

# Rural development and land structure for the Brazilian counties Cantuquiriguá and noroeste colonial

**ABSTRACT** – The objective of this article was to present the land ownership structure of the municipalities Cantuquiriguá, in Paraná state, and Noroeste Colonial, in Rio Grande do Sul state, which are part of the Brazilian government program Territórios da Cidadania (Territories of Citizenship). These regions have low development rates and a strong presence of family farming. A bibliographical review was initially conducted on rural development and family farming, since these are themes directly linked to the formation of the land tenure structure. Besides, a brief characterization of the territories is presented, using mainly data from the Brazilian Agricultural Census of 2017. The analysis of secondary data shows that the modernization process of the rural environment in these regions – without agrarian reform – results in a small number of producers who concentrate the highest percentage of land in their hands. The analyzed data shows that both territories endure the impacts of the modernization process, with a large land concentration, despite their high number and percentage of family farmers.

**Index terms:** family farming, land concentration, underdevelopment, land reform, agricultural census.

## Desenvolvimento rural e estrutura fundiária: considerações sobre os Territórios da Cidadania para as cidades de Cantuquiriguá e Noroeste Colonial

**RESUMO** – O objetivo deste artigo foi apresentar a estrutura fundiária dos municípios Cantuquiriguá, PR, e Noroeste Colonial, RS, que fazem parte do Programa Territórios da Cidadania. Estas regiões têm em comum os baixos índices de desenvolvimento e a forte presença da agricultura familiar. Realizou-se inicialmente uma revisão bibliográfica sobre desenvolvimento rural e agricultura familiar, pois estes temas estão diretamente ligados à formação da estrutura fundiária. Além disso, apresