, while the second axis results from a territorial policy aimed at regional integration between Manaus and Porto Velho. Both axes converge in the municipality of Humaitá, constituting an important node of regional circulation.

The municipality of Apuí originated from the colonization project of the 1980s, while the municipality of Humaitá had agricultural projects stimulated by the state in the 1990s (GALUCH; MENEZES, 2020; LIMA, 2008; CASTRO DE JESUS, et al, 2023). In this sense, the highways and different projects implemented were fundamental for the expansion of the pioneer fronts in the south of Amazonas.

The highways in the Amazonia constitute the main vectors of expansion of the pioneer fronts, in this sense, we can mention that there are different characteristics of these pioneer fronts in the region, which can be identified at least two: i) established pioneer front; ii) pioneer fronts with new dynamics that constitute a revitalization of terrestrial paths, such as the case of the Trans-Amazonian highway in the Amazonian period, a characteristic already mentioned by Silva et al. (2021), Silva and Silva (2022) and Castro de Jesus et al. (2023).

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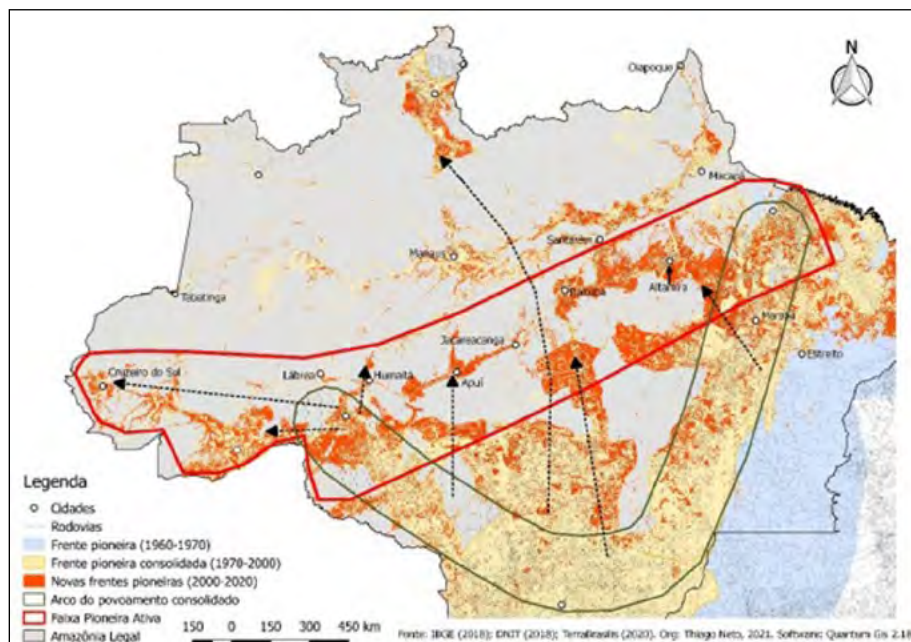
### **A NEW PIONEER FRONT AND ITS NEW TECHNICAL CONTENTS**

In the current period, mutations are observed in this pioneer front that corresponds to the route of highways BR-230 and the southern part of BR-319, especially between the cities of Lábrea, Humaitá and Apuí. However, this new pioneer front (Figure 1) is characterized by its articulations that are not subordinate only to these cities, but also present influence in the displacements and capital flows inserted in the regional and national scales.

This displacement can be analyzed from the road traffic, whether in the transportation of people or goods. In relation to the transportation of people, it was noticed that in the route of the district of Realidade to Humaitá, the development of the pioneer front of occupation is associated with the already established pioneer fronts, in this case, driven by Rondônia. The displacement is a characteristic of the urban distribution, since it is correlated with other elements such as, for example, the presence of commercial activities directed to agricultural activities, the consolidation of existing branches and the installation of new circulation infrastructures.

In the scope of the transportation of goods, it was verified the existence of rodofluvial and road traffic flows that enable the establishment of regional articulations of this pioneer front with the city of Manaus and the states of Rondônia and Mato Grosso. The main flows consist of the transportation of loads of live cattle and timber.

Figure 1 – Pioneer front and arc of consolidated settlement in the Amazonia



Source: Oliveira Neto (2023)

Among the infrastructures existing in the municipality of Humaitá (Figure 2), the conclusion by the state government of an access route called the “Via Arterial” stands out, with the aim of diverting the passage of trucks and cars outside the urban area of the city. With 12 kilometers of extension, this infrastructure aims to create a new dynamic of flow, so that the products do not make an internal route, reducing the circulation of trucks and cars within the urban area that were stimulated by the ports installed in the municipality. Such articulation expresses new arrangements related to a modification in the distribution model of the products or services that have been brought since the consolidation of the highways.

In addition to the infrastructures aimed at the fluidity of the circulation of goods, the presence of barges or amazon barges (*balsas*

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or *barcaças*)<sup>16</sup> used in garimpeiro<sup>17</sup> activities can be highlighted. These barges perform the work of moving sediments from the bed of the Madeira River to find gold. On the edge of the city, it is possible to identify a set of barges used in this economic activity. In this same edge, there is the presence of port infrastructures with different functions: i) the first consists of a small port that serves the dynamic of regional fluvial circulation; ii) is related to the circulation of goods in barges on the route Manaus-Porto Velho and Humaitá-Manaus; iii) it consists of a port infrastructure aimed at the movement of soybeans and corn.

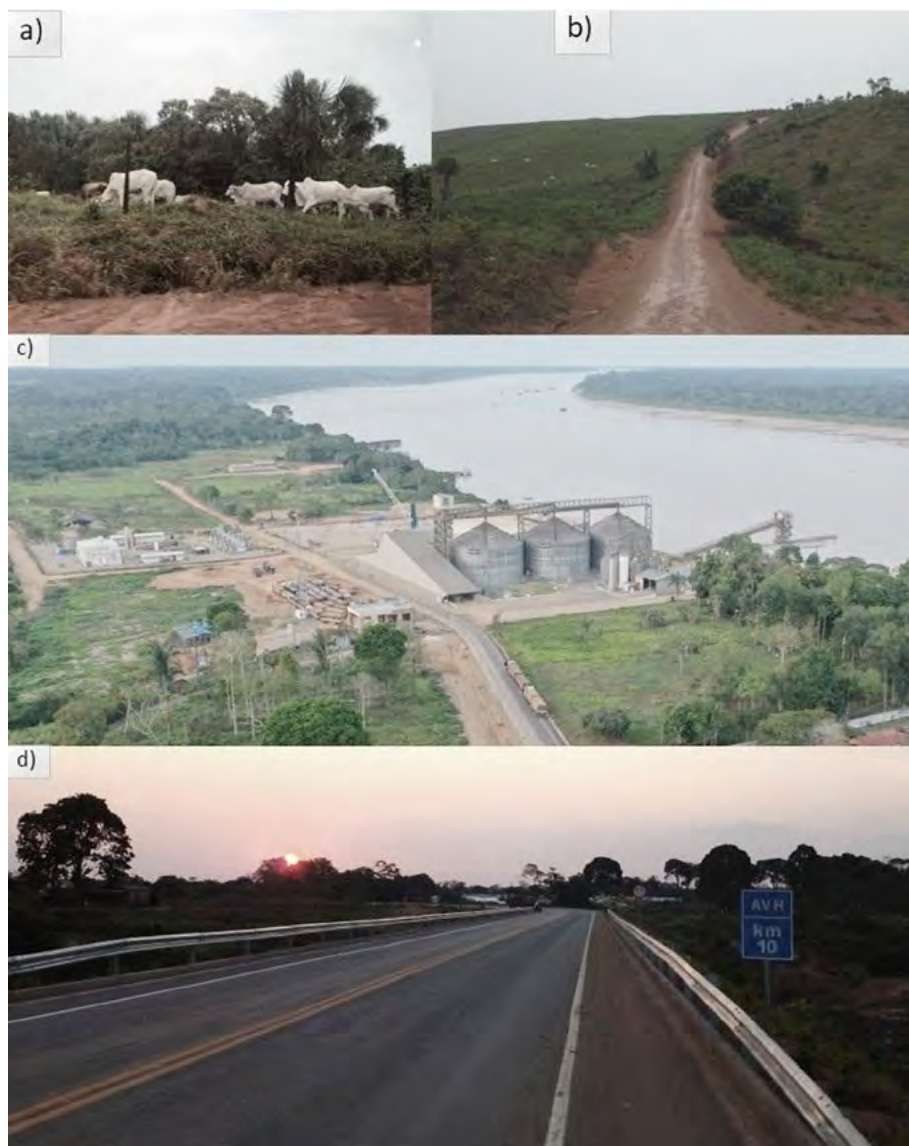
These new technical contents correspond to the new face that the pioneer front of the south of Amazonas presents. Another characteristic identified by Castro de Jesus et al. (2023) is the transformation of the agricultural landscape with the expansion of capitals that drive economic activities focused on livestock and the extraction of wood. This latter is characterized by the replacement of the old colonists who migrated in the 1980s with various economic activities focused on the creation of herds, the presence of fruit trees and small plantations of short cycle. This dynamic is being replaced from the acquisition of the lands by entrepreneurs from mainly the states of Rondônia and Mato Grosso, constituting in the insertion of new farms with predominance of the livestock activity. In summary, what is observed is the advancement of the consolidated pioneer fronts, such as Mato Grosso and Rondônia, towards the South of Amazonas, therefore in a predominant South-North vector.

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<sup>16</sup> A ferry or barge is a vessel with a flat bottom, with a shallow draft, to be able to operate close to the banks and in shallow waters, and a large beam, often used to transport vehicles. It is widely used in the Amazon region, whether to replace bridges or to transport large quantities of grain.

<sup>17</sup> Informal gold miner. This self-employed works in the “garimpo” and his activity is referred as ‘garimpagem’.

Figure 2 – Logistical infrastructures in Humaitá



Source: Fieldwork (set/2022)

**Legend:** a) Cattle farm on the edge of the road; b) Unpaved road; c) Panoramic view of one of the granaries; d) Ring Road that connects the BR-319 to the port region of Humaitá



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As a result, the frontier regions of the Amazonia present different multiscale articulations. In the particular case of the south of Amazonas, it was possible to identify throughout the fieldwork that the pioneer front presents the following articulations: i) between pioneer fronts located on the axis of the Trans-Amazonian highway; ii) through the flows of intermunicipal and interstate bus lines; iii) flows of capital and migration from already consolidated pioneer fronts with the active pioneer front of the south of Amazonas.

### **FINAL CONSIDERATIONS**

Overall, the south of the state of Amazonas corresponds to one of the most dynamic pioneer fronts in the Amazonia, presenting mutations focused on the consolidation of existing circulation infrastructures, the insertion of new ones, and the displacement of capital from consolidated pioneer fronts to the pioneer front that corresponds to the road route of the Trans-Amazonian highway in the Amazonian section.

The transformation in progress in the pioneer front mentioned in this research corresponds to the new features that the pioneer fronts in the Amazonia gain in the current period, focused mainly on the expansion of deforestation, livestock, and grain production.

Finally, the south of Amazonas corresponds to a strip of expansion of state investments and private capitals from already consolidated pioneer fronts from the states of Mato Grosso, Rondônia, and Pará, calling attention that this dynamics is following the existing road paths.

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## AMAZONIAN TERRITORIALITIES: COGNITIVE AND PLURIEPISTEMIC TERRITORIES FOR DIGITAL EQUITY IN AI

Maria Angelita da Silva

Federal University of Amazonas – UFAM, Humaitá

angelita@ufam.edu.br

Lorranne Gomes da Silva

Goiás State University – UEG, Goiás

lorrannegomes@gmail.com

### ABSTRACT

We present through this paper the problematization of the invasion of symbolic and cognitive territories of indigenous and traditional peoples and pave the way for debate on digital equity and neurodiversity in AI in the Amazonian and Latin American context. The legal field of neurolaw promotes discussion from the perspective of individual and collective fundamental rights, but it is in collective rights that the amplified protection of rights to identity, collective memory, territoriality, ancestry, language, and other epistemologies is found. The objective of this work is to propose a reflection on PLS 2338/2023, the regulation of AI in Brazil, and especially PEC 029/2023 and its implications for fundamental rights. The methodology used is qualitative and quantitative, with a focus on documentary research and descriptive analytical analysis of documents in progress in the National Congress. Preliminary results point to an urgent need to expand the pluriepistemic and scientific debate.

**Keywords:** Subjective territorialities. Coloniality and invasion of symbolic territories. Digital equity and neurodiversity. Collective rights and neurolaw. Brazilian parliament.

## INTRODUCTION

Discussing Amazonian territorialities and analyzing the territorial dynamics that reconfigure the Amazonia in the context of human rights and public education as a necessary sociocultural process for understanding contemporary transformations in the region, intertwining the local and the global, presents itself as a major current challenge. In the digital age, where neuroscience, through neurotechnology, represents through innovations in AI - Artificial Intelligence such as ChatGpt, a difficult-to-measure technological leap in its ethical and sociocultural and pluriepistemic aspects, we introduce to the debate on Amazonian territorialities and coloniality this incontestable aspect of the new colonization underway - that of deep neural networks and machine learning.

Higher psychological functions, as pointed out by thinkers in historical cultural psychology, are language, thought, imagination, memory, attention, perception, creativity, all developed by the windows of learning, the sensory system of perception of vision, hearing, taste, and touch. By recognizing that these functions are developed individually and collectively, based on culture, it makes us think that the biological brain does not determine generically and standardized the learning process.

Indigenous peoples offer us repertoire to combat normative patterns of Western culture when, for example, they present the concept of “spirit language” or when they develop a relationship with nature that challenges our perception based on Western reason. “Plants speak,” rivers and forests are subjects of rights, animals are entities that, in fact, act as radars that in waves communicate the imminent danger and instruct them... Dreams for the Yanomami, one of the most numerous and well-known indigenous peoples in South America, are also different from how Western culture can conceive and understand them. According to anthropologist Hanna Limulja (2022), in an interview with @GAMA REVISTA, dreams “are experiences sent every night by the xapiri pë, spirits that help them navigate the dreamscape. They are born with the flowers of the tree of dreams. When these do not bloom, the Yanomami simply do not dream.” (LIMULJA, s/n, 2022).

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And thus, we compose a mosaic of languages and cosmovisions that challenge our understanding of reality, and these cognitive and epistemological territories will be the subject of our reflection on human rights, diffuse rights, and neurolaw, and the invasion of symbolic and cognitive territories by AI and its development from the ethics of the market.

### **METHODOLOGY**

The methodology being used is qualitative and quantitative with a focus on documentary research and descriptive analytical analysis of legislation in progress in the National Congress. In this legislative context, Bill 21/20, which aimed to create the legal framework for the development and use of Artificial Intelligence (AI) by the public sector and other sectors of society, was presented by Deputy Eduardo Bismarck (PDT-CE) on March 2, 2020 and approved with amendments in the Plenary of the Chamber of Deputies on September 29, 2021. It is currently being discussed in the Senate as PLS 2338/2023, with Senator Rodrigo Pacheco (PSD/MG) as the author.

### **RESULTS AND DISCUSSION**

PLS 2338/2023 is open for virtual public consultation, where 210 people have expressed their opinions, with 60 people approving the matter and 130 people not approving it. However, a relevant issue with a significant impact on social, economic, and sociocultural aspects is not receiving the attention it deserves. The main public, which is the most affected by these changes, remains alienated from the debate. Big corporations and national and international neurotechnology companies are focused on this topic, as are the main nations of the planet.

In line with the regulation of AI in Brazil, we also have PL 2630 being discussed in the Chamber of Deputies, which establishes the Brazilian Law of Freedom, Responsibility, and Transparency on the Internet, which has intensified the debate about censorship and freedom of expression. To further complicate this web of interests and

contradictions, PEC 029/2023, proposed on June 16, 2023, and its implications for fundamental rights and freedoms, proposes a constitutional amendment to guarantee fundamental rights based on the transformations of the current technological world.

And how all this impacts symbolic and subjective territories and their ancestral heritage? Precisely the fact that it is argued and assumed that we are facing rapid technological advances, which in turn operate in a process of uninterrupted colonization (SAID, 2011) where the invasion of cognitive and mental territories represents a risk to human dignity and cognitive and mental protection.

For example, Proposal of Constitutional Amendment n. 17, conceived in the National Congress/Senate, which culminated in the recent Constitutional Amendment n. 115, approved on February 10 of this year, altered the Federal Law to include the protection of personal data among the fundamental rights and guarantees. Similarly, PEC 029/2023 proposes to amend the Federal Constitution to include, among the fundamental rights and guarantees, the protection of mental integrity and algorithmic transparency. This action has jurisprudence, according to PEC 029/2023:

In Latin America, Chile is the only country that has advanced in the analysis of this topic, expressing concern about the need for the advent of a regulatory framework capable of recognizing new human rights in the face of the technological development currently experienced. By approving Law No. 21,383, published on October 25, 2021, the Chilean parliament amended the Constitution of the country to contemplate the right to neuroprotection as a consequence of the protection of human dignity, safeguarding the right to mental privacy, (ii) to identity and personal autonomy, (iii) to free will and self-determination, (iv) to equitable access to mechanisms for increasing cerebral brainpower, and (v) to protection against algorithmic prejudice in automated decision-making processes (PLS 29/2023, p. 4).

Chile was the first country in the world to adopt legislation to protect mental integrity, and since it is Latin American, we can infer that

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its local epistemes have something to do with it. Before that, we have the Ecuadorian Constitution of 2008, in the Vilacamba case, which provided for nature - “Pacha Mama” - as a subject of rights. It appears that countries in Latin America have paid attention to local epistemologies and their ancestral knowledge. What we want is for the same to happen in the Brazilian case. The good news is that we have the first river in Brazil to have its own rights recognized, and that happened in the state of Rondônia:

On June 5, 2023, Professor Francisco OroWaram, in the Chamber of Deputies of Guajará Mirim/RO, unanimously approved project Law 07/2023, which recognizes the Laje River as a subject of rights, a project by Indigenous Professor Francisco OroWaram, supported by also Professor Wem Cacami, who on April 3 had already managed to change the Organic Law of the Municipality to recognize the rights of Nature in the territory (Via Instagram Mapas\_direitosdana-tureza, 23/06/2023).

Once again, we call attention to the epistemic and cultural context in which these legislative actions develop and seek reflection on the need for the same to occur with the protection of the cognitive and mental territories of our Amazonian peoples with the pluriepistemic protagonism of the same.

### **FINAL CONSIDERATIONS**

From the analyzes made in line with the current and pluriepistemic context in the Amazonia and Latin America, we understand that the technological context deserves diffuse and collective attention. The market ethic that crushes and wants to flatten people's ethics, paraphrasing Paulo Freire (1996), needs to be confronted so that symbolic and cognitive territories are not invaded and colonized, on the contrary, the people of the waters and the forest, as they have been doing for so long, can maintain their cosmovisions to promote digital equity and neurodiversity capable of facing attacks on human dignity. Latin America has shown a vanguard repertoire for this.

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**THE TERRITORIAL DYNAMICS OF AGRIBUSINESS  
IN THE BRAZILIAN AMAZONIA - THE CASE OF THE  
MUNICIPALITY OF VILHENA, RONDÔNIA**

Diego Alves Lus

Federal University of Rondônia – UNIR

diegodelus@hotmail.com

**ABSTRACT**

This article focuses on understanding the territorial dynamics of agribusiness in the Brazilian Amazonia - the case of the municipality of Vilhena/RO. Economic relations of a global order are established through the appropriation of the territory in accordance with the new characteristics imposed by the external market. The results of these transformations are related to the current process of globalization of the economy, with its implications in the territorial and social-economic transformations of this municipality. Trading companies such as Amaggi and Cargill are linked to the storage, transportation, and commercialization of commodities. The methodology used in this article is based on the understanding and identification of the potential elements that generate territorial transformations, which are understood as guiding elements of the research. For technical procedures, statistical data was used for subsequent spatial mapping using the Philcarto thematic cartography software.

**Keywords:** Amazonia. Agribusiness. Territory.

**INTRODUCTION**

This article was developed out of the need to understand the territorial circuits of agribusiness in the Amazonia region of Brazil - the case of Vilhena, Rondônia. Due to the new characteristics imposed by the external market, the territory restructures itself to meet the demand for economic production, presenting new territorial functionalities.

The results of these transformations are related to the current process of globalization of the economy, with its implications on the territory and the current dynamics observed in the social and economic actions of this municipality.

The new city and countryside relationships that arise due to the cultivation of grains and mainly the production of soybeans, which is a commodity requested to supply the demand of the external market, form new territorial arrangements in Vilhena.

These activities require the city to structure itself with equipment to supply the countryside. This leads to a new dynamics, with the means of production being supported by technological innovation, the evolution of science, and the spatialization of information. The state participates in this process through public policies for economic development, which serve as an incentive for private companies to install themselves, which ultimately modifies the territorial configuration of the municipality.

For a more efficient production, a territorial transformation is essential, adapting it to an activity of higher quality and quantity to meet the external demands.

The methodology used in this article is based on understanding and identifying the potential elements that generate territorial transformations, understood as guiding elements of the research. For technical procedures, statistical data were used for subsequent spatialization cartography using the Philcarto thematic cartography software.

### **AGRIBUSINESS, GLOBALIZATION, AND TERRITORIAL CIRCUITS**

Agribusiness is inserted in a complex and diversified economic and social environment. The economic exploitation of rural properties, conceived in the past as an isolated activity, has in the present a broad spectrum of inter-relations and interdependencies of productive, technological, and marketing nature (CALLADO; CALLADO, 2009; LUS, 2012).

Globalization and integration of markets, involved in an institutional arrangement aimed at economic activities, serve both the domestic market and the international market. The traditional primary sector

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(characterized mainly by the tripod of agriculture-livestock-extractivism) has transformed into agribusiness (diversified-modern-complex) (CALLADO; CALLADO, 2009, LUS, 2012).

Public policies directed to the agro-industrial sector and, especially, to agriculture, after stabilization, continue to be conditioned by two basic factors - economic opening and fiscal crisis -, putting the need for continuous gains in competitiveness in these activities (TOMICH; MAGALHÃES; SILVEIRA, 2001).

In contemporary economies, traditional agricultural or agro-industrial products have a series of characteristics, mainly due to the advancement of technologies, such as localized irrigation, last-generation pesticides, seed improvement, efficient machines, transport, satellite monitoring, conditioning, and refrigeration, resulting from private and public investments (RIBEMBOIM, 2009).

The rules and norms for the entry of these products in the international market are becoming increasingly sophisticated and demanding. These commodities have their specific characteristics: 1) standardization; 2) should be non-perishable, usually stored or transported for future delivery; 3) have a wide consumption, large availability of the product for negotiation and transaction; 4) have a free and negotiated flow by the price of equilibrium, that is, supply and demand existing; 5) condition of raw material or semi-elaboration, cannot suffer a complex production system, because its availability would be affected in case of failure in the production chain (NEVES, ZYLBERSZTAJN, 2005).

The functional and structural organization of the fixed systems in engineering systems would not be possible without a technical unity for the globalization process of production, or the unification of the international financial system. Therefore, the phenomenon of simultaneity gains new content, as at no other time did each moment comprehend a systematization of places and events that are interdependent, included in the present time in a single system of relationships (SANTOS, 1996).

## **THE TERRITORY USED BY AGRIBUSINESS IN VILHENA**

The use of the territory is established according to the intensity of investments, which are allocated where there is a perception of the trend of economic development (LUS, 2010).

In the municipality of Vilhena, companies install branches that manage the storage and shipping of grains produced to supply the external market. It is attributed to this fact that companies related to the development of agribusiness, understood here as businesses linked to modern agribusiness, are installed in the municipality, imposing new fixed forms and also new means of flowing production with the flows.

Therefore, the cultivation of soy brings with it companies specialized in providing inputs, fungicides, herbicides, fertilizers, maintenance of agricultural equipment, etc. (LUS, 2012).

Cities become the focus of capital and essential installations for the operation and circulation of globalized resources. In this way, such adjustments are imposed by the mode of production, altering the geographic space (ARROYO, 2003; BERNARDES, 2006; ELIAS, 2006).

This dynamic imposes on the state a recent agricultural geography, where the spaces are appropriated, forming a differentiated socio-spatial factor by the new production vertentes. In this way, its agricultural frontier is amplified.

The significant advances of these crops are also related to the evolution of the techniques used to obtain better results and be able to meet the demands required to supply the external market. In this way, scientific research and technology are the basis of this significant increase in agriculture, allowing productivity at a large scale and with excellent quality (LUS, 2010).

This demonstrates the modernization of agriculture in Rondônia, which has mainly developed based on commodity agribusiness. With this, the territorial configuration is characterized by actions on a global scale, with fixed forms having the places as their object, intended to incorporate the needs of a constantly changing production.

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In summary, it is understood that the factors responsible for its evolution are based on global trends, which occur altering the relationships not only of a portion of the population but of the entire society that is not accustomed to the level of demand imposed by such demands and must adapt to the new pattern of economic development of society (COSTA SILVA; LUS, 2008; LUS, 2010; 2012).

### **FINAL CONSIDERATIONS**

Currently, the reciprocity of the places is established, constituting the territorial dynamics exercised to meet the demands of globalization. The actions of economic agents are stimulated by the measures adopted by the State, when providing subsidies for the imposed activities and giving a new configuration of rural production arrangements and urban services and flows, resulting from the economic activity of agribusiness.

Therefore, the geographic space of the municipality of Vilhena has its production space, with the insertion of capital, agricultural machinery, buildings, territorial arrangements, due to the expansion of soybean cultivation, with the formation of the globalized space.

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## THE PEASANT TERRITORIALITY IN THE PORTO ALEGRE COMMUNITY, JURUÁ RIVER, IN IPIXUNA, AMAZONAS

José Augusto Lopes de Andrade

University of the State of Amazonas – UEA, Ipixuna, Amazonas  
lopesandrade.augusto@gmail.com

Francilene Sales da Conceição

University of the State of Amazonas – UEA, Manaus, Amazonas  
fconceicao@uea.edu.br

### ABSTRACT

This paper addresses the peasant territoriality of the riverine dwellers of the Porto Alegre community, regarding the mode of subsistence based on floodplain agriculture and fishing that develop activities for subsistence and family income. It is necessary to understand the interaction of the riverine peasants with nature and the conflicts arising from the logic of capital over different peasant territorialities in the Amazonia. The objective of this study is to analyze the territoriality, practices of territorial reproduction, and strategies of resistance of the riverine peasants of the Porto Alegre community in the Juruá River in the municipality of Ipixuna, Amazonas. The study is based on the Historical-Critical and Dialectical method, which has a qualitative approach. Methodologically, bibliographical reviews, field research was carried out through semi-structured interviews (open and closed) with the application of forms, as well as using the technique of direct observation and informal conversations of the researched reality. It was found that the riverine peasants are important in the land/territory for the spatial condition of the community and that the agrarian and territorial issues revolve around the plunder created by the capitalist mode of production.

**Keywords:** Peasant territoriality. Re-existences. Floodplain agriculture. Fishing. Ipixuna, Amazonas.

## **INTRODUCTION**

This work addresses the peasant territoriality of the residents of the Porto Alegre community, with regard to subsistence through flood-plain agriculture and fishing, activities that the residents living on the banks of the meandering Juruá River in the municipality of Ipixuna, Amazonas, obtain the sustenance and source of income for their peasant families. This peasant territorial practice means the way of reproduction in the land/territory/nature, resulting in strategies of re-existence that counter the logic of capital.

The work is justified by the importance of understanding the reality and challenges faced by peasant families in the Porto Alegre community who engage in agriculture and fishing, located on the right bank of the Juruá River, opposite the city of Ipixuna, Amazonas. This is because territorial pressures driven by the logic of capital are compromising and threatening their Amazonian and peasant territoriality. The strategies of re-existence, recreate themselves as a social and way of life. Therefore, the objective of the work is to analyze the territoriality, practices of territorial reproduction, and the strategies of resistance of the rural population of the Porto Alegre community in the Juruá River in the municipality of Ipixuna, Amazonas.

Regarding the methodology, the historical-critical and dialectical method was used, which has a qualitative approach. As for the research procedures, a bibliographic review and field research were conducted with semi-structured interviews, application of forms, and the technique of direct observation and informal conversations of the researched reality, in order to weave reflections and interpret the subsistence and family income of the peasant population of Porto Alegre and point out the main contradictions present in the commercialization of products from peasant agriculture, as the logic of capitalist accumulation only benefits one social class, excluding and contradicting the peasant Amazonian population.

From the contradictory relations present in the rural Amazonian space that involves two social classes, peasantry and capitalist production mode. It is verified that the peasantry of the southwest of the state of Amazonas has a particular territoriality that crystallizes on the banks



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of the Juruá River, called the Amazonian Deep, in which this social class and way of life reproduce themselves as a social class facing the impositions of the hegemonic, denialist and authoritarian capital that denies bodies, territories, and nature.

### **METHODOLOGY**

For the development of this research, considering the nature of the object of study, it uses the lens of the historical-critical and dialectical method to weave reflections and analyses. The dialectic should understand the notion of movement in history, a science that has laws of general movement and development of nature, society and human thought (SPOSITO, 2004). The research has a qualitative approach, as it addresses the territoriality and the strategies of re-existence of the peasant population of the Porto Alegre community, in the municipality of Ipixuna, regarding the production and family income of the riverside peasants.

The research has an exploratory nature, as it provides clarity on the problem, presenting the reality to society and the responsible authorities for production and local supply. Regarding the research procedures, bibliographical research and theoretical reviews were conducted in Oliveira (1996), Fraxe, Wittkoski and Pereira (2007); Cruz (2007) Neves (2020), and Conceição (2017, 2020). In relation to field research, semi-structured interviews (open and closed) were carried out through the application of forms with rural workers, as well as using the technique of direct observation of the reality and informal conversations, with the focus of analyzing the peasant territoriality of the Porto Alegre community, located on the right bank of the Juruá River, in the municipality of Ipixuna, southeast of the state of Amazonas, which considers of great relevance the work developed by the riverside peasants in the land/territory and the agrarian and territorial issues that orbit and crystallize the spoliation of the riverside peasants by the production mode capitalist.

**A DISCUSSION ON THE AGRARIAN GEOGRAPHY OF THE RIVERINE AMAZONIA OF IPIXUNA: GETTING TO KNOW THE PEASANTRY OF THE JURUÁ RIVER**

The peasant territoriality of the residents of the Porto Alegre community in Ipixuna, Amazonas, on the right bank of the Juruá, as well as other communities in the Amazonia, is based on a collective work practice aimed at survival and family consumption, through the activities of planting in the floodplain (agriculture) and artisanal fishing. Therefore, the search for family income of the riverside peasants is obtained through the commercialization of products cultivated on the land and the fishery extracted from nature, because these territorial practices developed by the riverside peasants contribute to dignity and generate financial independence, allowing this social class to buy other goods and supplies that they need for the family organizational unit.

All the effort and work of the riverside peasants hit a bottleneck resulting from the logic of consumption and market, imposed by the banner of capitalism, because who profits is the entrepreneur and/or merchant who manages to dominate the entire productive chain. It is necessary to understand the territorialities of these riverside, their ways of life and the family work carried out in agriculture and fishing, as well as to understand how the expansion of capital generates changes in the lives of these riverside peasants, generating new territorialities that reshape and resignify the amazonian riverside reality, from the relationships of negotiation and market that only benefit the capitalist production mode.

According to Oliveira (1996), the way of life of the peasantry in Brazil corresponds to a condition of life and subsistence, from the direct relationship of the peasant social class with the land, which provides everything they need, through the work of planting, cultivating, harvesting and other relationships established with the preserved environment. The challenges are numerous in the way of life of the peasantry, because the logic of capital and the commercialization of products resulting from the work of the riverside occur because a significant portion of this population does not have any other regular source of income to obtain money. Therefore, when they sell part of their production, they go to the city to buy food or appliances, what the industry presents as

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modernity of the technical-scientific-informational means, making reference to Santos (2014). Thus, in the search for income to access products and services, the riverside commercialize the excess of what they produce on the land/territory and hit the cruel process of capital's plunder and the devaluation of their labor force.

The process of plunder by capital of the riverside farmers, according to Cruz (2007), occurs through the non-commercialization of the product at a fair price in local and regional markets, an action that is the result of the family labor of the peasants developed on the land/territory. The subjugation of the logic of the peasants to the logic of capital is seated in the moment when negotiations are made with wealthier capitalists and intermediaries who exploit the labor of these farmers in the process of buying the product, alleging that they will have much higher expenses with the flow to the places of sale, dictating low and unjust values in the production of the amazonian riverside, as is the case of Porto Alegre, which expresses this unfair logic of the market, orchestrated by the regency of the capitalist system.

In this logic full of contradictions, those who benefit from the labor of the riverside peasants are the capitalists, medium and large traders and intermediaries who sell the fish and products of the floodplain agriculture at higher prices in specific locations of the city of Ipixuna and/or export the best species of fish and products of the agriculture to Manaus and Cruzeiro do Sul, in the state of Amazonas. Furthermore, the lack of support and incentives on the part of the competent organs is evident, because if not, the supply of the municipal market would be given with the production of the riverside peasants and not come from Cruzeiro do Sul, Acre, creating, thus, a cartel of logistical negotiations and prices between local traders, boat owners and Acrean farmers.

Cruz (2007) points out the importance of recognizing that the lifestyle and territorial dynamics of riverside communities in the Amazon once operated outside the confines of capitalist logic, being primarily oriented towards family sustenance. However, in modern times, the commodification of goods, either produced by peasant agriculture or harvested from nature like fishing, not only contributes to family income and social sustenance but, influenced by market forces, also paves the

way for territorial monopolization. This shift operates under the overarching dominance of a capitalist system that exploits the riverside communities of the Amazon, particularly in the municipality of Ipixuna, Amazonas.

**THE PEASANTS AND THE STRATEGIES OF RE-EXISTENCE TERRITORIAL IN THE AMAZONIAN RIVERSIDE OF THE JURUÁ RIVER**

In associating the concept of peasants with the riverside inhabitants of the Porto Alegre community, we engage in a dialogue with the ideas of Cruz (2007) and Neves (2020). Both authors begin with the premise that peasants are those who derive their livelihood from land cultivation, livestock raising, extraction, hunting, and fishing, encompassing agropastoral, aquatic, and forested territorialities. And as for the definition of riverside, Fraxe, Wittkoski and Pereira (2007) define these human beings as traditional societies that live in floodplain ecosystems, organized in communities composed of a neighborhood of farmers, fishermen, extractors who live a direct human-nature relationship, a direct relationship with the soil, the forest, and the river. These authors elucidate that the term riverside refers to those who walk along the rivers and who survive from the knowledge they possess of the favorable spaces for planting and fishing.

The territory of the peasants in the Amazonia is understood from the land-territory, river and forest, as the existence of nature for this social class is to promote the social re-creation, especially of floodplain agriculture and the fishery extraction from these traditional territorialities. Thus, the way of life of the peasants has a dimension of family work carried out on the land/territory/nature through family agriculture and extractivism, and can be defined as an agroextractivist work typology (CONCEIÇÃO, 2017; 2020).

This social reproduction shows that the realities and challenges of floodplain agriculture and fishing activities are numerous, which are antagonistically articulated with the accumulation of capital, presenting difficulties in terms of the fluidity of productive polyculture diversity, leading gradually to the commercialization and generation of

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family income, a contradictory practice that qualifies in the devaluation of work and the plundering of the rural population that resists the pressures of capital. The camponesian territoriality in the Amazonian floodplains refers to a condition of life and existence of riverine societies that conceive of their subsistence and generation of family income through traditional knowledge of planting, harvesting, fishing, and other activities of an Amazonian peasantry that lives and works on the land/territories, in the waters and in the forests, amid the seasonality of the flood and drought of the rivers (CRUZ, 2007). This agroextractivist practice developed by rural workers and women on the banks of the Juruá River qualifies a territoriality where life and work are agroextractivist, agroecological, and diversified, in terms of production that meet the family's sustenance and supply the local and regional markets.

The riverside farmers of Porto Alegre are imbued in experiences and realities of work mediated by the dynamics of life on the right bank of the Juruá River, with the coming and going of canoes, the climb to the cliff, with fishing, planting in the floodplain, among other things inherent to the way of life of a riverside peasantry. In reality, this society in its territoriality plants and harvests, according to the seasonality of the flood and drought of the river, products such as cassava, corn, beans, pumpkin, watermelon, among other important products of their diet. And also in favorable periods, they fish for fish in the Juruá River and lakes in specific locations, using various techniques such as cast net, hook and fishing net.

### **FINAL CONSIDERATIONS**

From the reflections, it is verified that the riverside peasants of the southwest of the state of Amazonas has a particular territoriality on the banks of the Juruá, in the Deep Amazonia. For many riverside, life is regulated by the slow pace of the river and agricultural practices in planting cassava, corn, beans, as well as fishing activities that are the only subsistence alternative, aiming to raise their children under the umbrella of the peasants mode of life. However, this territoriality, which was previously only a spatial condition for the maintenance of life, through what was produced and extracted from the land/territory/

nature, is now reconfigured by the regency of capital. Because through perverse and deceptive logistics and negotiations, people seek to appropriate the peasants work and manage to gain an advantage by buying cheaply and selling expensively the products to wealthy people, and still exporting to other cities, qualifying a riverine agrarian space of conflicts.

Therefore, it can be said that the reality of the territoriality of the riverside peasants of the community of Porto Alegre, on the Juruá River in Ipixuna, Amazonas, highlights the work according to the seasonality of the movement of the river, contributing to the sustenance and family income. It is a strategy of re-existence created by the riverside peasants in the face of plundering imposed by capital. This work allowed to see the way of life of the peasants social class of Ipixuna, as well as to understand the Agricultural Geography of this location, aiming to divulge to the responsible authorities, because it is necessary to have responsibility in the processes inherent to the management of public policies to support and encourage peasants/family agriculture.

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CHALLENGES OF EDUCATION IN THE  
SOUTHWESTERN AMAZONIAN: A FOCUS ON TEACHER  
SUITABILITY IN THE STATE OF ACRE

Victor Régio da Silva Bento  
Federal University of Acre – UFAC  
victor.bento@ufac.br

**ABSTRACT**

The state of Acre, like the rest of the Amazonian states, faces challenges in the educational system, both for the lack of infrastructure and for the incipient training of education professionals. The spatial analysis of educational indicators becomes a relevant tool for the adoption of educational policies, especially in municipalities where there is a predominance of teachers working without a degree or outside their area of expertise. Based on these assertions, the present work aims to understand the disparities in teacher adaptation in Acrean municipalities. As a methodological alternative, it was used the microdata of the INEP census (2021), which underwent statistical treatment and were linked to the municipal spatial base, for spatial analysis and mapping. It is concluded that the state of Acre has a high percentage of teachers without higher education and teaching in disciplines different from their license, especially in high school and early grades of elementary school.

**Keywords:** Geotechnologies. Teacher adaptation. Basic Education. Acre.

**INTRODUCTION**

The reality of basic education in Brazil is very unequal in states and regions, both by urban or rural location, and by the type of administrative sphere (federal, state, municipal, private). In addition to geographical and management disparities, the inequalities in teacher training, as well as the absence of basic equipment such as libraries, sports fields, and computer labs, are noticeable in fundamental and secondary



education institutions. These structural problems negatively impact student learning.

The formation of teachers is a concern that permeates the educational environment of the Brazilian Republic. The laws that established the normal schools and the full licentiate courses were some of the attempts to expand teacher training in the period prior to the Constitution of 1988. The Law of Guidelines and Bases of Education (LDB 9394/1996) states, in its Art. 62, that “the formation of teachers for basic education will be at the higher education level, in a full licentiate course, in universities and higher education institutions” (BRASIL, 1996, p. 20). Subsequently, Law No. 13.005/2014 approves the National Education Plan (PNE) and in its text, it demonstrates the need to use evaluation indicators of institutional assessment, which “profile of students and the body of education professionals, the relationships between the dimensions of the faculty, the technical body and the student body, the infrastructure of schools, available pedagogical resources and the processes of management” (BRASIL, 2014, sp.).

Geotechnologies are tools for collecting, processing, analyzing and mapping spatial information, which have been improved with the advent of computer science (CÂMARA et al., 2004). Examples of these are Geographic Databases, Global Positioning System (GPS), digital cartography and remote sensing. They can be used in various applications, including the analysis of educational indicators and public policies for social inclusion. Furthermore, they can be an important tool for identifying factors that limit the universality of quality basic education. The use of microdata from the school census (INEP, 2021) contributes to a multivariate analysis of indicators on teacher training and the structural conditions of school spaces. With educational data, it is possible to verify the distribution of teachers according to their training, in the most diverse spatial scales (municipality, state and region). And this is the central theme of this work, which aimed to map indicators of teacher adequacy to understand the spatial inequalities of teacher training in Acre’s municipalities.

## Challenges of education in the Southwestern Amazonian: a focus on teacher suitability in the state of Acre

### METHODOLOGY

The spatial delimitation of the research covered the 22 municipalities of Acre (Figure 1). After the spatial delimitation, microdata were extracted from the INEP, referring to the school census of 2021, on the adequacy of teacher training and the infrastructure of essential school spaces for the work of teachers.

**Figure 1** – Delimitation of the study area.  
Municipalities of the state of Acre



Source: Elaborated by: BENTO, V. R. S.

The indicator classifies the teacher according to the adequacy of their initial training, taking into account the legal normative regulations in force (national). Five categories of teacher adequacy were stratified according to the discipline they teach in basic education: Group 1 - Teachers with a higher education degree in teaching (or bachelor's degree with pedagogical complementation) in the same area as the discipline they teach; Group 2 - Teachers with a higher education degree in bachelor's degree (without pedagogical complementation) in the same area as the discipline they teach; Group 3 - Teachers with a higher education degree in teaching (or bachelor's degree with pedagogical complementation) in a different area than the discipline they teach; Group 4

- Teachers with a higher education degree not considered in the previous categories; Group 5 - Teachers without higher education.

Of the five groups considered in the INEP microdata, it was observed that Groups 2 and 4 do not have much relevance for understanding the challenges of teacher training, as the percentages of professionals classified in these categories are not very expressive. In this sense, the spatial analysis and mapping focused on Groups 1, 3, and 5.

The microdata were treated in the Excel program and then converted into Comma Separated (CSV) format, so that it was possible to link with the Quantum GIS geoprocessing software. Through this resource, a thematic mapping was carried out that spatialized the municipalities of Acre, the percentages of adequacy of professionals, according to the groups of indicators considered, from the establishment of ten equal-sized classes of intervals (between 0 and 100%).

## **RESULTS AND DISCUSSIONS**

The first indicator (Group 1) shows the percentage of Basic Education teachers who have a higher degree in licentiate and/or bachelor's degree and have completed pedagogical complementation, who are teaching subjects consistent with their areas of expertise. This variable indicates the ideal situation of teacher adequacy, as professionals are assigned to teach curriculum components that are consistent with their formative competencies.

The mapping of this indicator revealed significant contrasts in the Acre municipalities, evidencing that stage of Basic Education that requires greater attention in public policies for teacher training. In early childhood education, the best adequacy conditions are perceived in the capital and neighboring municipalities, with highlights for Plácido de Castro (92%), Rio Branco (75%), Bujari, Xapuri and Senador Guimard (the three with 63%). The facilities of moving to the main urban center of the state, where the possibilities of professional training are facilitated by the presence of various educational organizations and the Federal University of Acre, contribute to the highlight of these territorial units. In contrast, Santa Rosa do Purus and Jordão, municipalities with no

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access to the river and Assis Brasil, which presents difficulties in moving due to poor road conditions, have the lowest values of teacher adequacy for this stage of education (3%, 21% and 17% respectively).

The early years of elementary school are the phase that has the best adequacy, with 20 of the 22 municipalities registering rates above 50% of teachers assigned to subjects compatible with their higher education, with highlights for Rio Branco (85%), Senador Guimard (82%) and Cruzeiro do Sul (80%) that are among the largest municipalities of the state, indicating a concentration of basic education institutions in the municipal headquarters, a fact that may facilitate the process of teacher training.

The participation of teacher training programs, with the offer of Pedagogy courses, contributes to increasing the rates of teacher adequacy in this stage of Basic Education, especially in the municipalities of the interior, where the presence of the public university is still reduced (ALMEIDA; BENTO, 2020).

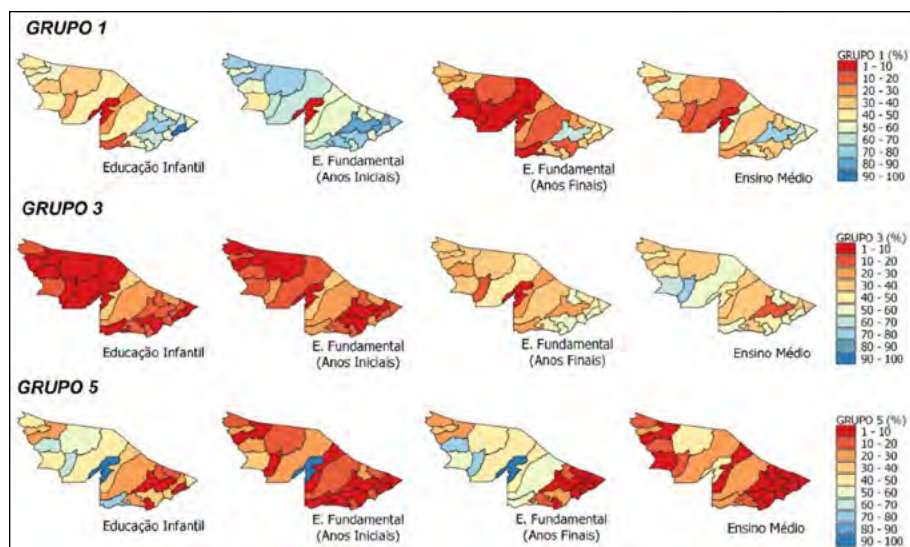
The final years of elementary school are a critical phase in teacher adequacy, with the exception of Rio Branco (69%), all other Acre municipalities are below 50%. The situation is aggravated in the riverside municipalities of Santa Rosa do Purus, Jordão, Porto Walter and Marechal Thaumaturgo, all with less than 8% of licensed teachers teaching in their areas of expertise. This finding reflects the need to expand the offer of full degree courses to the interior of the state, especially for isolated municipalities, with no terrestrial access.

High school presents a slightly better adequacy than the final years of elementary school, with five municipalities registering rates above 50%: Rio Branco, Senador Guimard, Cruzeiro do Sul, Manoel Urbano and Acrelândia. However, the state needs to progress in this stage of Basic Education, encouraging teacher training and encouraging students to continue their studies, given that school evasion is a characteristic of this level, especially in predominantly rural municipalities.

The second indicator analyzed (Group 3) demonstrates the percentage of teachers with higher education in licentiate (or bachelor's degree with pedagogical complementation) in areas different from those they teach (Figure 2). The high values of this variable may reveal the

performance of teachers trained in other areas, but who conduct classes related, for example, a History teacher who teaches Geography. In addition, it is common to find teachers trained in Pedagogy, but who teach specific subjects from the 6th to the 9th grade. The pre-school and early years of primary education are stages that record rates lower than 40% of this teacher inadequacy in all municipalities of Acre. This result is possible because these stages are the domain of teachers trained in Pedagogy, with no greater competition with other licenses.

**Figure 2** – Spatialization of teacher adequacy by group, municipalities of Acre, 2021 (%)



Source: INEP, microdata of the School Census, 2021

On the other hand, in the final years of primary school and secondary school, where the generalist teacher gives way to licensed teachers with specific formations, it is noticeable the increase in teacher inadequacy, with teachers teaching one or more subjects different from their formative competence. Regarding the analysis of the indicator related to Group 3, in the stage of primary school (Final Years), it is highlighted the municipalities located near Rio Branco: Bujari (59%), Capixaba (57%) and Xapuri (54%). Despite the proximity of the capital and the

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facilities of access by land to this important center of educational services, it is verifiable incongruities in the training of teachers who teach subjects from the sixth to the ninth grade. Considering this indicator for secondary education, it is observed that a larger number of municipalities with inadequacies between the training of teachers and the subjects in which they work are observed. The highest percentages of teachers in this situation are observed in Jordão (75%) and Marechal Thaumaturgo (64%), isolated municipalities, with a rural population dispersed and where transport is only by river and air.

The third indicator analyzed (Group 5) refers to the performance of teachers without higher education who are assigned to Basic Education. This form of inadequacy is the most serious of all, as it evidences the educational precariousness in which institutions of basic education are still subject, with the absence of licensed teachers. Such a situation is more expressive in municipalities with a predominance of rural population, with extensive territorial areas, and with deficiencies in road connectivity between the headquarters and their communities. In these locations, the figure of the professional with a high school diploma and a teaching certificate or even people with no pedagogical qualification is predominant. The mapping of Group 5 (Figure 2) revealed that Santa Rosa do Purus obtained the highest percentage of teachers without higher education in all stages of basic education: pre-school (95%), elementary school, initial years (100%), elementary school, final years (90.6%) and secondary school (44%). Jordão, Assis Brasil and Porto Walter have high rates of unlicensed teachers in pre-school (over 62%) and elementary school, final years (over 59%).

## **CONCLUSIONS**

From this research, it was observed that the challenges that the state of Acre faces regarding teacher training, taking into account the multiple geographical realities that this federative unit presents. The long distance between its municipal headquarters and the capital, the presence of isolated municipalities by land, the significant contingent of the population residing in rural areas, and the difficulties of expanding education in its various stages in the municipalities of the interior,

are some examples that make it difficult to universalize the training of teachers. In this sense, the presence of the public university is fundamental to expand teacher training, through training courses, interiorization programs or even distance education courses.

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## THE TEACHING OF GEOGRAPHY IN AMAZONIAN RURAL SCHOOLS FROM A DECOLONIAL PERSPECTIVE

Andrea Barros de Oliveira

University of the State of Amazonas – UEA, Manaus  
abdo.geo21@uea.edu.br

Mônica Fernandes Morais

University of the State of Amazonas – UEA, Manaus  
mfm.geo21@uea.edu.br

### ABSTRACT

This study aims to analyze how geography teaching has been thought of in Amazonian rural schools from a decolonial perspective. The method of analysis for understanding the research is dialectical, and the methodology used has a qualitative approach. The methodological procedures used for the development of the research were the review of articles, books, and book chapters. In this sense, valuing the culture of the field, seeking the application of decolonial education, is essential for effective and quality education, because an educator who does not have the sensitivity to perceive the processes of the field, who does not understand that field subjects are protagonists of their histories and still does not assume the identity of the field, will hardly be able to build a reference education that contributes to the formation of critical-reflexive, consistent, and committed subjects with the future.

**Keywords:** Rural Education. Geography Teaching. Decoloniality. Amazonia.

### INTRODUCTION

This article presents a theoretical-methodological debate on the perspective of Decolonization in the teaching of Geography for Rural Schools. The work is justified in highlighting the importance of thinking about a decolonial teaching of geography, as it relates to the



didactic-pedagogical processes and teaching methods for rural schools of the Amazonia, considering that spatialities and territorialities be integrated into the curricular proposal and the political-pedagogical project.

In this sense, the work aims to analyze how the teaching of Geography has been thought in the rural schools of the amazonian rivers in the decolonial perspective. Therefore, it is necessary to reflect on the possibilities of resignification of the teaching, considering that for many centuries, a retrograde and stagnant teaching model has been applied, where students, mostly, are passive, receptacles of the information that the teacher transmits and retransmits day after day, only with the application of exams, exercises and works, disregarding that the student is a thinking being, resulting in tedious and little participatory classes.

### **METHODOLOGY**

The method of analysis for the understanding of the research is dialectical and the methodology used has a qualitative approach. The methodological procedures for the development of the research consisted of the bibliographical review of articles, books and book chapters, mainly of the authors Fernandes and Molina (2004); Campos (2016) and Nascimento (2009). It is understood that this type of teaching applied in the institutions of the field is colonial and does not take into account its cultural identity, its geographical space, its relationship with the land, making relevant a remodeling of this school structure. Thus, breaking this rigid pattern, where identity is dismissed as something without value, as if the student could not think for themselves, or have different and revolutionary thoughts, it is not possible to bury future scientists, teachers, thinkers, not bury the future of the world, because the field is a space of life, a space of resistance.

### **EDUCATION OF THE FIELD IN THE DECOLONIAL PERSPECTIVE**

Basic Education of the Field was recognized as a teaching modality through Resolution No. 04/2010/CEB/CNE, and through Decree No. 7,352/2010, the National Policy of Education in the Field and the

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National Program for Education in the Land Reform (PRONERA) were established, defining the principles that would guarantee the maintenance and development of Rural Education within educational policies.

Fernandes and Molina (2004) argue that Rural Education “was born of the struggle for land and land reform [...] could not be restricted to rural settlements”, it should come from the democratic and participatory cooperation of the community with organs and popular movements, so that the school is a space that reflects the demands and dreams of the field and contributes to the formation of beings committed and articulators of their future. For this, it is first necessary to break away from the retrogressive and entrenched concept of rural education, which is one of the main challenges to be faced and combated by educators. Historically, according to the authors:

[...] the concept of rural education has been associated with a poor, backward, low-quality education with few resources. It had as a background a rural space seen as inferior and archaic. The timid programs that occurred in Brazil for rural education were thought and elaborated without their subjects, without their participation, but ready for them (FERNANDES and MOLINA, 2004, p. 9).

Thus, it is necessary to emphasize that the education of rural regions is an ideological and social movement that aims to advance contextualized and transformative learning for those who live in rural areas, while at the same time valuing traditions, cultures and the values of rural communities. People tend to think that city education is superior to rural education. The history of Latin American colonization serves as the basis for this outdated and eurocentric view. Eurocentric narratives became dominant during the processes of colonization and are still disseminated as a result of the imposition of cultural imperialism and economic domination. A hegemonic system called colonialism, which has the ability to devalue the visions and histories of other social classes, gender, and race.

It is crucial to refute the presumption that rural schools are poor and unimportant. It is necessary to fight to ensure that their community, which is in the interest of all, has access to quality education at all levels and that its people are active participants in the educational process.

It is necessary to be aware and think creatively that education is a right of rural people, and that the formulation and implementation of public policies must be protected. Recognize the need to exert pressure on the government to fulfill its responsibility to promote public policies that protect the access of rural residents to quality education.

Therefore, valuing the culture of the field is essential to effective and quality education. It is necessary to rescue its culture, identity and the valorization of its roots, knowledge and memories. An educator who does not have the sensitivity to perceive the processes of the field, who does not understand that the community should be the protagonist of its own history, who is not faithful to the people of the field and much less assumes the identity of the field, in order to help build a reference education, will hardly be able to contribute to the formation of critical-reflexive subjects, coherent and committed to the future.

## **EDUCATION IN THE AMAZONIA AND GEOGRAPHY EDUCATION**

Amazonian rural education is understood as education with specificities, as its culture, identity, way of life, even its territories carry the most distinctive characteristics of the diversity of traditional peoples. Campos (2016) reinforces this understanding by saying that the vision of the Amazonian countryside is based on both the culture and geography of the place and the idea that its people have of belonging to the Amazonian world.

It also emphasizes that the traditional indigenous culture, once predominant in the Amazon, has undergone a strong process of cultural blending since its colonization to the present day. This process occurs unevenly and conflictively, leading to migration and land expropriation, the territorialization of capital, as well as the establishment of conservative and exclusionary policies, which negatively impact the political and social aspects of rural society and, even more unfavorably, the way education is provided. According to Nascimento (2009), rural education is “seen as a struggle for the rights of those who work in rural areas,” and it is closely linked to a diversified education in the process of human development. As Freire (2001) emphasizes:

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Education for human rights, from the perspective of justice, is precisely that education that awakens the dominated to the need for the fight, the organization, the mobilization, the critical, democratic, serious, rigorous, disciplined, without manipulations, with a view to reinventing the world, reinventing power. [...] this education has to do with a different understanding of development, which involves a critical, affective, increasing, and democratic participation of popular groups (FREIRE, 2001, p. 99).

Recognizing is the first step to understanding that colonialism not only impacts politics and economics but also education, knowledge generation, and the way thought and knowledge are structured. Decolonizing approaches need to be examined to remove racist, xenophobic, and oppressive practices in order to counter the term “coloniality” and its consequences. A decolonial geographical approach examines the territoriality, ancestry, social structure, and practices of colonized peoples to value their historical context. Adopting a decolonial perspective requires a critical analysis of how colonialism has influenced our understanding of the world and our interactions with it, as colonial thought categorizes their traditions as ancient and late knowledge.

### **FINAL CONSIDERATIONS**

Education has a fundamental role in people’s lives, as well as being fundamental for the formation of critical-reflexive subjects, it is transformative in the formation and social life. When the role of education is understood, the role of the educator and why we educate, and how important it is for teaching to be democratic and of quality, adequate structures, valuing and training of educators, investment, etc., or education will continue to be deficient and exclusionary. It is necessary to demystify that rural education is poor quality, outdated, and inferior, instead of alienating them, they should be considered as protagonists of the educational process, as their identities, needs, and interests are important in the course of the educational process.

The work of the teacher in rural communities is not something fixed, but rather a mutable method that must adapt to the demands of each of the subjects, their proposals and objectives, the students and their subjectivities, and the entire complexity that encompasses teaching. It is extremely necessary to overcome this hegemonic and patriarchal model, it is important that respect for differences is sought, overcoming prejudice, discrimination, and valuing cultures. It is relevant to perceive that the country has the most diverse cultures and identities, by understanding and seeking real changes is that we will be able to achieve the teaching ideal that has long been sought.

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## THE IMPORTANCE OF ENVIRONMENTAL EDUCATION IN THE DEVELOPMENT OF ELEMENTARY SCHOOL STUDENTS

Maria Suzana Benvindo dos Santos

Graduate student in the Postgraduate Program  
in Geography of the Federal University of Acre – PPGeo/UFAC

maria.suzana@sou.ufac.br

Silvio Simione da Silva

Professor and Faculty member of the Postgraduate Program  
in Geography of the Federal University of Acre –PPGeo/UFAC. Advisor

ssimione@gmail.com

### ABSTRACT

This study addresses the importance of environmental education in the education of urban and rural students. The objective is to analyze the importance of environmental education in the education of elementary school students; discuss its contributions in the education of students; recognize the role that environmental education provides to students in defense of the environment, in the awareness of the need to adopt healthy habits and respect for the environment. To this end, a bibliographic research and informal conversations with teachers in the area were carried out. As a result, it was possible to understand the role of environmental education in the awareness of students about environmental problems both in the city and in the countryside; its consequences and relevance in the adoption of attitudes in the construction of a more just society and a healthier world for present and future generations.

**Keywords:** Environmental education. Student education. Environment. Awareness.

## **INTRODUCTION**

This study addresses the role of Environmental Education in the education of students in urban and rural schools. The researched theme is relevant due to its importance for improving the quality of life of people, the need for awareness of all, and the permanent educational action that the population should have awareness of its local and global reality.

Working with the theme of Environmental Education is of great relevance, since it aims to raise awareness of individuals about the need to adopt correct attitudes in defense and protection of the environment, as the lack of this awareness has resulted in a series of problems that bring with them risks and disastrous consequences, damaging the quality of life of people. Therefore, it is important that students recognize the existing relationship between the environmental crisis and the daily actions of each individual, whether in the city or in the countryside, bringing important reflections about the importance of acting with social responsibility.

For this, the objectives were to: analyze the importance of Environmental Education in the education of students in elementary school; discuss the contributions of Environmental Education in the education of students; recognize the role that Environmental Education provides to students in defense of the environment and in self-awareness of the need to adopt healthy habits and respect for the environment.

## **METHODOLOGY**

For the realization of this work, bibliographical research was conducted in journals and newspapers, as well as the observation of what is developed in schools in the municipality of Cruzeiro do Sul, Acre. We analyzed articles, laws, and documents about Environmental Education and its role in the education of students.

With this tool, it was possible to better understand the concept of Environmental Education and its importance in the education of critical and participatory citizens capable of intervening positively in defense of the environment. Highlighting the importance of the role of the school

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in the formation of an environmental consciousness of the students by positive attitudes of respect and preservation of the environment, life in its entirety.

### **THE LEGISLATION IN FAVOR OF ENVIRONMENTAL EDUCATION**

According to the Federal Constitution of Brazil (1988), Article 225, all individuals have the right to an ecologically balanced environment. Therefore, it is the duty of the public power and all individuals to preserve it so that future generations can have the opportunity to live with dignity. As an educational process, Article 2 of Law 9,795 of April 27, 1999, Environmental Education is an essential and permanent component in education, present at all levels and modalities of the educational process, both formally and informally.

Through these objectives, it is possible to ensure that individuals have knowledge, know-how, and information about Environmental Education, seeking to ensure respect for the environment, sustainable development, and attitudes of protection and care for the environment in which we live, so that citizenship can be effective and the environment can be preserved. In addition, it is essential that both students and society in general are encouraged to take actions and attitudes that favor the care and preservation of the planet.

Everyone has the right to live in a balanced, protected, and healthy environment. However, it is our duty to use the environment with respect and responsibility. In this sense, it is observed the need for schools to incorporate Environmental Education into the pedagogical practices developed by teachers, contributing to the formation of more conscious citizens oriented towards sustainable development. The reality of urban and rural schools in our cities demonstrates how they are inserted in complex contexts of social and environmental problems. Urban schools deal with their insertion in a daily life where life is more integrated into the labor market and the world of unemployment, while in the rural area the environment is less aggressive, but there is a greater distance from the faster changes that the world suffers.



However, educational actions in this area are flexible. Resolution No. 2 of June 15, 2012, establishes the National Curricular Guidelines for Environmental Education, emphasizing that institutions of education must prioritize:

I - Curricular approach that emphasizes nature as a source of life [...]

II - Integrated and transversal curricular approach [...]

III - Deepening of critical-reflexive thinking through scientific, socioeconomic, political, and historical studies [...]

IV - Encouragement of research and appropriation of pedagogical and methodological tools that improve student and teacher practice and environmental citizenship;

V - Promotion of the establishment of educational institutions as sustainable learning spaces, [...] (BRAZIL, RESOLUTION No. 2, 2012).

Therefore, it is of fundamental importance that environmental issues are present in the curriculum and effectively worked on within schools, leading students to critically reflect on them, but always linked to the logic of their produced space: city or countryside. Thus, contributing to the formation of sustainable spaces, the development of citizenship through the protection and defense of the environment and the conditions of human social life.

In the context seen, environmental awareness can contribute to a better quality of life for people, orienting and capacitating them. In this way, showing alternatives of habits and behaviors that must be adopted by everyone in their daily routine, favoring the implementation of sustainable development in the daily practice of citizens, so that the impacts on the environment and human life can be minimized.

According to Jacobi (2003), the current moment requires the mobilization and participation of society, capable of questioning in a concrete way the lack of initiative of the public power regarding public policies focused on sustainable development, in a context of great difficulties in promoting social inclusion. It is necessary for all to be involved

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and committed so that sustainability can be effectively implemented in the daily life of each individual.

In this sense, the role of the school is relevant and complex and should allow students to appropriate the reality and reflect on the problems that affect contemporary societies and that the causes of the same are mainly the wrong conduct of men.

According to Pádua (2001), environmental education should ensure individuals adequate conditions for survival and stimulate the necessary and important environmental awareness in the present times, centered on citizenship and the valorization of ethical and moral values, individual and collective, for sustainability to be effective.

According to the National Curricular Parameters Meio Ambiente (1998), the main function of working with the environment is to contribute to the formation of conscious citizens, capable of deciding and acting in the reality in which we live. Therefore, it is highlighted the role of education in the formation of citizens and awareness, essential factor for a more just society and a healthier planet. In this sense, it is noted that sensitization is the first step for environmental awareness, allowing students to reflect, discuss, participate, give their opinions and appropriate daily environmental education, which should guide their life and actions.

Therefore, it is necessary that current themes are worked, showing the students the consequences arising from the destruction of the environment, the problems and undesirable attitudes. In educational processes, it is important to reflect with the students about the need to change and improve the reality in which we live, recognizing that the problems can increase. It is important that teachers work in an interdisciplinary and permanent way, so that environmental education is not worked in a neutral and context-free way.

### **FINAL CONSIDERATIONS**

With this study, it can be understood that environmental education is an essential instrument in the life of human beings. From it, we have the necessary knowledge and information for a more profitable

coexistence in the space in which we live. For those who live in the Amazonia, this sense becomes more vital, as the regional content concerns the life of all, as the largest remaining reserve of biodiversity still existing in the tropical portion of the Planet. In this sense, education must be a permanent activity in the life of citizens, where all can acquire the necessary information for a more appropriate life in work, individual and collective life, and in the way of seeing and using existing resources.

Therefore, schools should prioritize a permanent interdisciplinary environmental education, focused on building values, positive practices, environmental awareness, and respect for the Planet. For this, it is necessary to strengthen environmental education, so that we can have a more preserved environment and greater awareness of our role and actions on the place we live. Thus, schools and other social institutions must be engaged in the preservation of nature, but starting with the conditions of existence in a society like the one we live in. Only then will we be able to minimize the disastrous consequences of nature and ensure a healthy environment for all individuals.

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## THE STRUGGLES TO THE ACHIEVEMENTS OF THE RIGHT TO EDUCATION FOR CHILDREN IN THE COUNTRYSIDE

Camila Jheovana Almeida Ferreira  
Federal University of Amazonas – UFAM  
myllah-jheovana@hotmail.com

Beatriz Lima Benigno  
Federal University of Amazonas – UFAM  
beatrizbenigno1997@gmail.com

Elen Mara da Silva Neves  
Federal University of Amazonas – UFAM  
eleneves19@gmail.com

### ABSTRACT

This research arises from the search to understand Rural Early Childhood Education and its advances, as well as to raise the relevance of research in this stage of education. The studies took place in the context of the Group of Studies and Research in Rural Early Childhood Education (GPEDIN). To produce knowledge, references were sought from authors who describe the historical context of Rural Early Childhood Education, its challenges, achievements, and briefly highlight the participation of the Landless Workers Movement (MST) for its realization. After analyzing the historical context of Rural Early Childhood Education, it became evident the contribution of social movements to the realization and valorization of this modality. When analyzing the trajectory of Rural Early Childhood Education 30 years ago, its evolution is evident, however, this modality of education still has much to improve in terms of offering quality education to rural children.

**Keywords:** Education. Rural. Struggles. Achievements.

## **INTRODUCTION**

This article aims to briefly recover the historical context of Early Childhood Education and its realization as a right for children in the countryside. In addition, it seeks to raise awareness about the importance of public policies that are truly applied to improve the learning conditions of children in the countryside, be it pedagogical, curricular, and in terms of adequate physical spaces to ensure quality education. This study arises from the context of research and teaching experience in Early Childhood Education in the countryside by the authors and graduate students in the Master's Program in Sciences and Humanities (PPGECH) at the Federal University of the State of Amazonas (UFAM).

In the course of the studies, it became clear that for Early Childhood Education to be realized as a right guaranteed to children in the countryside, there were some challenges and engagement of some social movements to ensure that it was indeed a right. Among the various movements, we find the Landless Workers' Movement (MST) as the main movement involved in this process.

## **METHODOLOGY**

To produce knowledge, some bibliographical references were sought that depict the process of the insertion of this stage of education in Rural Education, as well as its construction process and the laws that guarantee the right of children in the countryside to a quality education that meets their specificities.

## **BRIEF CONTEXT OF RURAL EDUCATION**

The milestones of Rural Education gained visibility from the restlessness of the Landless Rural Workers' Movement (MST), which in turn did not only revoke the right to Education, but also the right to health and land, and better living conditions for the rural families. According to Mendes (2017), the struggles persisted throughout the 1990s, with the realization of national meetings and the publication of manifestos and letters, when some researchers linked to universities began to

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contribute to the debates and reivindications of the social movements for an Education in the Countryside, opposing a model to the one that existed until then, identified as Rural Education.

The education idealized in the pedagogical and philosophical principles of the MST is the education that never existed for the popular-poor, minorities - in Brazil. It is not only education for the settlements or for the countryside, it is much more, it is the education of the people. The history of public education is very recent in Brazil and in it, the education of the minorities. When education becomes public, ready manuals come, with content, methodologies, and respective ideologies (SOUZA, 2006, p. 34).

It is thus found that the Landless Rural Workers' Movement was important in the historical process of the struggle for the school in the countryside. According to Franco and Ponce (2022, p. 424), "in this set, the "Sem Terrinha" (Little Landless One), children who are part of the Landless Rural Workers' Movement (MST) since the first camp in 1985 (MST, 2018), are themselves the protagonists of this process of the rise of Rural Education."

### **RURAL EDUCATION: ACHIEVEMENTS AND PROPOSALS**

The context of Rural Education includes Early Childhood Education. It is an obligatory stage of basic education from the age of four. Its purpose is the overall development of the child until the age of five, in terms of social, physical, intellectual, and psychological aspects, and should be complemented by the family and the community (BRASIL, 2017).

Silva (2012) emphasizes that the rights of young children were guaranteed from the Constitution of 1988 and the National Education Guidelines Law (LDB) of 1996. As an incontestable right, the process of the inclusion of Early Childhood Education in the Countryside left behind the perspective of education to be offered only in urban centers to meet the needs of families and mothers who needed to work, to a

more comprehensive view seeing the child in the countryside as a subject of rights and the school as a place where relationships and knowledge acquisition occur in a privileged way beyond the family environment.

However, the coverage of the countryside area is lower than the urban area. In the urban area, most schools are concentrated with adequate infrastructure for Early Childhood Education, with better conditions and appropriate facilities to receive children. On the other hand, the schools in the countryside are in a state of precariousness, both in terms of infrastructure, pedagogical materials and specific training for teachers who exercise their profession in the area.

The struggles for the rights of rural children do not stop there. There have been various movements such as the struggle of rubber tappers, indigenous people, and quilombolas, to ensure the right to an education that meets the specific needs of rural children, in order to provide a contextualized education that includes basic rights and is free and close to their homes. Silva (2012, p. 51) states that “offering Early Childhood Education in the countryside, however, is not enough when we want to consider creches/pre-schools as instruments of human development and the construction of subjectivity and sociability of rural children.” In this sense, education offered in rural areas should respect the context of the rural child.

In the temporal framework of struggles for the inclusion of Early Childhood Education in the countryside, it is worth noting that only in 2009, with the revision of the Curricular Guidelines for Early Childhood Education by the National Council of Education (CNE/CEB n. 5/2009), were the legal principles for this stage of education defined from a pedagogical perspective. Regarding the pedagogical proposals for Early Childhood Education in the countryside, the National Curriculum Guidelines for Early Childhood Education – DCNEI (2010) ensure that:

The proposals of the Education of children of family farmers, extractivists, artisanal fishermen, riverside, settled and landless



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of the land reform, quilombolas, caiçaras<sup>18</sup>, forest people, should recognize the specific ways of life in the countryside, have a connection inherent to the reality of these populations, and, if necessary, flexibility in the calendar, anticipating the offer of toys and equipment that respect the environmental and sociocultural characteristics of the community (BRASIL, 2010).

Thinking about the specificities of Early Childhood Education in the countryside, educational institutions should be concerned with the cultural and social reality of children inserted in diverse territorial spaces and also value the child as a constructor of knowledge and that their needs for learning are met according to their reality.

According to Silva (2012, p. 37), “one of the major challenges in guaranteeing the right to Early Childhood Education for babies and children of the countryside is articulating the guiding principles of Early Childhood Education as a whole with the ways it is provided in the different territorial modalities.” In this sense, it is understood that for there to be an attendance that welcomes all the learning needs of rural children, it is necessary to articulate a curriculum focused on the cultures of the countryside and that meets the specific needs of children inserted in this context. Furthermore, according to the author, in the countryside, there is still a lack of physical structure for a good attendance, in that there are basic items lacking for education of quality (SILVA, 2012, p. 38).

In this direction, considering the legal apparatus surrounding Early Childhood Education, as was mentioned throughout this text, it becomes clear that significant changes have occurred in the Brazilian educational scenario and we understand that these changes need to continue to take place for the effective attendance of children in the countryside. It is in this complex scenario that the historical process of Early Childhood Education in Brazil and in the countryside consolidates, and

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<sup>18</sup> “Caiçara” refers to the traditional coastal communities of the Southeast and South regions of Brazil, primarily found in the states of São Paulo, Rio de Janeiro, and Paraná. These communities are historically formed by a mix of Indigenous Brazilians, Europeans (especially Portuguese), and Africans. Over time, they developed a unique culture and way of life adapted to the coastal and rainforest environments they inhabit.

in order to understand the place that this education occupies in society, it was necessary to reconstruct this educational scenario.

## **FINAL CONSIDERATIONS**

Considering all the advances and achievements of Early Childhood Education and the expansion of the offer of seats for children living in the countryside, it is clear that, nevertheless, a large part of Brazilian children are not benefited, because in most cases, they are children who live in areas of the countryside that are difficult to access, where public policies arrive slowly or do not arrive at all, and the school of the countryside is under social isolation. In summary, it is observed that children go through a denial of their rights even though they are guaranteed in public policies, this is a serious problem that leads to the precariousness of the offer of Early Childhood Education for children in the countryside.

In light of the above, the appreciation that Early Childhood Education in the countryside receives today is different from what it was in the past, transformations have been happening over the years, and today the child is seen as a subject of rights. By revisiting this historical process, it is understood that Early Childhood Education is fundamental and has great importance in the human and social development of rural children in their particularities, however, institutions are poorly prepared to meet the specific needs of rural children. It is hoped that this study will enable more research to be directed towards this stage of education so that public policies can be effective and bring greater visibility to the children living in the countryside and the education offered to them.

## **ACKNOWLEDGEMENTS**

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## THE EDUCATION IN THE ECHO OF THE VOICE OF THE INDIGENOUS INTELLECTUAL WOMAN

Agna Maria de Souza; Master in Geography;  
Federal University of Rondônia – UNIR  
agna.souza@ifro.edu.br

Adnilson de Almeida Silva; PhD in Geography;  
Federal University of Rondônia – UNIR  
adnilson@unir.br

### ABSTRACT

This text aims to reflect on the performance of the indigenous intellectual woman who lives in the cities of the Brazilian Amazonia in the face of the political, social, and cultural conditions of the present time by their displacements between indigenous and non-indigenous communities in their various organizations. The phenomenological approach, by the different experiences of the subjects, in the sense of belonging, in the perception and knowledge of the individuals (GOMES, 1996) based on science and philosophy, Husserl (1989). The techniques used were: bibliographic sources, Gonçalves and Lisboa (2007) and Thompson (1992), documentary analysis, and fieldwork through semi-structured interviews via Google Meet, and the oral source. The indigenous woman of the Brazilian Amazonia in the face of the political, social, and cultural conditions of the present time, evidenced various challenges to break the barrier of perception of the impact of the performance of the indigenous woman in her collective and outside of it.

**Keywords:** Indigenous woman. Social organization. Culture. Education.

### INTRODUCTION

In traditionally occupied territories, today there is a clear increase in the representation of women within and outside their communities.

Thus, we reflect briefly on the role of indigenous female intellectuals who live in the cities of the Brazilian Amazonia in the face of political, social and cultural conditions resulting from displacements between indigenous and non-indigenous communities in their various organizations.

In many indigenous peoples today, women, especially those who attend educational settings, are responsible for contributing to interventions to resolve problems, disseminate indigenous culture to non-indigenous society. Thus, they are seen and perceived by the community as a power authority with their actions and articulation in different spaces. Through this new placement, they break down the barriers of invisibility, contribute to the fight against cultural erasure, and take ownership of autonomy in the use of rights through the struggles established in the discourse in various environments, whether territorial or spaces for dialogue, such as making the indigenous voice echo in front of political organizations, guaranteeing prominent places in the spaces of individual and collective decision-making for the communities.

## **METHODOLOGY**

We used the phenomenological approach, based on the different experiences of the subjects, anchored in belonging, perception, and knowledge of the individuals. (GOMES, 1996). In the fight against the adoption of empiricism and psychologism as a foundation of science and philosophy, Husserl (1989) sought to consolidate a method free from assumptions, the positive certainties that permeate the discourse of empirical sciences, which he defines as “naïve”, as he believed that the supreme source of all rational affirmations is consciousness.

We used semi-structured interview techniques via Google Meet and document analysis that favor reading from observation and the process of maturation or evolution of individuals, groups, practices, and knowledge. We used bibliographic sources through authors who address the subjects of indigenous gender, culture, and identity, to form a theoretical and conceptual base. We also inserted the oral source, pointing out the way that has been shown through the times as a source of conservation, dissemination of knowledge, for science in general, according to Gonçalves and

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Lisboa (2007). It precedes drawing and writing, mentioned in the studies of Thompson (1992), when he says that it is as old as history itself, as it was the first species of history. The choice of working with the oral technique aims, above all, to echo voices that have been silenced, not valued in the course of history due to the attempt of erasure.

### **THE VISIBILITY OF INDIGENOUS WOMEN**

It is verified that the political scenario of the last years has driven some indigenous women to seek a change in the realities of geographical spaces by seeking autonomy of thought, freedom of expression, and professional ascension through educational settings. These women act within their communities in a different way from those who are aldeadas; and with time, the community itself recognizes their power of collective representation, placing this cocar of the chieftainship on them. The affirmation of the identity of the indigenous peoples in different segments of current society brings greater visibility to the indigenous woman by echoing voices in the global network, through speech in the UN in 2021, as Txai Suruí.

**Figure 1 – Leadership of Young Indigenous Paiter Suruí - Txai Suruí**



**Source:** <https://exame.com/negocios/txai-surui-entrevista>

Influences of indigenous women in decision-making and social organizations in their territories have been highlighted nationally, leading to the protagonists such as: Silvana Terena, Enir Bezerra da Silva, Iara Wassu Cocal, Marcia Wayna, Valdelice Verón, Leonice Tupari, Zahy Guajajara, Silvia Waiãpi, Ana Terra Yawalapiti, Joenia Wapichana, Antonia Melo, Bel Juruna, Kerexu Yxapyry, Célia Xakriabá (CARDOSO, 2017). The movement of the indigenous intellectual woman broke the denunciations made by feminist geographies, a hegemonic masculine, white, Western, heterosexual, and elitist geography (SILVA, 2009a; SILVA, ORNAT and CHIMIN, 2013). In addition, when seeking the writings of the memories told through the indigenous source, it is noted an erasure, scarcity, and invisibility of the indigenous woman. By deepening the theoretical context, rare are the works that address the indigenous woman, mainly from a geographical perspective.

### THE SOCIAL ORGANIZATION AND THE INDIGENOUS WOMAN IN THE AMAZONIAN CONTEXT

The new actions of the Amazonian Brazilian indigenous woman have their first steps still at the end of the 20th century, in the 1980s, with the registration of the Association of Indigenous Women of the Upper Negro River (AMARN) and the Association of Indigenous Women of Tarauacá, Uaupés and Tiquié (AMITRUT). After that, we have another leap in 2002, which was achieved by creating the Coordination of Indigenous Organizations of the Brazilian Amazonia (COOIBRA), currently the largest indigenous organization in the Brazilian Amazonia, with representatives from nine states of the Brazilian Amazonia and Rondônia was present in this process of discussion and construction of this department, as follows:

The Department was formalized at the First Meeting of Indigenous Women of the Brazilian Amazonia, an event held in Manaus, with the participation of 70 leaders (from 20 organizations and 30 indigenous peoples). Its overall objective is to promote the participation of indigenous women in various instances, as well as to ensure their rights and also contribute

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to the advancement of the indigenous movement (SACCHI, 2003, p. 4).

The participation in Councils, Associations, Coordinations, Directorates, among others, has contributed to the inclusion of their demands in the II National Plan of Policies for Women - PNPM, which involve customs, traditions, cultures, and specific traditional knowledge of each people. Therefore, some indigenous women are organizing themselves politically to ensure their place in spaces for discussion and decision-making. A model of feminine leadership is seen in Chieftain Márcia Mura, of the Mura people, also from Rondônia. PhD in Social History from the University of São Paulo - USP. In an interview given in November 2021, she said:

[...] Our involvement in the resurgence of activities of the Mura Collective in Porto Velho is unique, as we are in a city that, above all, is ancestral Mura territory, yet there is no official recognition of this anywhere by the State. [...] So, the thesis of my PhD was about the rescue of our people, the entire trajectory and territorial occupation of the Mura. From then on, the Mura people began to recognize me, the main political Mura organizations in the state of Amazonas recognize me. [...] This year, I also organized a caravan to go to the march of indigenous women in Itaquiara, Amazonas” (MARCIA MURA, interview given in November 2021).

We find in Márcia Nunes Maciel (Márcia Mura), an indigenous woman of the Mura people, who works as a teacher in educational institutions in the state of Rondônia, another example of indigenous leadership in the organization of her people's social action, configuring herself in the model of feminine protagonism.



**Figure 2** – Chieftain of the Mura People- Márcia Mura



**Source:** <https://catarinas.info/o-atual-governo>. acesso 20.06.2022

Title given by her people, as recognition of her active and effective participation in collective dilemmas and the ability to transit among non-indigenous people.

## **RESULTS AND DISCUSSION**

In reflecting on the performance of indigenous women intellectuals who live in the cities of the Brazilian Amazonia, we have the political, social, and cultural conditions of the present time in processes of struggles against invisibility and cultural erasure. The sense of belonging is evidenced in their collectives, when they manage to establish plans for political and social reorganization, and this action that makes their voices echo among their people and other peoples where their cries are accepted. However, such women have achieved great recognition among their people, who grant these titles of leaders, even the chiefdoms. However, their ways of life are little discussed, both in geographical science and in other areas.

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THE TEACHING OF GEOGRAPHY AND EDUCATION IN THE  
COUNTRYSIDE: REFLECTIONS FROM THE CURRICULAR  
REFERENCE OF THE STATE OF RONDÔNIA

Renata Maria da Silva

Federal University of Rondônia – UNIR

renatamaria.enzo@gmail.com

Dirlete Azevedo Freitas

Federal University of Rondônia – UNIR

dirleteazevedo@gmail.com)

Cristiane Gonçalves Ribeiro

Federal University of Rio Grande do Norte – UFRN

cristianegoncalvesribeiro7@gmail.com)

**ABSTRACT**

Brazilian education is guided by the National Common Curricular Base, while state and municipal education is guided by State Curricular Guidelines. Education in the countryside in the teaching-learning process is aligned with Amazonian movements and identities, considering community life and the interaction of indigenous peoples with the lived space. The objective of this study is to analyze how education in the countryside is disposed in the Curricular Reference of the State of Rondônia in relation to the Fundamental II. The research is exploratory, bibliographic, and documentary. Rondônia is composed of different traditional ethnic groups, with a historically constituted scenario, it is part of the Amazonian mosaic, therefore, treating cultural diversity in the school context as a forming element allows for understanding, valuing and overcoming cultural, ethnic and economic discrimination.

**Keywords:** Amazonia. Education in the countryside. Teaching of geography. Rondônia.

## **INTRODUCTION**

The aim of this study is to analyze how education in the countryside is disposed in the Curricular Reference of the State of Rondônia in relation to the Fundamental II Education. Geography education can be understood in scientific, social, and cultural aspects. Aspects that are based on a national scale by the National Common Curricular Base (BNCC) (this document normatizes and establishes the skills and competencies of each stage of Basic Education, which was homologated on April 20, 2017), and from the state and local perspective, follow the State Curricular Guidelines (DRCs).

Education in the countryside, in the process of teaching-learning, needs to coadunate with Amazonian movements and identities, considering community life and the interaction of indigenous peoples with fishing, slash-and-burn agriculture, hunting, and the water cycle in the organization of schools.

Communities in the countryside are known for their unique practices and their interdependence with nature. They are social subjects who maintain a sustainable relationship with the environment that surrounds them. Their activities are of low environmental impact, and their production is prioritized for family subsistence. They differ culturally and have specific forms of social organization and use of the territory. Thinking about Amazonian education from an educational perspective is thinking about the construction of the curriculum, taking into account regional, cultural, and symbolic dimensions, as well as the construction of a local identity.

The Amazonian subject, and the man of the countryside, are rooted in the cultural environment in which they were socialized, therefore, they are part of the scenario and the heir of a long accumulative process of knowledge, experiences, and experiences acquired by countless generations before them.

Said that, education in the countryside is a phenomenon of the current Brazilian reality, protagonized by rural workers and their organizations. It aims to influence education policy and the social interests of rural communities. Objectives and subjects refer to issues of work,

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culture, knowledge of social struggles of rural workers and the confrontation between projects of the countryside and logics of agriculture that have implications in society and in the concepts of public policy, education, and human formation (CALDART, 2012).

### **METHODOLOGY**

The present research is exploratory, bibliographic, and documentary. It aims to analyze the current educational conjuncture, starting from the Curricular Reference of the State of Rondônia, with the intention of analyzing how education in the countryside is disposed in the Curricular Reference of the State of Rondônia in relation to the Fundamental II Education.

### **RESULTS AND DISCUSSIONS**

Schools have not only the duty of establishing paths for the production of knowledge but also of adding to the knowledge already acquired and brought by the student. The curriculum is the sum of all necessary principles for inclusive and quality education, and the curricular construction must follow systems of elaboration and proposals based on the right to learning and human social development (SACRISTÀN, 1995).

The curriculum must be constituted of minutiae, criteria, and guidelines, which together with the pedagogical project enable the replication of basic education within different trajectories, reality, and formation of the student. Endowed with its own structure, permeated by inter-relationships between components, competencies, and skills. The approach to cultural themes allows the perception of contents with greater awareness of the lived space.

Geographic education is intrinsically linked to the concept of identity, as it manifests through our worldviews. As a curriculum component, Geography enables the understanding of diverse cultural contexts. With respect to the original Amazonian communities, the floodplains and uplands correlate with perceptions of the world and traditionally established knowledge. The integration of curriculum, daily life, and

local knowledge highlights the effects produced within the social, cultural, and historical matrices of the territory.

Rondônia is composed of different traditional ethnic groups, with a historically constituted scenario, making up the organization and the Amazonian mosaic. The local plurality includes indigenous peoples, riverside dwellers, extractivists, quilombolas, among other social agents carrying their own sociocultural identity. Thinking about the school within this context requires considering specific aspects for the construction of the curriculum (RONDONIA, 2020).

Among different school groups, there is the Education of the Field and its cultural specificities. This modality has occupied its space at the regional and national level, but for education to be effective, it is necessary to ensure the commitment to ensuring quality education as a right for all. The teaching of geography must be based on the stimulation of skills and, in this way, enable the student to develop creative perception and cognitive skills to be incorporated into their growth (KIMURA, 2001).

The Education of the Field was understood for a long time as backward, without access to technology, subordinate culturally, and at the service of urban areas. In this conjuncture, the need for the construction of a curriculum considering the memories, identities, and histories lived by the subjects who articulate this space emerged. In 2002, the Resolution CNE/CEB 01, of April 3, entered into force, establishing Operational Guidelines for the Education of the Field, this resolution was an important step in the history of Brazilian education and, in particular, for the improvement of the Education of the Field (GADOTTI, 2000).

The materialization of policies and actions for the Education of the Field concretizes the political and cultural democratization of previously disregarded concepts and opens important debates for the improvement of education. In addition, a democratic management thought within and outside the school contributes to the construction of cultural and scientific knowledge. It is necessary to understand that referencing the curriculum according to the reality of the field is not to disregard global contents, but to intertwine both as elements to be problematized, as they effectively affect the daily life of students and their communities (SOUSA, 2006).

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The search for quality education in the Amazonian countryside and traditional communities is based on historical struggles experienced by their social agents. The man of the countryside, also known as the Amazonian peasant, does not live isolated in time and space, has symbolic interrelations between themselves, the lived space and the global world. Given the specificities and challenges for the implementation of Education off/in the field in the riverine context, the need for an education focused on these communities, constituted by the subjects who work and live there, is pointed out (SANTOS; NEVES, 2012).

The contemporary school context requires a geographical education that goes beyond the contents and concepts of global education, the curricular component must be presented in a way that arouses the critical sense of the student, so that he perceives the reality in which he is inserted and exercises a geographical reasoning that allows him to read the world. Therefore, contemporary topics must be worked, starting from some topics, among them are the preservation of the environment and respect for culture. This theme when incorporated into the curriculum not only establishes the development of the autonomy of the student, but also makes him capable of a responsible intervention in the world in which he lives (RONDONIA, 2020).

Therefore, treating cultural diversity in the school context as a formative element allows the understanding, valuation, and overcoming of ethnic-racial discrimination. Operating these mechanisms supports the construction of a more just and equal society. The Education of the Field, in relation to traditional peoples, must be directly linked to the fight against discrimination and education must be established without causing identity ruptures (SILVA, 2010).

### **FINAL CONSIDERATIONS**

Despite the existence of laws, documents, and programs aimed at improving Education in the Countryside and making it contextualized, numerous challenges to the applicability of content and the effectiveness of democratic management can be perceived. Higher education and democratic debate are the basis for a multicultural and inclusive education.

We understand that education in the Amazonian context requires the active participation of society in decision making and curriculum construction. Existing public policies need to break the barrier of theory and effectively reach practice, which will be achieved through the union of all involved.

The educational context has the potential to develop an understanding of the lived space, the relationships between academic and empirical knowledge, and the establishment of individual self-formation. The teaching of Geography has endless sources of action and is effective through the interaction of distinct social subjects, inserted in different places.

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## RONDÔNIA IN THE 2022 DEMOGRAPHIC CENSUS: NOTES ON ITS RECENT REGIONAL DYNAMICS

Ricardo Gilson da Costa Silva

Federal University of Rondônia – UNIR

rgilson@unir.br

### ABSTRACT

The Demographic Census has been one of the most important researches to understand the social, economic and spatial dynamics of Brazil. The census data offers a diverse set of demographic and socioeconomic spatiality in different levels of Brazilian territorial organization. In this case, the text analyzes the main results of the 2022 Demographic Census for the state of Rondônia, observing the population growth in the intercensitary period and the effects of this process at the state level. The methodological procedures consisted of accessing the data from the 2010 and 2022 Censuses, statistical calculations carried out with the Excel software, and the production of cartographic elaborations with the Philcarto software. The main results indicated that Rondônia presented the lowest population growth rate in the North Region, which affected 75% of the municipalities with demographic decrease. The formation of an urban axis along the BR-364 highway is crystallized in regional geography, which brings together 64% of the Rondônia population.

**Keywords:** Rondônia, Geographical analysis. Population dynamics. Regional space in Amazonia.

### INTRODUCTION

The Demographic Census is one of the most important research on Brazilian society, allowing us to know its vast territory. Produced by the Brazilian Institute of Geography and Statistics - IBGE, it is usually carried out every ten years, and the census data offers a diverse set of demographic and socioeconomic spatiality in different levels of

territorial organization in Brazil (field, city, neighborhoods, municipalities, states, regions, among the main scales).

From the Census, the universe of quantitative and qualitative data allows researchers, public managers, private consultants, and social movement intellectuals to think about regional and sub-regional differences in Brazil, diagnosing relevant problems that need to be addressed and equated by public policies. Similarly, the Demographic Census indicates different trends in society, many of them affected by public health issues - for example, the pandemic of COVID-19, which altered everyday life and highlighted social inequalities (COSTA SILVA, 2020), or economic reasons related to crises as well as the flows of globalized economy, which affect the population dynamics of the countryside and the city (COSTA SILVA, 2013).

In the case of this study, this text analyzes the main results of the 2022 Demographic Census in Rondônia, located in the Brazilian Amazonia. For this, it considers the population growth in the intercensitary period (2010/2022) and the effects of this process at the intra-state scale, observing the behavior of the 52 municipalities that make up the territorial organization of Rondônia.

## **METHODOLOGY**

The methodological procedures adopted were: access to the data of the 2010 and 2022 Demographic Censuses, available on the IBGE platform. For the calculations of population growth (absolute and relative) and population balance, Excel software was used. As for the cartographic production, maps were prepared with Philcarto software (<http://philcarto.free.fr/indexPT.html>).

Therefore, from the quantitative and cartographic data, it was possible to indicate the main results and trends of urban and regional dynamics in the state of Rondônia. It should be noted that the 2022 census data is not yet available in a disaggregated form, that is, without information on smaller territorial units, variables and socioeconomic themes that indicate geographic processes. Thus, the analysis of this text

## **Rondônia in the 2022 Demographic Census: notes on its recent regional dynamics**

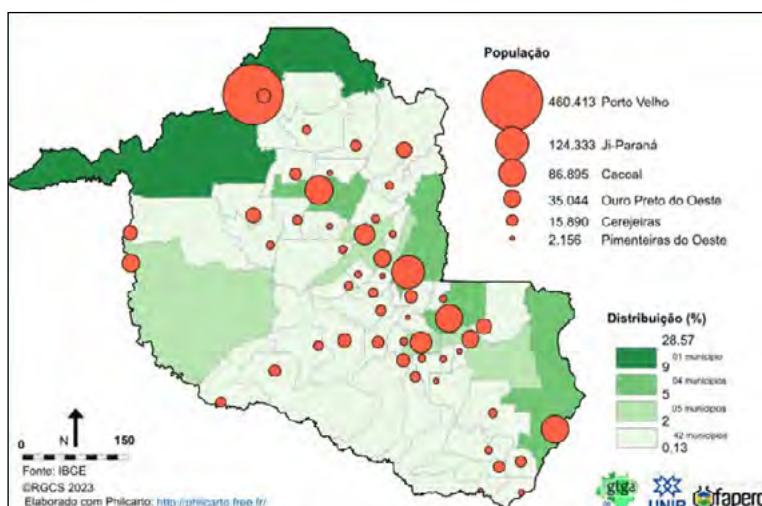
is conditioned by the data and information available at the time of its elaboration.

### **RESULTS/ANALYSIS**

The partial results of the 2022 Demographic Census conducted by IBGE provide relevant data to understand the urban and regional dynamics of the state of Rondônia. In comparative terms, the intercensitary growth rate (%) of Brazil was 0.52, the North Region obtained 0.75, and the state of Rondônia had 0.10, presenting one of the lowest population growths in the North Region and the country (states) in the period 2010-2022. In 2022, Rondônia had only 1,581,016 inhabitants, adding only 18,607 people in the 12-year interval (Figure 1). It is worth noting that in 2010 the population was 1,562,409, meaning an annual absolute increase of 1,550 people.

This reversal contrasts with the decade of the 1980s, when the flow of migration and the policy of agricultural colonization promoted population growth in Rondônia, which was the most expressive in the country, reaching a growth rate of 7.8%, while the national rate was 1.9%. This was a period of expansion of the agricultural frontier, where migration, rural settlements, agro-livestock activities, and urban growth led to an increase in population.

**Figure 1** – Map of the distribution of Rondônia's population by municipality (2022)



Source: IBGE geographic data, 2023. Elaborated by the author, 2023

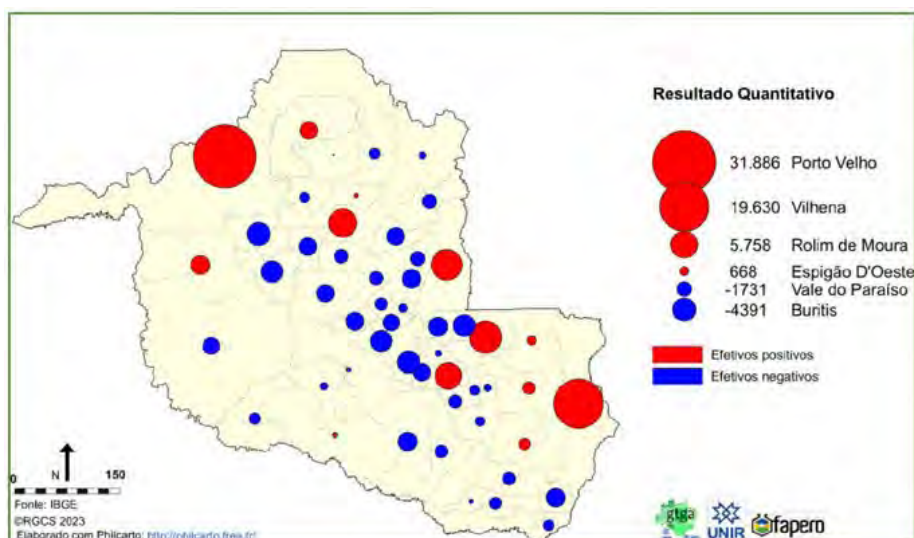
In the urban hierarchy, the capital Porto Velho is the most populous municipality (460,413 people), followed by Ji-Paraná (124,333), Ariquemes (96,833), Vilhena (95,832) and Cacoal (86,895). Together, these municipalities account for 54.66% of the state's population, consolidating the BR-364 highway as a regional urban axis, a situation already identified in the 2010 census, when this rate was 51%. Only Rolim de Moura, outside the axis of the BR-364, reached a population of over 50,000 inhabitants, registering 57,180 people in the 2022 census. Another important data is that 64% of the population resides in the 11 municipalities located on the BR-364 axis.

Another serious phenomenon refers to the municipalities that lost population. Of the 52 municipalities that make up the state of Rondônia, in 39 the population growth rate was negative, meaning that 75% of them lost population (Figure 2). The most severe decrease was recorded in Ministro Andreazza, with a rate of -37.5%, meaning that for every 100 residents, 38 left the municipality. Similar situations occurred in Campo Novo de Rondônia (-30.1%), Cacaupê (-27.6%), Novo Horizonte do Oeste (-25.1%), Governador Jorge Teixeira (-23.8%),

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Mirante da Serra (-22.2%), Alvorada D'Oeste (-22.1%) and Vale do Paraíso (-21.0%). In addition to the small municipalities, the decrease affected medium-sized municipalities, such as Guajará-Mirim (-5.4%), Seringueiras (-3.9%), Ouro Preto do Oeste (-7.6%), Machadinho D'Oeste (-1.3%), Presidente Médici (-13.4%) and Buritis (-13.5%).

**Figure 2** – Map of the population growth rate of Rondônia's municipalities (2022)



Source: geographic data from IBGE, 2023. Elaborated by the author, 2023

According to Figure 2, it is observed that the negative population balance was recorded in small municipalities characterized by a majority rural population and a strong presence of small properties (family agriculture). Certainly, when the disaggregated data from the 2022 Census is available, the difference between the rural and urban population will substantially increase, a dynamic previously recorded in the 2010 Census.

In summary, the expansion of the globalized agricultural frontier focused on the production of commodities (soybeans, corn, live-stock), associated with the increase in land prices, pressures small property owners who, for economic and/or social reasons, tend to

migrate to new rural areas or cities (SILVA; COSTA SILVA; LIMA, 2019). Possibly, if this process continues, small properties (family agriculture) will be exhausted as a model of territorial occupation in Rondônia, hand in hand with the expansion of monocultures and land concentration.

## **FINAL CONSIDERATIONS**

A country with continental dimensions, regional diversity, and expressive socio-spatial inequalities, such as Brazil, has the challenge of being understood in its heterogeneity, in which the Demographic Census is the most important public research to achieve this goal. Each research published on the socio-economic and spatial characteristics of Brazil, regions, states, and municipalities, changes, requiring studies that can understand territorial dynamics in their multiple geographic scales.

Therefore, we analyzed some geographical transformations revealed by the Demographic Census in Rondônia. The results, although partial, indicate three relevant phenomena: the stabilization of the general population growth of Rondônia, indicating that the state no longer produces the positive results achieved in previous decades; the population decline affected 75% of the municipalities, especially the small ones, whose rural population is majority; and the formation of the urban axis on the BR-364 highway, which brings together 11 municipalities (22%) and represents 64% of the state population.

## **ACKNOWLEDGMENTS**

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## PATHS OF WATER: RIVERS AND THE EMERGENCE OF CITIES IN WESTERN AMAZONIA

Matheus Pinto de Souza

Federal University of Rondônia – UNIR

mpds.geo15@gmail.com

### ABSTRACT

The phenomenon of urbanization in the Amazonia has been the subject of study for different researchers who seek to understand the dynamics related to the production mode of space and the configurations of Amazonian cities. As the region's geography itself conditions many cities to a riverine dynamic, rivers become the main means of connection, it is by it that we arrive and leave, which makes it an important tool for the development of life in these places. Through the survey and analysis of bibliographic and documentary data, we seek to understand the emergence of the first cities in Western Amazonia, specifically in the Amazonas Province, listing the main strategies aimed at expanding the urban network. It is noted that the search for consolidation in the lands conquered by the Portuguese, through the exploration and mapping of the rivers, led to the expansion of the number of villages and trading posts on the banks of the waterways, which were later institutionalized as municipalities, substantially changing the way of producing the local space.

**Keywords:** Cities in the Amazonia. Urbanization. Amazonian rivers. Amazonas. Brazil.

### INTRODUCTION

The search for the conquest and occupation of the Amazon was a project that required a deep understanding of the region, which essentially took place through exploratory journeys along the Amazonian rivers. The records and descriptions of the natural landscape, as well as the hardships and potential observed and experienced during the



expeditions, collaborated to map the tangled river system, contributing to the expansion of the domains of the Portuguese crown towards the West.

Understanding this process of production of the Amazonian territory is important for interpreting the current configuration of the regional space, being a considerable tool for proposing policies aimed at solving various problems that emerge from the relationship between humans and nature.

Thus, we seek to understand the emergence of the first cities in the Amazonian West, specifically in the Amazonas Province, created in 1850 as part of the process of reaffirming the possession of the occupied territory since the colonization. In this line, the rivers played a central role, as it was through the watercourses that the European entered the region, settling on the margins through the implementation of towns and cities throughout the Amazonian basin.

Thus, our spatial cutoff focuses on the territory delimited as the Amazonas Province (Figure 1), a space that today comprises the states of Amazonas, Roraima and part of the state of Rondônia.

Note that the consolidation of the cities took place essentially under two main objectives: I) the collection and economic exploitation of the products of the forest; II) marking the presence of the Portuguese in the region, reaffirming control of the territory. With the restructuring of the Brazilian territory, the cities began to play an important role in the economic development of the province, as these centralized the flows at the local level, receiving products coming from other parishes and villages along the rivers.

## **METHODOLOGY**

The present analysis was essentially based on the collection of literature on the studied theme, as well as historical documents collected from government agency databases and research centers, such as the Brazilian Institute of Geography and Statistics (IBGE) and the Amazonas Historical and Geographic Institute (IHGA).

According to Moresi (2003), the collection and revision of literature allows mapping the authors in which the analysis will be anchored, that is, it is the construction of the theoretical framework of the work, making it possible to create a framework on the researched topic from the already consolidated production.

Therefore, we listed some analytical variables, such as identifying the context in which the first incursions along the rivers of the region occurred, indicating the first parishes, towns, and consolidated cities in the Amazonas Province, with the aim of establishing the relationship between the occupation of the territory and the increase in the number of urbanization nuclei. Using the Qgis free software, we produced a map of the region, with the distribution of the locations and cities in Western Amazonas, located on the main rivers of the Amazonas Province.

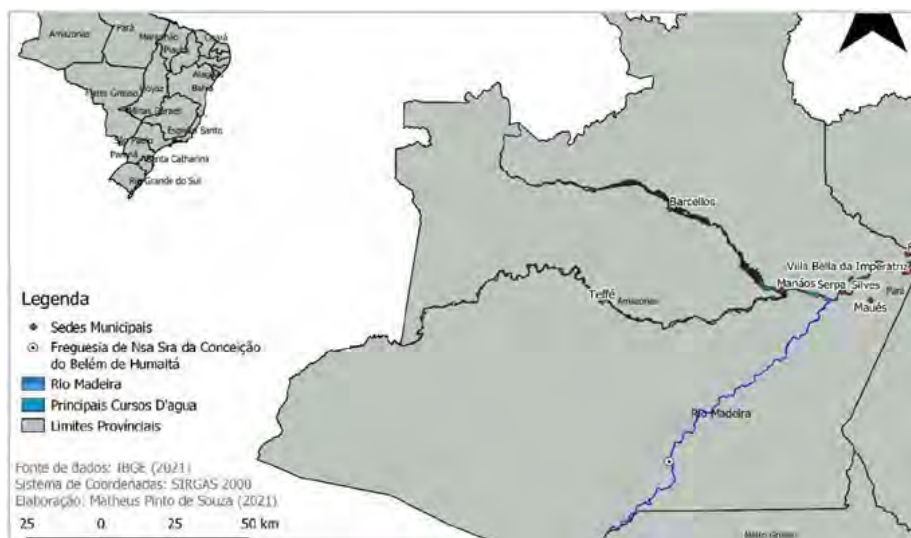
### **THE PROCESS OF CONSOLIDATION OF CITIES IN THE AMAZONAS PROVINCE**

The wealth contained in the Amazonia rainforest is not only of interest to the country, but also to other nations, and one of the main features of the region is its hydrological set, containing one of the largest and most important hydrographic basins in the world. The genesis of urbanization in the Amazonia is strictly linked to the exploration of these resources, since the emergence of towns and cities in this portion of the territory has always been linked to the discovery of products of high value in the internal and external market (BROWDER; GODFREY, 2006).

To us, occupying and exploring the region was the ignition point for the increase in the number of cities in the Amazonia, specifically in the Amazonas Province, established in the year 1850, as a result of the reorganization of the territory of the then Brazilian Empire (DUARTE, 2020).

In the year 1870, the province had eight municipalities, five of them located on the banks of the Amazonas River - Faro, Vila Bela de Imperatriz, Silves, Serpa, Manaós and Teffé, one on the margin of the Negro River - Barcellos, and another on the margins of the Maués-Açu River - Maués (Figure 1).

**Figure 1** – Main municipalities and towns of the Amazonas Province (1870)



Source: IBGE geographic data, 2021. Elaborated by the author, 2023

This scenario makes it clear the importance of the rivers for the establishment of cities in the Amazonia, especially the first urban centers in the then Amazonas Province. From the spatial distribution of these municipalities, we can perceive the interest in occupying the main course of the Amazonian basin, already having, at the time, initiatives to consolidate other cities on the banks of rivers considered strategic for the Brazilian Empire (OLIVEIRA, 2006), as was the case of the Freguesia de Nossa Senhora da Conceição do Belém<sup>19</sup>, of Humaitá, on the Madeira River (Figure 1).

Oliveira (2006, p. 6) apud Bitencourt (1926) points out that:

In the valleys of the Madeira, Purus and Juruá rivers, settlements were created and/or recreated to support the exploration

<sup>19</sup> The most appropriate translation for this town is Parish of Our Lady of the Conception of Bethlehem of Humaitá. Parish or civil parish is a type of administrative subdivision still in force in Portugal and common in Brazil Empire.

of rubber, which later transformed into towns and then cities such as Manicoré and Humaitá on the Madeira River; Lábrea, Boca do Acre and Canutama on the Purus River; Carauari and Eirunepé on the Juruá River; and Codajás on the Solimões River.

Another important point to be observed and that can justify the increase in the number of towns and cities in the region is the fact that transportation at the time was solely carried out by rivers, making it necessary, due to the great distances, to reduce the displacement to the supply points of the crews (OLIVEIRA, 2006).

Thus, the first cities in the western Brazilian Amazonia were established, with the rivers being the only and fundamental route of access to the products of the forest, the basis of international trade and an instrument that would later make the Amazonia a forested urbanized area, especially from the search for the adaptation of these cities to the European standard.

## **FINAL CONSIDERATIONS**

The consolidation of cities in the Amazonia was a process whose understanding demands the observation of the specificities that condition the spatial organization of the time, with the centrality that the rivers assumed in the production of space in these locations being evident.

With the litoral occupied and properly consolidated the Imperial domain, the expansion of the cities to the west became an objective for the realization of the possession of the western territory, with the creation of the Amazonas Province, as well as its first cities, being an important mark in this direction.

Clearly, it was a geopolitical project, as the cities began to play two fundamental roles: reaffirming the possession of the territory in the face of foreign nations, while simultaneously serving as entrepôts for the exploitation of natural resources, which made the number of villages and parishes multiply along the rivers in the north and south, as observed in the Amazonas Province.

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**WASTE MANAGEMENT IN THE MUNICIPALITY  
OF TEFÉ, AMAZONAS: AN ANALYSIS OF THE  
NOSSA SENHORA DE FÁTIMA NEIGHBORHOOD**

Luiz Carlos Souza da Silva

University of the State of Amazonas – UEA

lcss.geo19@uea.edu.br

Eubia Andrea Rodrigues

University of the State of Amazonas – UEA

eandrea@uea.edu.br

**ABSTRACT**

This abstract aims to propose a reflection on waste management in the city of Tefé/AM, specifically in the Nossa Senhora de Fátima neighborhood, from an environmental perspective, proposing to residents to participate in the construction of citizenship for the pursuit of a better quality of life. The methodologies used, in addition to the bibliographic review, for the study of relevant concepts in the proposal of action. It was necessary to conduct an empirical analysis with the approach of the subjects (residents and extensionists), for an informal conversation and interviews with residents, through questionnaires, to identify the desires and analytical anxieties, since the proposal was carried out with the objective of understanding the real environmental impacts, resulting from the production of garbage by the residents of the neighborhood.

**Keywords:** Solid waste, Urban space, Waste management, Tefé.

**INTRODUCTION**

According to the Neighborhood Development Plan (FECO-MÉRCIO, 2013), the neighborhood is a territory of living, where people live and interact, where they live their daily lives, circulate, have

neighborly relationships, and coexist with concrete problems that affect their daily lives, so it is not an administrative boundary, but a cultural and anthropological entity.

**Figure 1** – Nossa Senhora de Fátima neighborhood – Tefé/AM



Source: Google Earth (2023)

The Nossa Senhora de Fátima neighborhood, located in the city of Tefé, Amazonas (Figure 1), between the courses of the water of the Tefé lagoon and the Igarapé Xidarini, is conditioned by the regimes of drought and flooding of the rivers. Some areas are occupied in locations of risk and difficult access, and do not offer the necessary infrastructure and paving that allows the circulation of garbage collection trucks. The drought and flood seasons, respect the regime of the waters of the region, directly influence the conditions of transportation of the waste collected in the neighborhood. Lefebvre (2001) explains that urbanism formulates all societal problems using the concept of space and translates issues into spatial terms [...]. It is in this context that the Nossa Senhora de Fátima neighborhood is situated, where the lack of basic sanitation is more apparent due to being bordered by the Xidarini stream. In light of this, a municipal law regarding basic sanitation was drafted, law 11,445.:

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The present Municipal Basic Sanitation Plan and Integrated Solid Waste Management of the municipality of Tefé, was prepared in accordance with the National Basic Sanitation Law – LNSB, Law No. 11,445, of January 5, 2007, regulated by Decree No. 7,217, of June 21, 2010 and the National Policy on Solid Waste, through Law No. 12,305, of August 2, 2010, regulated by Decree No. 7,404, of December 23, 2010. (PLANO MUNICIPAL DE SANEAMENTO BÁSICO TEFÉ/AM, 2012)

This law aims to bring control over the neighborhoods that do not have basic sanitation and open sewage, but in terms of government management, they find many difficulties in preparing studies to present projects for improvement of the neighborhoods.

The neighborhood is currently undergoing asphalt paving, improving the entry of small cars for waste removal, also used tricycles (little carts) to make this removal of solid waste, with paving some areas that had waste accumulation were recovered, in the Article 90 of the Participatory Master Plan of Tefé, Amazonas (2006), government agencies have the obligation to control the inadequate disposal of solid waste through environmental education, through the provision of facilities for the disposal of solid waste and effective monitoring and recovery of degraded and contaminated areas.

To reflect on the problems and create strategies to minimize them, a proposal was elaborated with the objective of analyzing the socio-environmental problems resulting from human actions, produced by the residents of the Nossa Senhora de Fátima neighborhood, providing individuals and social groups with the possibility of participating in the construction of citizenship and understanding their rights and duties towards a better quality of life.

### **METHODOLOGY**

The methods used were analytical, since the proposal was carried out to identify the real environmental impacts, resulting from the production of garbage by the residents of the neighborhood. Therefore, it was first necessary to observe the study area, and subsequently,



a bibliographic review and field practice were carried out. The field practice, analysis, interview with residents and external residents, in the case of the second, a total of thirty families were interviewed, who contributed to the historical description, besides highlighting their desires and anguishes.

The collection occurred through direct relation with the research objective, obtained through interviews to identify the real reasons that characterize pejoratively. After the collection, the data were tabulated for the elaboration of graphs. The main social and environmental problems were identified. A visit was made to the neighborhood and its dimensions were identified, as the neighborhood passed through an asphalt paving process, in addition to enumerating the main garbage dump sites.

## **RESEARCH AREA CHARACTERIZATION**

The environmental issue regarding the neighborhood is far from the reality of other neighborhoods in the city. During the first visit to observe the neighborhood and the daily life of its residents, there were observed some points of accumulation of garbage in the main roads, garbage generated by the residents, thrown on the sides of the houses, few points of garbage generated by merchants, and those that existed on the day of the observation were in boxes.

In a conversation with a resident to obtain more information about how garbage collection was done in the neighborhood, the information was that it was done on Saturdays by small cars adapted by the municipality for garbage collection. The waste collection service in Tefé is administered by the Municipality through the Secretaries of Environment and Infrastructure. It reaches all neighborhoods, including Army Air Force, and collects domestic, commercial, industrial and hospital waste, including debris.

According to the Municipal Plan for Sanitation and Integrated Management of Solid Waste in the Municipalities of the Amazonas State - PLAMSAN (2012), the city of Tefé only has the water supply service, provided directly by the local Autonomous Water and Sewage Service – SAAE, public cleaning, waste collection and transportation.

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The collected solid waste is transported to an open-air landfill on the Estrada da Agrovila.

The amount of waste collected is divided into four types: household debris, weeding debris (green waste), pruning debris (tree pruning), and construction debris. The annual amount, data referring to the year 2022, is represented below in Table 1:

**Table 1 – Annual Total Debris Collected (in tons) - 2022**

Types of debris	Quantity
Household Debris	3,934.3414
Pruning Debris	1,134.8781
Construction Debris	296.4406
Weeding Debris (green waste)	853.8075
<b>Total</b>	<b>6,219.4676</b>

**Source:** Data collected by the authors (2022)

An adapted vehicle called a 'çaçamba' (bucket) is used in the collection of solid waste, which travels through almost all neighborhoods. In existing neighborhoods located beyond watercourses and in areas of floating concentration, especially neighborhoods located on the banks of Igarapé Xidarini, aluminum boats are used.

## **FINAL CONSIDERATIONS**

The Nossa Senhora de Fátima neighborhood is constantly changing, during the short time of study in the neighborhood, the continuous development, the presence of more people due to paving, made the neighborhood more organized, making the solid waste collection more frequent, becoming 3 times a week, helping the life of the population, reducing the accumulation of garbage in the bed of the Igarapé Xidarini.

According to the Plan for the Development of the Neighborhood (FECOMÉRCIO, 2013), the Municipality should coordinate and promote the elaboration of Neighborhood Development Plans in the city,

in order to strengthen local planning and social control and promote improvements in urban, environmental, landscape, and housing at the local level through previously programmed actions, investments, and interventions.

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URBAN SOLID WASTE: SOCIO-ENVIRONMENTAL  
IMPACTS WITH PRODUCTION AND DISPOSAL IN THE  
MONTE CASTELO NEIGHBORHOOD, TEFÉ, AMAZONAS

Maria Kátia Barbosa da Silva

Center for Higher Studies of Tefé

katiamorena916@gmail.com

Eubia Andréa Rodrigues

Center for Higher Studies of Tefé

eandrea@uea.edu.br

**ABSTRACT**

The university is based on the tripod of research, teaching and extension and this abstract is linked to an extension project that aimed to analyze the socio-environmental impacts caused by the excessive consumption of industrial products that provide significant waste production, by the residents of the Monte Castelo neighborhood, in the city of Tefé/AM. The waste produced in the community is disposed of and stored in inappropriate environments by residents. The theoretical and methodological procedures were based on the authors: Reigota (2006) and Santos (1995). The instruments of analysis were collected through observation and interviews, and educational lectures were developed in the State School Madre Maria das Mercês, with elementary school students. The results showed the situations of risk, due to lack of environmental structure, that directly affect the individual and collective life of the community, in terms of health and quality of life.

**Keywords:** Solid waste. Environment. Environmental impacts. Urban space.

## **INTRODUCTION**

Discussing the environment is a very important topic because it is directly related to the geographical space in which we are located, where individuals can make possible changes. According to Reigota (2006), the environment is a determined and/or perceived place that presents a dynamic, constantly interacting with natural and social aspects, from the moment we appropriate the space, as we must maintain certain care, based on the understanding that society has a great responsibility for situations that affect the environment. These actions have promoted great socio-environmental inequalities, mainly with regard to the excessive consumption of industrial products and the disposal of these products. In the face of so much consumerism, where urban waste competes with society.

The urban space of Tefé is a space that has been constituted with the factor of migration, as the city, since the colonization of the State of Amazonas, was characterized as a commercial entrepot (RODRIGUES, 2011). Driving the local economy, added to this economic condition, we have the urban services and equipment that attract people from various regions of Brazil. This attraction has promoted spatial expansion, promoting the appearance of new neighborhoods and the growth of existing ones.

In this context, we speak of the Monte Castelo neighborhood, a neighborhood that has grown in terms of demographics, providing the occupation of the most diverse places, appropriate or not for the construction of housing, emerging a tangled web of streets and alleys without the minimum urban infrastructure. The Constitution of the Republic of Brazil, in Chapter V - Environment, Art. 225, states: "Everyone has the right to an ecologically balanced environment, as well as the common use of the people and essential to a healthy quality of life, imposing on the public power and the community the duty to defend it for present and future generations". Based on the National Policy of Environmental Education, which comes as a way of disseminating the rights and duties of the people, Law No. 9793, of April 27, 1999. With the increase in population, there was an increase in the production of solid waste by residents and the trade that settled there, promoting socio-environmental impacts as a result of this action.

## **Urban solid waste: socio-environmental impacts with production and disposal in the Monte Castelo neighborhood, Tefé, Amazonas**

This mobility was due to employment, education, and health, becoming a place of diversity and adversity, one of the first neighborhoods to appear in the city, constituted of asphalted streets, electricity, water supply, the number of wooden houses is smaller, than of masonry, buildings of up to 4 floors, schools, churches, supermarkets and taverns, but there is a great problem, solid waste, “garbage”. Milton Santos helps us understand that: “The artificialized nature marks a major change in human history of nature, and the man becomes a geomorphological, geological, climatic factor, coming to the great change that natural disasters are an incident, a moment, while today human action has continuous and cumulative effects, thanks to the adopted lifestyle.”

As Godelier affirms: “The deepest force that moves man and makes him invent new forms of society is his ability to change his relationships with nature by transforming it.” Still, according to this anthropologist, no human action on nature can begin without the existence of representations, ideas that, in some way, are only the reflection of the material conditions of production.

The garbage in the environment brings enormous consequences for the life of the population located there, due to the quantity of solid waste in the location infringing the laws of the National Policy of Solid Waste (PNRS), in Law No. 12.305, of August 2, 2010, defines solid waste as the material, substance, object or good discarded as a result of human activities in society. In this context, the PNRS [...], defines urban solid waste (RSU) as those originating from domestic activities in urban households and the sweeping, cleaning of public spaces and other urban cleaning services. (PROGRAMA LIXÃO ZERO, 2019, p. 15).

## **METHODOLOGY**

The method used was empirical and analytical, and it was necessary to conduct a first observation of the study area, conduct a literature review, and subsequently, in the fieldwork, thirty (30) parents were interviewed, who contributed to the historical description and highlighted their anguish and aspirations. The data collection was carried out through interviews, and some methodological strategies were

applied, such as the delivery of leaflets, visits to the neighborhood, and informative notes in supermarkets.

The fieldwork was carried out in several visits to the neighborhood, first to conduct a diagnosis and later to delimit the neighborhood (Figure 1). A cycle of lectures was held with elementary school students from the State School Mother Maria das Mercês, to talk about the laws that govern the environment and those disposed of in Environmental Education. These actions must be carried out collectively, ensuring the participation of residents, so that they fight for a better living space.

To obtain information about the actions of the Municipal Government of Tefé, interviews were conducted with the responsible officials of the Municipal Secretariat of Environment and Conservation – SEMMAC and the Infrastructure and Works Secretary – SEMIO, using a semi-structured questionnaire. It was also necessary to interview the to request the replacement of the manhole.

## **PARTIAL RESULTS**

The information came from the SEMMAC, which has been working to demonstrate its real interests, orienting the implementation of legislative and administrative norms, as well as promoting sustainable development. They reported that they had already been in the neighborhood, orienting the correct disposal of solid waste, had placed a plaque for awareness in several locations, which reported the municipal law no. 044/2008, handed out informative flyers about the days the collector passed. After the reported information, it is perceived that they perform their work within the standards, seeking the collaboration of the residents in the waste discarded in the sewer.

The Municipal Secretariat of Infrastructure and Works (SEMIO), like SEMMAC, should be working side by side with the residents, seeking improvements. While the rest of the areas, the biggest problem has been open-air landfills and addicted to them, also observed litter outside of homes, placed before the collector passed, another problem found was the disposal of waste in public areas, that is, on sidewalks, problems that occur in front of small shops, they report the lack of space to put

## Urban solid waste: socio-environmental impacts with production and disposal in the Monte Castelo neighborhood, Tefé, Amazonas

the waste, leaving it at the mercy of animals, which spread the waste, thus contributing to the contamination of the soil and favorable to the development of transmitters of diseases.

The visits were determined by the delivery of leaflets and orientations, among other initiatives, with the aim of solving the observed problems.

**Figure 1** – Delimitation and risk area in the Monte Castelo neighborhood-Tefé/AM (2022)



Source: Google Earth, 2023. Org: Maria Kátia Barbosa da Silva, 2023

## FINAL CONSIDERATIONS

With the development of the activities, it is perceived that SEMMAC, SEMIO, the university, and the residents must develop strategies to minimize the impacts caused by the disorderly accumulation of solid waste.

The action of man contributes to most of the solid waste produced there, much of it found in the areas of sewers and around their homes, with a large amount found in the lower areas, possibly where the sewers are located.



Some actions have been carried out with positive results, such as the delivery of leaflets, for the residents' awareness, visits, the exchange of manholes, the notes available in grocery stores and supermarkets, and the lectures in the school. It is known that these actions will not end the problems, but they help in raising awareness among the residents to fight and seek a better quality of life.

## **ACKNOWLEDGMENTS**

We thank the University of the State of Amazonas, through the Pro-Rector of Extension and Community Affairs – PROEX for providing scholarships for the development of extension activities and the opportunity to know the neighborhood, as well as knowledge for the development of the student in their academic career. We also thank Prof. Eubia for the opportunity to participate in the project and the residents for receiving us well.

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## BETWEEN RIVERS AND ROADS: INTERMUNICIPAL CONNECTIONS IN THE METROPOLITAN REGION OF MANAUS

Adanilson Fonseca Batista

State Secretariat of Education and Sport - Seduc, Amazonas

afb.geo@gmail.com

### ABSTRACT

The spatial integration that implies metropolization is also carried out in the coming and going of people. In the case of metropolitan regions, the center serves the demands that cannot be met in other locations. When interacting, the flows produce interactions and spatial transformations. The aim of this study is to present some aspects of intermunicipal transport between the municipalities of Autazes, Careiro, Careiro da Várzea and Manaquiri in view of their participation and interaction in the Metropolitan Region of Manaus. For this, the observations at the points of mediation, the realization of trips and informal conversations were extremely important to minimize the large gaps caused by the lack of systematization of official data. The analysis that follows points to a part of the RM predominantly rural, whose transport system is poorly regulated, precarious and connected in a peculiar way.

**Keywords:** Transport. Passengers. Road. Fluvial.

### INTRODUCTION

Inter-municipal connections in the Metropolitan Region of Manaus – RMM consist of rivers and roads, which are the main routes for various means of transport to move goods and passengers. These connections, as well as the flows, are largely oriented by the centrality that Manaus exercises over the other cities and settlements.

The RMM consists of 13 municipalities, and despite being the largest metropolitan territory in Brazil, it has a low-density road

network and few regular lines for passenger transport. There are still cities and locations that connect only by waterway, or depending on the origin and destination, the trip can take place in a road and complemented by the river and vice versa.

Given the characteristics of transport, especially that of passengers, the objective here is to point out and relate some of the characteristics of passenger transport and its spatial interactions established between Manaus and the municipalities of the RMM located along the southeast-south edge, such as Autazes, Careiro, Careiro da Várzea, and Manaquiri.

Although it may seem arbitrary, the selection of the cutoff took into account interesting features such as a predominantly rural metropolitan population, a spontaneous transport service that is poorly regulated and complementary, involving road and river modes.

The text is the result of partial observations made at the intersections of trips that connect the municipalities and the center of the RM, as well as the routes made through the available transport services. In addition to empirical evidence, a review of the literature was also necessary due to the scientific nature of the topic.

In the following initial consideration, a brief discussion is presented on the process of metropolization and its relationship with transport, in which it is stated that although there is no conurbation in the RMM, there is a process in which connections and transformations are gradually established. Then, some empirical aspects of the cutoff on passenger transport are presented, followed by a discussion and finally the final considerations.

## **RESULTS**

The metropolization of Brazilian urban space represents the consolidation of urban networks, where flows of people, goods, services, and investments become more acute. The materialization of metropolization can be evidenced more clearly through the process of conurbation. However, the absence of such a process does not authorize the denial of an ongoing process.

## **Between rivers and roads: intermunicipal connections in the metropolitan region of Manaus**

According to Institute for Applied Economic Research – IPEA (2010), metropolization consists of a territorial integration process from a nucleus city, configuring an expanded territory, where a set of common interests functions are shared.

The spatial integration that represents metropolization is realized in the to and fro of people, because any displacement made is linked to a motivation. In the case of metropolitan regions, the center almost always meets various demands that cannot be met in other locations. In this sense, an important flow is generated between the center and the locations.

The municipality of Autazes is predominantly rural (IBGE, 2023), located in the southeast of the metropolitan region, can be accessed from Manaus through a route that includes the Rio Preto do Pantaleão and the AM-254 and BR-319 highways. It can also be accessed by river.

Due to its location, Autazes appears as a point of mediation for the flows of people coming from non-metropolitan municipalities such as Nova Olinda do Norte and Borba, which are directed to the capital or to Autazes to meet the demands of various services.

The municipality of Careiro da Várzea has the least populated headquarters of the RMM and, according to the demographic census (IBGE, 2023), it presents the largest rural population among the metropolitan municipalities. From the capital, the only way to access it is by river through expresses and barges in a trip that lasts between 20 minutes and 1 hour, depending on the transport used. This route is also an important part of other non-metropolitan and interstate routes.

Between Manaus and Careiro da Várzea, the largest volume of transportation in the metropolitan region operates, with daily service starting at 4 am and ending at 8 pm. All this movement can be understood because the municipality functions as a point of mediation for other municipalities within and outside the RMM. The table below provides numbers that allow estimating the volume of generated movement daily.

Table 1 - Regular passenger transport offerings between Manaus and Careiro da Várzea

Route	Mode	Frequency	Fleet	Trips/day
Fluvial	Barges	1 hr	7	15
	Express	30 min.	105	Sob demand

Source: Field research Jan./2021. Elaborated by the author

On average, the ferries have a capacity of 150 seated passengers, multiplying this amount by the number of daily trips, there is an offer of 2,265 seats per day. In relation to the express boats, it is observed that the trips occur on demand, however, according to one of the inspectors who monitor the movement of the express terminal of Supply Center – CEASA, on average, each boat makes one trip (round trip) and, on average, 35 boats with a capacity of 40 passengers operate per day. Therefore, it is estimated that the offer of the lanchas is 1,400 seats per day, which added to the barges gives a total of 3,665 seats.

It is worth noting that the flows generated between Manaus and Careiro da Várzea are not entirely caused by the demand of the two municipalities, most of this volume is generated from other municipalities and locations that use the crossing to reach Manaus. It is also highlighted the precariousness of the structures dedicated to passenger services, one of whose main aspects is improvisation.

According to the IBGE (2023), about 70% of the population of the municipality of Careiro is rural. It is also identified as “Castanho”<sup>20</sup>. Its headquarters is located on the left bank of the Castanho River and the margins of the BR-319, although there are two possibilities of water access, the most used route has been the road. From Manaus to Careiro, they are 101 km by the BR-319 and another 12 km by river crossing between the Gutierrez and CEASA ports. It can be said that departing

<sup>20</sup> This term comes from the river of the same name, which, when translated, means ‘gray’, as it is a river with almost dark waters.

## **Between rivers and roads: intermunicipal connections in the metropolitan region of Manaus**

from Manaus, the access to the municipality is road-river, since most of the journey takes place by road and is complemented by river crossing.

In terms of service offerings, it is possible to access the municipality both through the road and through the river, however, the river transport flows are occasional and operate in the cargo segment, but if there is demand, which usually occurs along the way, it also transports passengers. By road, the services have daily frequency.

It is worth noting that in this and the other three municipalities, there is a very low participation of business groups in the transport of passengers in the municipality and the surroundings, in which the associations of transport companies prevail, which act from their own organization and with little or no regulation.

In a broader way, it is observed that this market opening occurs in a part of the metropolitan area where the roads intersect a vast area where the population is more dispersed, which may represent in terms of operation, more distant routes or higher costs and fewer passengers. Currently, many of the vehicles that arrive and leave the port of the Gutierrez in Careiro da Várzea are from rural locations, which are more difficult to measure due to the costs for a more extensive and longer field research.

The municipality of Manaquiri has more than 60% of its population living in the rural area. Located to the south of the metropolitan region, it can be accessed from Manaus by river or road-river with intermediation in Careiro da Várzea and Careiro.

Although Manaquiri is connected to the axis of the BR-319 by the AM-354, river transport is the most representative in the connection with the capital. The way the road service is organized, divided into three segments or three fares or three transfers, ends up making road access more expensive. It is worth noting that most of the population in the municipality is rural and along the journey to the capital via river, it is not rare to board or disembark passengers at the margins of the Manaquiri Channel.

## **FINAL CONSIDERATIONS**

The intermunicipal transportation conditions found between Manaus and the four metropolitan municipalities point to the formation of a connected trunk to the south consisting of the highways connected to BR-319 that access the municipalities of Autazes, Careiro, Careiro da Várzea and Manaquiri.

Along this trunk, it is observed that the municipalities are rural with good participation of river transport that complements an important volume of road traffic on routes where this means is possible. The services are mostly offered by cooperative or associated transportation companies or even individuals, with organization practices dominated by the practice of sharing.

The low level of service management is highlighted. In this sense, the absence of the state becomes clear when it reflects on the deficiencies present in the organization of a shared interest service as important as passenger transport. The structures that serve transportation, when they exist, are modest and in the absence of them, improvised ports and terminals are used.

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## MAPPING AND URBAN PLANNING IN PORTO VELHO (RONDÔNIA): ANALYSIS OF THE IGARAPÉ GRANDE BASIN

Ana Beatriz Albino da Costa

Federal University of Rondônia – UNIR

anaalbino1998@gmail.com

Siane Cristina Pedroso Guimarães

Federal University of Rondônia – UNIR

sianecpg@unir.br

### ABSTRACT

Porto Velho, the capital of Rondônia, has faced environmental challenges resulting from accelerated urban growth and limitations in public policies, which impact the areas of preservation of urban igarapés. Thus, the article analyzes the impacts of human occupations in the permanently protected area of Igarapé Grande, located in the southern zone of Porto Velho. As methodological procedures, maps and geoprocessing of the urban water basin were prepared, the identification of irregular settlements and socio-environmental impacts. The results indicate that the population growth of Porto Velho is related to the occupation of the Permanently Protected Areas (APPs). The new Forest Code faces challenges in balancing environmental preservation and economic development. The Master Plan seeks to organize urban growth, but its effectiveness is compromised by the lack of enforcement and the ineffectiveness of the public power.

**Keywords:** Urban planning. Permanently protected areas. Socio-environmental impacts. Mapping. Geoprocessing.

### INTRODUCTION

Permanent Protection Areas (PPAs) are territorial spaces specifically protected by environmental legislation, the Forest Code, and the Municipal Master Plan. Water protection areas are located within or

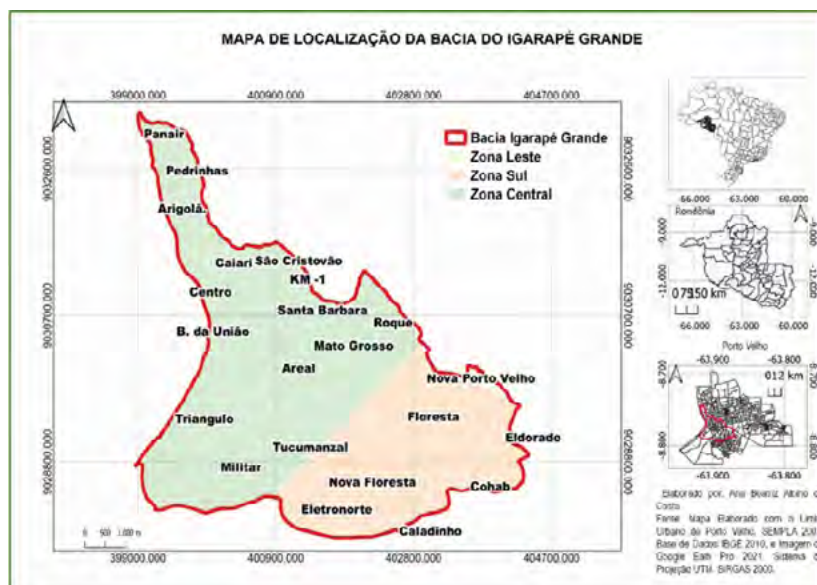
outside the urban perimeter, situated beside or near water channels. The size of the protected area is specific, as it depends on the width of the fluvial course (GLAUCUS, 2011).

The geographical configuration of the PPA contributes not only to the protection of urban waterways, such as igarapés, rivers, and lakes, but also ensures the biodiversity present. It is important to mention that in the city's surroundings, these areas play a fundamental role in wind circulation, soil strengthening in areas prone to landslides, and contributing to mild temperatures in the urban space (FERREIRA, 2011).

Such urban occupation problems are evident in the city of Porto Velho, the capital of the state of Rondônia, whose economic cycles have driven irregular expansion in areas that should be protected, such as numerous watercourses, regional known as igarapés. The transformations of the urban landscape express the shift from a city traditionally riverine to a medium-sized city with structural socio-environmental issues. Situations of irregular housing in environmentally sensitive areas of the Igarapé Grande basin are evident, located in the southern and central zones of Porto Velho, encompassing 18 neighborhoods. The Igarapé Grande basin has approximately 1,380 hectares (Figure 1).

## Mapping and urban planning in Porto Velho (Rondônia): analysis of the Igarapé Grande basin

Figure1 – Location Map of the study area (2021)



Source: Elaborated by Ana Beatriz Albino

## METHODOLOGY

The following methodological procedures were adopted for the research: 1) selection of bibliographies, data and maps related to the study area; 2) construction of the Geographic Database, which, from the maps, were densified, clipped and georeferenced to delimit the hydrographic network, the urban limit of Porto Velho, the Igarapé Grande basin limit, the neighborhoods of the study area and the census sectors of IBGE 2010; 3) execution of photointerpretation of the hydrographic network, evaluation of the physical properties of the terrain of the Igarapé Grande basin, analysis of satellite imagery from 2021 of Google Earth Pro.

## RESULTS AND/OR DISCUSSIONS

Based on the analysis of demographic data from 2000 and 2010 (Figure 2), it was possible to identify the population growth of each

neighborhood in the study area. With the population data by neighborhoods, it was made the densification by zone 1, 2, 3. It was observed that the areas that grew the most in terms of population were those that showed the greatest population pressure around the Permanent Protection Areas (APPs).

The result of the analysis (Figures 2 and 3) suggests that population growth is related to the occupation of areas around the PPAs, which has driven urban expansion over the protected areas. It is worth clarifying that in the APP of Madeira River located in the periphery of zone 1 is influenced by commercial areas. Such influences caused the deforestation of almost the entire area of the APP of Madeira River (Figure 3).

**Table 1** – Comparison table of population growth rates in the use and occupation areas of the Igarapé Grande basin in the municipality of Porto Velho (2021)

Population, by residential situation			
Subdistrict	Residential situation	Year	Total
Zone 1	Urban	2000	71,792
		2010	71,579
Zone 2	Urban	2000	44,847
		2010	53,689
Zone 3	Urban	2000	77,155

Source: IBGE, Demographic Census of 2000, 2010.

Prepared by Ana Beatriz Albino da Costa

In Zone 3, there is a large interference of irregular settlements with areas of permanent preservation, in some cases, the houses are located within the water canal itself, which no longer exists. This situation enables the suppression of vegetation cover, improper waste disposal, and soil contamination.

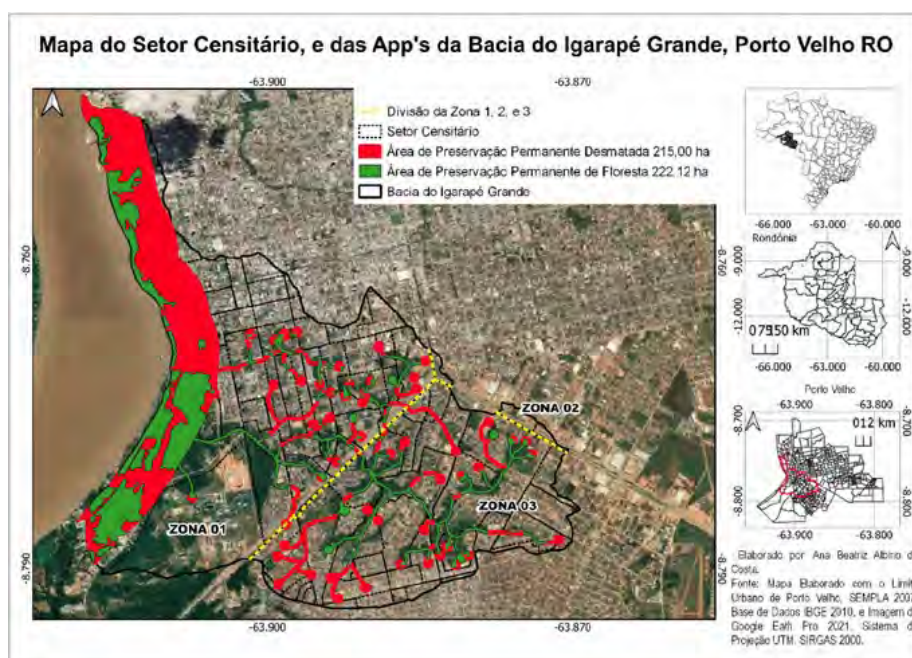
The configuration of the Igarapé Grande basin results in the transformation of the natural landscape into the anthropic. It is identified the increase of areas with problems of water drainage, the absence

## Mapping and urban planning in Porto Velho (Rondônia): analysis of the Igarapé Grande basin

of basic sanitation, the intense flow of irregular housing next to igarapés or water courses.

The evolution of the new Brazilian Forest Code faces the challenge of balancing environmental preservation and economic development. The discussion about the reduction of some protected areas has been controversial, and it is necessary to seek sustainable solutions to ensure the conservation of the environment.

**Figure 3** – Areas of Permanent Preservation occupied by irregular settlements located in the Igarapé Grande basin in Porto Velho (2020)



Source: Elaborated by Ana Beatriz Albino

The exponential growth of the population of Porto Velho (RO) in demographic and development terms is concerning. As seen, the configuration of the city is planned on sustainable development. Allowing, urban areas with green spaces, leisure, recreation and sports, parks. Aiming at the well-being and quality of life of the population. The concern is that there is a disorderly urban population growth in areas whose

aspect is unfavorable for housing, such as areas of permanent preservation of water courses, which makes it difficult to manage this space in question.

The master plan organizes urban growth, considering the needs and quality of life of the inhabitants. Regulated by Law 10.257/2001, it aims to ensure sustainability, citizen participation, cooperation and environmental preservation. However, in Porto Velho, the lack of oversight and inefficiency of the public power has compromised its effectiveness (SILVA, 2016).

## CONCLUSION

The use of geotechnologies proved effective and valuable for the development of the research, as it allowed the identification of watercourses and areas of environmental impact in the neighborhoods within the hydrographic basin. The degradation of areas of permanent preservation is not only a local problem, but also a reflection of an economic-social process. These, being more expressive in river or igarapé edges. At the end of the research on the collection of secondary and primary geographic data, it was perceived a large scale of vegetation removal around the watercourses, due to the pressure of irregular housing.

The lack of infrastructure, which is quite expressive in most of Porto Velho, makes the precariousness of basic sanitation extremely evident. Despite being one of the goals of Chapter IV, Article 166 of the Porto Velho Municipal Environmental Code being defined, but not effectively applied.

The challenges of the evolution of the New Brazilian Forest Code involve finding a balance between environmental preservation and economic development. The legislation aims to protect Permanent Preservation Areas, especially those related to water bodies, to ensure water quality and biodiversity. However, the reduction of some protected areas has been a point of discussion, as it may lead to the fragility of ecosystems and negatively impact sustainability in the long term.

**Mapping and urban planning in Porto Velho (Rondônia):  
analysis of the Igarapé Grande basin**

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LAND CONFLICTS IN LEGAL AMAZONIA  
BASED ON DATA FROM THE PASTORAL LAND  
COMMISSION (CPT) BETWEEN 2016-2022

Carlos Alberto de Almeida Ricarte  
Federal University of Rondônia – UNIR  
carlosgeopb@gmail.com

**ABSTRACT**

The transformations that have occurred in the socio-economic and spatial structure of Legal Amazonia in the last six decades have fueled violence in the countryside of the region. Motivated by government policies, economic enterprises were implemented in the region, modifying the way of life and the natural space. The advance of agribusiness, illegal extractivism and the land grabbing of public lands produced violent conflicts for land disputes in the region. Unprotected by public policies, traditional Amazonian communities have become targets of this extreme violence. The purpose of this research is to analyze, through data collected by the Pastoral Land Commission (CPT), the escalation of violence in the countryside of the region between 2016 and 2022. The reflections and results of this study are anchored in the theoretical reference, especially in the Conflicts in the Fields of Brazil, elaborated by CPT through qualitative and quantitative research, which enables the understanding of the object of study.

**Keywords:** Land conflicts. Indigenous lands. Land reform.

**INTRODUCTION**

The history of the Brazilian Legal Amazonia is filled with events that mark the socio-economic and spatial structure of the region. Changes in the regional production process have become evident with the appearance of new territorialities, such as the implementation of government programs that accelerated the occupation and use of the territory in the



region in line with capitalist models (opening of roads and distribution of public land). At every effective advance on the territory in the form of capitalist penetration, the immense social and environmental costs become apparent.

This panorama, arises the formation of the agricultural-livestock frontier that has consolidated and, with it, violence against traditional Amazonian peoples has increased. Social tensions and conflicts have gained momentum as the capitalist expansion fronts have incorporated and produced new territorialities (MARTINS, 2014). However, a new dynamic is imposed in the Brazilian Amazonia, based on the great economic projects that are anchored in the territory (agricultural, mineral and hydroelectric) financed by the State.

Given the circumstances, the frontier has become synonymous with struggle, resistance, and inequality, marked by destruction, opening paths for violent conflicts that, according to Becker (2015), have expanded throughout the region as capital advanced towards development and wealth accumulation.

New fronts have intensified with the expansion of agribusiness. In this process, the pressure on Protected Areas, indigenous territories, riverside communities, quilombolas, and peasants has increased. The arc of destruction and violence continues to advance over the Amazonian territory, especially in the Southeast and West of Pará and in the confluence of the states of Amazonas, Acre, and Rondônia (AMACRO).

Analyzing the profile of land conflict violence based on the data of the Pastoral Land Commission (CPT) from 2016 to 2022, the Legal Amazonia stands out as the most violent among the other Brazilian regions. The states of Pará, Rondônia, Maranhão, and Mato Grosso led the ranking of this violence.

However, the race for land possession has triggered a break in the life of traditional Amazonian communities, which suffer constant pressure and attacks from farmers, loggers, miners, and land grabbers.

Therefore, this research seeks to analyze the escalation of violence that has been projected in the Legal Amazonia from 2016 to 2022. In order to understand the analysis of the object studied, it was

## Land conflicts in Legal Amazonia based on data from the Pastoral Land Commission (CPT) between 2016-2022

necessary to resort to bibliographic sources produced by the CPT through the Conflito no Campo Brasil cadernos, which present concrete data on the violence scenario in the field, especially the indices of murders occurred in the analyzed period. For the realization of this study, the qualitative-quantitative method was used, whose objective is to explain the dialectics of the facts and their respective statistics.

### THE PORTRAIT OF VIOLENCE IN THE LEGAL AMAZONIA

Analyzing the profile of land conflict violence in the agricultural space of the Legal Amazonia, it is observed that land grabbing, timber extraction, mineral exploration, dam construction, and the expansion of agribusiness are the main factors driving these conflicts. The CPT, when analyzing land conflicts, includes in its reports actions in which there is some type of violence against social groups in the field, as well as occupations and retomations of territories by organized social groups.

Observe the data presented in Table 1. These information reveals the escalation of violence against indigenous people, settlers, landless people, fishermen, quilombolas, squatters, and others.

**Table 1 – Murders by land conflicts in the Legal Amazonia (2016-2022)**

<b>Estado</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>Total by state</b>
Acre	--	--	--	--	1	--	--	1
Amapá	--	--	--	1	5	--	2	8
Amazonas	2	3	--	6	--	--	4	15
Maranhão	13	5	--	4	--	9	7	38
Mato Grosso	2	9	2	3	--	1	6	23
Pará	8	22	16	12	1	2	5	66
Rondônia	21	17	6	1	1	11	7	64
Roraima	1	--	--	--	2	3	5	11
Tocantins	3	--	--	--	--	3	1	7
<b>Total</b>	<b>50</b>	<b>56</b>	<b>24</b>	<b>27</b>	<b>10</b>	<b>29</b>	<b>37</b>	<b>233</b>

Source: CPT, 2016-2022

According to data collected by CPT, 233 people have been murdered in the Legal Amazonia between 2016 and 2022. The most violent states, in descending order, were: Pará (66), Rondônia (64), Maranhão (38), Mato Grosso (20) and Amazonas (15).

Analyzing the period that includes the (dis)government of Bolsonaro (2019-2022), a total of 103 cases were recorded, corresponding to 44.20% of the total deaths. Among these, are the assassinations of indigenist Bruno da Cunha Pereira and journalist Dominic Mark Phillips, which occurred on June 5, 2022 in the municipality of Atalaia do Norte, Amazonas, in the Indigenous Land of Javari Valley.

In Maranhão, between 2003 and 2021, J. Malerba (2022) points out that 21 Guajajara indigenous people living in the Arariboia Indigenous Land were murdered for defending their territory against illegal logging and land grabbing.

According to CPT data (2022), the most vulnerable social categories to exposure to violence in Maranhão were indigenous people, quilombolas and squatters. The pressure on the territories of traditional peoples increased as the interests of economic groups advanced and intensified conflicts in the region (MATOPIBA).

In Roraima, of the 11 cases of assassinations that occurred during the period analyzed, 10 were Yanomami indigenous people. The weakening of environmental policies and the protection of the rights of indigenous peoples and the coordinated illegal activities, fueled violence against the Yanomami (TERENA, 2020).

The Yanomami suffered invasions, illegal mining, deaths of leaders and especially with hunger, malnutrition and sexual violence, as pointed out in the Report: Yanomami under attack (2021).

The year 2017 was the most violent (56 cases). Pará, Rondônia and Mato Grosso led the ranking of this violence. One of the most emblematic cases of this period occurred in the city of Colniza (MT), the Taquaruçú do Norte Massacre in which nine peasants were killed.

In Pau D'Arco, southwest of Pará, in 2017, ten rural workers were killed during a police operation (military and civil) on the Santa Lúcia farm. The dramas lived by traditional communities have become

part of the place and the struggle for access to land has become synonymous with resistance. Invasions of public lands, associated with land grabbing and the advance of agribusiness, assume the function of providing a model of rationalization of space and production that ends in expropriation and desterritorialization of communities. To this process, Costa Silva (2021) calls agro-banditry, which is a process of direct and indirect expropriation, has violence and crime as its main strategy to convert the areas of traditional peoples into spaces of extractive capital.

In 2016, Rondônia was the state that presented the highest rate of assassinations in the region, 21 cases, which corresponds to 42% of the total of the Legal Amazonia (50 cases). The majority of the victims (11) were camped (landless) residents in the municipalities of Alto Paraíso and Buritis (settlement camps 10 de Maio, Monte Verde and Luís Carlos).

During the four years of the Bolsonaro government, twenty cases of murder were recorded in Rondônia, with the main victims being indigenous leaders and landless camp leaders.

Under Bolsonaro, land conflicts spread, with about 5,727 occurrences and 121 murders throughout the country. However, the regression in land policies accelerated this violence.

The reproduction of injustice that crystallizes over the Amazonian territory, which is both agrarian, social, and environmental, is fixed in an economic model that catalyzes and transforms natural resources into commodities, which in addition to maintaining and reproducing structural inequalities, enables the predominance of predatory forms of occupation marked by intense use of land and resources (MALERBA, 2022).

The commodification of land and natural resources such as gold, diamonds, and timber, have become economically attractive and profitable to the eyes of farmers, land grabbers, miners, and loggers, who act without shame, given the weakness of state power, becoming the regulatory agent of the accumulation and exploitation of natural resources by those who illegally appropriate public goods and contribute directly to the escalation of violence in the region. This logic is defined by D. Harvey (2004) as accumulation by dispossession/dispossession.

## FINAL CONSIDERATIONS

Throughout this century, the scope of violence in the Amazonia Legal region has increased, associated with the advance of economic enterprises planned for the region. In this way, land insecurity and territorial disputes intensify, especially in protected areas and the territories of traditional communities located on the border.

However, threats, expropriations, and assassinations have become part of the routine of traditional Amazonian peoples. The confirmation of this violence reflects the diversity of interests of antagonistic groups that dispute the natural resources of the region. The action of land grabbers, farmers, loggers, and miners on these territories fuels land conflicts and, consequently, the growing number of assassinations of the most vulnerable groups. This can be observed in the data collected by CPT. Between 2016 and 2022, 233 assassinations were registered in the Amazonia Legal.

The absence of the state in the context of more effective public policies (Agrarian Reform and Land Regularization) puts at risk the devastation of nature and, above all, the daily life and lives of traditional peoples. Therefore, it is necessary and urgent to reorder the Amazonian space in order to reduce land conflicts in the region.

But the way seems to be going in the opposite direction, measures such as PL 490/70, which deals with the Marco Temporal<sup>21</sup>, according to which indigenous peoples have the right to occupy only the lands they occupied or disputed on October 5, 1988, the date of the promulgation of the Constitution. If approved, it will represent a setback for indigenous communities and territories, including already demarcated areas.

Therefore, thinking about the Amazonia means establishing limits between the social groups that occupy and exploit the available natural resources, while guaranteeing the right to life. For traditional

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<sup>21</sup> The legal term “marco temporal” is specific to the Brazilian legal context, primarily related to indigenous issues. It refers to the controversial thesis that indigenous peoples would only have land rights if they were in possession of it on the day the Federal Constitution of 1988 was enacted. This term can be translated as ‘temporal landmark’.

peoples, bioeconomics is an alternative for sustainable and profitable economies without the need to devastate the forest.

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**PIONEER FRONTS AND SOCIO-ENVIRONMENTAL  
IMPACTS: DEFORESTATION AND CARBON EMISSIONS  
IN SOUTHERN AMAZONAS**

Bruno Sarkis Vidal

Federal University of Amazonas – UFAM

bruno.sarkis.v@gmail.com

Fredson Bernardino Araújo da Silva

Federal University of Amazonas – UFAM

fbernardino1997@gmail.com

Kamila de Oliveira Craveira

University of São Paulo – USP

kamilacraveira@usp.br

**ABSTRACT**

The study analyzed the pioneer fronts and socio-environmental impacts from deforestation and carbon emissions in the southern region of Amazonas. The methodology used was the analysis of satellite images, data from the MapBiomass project, and carbon monoxide emissions. The results indicate that extensive and low-productivity cattle ranching is the main cause of deforestation in the Amazonia. From 1985 to 2019, more than 721,000 km<sup>2</sup> of forest areas were transformed into agriculture and livestock. The dynamics of deforestation in the Amazonia is a complex process that involves various factors such as tax incentives, colonization policies, land conflicts, timber exploitation, and agribusiness. Roads are constituted as axes of economic expansion that insert nature into the commercial circuit, enabling the flows of the pioneer fronts.

**Keywords:** Pioneer fronts. Socio-environmental impacts. Southern Amazonas.



## **INTRODUCTION**

This text discusses some developments, particularly based on the study by Vidal et al. (2022), regarding deforestation and carbon emissions in southern Amazonas. The Amazonia region is a geographic space of great importance for maintaining the climate at the regional and global scale, influencing the emission or retention of carbon and providing water vapor to the atmosphere through evapotranspiration.

The urbanization of the Amazonia has a model of occupation that promotes rapid and significant changes in land use, with a significant increase in deforestation. The process of deforestation in the Amazonia has a complex temporal and spatial dimension, and should not be associated with a single factor. Some factors that drive the process of deforestation in the Amazonia include fiscal incentives and policies of colonization that triggered significant migration to the region, regular land tenure conflicts motivated by the absence of land ownership and pressure from land reform, and more recently, the macroeconomic scenario that involves the advance of timber exploration, livestock, and agribusiness.

It is emphasized that deforestation in the Amazonia has a relevant territorial dynamic in its development, as it is a multifaceted process that does not follow sequential stages, involving land grabbing, selective cutting of valuable species, clear cutting, burning for land cleaning for livestock and crop cultivation (VIDAL et al., 2022). It is also mentioned that part of this process of transformation of the landscape, in some cases, also passes through the planting of crops with a cycle of about three months, such as rice after clear cutting.

Therefore, the aim of this work is to analyze the pioneer fronts and socio-environmental impacts in the south of Amazonas from deforestation and carbon emissions.

## **METHODOLOGY**

The study examined the southern region of the state of Amazonas, which is comprised of 10 municipalities. Based on the

## **Pioneer fronts and socio-environmental impacts: deforestation and carbon emissions in southern Amazonas**

Ecological-Economic Macro-zoning (MacroZEE, 2023), the mesoregion of Southern Amazonas is designated for environmental protection, where its southern and central portions are geared towards “containing expansion fronts with protected areas and alternative uses” (item VIII of article 6 of Decree No. 7,378, dated December 1, 2010) and the northern portion pertains to “defending the forested heartland based on sustainable productive activities” (item IX of the aforementioned article). About two-thirds more to the south of the Mesoregion of the South Amazonian function as a containment of the economic pastoral pressure for the one-third more to the north, correlated with the ecological heart of the Amazonia. This containment is carried out through a real mosaic of Indigenous Lands (TIs) and Conservation Units (UCs) that have the role of barrier, that is, legal-territorial constraints to deforestation and consequent degradation of biodiversity (BECKER, 1982).

To collect data, the project Mapbiomas was used for the analysis of land use and coverage and mapping of CO<sub>2</sub> emissions, enabled by the Corpenicus project, which was treated by the Google Earth Engine. Thematic maps were prepared using the free software Qgis.

Regarding the organization of deforestation, the National Institute of Space Research (INPE) widely discloses deforestation alerts and burning. The Real-time Deforestation Detection System (DETER) maps the change in forest coverage and the Burned Area Bank (BDQueimadas) is responsible for analyzing and disclosing the focuses of heat in the Brazilian biomes. The heat focuses are obtained through thermal sensors that indicate the occurrence of fire. It is necessary that a fire front has at least a 30-meter width for it to be cataloged with a corresponding heat focus corresponding to a burn (INPE, 2022).

## **RESULTS AND DISCUSSION**

The Amazonia is a tropical forest with high biodiversity and high rates of precipitation and solar radiation input throughout the year. The climate of the Amazonia is a combination of various atmospheric systems at meso and macro scales, with the availability of solar energy

through the energy balance being one of the most important factors, as it controls the humidity of the vegetation.

The vegetation of the Amazonia is linked to the climatic dynamics, especially in humidity and solar radiation, which interacts with the intensity of biogenic gases. The process of deforestation and use of fire in the Amazonia is not considered a natural phenomenon *stricto sensu*, as it is more common in savannah areas, as it occurs in a tropical forest with high humidity even in its driest periods. Therefore, repeated fire ignition movements are necessary for dissipation of a single newly cleared area. Thus, there is emission of pollutants in the stage of deforestation, in the stage of burning for removal of forest waste, and later emission by the renewal of pastures or crops that replace what was previously a massive forest (CRAVEIRA, 2022).

The occupation of the Amazonia's lands is directed towards livestock, resulting in a high concentration of heat sources under pasture areas for the renewal of animal fattening materials. In addition, the spatialization of heat sources indicates a relationship with the major axes of transformation of the Amazonian landscape: the highways. In the case of southern Amazonas, the density of heat sources presents the main burn scars near the municipal headquarters of Apuí, south of Manicoré and Novo Aripuanã, west of Humaitá and south and southwest of Lábrea, all with direct or indirect road connectivity.

The most intense burn scars of deforestation in the Amazonia region are related to the highways, such as the Trans-Amazonian and AM-174. The Trans-Amazonian is a project of intra-regional integration of northern Brazil, historically developing in function of mining and colonization foci. The BR-364, which connects the state of Acre to the state of São Paulo, is also an example. Part of the road gives access to the south of the municipality of Lábrea, in southern Amazonas, and from there, other vicinal roads were opened, such as the Ramal<sup>22</sup>

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<sup>22</sup> In the world of forest-dwelling peoples in the Amazonia, especially in areas marked by extractivism, a "ramal" is a 'varadouro' (a small path cut through the forest used by men and animals), but it's not just a simple 'varadouro.' Instead, it's a widened and expanded 'varadouro' to facilitate the passage of cars, trucks, and tractors. They are not paved.

do Boi that gives access to the João Bento federal gleba<sup>23</sup> and the Ramal do Jequitibá that gives access to the Curuquetê federal gleba, both targets of intense deforestation and land grabbing in the region in recent years (Vidal et al., 2022).

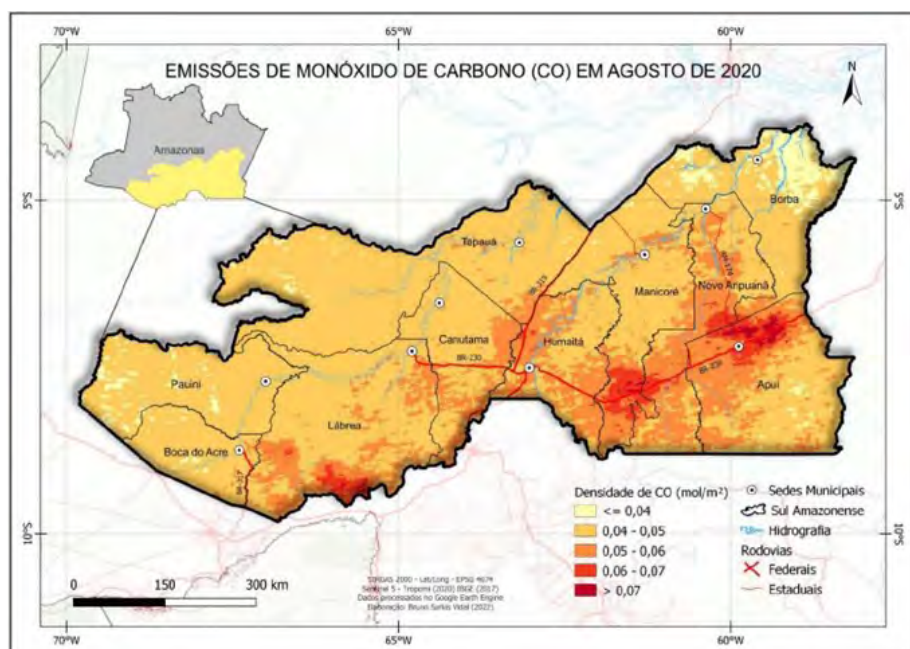
The south of Amazonas has suffered from the pressure of agro-pastoral, leading to the deforestation of large areas. The municipalities of Lábrea, Apuí, Novo Aripuanã, Manicoré and Humaitá are the ones that most concentrate deforestation in the state of Amazonas. Together, they currently have 170,915 hectares deforested - equivalent to 234,452 soccer fields. The density of emissions of carbon monoxide (CO) in the month of August, the period of ascent of fires in the Amazonia region, is linked in a more marked way in three sectors of southern Amazonas: the vicinity of the city of Apuí; the south of the municipality of Manicoré, a stain that presents continuity in the south of Novo Aripuanã; and the south of Lábrea, with a small outbreak of non-continuous intensity in the west of the same municipality.

The emission of CO occurs mainly through the combustion of fossil fuel derivatives (diesel, gasoline, etc.), which are carbon-based substances. However, this practice is more common in large urban centers, which does not have any relation to the area of study. In the south of Amazonas, containing extensive areas of the forest massif, a predominantly rural area with low population density and high dispersion of the nuclei of occupation, the largest association is due to the burning of vegetated areas, i.e., carbon-rich biomass for “cleaning” the soil (fig. 1).

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<sup>23</sup> “Gleba” is the portion of land that has not been subjected to subdivision under the auspices of Law No. 6,766/79, which means that we will be dealing with a “gleba” if the piece of land has never been subdivided or partitioned during the validity of the new Law. Therefore, a “gleba” represents raw land without any regulation or alignment with Brazilian and regional laws.

Figure 1 – Map of CO<sub>2</sub> emissions - Aug/2020



Source: Vidal et al. (2022)

According to Fearnside (2022), when there is a fire, in addition to the release of carbon dioxide (CO<sub>2</sub>), trace gases such as methane (CH<sub>4</sub>), carbon monoxide (CO) and nitrous oxide (N<sub>2</sub>O) are also released. CO is a gas also emitted by the burning practice for deforestation, which explains the spatial relationship between the density of heat sources and CO emission. The protected areas, sometimes, are surrounded by areas without land designation, which are called Public Forests without Destination (FPND).

Thus, similar to what happens in the case of BR-163, especially in the state of Pará (CRAVEIRA, 2022), the FPND located to the south of the state of Amazonas are located near recent highways, roads, and vicinal, being the main target of land title requests and land concentration, since there are difficulties, to some extent, to advance in areas already designated as Conservation Units (UCs) and Indigenous Lands (TIs) (MELLO-THÉRY, 2011). The deforestation process in which the use of fire is inserted is stimulated by land requests and demand for

## **Pioneer fronts and socio-environmental impacts: deforestation and carbon emissions in southern Amazonas**

minimum structure to be effective, as well as its conversion is renewed as needed. Not by chance, the deforestations occur in areas with greater land pressure.

From the classification of land use in Southern Amazonian, it is possible to identify reduced urban area enclaves. The three main sectors of heat sources and carbon monoxide emission - the vicinity of the city of Apuí, south of Manicoré and Novo Aripuanã, and the south and west of Lábrea - appear as distinguishable strips, related to the large strips of livestock of the spatial cut. In these three sectors, there is relevant overlapping with the land use class of pasture. The data obtained through remote sensing indicate the process of landscape change in march via the action of pioneer fronts and the socio-environmental impact, in which three main fronts stand out, directly related to the Trans-Amazonian, BR-319 and AM-174 highways, except for the south of the municipality of Lábrea that has a greater connection with the Marechal Rondon (BR-364) highway that passes through Rondônia and Acre to connect the region with São Paulo.

### **FINAL CONSIDERATIONS**

The work analyzed deforestation in southern Amazonas through carbon monoxide emissions and heat sources, considering some tools for remote sensing. The main results obtained correspond to the identification of three main sectors of carbon monoxide emission and heat sources in southern Amazonas: the zone of direct influence of the city of Apuí, south of Manicoré and Novo Aripuanã, and south and west of the municipality of Lábrea.

In summary, these three sectors are related to the most dynamic and intense fronts of landscape change in the context of converting forest covers into economically active areas, with a highlight for livestock.

Deforestation in the Amazonia occurs as a process, and among the stages that most degrade the ecosystem, the use of fire for burning biomass stands out. This practice is carried out to enable the renewal of pasture or to allow the opening of new agricultural fields, among other economic activities.

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**LAND AND WATER CONFLICTS: THE IMPACTS OF THE  
IMPLEMENTATION OF THE BALBINA HYDROELECTRIC PLANT  
IN PRESIDENTE FIGUEIREDO (AMAZONAS)**

João Carlos Ferreira Júnior

Municipal Secretariat of Education - Semed, Manaus, Amazonas

jcfj@gmail.com

Matheus Pinto de Souza

Federal University of Rondônia – UNIR

mpds.geo15@gmail.com

**ABSTRACT**

The Amazonia region is today one of the spaces with the highest occurrence of land conflicts in Brazil. The new processes of modernization of the territory have intensified the process of reconfiguration of the regional space, generating irreversible impacts to the populations that traditionally occupy the disputed territories. In this text, the implementation of the Balbina Hydroelectric Plant, located in the central-north of the state of Amazonas, is analyzed. Through the collection of data, analysis of documents and bibliographies on the theme, the main socio-environmental impacts and the strategies implemented by private and state capital for the concretization of development projects were identified. As a result of the implementation of the hydroelectric project, the precariousness of the life of the indigenous population can be observed, which loses part of its hunting and fishing territory, even though the flooded area has been increased, as well as the non-indigenous population, which is on the margin of a process of desterritorialization.

**Keywords:** Territorial conflicts. Indigenous population. Riverine population. Balbina hydroelectric plant. Presidente Figueiredo.



## **INTRODUCTION**

The Amazonia region is currently one of the spaces with the highest occurrence of land conflicts in Brazil, a phenomenon intensified by the public policies of occupation, colonization, and migration applied since the 1960s. The processes of reconfiguration of the regional space produced irreversible impacts on the populations that traditionally occupied the territories now in dispute.

The municipality of Presidente Figueiredo, which is part of the Metropolitan Region of Manaus (RRM), is marked by various conflicts involving the right to land occupation and water use in their domains, intensified from the construction of BR-174 (1970-1977). From this period, there was an increase in the pressure on environmental protection areas and territories traditionally occupied by indigenous peoples, since the region became the main axis of occupation to the North of the state of Amazonas.

Another important axis of the time is the state highway AM-240 (1978), which is the access route to the Hydroelectric Power Plant (UHE) of Balbina and the village of Balbina, both completed in 1989. In view of this, this work aims to present the conflicts related to the UHE of Balbina, with a focus on the impacted indigenous and riverine populations. From the bibliographic and documentary research, concatenated with the use of georeferencing and mapping tools, it was sought to analyze how the implementation of the reservoir affected the life of the populations in this region.

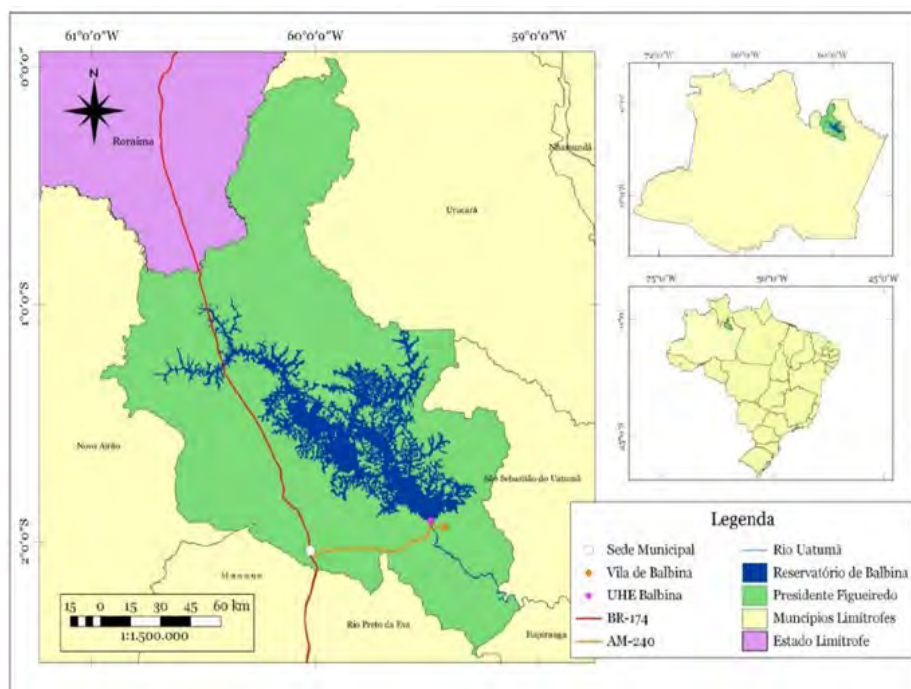
It is noted that the construction of the UHE of Balbina impacted the territory permanently, causing damage to the maintenance of the practices and customs of indigenous and riverine populations, especially with the flooding of large areas used by these populations in their daily activities.

## **BETWEEN THE PAST AND THE PRESENT: BALBINA UHE**

Located in the municipality of Presidente Figueiredo, state of Amazonas, the Balbina UHE was built in a stretch of the Uatumã River,

## Land and water conflicts: the impacts of the implementation of the Balbina Hydroelectric Plant in Presidente Figueiredo (Amazonas)

a tributary of the left bank of the Amazonas River (Figure 1). The history of the creation of the municipality is marked by various conflicts, almost always involving the oppression of the populations that traditionally occupy the territory, as is the case of the Waimiri-Atroari people, who have been suffering the impacts of the large projects implemented by state and private capital (FREITAS; SANTOS JUNIOR, 2017; FEARNSIDE, 2018).



**Figure 1** – Location of the study area

Source: Geographical data from IBGE. Org. JCFJ, 2023

The geographical characteristics of the region, such as the extremely flat relief with little pronounced entrenchments, made the inundated area with the damming of the Uatuma River reach 2,360 km<sup>2</sup> at a cota of 50 m. However, subsequent studies estimated that the inundated area could reach 2,995.5 km<sup>2</sup> (FEITOSA; GRAÇA; FEARNSIDE, 2007). As a result, a perimeter with dendritic margins was formed, with about

4,582 km and the emergence of at least 3,300 islands (FEARNSIDE, 1990a).

Much of the inundated area with the construction of the dam is within the Waimiri-Atroari indigenous reserve, which had undergone significant population reduction due to conflicts between indigenous peoples and non-indigenous peoples, as well as the transmission of diseases, especially during the works of the BR-174 highway.

It is estimated that there were 3,500 indigenous people in 1973, against only 374 in 1986, according to the Funai (FEARNSIDE, 1990b). In 2020, according to the Waimiri-Atroari Program (PWA), this number is at 2,186 indigenous people, distributed in 62 villages (PWA, 2020).

According to Fearnside (1990), at the time of the construction of the Balbina Hydroelectric Power Plant (UHE), there were 10 indigenous villages in the region. The population of 2 of these villages were the most affected by the project, about 223 individuals of the Waimiri ethnicity and 151 of the Atroari ethnicity, occupying an area of about 30,000 hectares of land. However, as indigenous groups move within their territory, whether to hunt or fish, it is estimated that the number of affected people was even larger, exceeding the territories of the flooded villages (FEARNSIDE, 1990).

According to Fearnside (1990), residents along the Uatumã River, below the dam, chose to remain there in exchange for the compensatory measures offered by those responsible for the Balbina Hydroelectric Power Plant. On the other hand, non-indigenous residents affected by the flooding of the reservoir were offered lands through a settlement project by the government.

According to Rodrigues and Oliveira (2012)

The formation of a 2,600 km aquifer and 3,300 islands and islets upstream changed the collection and processing systems of agriculture, first, due to the scarcity of fish, and second, due to the sudden decrease in areas for planting. As methane and carbon dioxide release rates increased due to the decay of trees that were submerged after the closure of the locks, the existing amount of fish fell vertically. Planting was modified because the communities that maintained their working relationships

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from artisanal means were forced to adapt to the new dominant ethos: the time of harvest changed, the space for crop disposal was altered, and the transportation means for the products had to be adapted to the lake viability of the people, now separated into sparse and distant portions of land. When the existing economy was impacted, the territories historically occupied by family farmers and ethnic minorities (Waimiri-Atroari Indians) had to be refounded so that the population could adapt to life on islands (RODRIGUES; OLIVEIRA, 2012, p. 43-44).

The construction of the Balbina Hydroelectric Power Plant (UHE) represented the destruction of the life projects of the affected population, as it imposed the expulsion of their lands without presenting compensations that could, at least, ensure the maintenance of their reproduction conditions at the same level that was verified before the implementation of the project (BERMANN, 2007). According to Inomata (2019) the relevance of fishing for the life of the populations in the reservoir of the UHE Balbina is incommensurable, as it is strictly linked to their subsistence practices.

Inomata (2019) notes that

due to the construction of the hydroelectric power plant, many people who lived downstream of the dam were relocated to the village, others migrated from different locations in search of new opportunities, and after the completion of the works, many workers became fishermen. Although it is not the only economic activity, fishing continues to be an important source of income and animal protein for the residents of the area. However, agriculture, mainly the cultivation of banana and cassava, was the most important complementary activity. These are problems that occurred and are still recurring 30 years after the construction of the UHE Balbina (INOMATA, 2019, p. 67).

As a result of the territorial reshuffle, many farmers had to adapt to new agricultural practices to remain close to their place of origin (RODRIGUES; OLIVEIRA, 2012). According to Lima (2015) even without access to large tracts of land, residents of the margins of the

UHE Balbina settled on the islands closest to urban nuclei, such as the communities of Boa União and Novo Rumo, developing livestock

in the form of extensive grazing, where small producers raise the animals as a complementary activity to their agricultural activity. The herd is small due to the location (which imposes limits on mobility), and the same area reserved for the creation of the animals is also small, since small producers do not have the financial capital to fund the expenses demanded by larger areas (LIMA, 2015, p. 72).

Lima (2015) also highlights that the agriculture practiced is under the family regime, with the participation of friends and relatives in agricultural production, focused on local marketing and even in other municipalities, such as Manaus and Iranduba. The most cultivated products come from permanent crops: mango, cupuaçu, guava, coconut, açaí, lemon. Temporary products have some less representative representatives such as pumpkin and watermelon (LIMA, 2015).

## **FINAL CONSIDERATIONS**

The construction of a hydroelectric power plant is a project with a significant socio-environmental impact, in the case of the UHE Balbina, the negative impacts were much more significant compared to the positive ones. The indigenous population was displaced and lost part of their hunting and fishing territory. On the other hand, the non-indigenous population, although it received some compensation for the impact at short notice, did not have the necessary support for assimilation of the new reality.

Currently, the populations installed on the margins of the reservoir survive mainly from fishing and family agriculture, using the available spaces for cultivation and animal breeding, conditioned to an adaptation of their practices in a lacustrine environment and on islands, which makes it difficult to develop life in its fullness.

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## PROTECTION OF HUMAN RIGHTS DEFENDERS: RONDONIENSE<sup>24</sup> REFLECTION

Vanessa Regina Pereira Ramos

Federal University of Rondônia – UNIR

vanessaadv13127@outlook.com

### ABSTRACT

Human Rights are those considered fundamental to the human condition, which are usually incorporated into legislation through the ratification of international treaties. The present work aims to collaborate on the drafting of a state law that seeks to protect the defenders of Human Rights in Rondônia, especially those who fight for access to agricultural land. The analysis of statistical data on the subject identified the necessary paths for the creation of a legal device with this purpose. Rondônia still does not have specific legislation for the protection of people who fight for the realization of Human Rights, which results in a risk to the integrity of the defenders of Human Rights in the state.

**Keywords:** Defense. Protection. Human Rights. Rondônia.

### INTRODUCTION

The research aims to present the theoretical foundations of human rights in the light of legal and social sciences, analyzing the legislative omission that seeks to establish specific implementation protocols for the protection of human rights defenders in the state of Rondônia, particularly those who work in the causes related to access to land and agrarian reform.

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<sup>24</sup> This term is “person from Rondônia” or “inhabitant of Rondônia, as one can deduce.



The reflection is imposed with the analysis of the statistical data collected and publicly and transparently available from the Pastoral Land Commission (CPT), which denounces land conflicts in Rondônia as one of the worst states against human rights defenders in the North Region. With a qualitative approach in its primary sources, the research methodology analyzes human rights defenders as active subjects in social struggles for land and territory. Secondly, the statistical data demonstrate repeated violence and the relevance of the study for society, focusing on the guarantee of defense, protection, and access to the effective, just, and equal rights of all traditional peoples and communities.

From the research conducted and the data analyzed regarding violence in the countryside, with special emphasis on that directed against human rights defenders, it is noted that the absence of effective state policy for land reform and the protection of traditionally occupied territories by indigenous peoples and traditional communities is the main cause of agrarian conflicts in Rondônia.

The proposal for specific state legislation, resulting from this study, consists of adapting the pacification of the countryside through meeting the local particularities and the demands of the social organizations that work in the defense of human rights.

## **PROTECTION OF HUMAN RIGHTS DEFENDERS**

Mechanisms for accessing and protecting land possession and subsequent property have been provided for in Brazil since 1850, through the first Land Law (Brazil, 1850). Subsequently, with the principle of social justice, seeking access to land as a human right that guarantees food, housing, work, income, and, above all, dignity (Andrade, 2014), among other legal institutes, the Land Statute, the Federal Constitution of 1988, and the Agrarian Reform Law introduced concepts and established objectives for the rural lands of the country (Brazil, 1964, 1988, 1993).

If access to agriculturally viable and economically viable land is a necessary good for life and dignity, its positivization in law is sufficient for it to be considered a human right? In this aspect, we bring two

complexities: the legal or abstract, and the social or effective. In the first plane, which follows the entire Brazilian legal system, aligned with the idea of theoretical and perfect positivism, it is enough that a fundamental good is written in the norm for it to be considered a human right. In the social context, the second plane, it is understood that the simple provision in law is not enough, and in this case, land will only be a human right when there are mechanisms claimed through social struggles that guarantee accessibility, technical assistance, production optimization, and economic viability for all, where the importance of those who defend and claim them is visualized. (FLORES, 2009)

It is important to clarify that human rights and fundamental rights are synonymous in essence, differing only in the scope of protection. While the former are internationally recognized and give shape to the latter, the latter are provided for in law and protected nationally. However, legal texts may not be enforced due to the absence or omission of the state, resulting in one of the consequences being the reinforcement of regional and local inequalities, building what should be the fundamental struggle of legal operators combined with movements and a sense of social justice (PRIETO, 1994).

On the one hand, while large agribusiness groups and landowners, using technological expertise, political power, and excellent legal advice, perpetuate the old rule of large tracts of land concentrated in a few hands, on the other hand, small farmers, indigenous peoples, and traditional communities, pressed in their territories, actively seek the enforcement of land reform policies already provided for in law, as a tool for the implementation of collective human rights that aim to make justice in a practical sense, without abstaining theoretically and philosophically from legal texts.

Therefore, considering the object of the study, defenders of human rights are considered as:

All individuals, groups, organizations, social groups and movements that act in the fight for the effective elimination of all violations of fundamental rights and freedoms of individuals and peoples. It includes those who seek the conquest of new individual, political, social, economic, cultural and environmental

rights that have not yet taken on a specific legal or conceptual form. People and groups that resist politically to the models of capital organization, racism, patriarchy and machismo, the strategies of delegitimization and criminalization practiced by the state, articulated with private actors, and the absence of social recognition of their demands and identities are also contemplated (CBDDH, 2020, p. 17).

Recognizing the mission of human rights defenders in the political construction of transforming rights ensured in an abstract way by law into an effective practice for populations in situations of social fragility, a legal framework has been established, organized in international, regional, national and local mechanisms for recognition and protection of those who choose to defend human rights, which increases their importance, but also highlights their fragility in the face of persistent and growing violence.

This research is justified by international recommendations on human rights directed at Brazil, which point to the need to strengthen the Program for the Protection of Human Rights Defenders, Communicators and Environmentalists, defined by social organizations as one of the paths to strengthen the program in the federated states, which currently face the provision of protection in law in a scarce way or with its inexistence (RPU, 2022).

According to data collected by the Pastoral Land Commission, the rural area of Brazil is a field of conflicts over land and territories. The North region is the least populated, despite its vast territorial extension. Even in this scenario, official records confirm the disparity of the number of occurrences of assassinations in the countryside compared to the other regions of the country.

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**Figure 1** – Murders in the countryside (2012-2021)  
– Brazil, North and Other States

Source: CEDOC-CPT, 2012-2021

Rondônia stands out nationally as the most violent in the years 2015, 2016 and 2021, with 20, 21 and 11, respectively, of the total data collected in this analysis, considered cumulatively in the scope of the research, along with other violences such as threats of death, assaults and arrests against human rights defenders, divided between violences against physical integrity and violences against freedom (CEDOC-CPT, 2012, 2021).

## FINAL CONSIDERATIONS

The state of Rondônia still does not have a legal framework of its own aimed at the protection, through specific regionalized protocols, of human rights defenders.

According to the technique of the legislative process constitutionally provided for in Brazil, the initiative to propose legislation is originally from the legislative power represented by the Legislative Assembly,

simultaneously with the Executive Power and, in exceptional situations, by popular initiative.

We do not have the intention of exhausting the subject of protection of human rights defenders, but simply to contribute to the debate and advance the state's legal framework. For this purpose, this research will be submitted to the State House of Government and the President of the Legislative Assembly of the State of Rondônia.

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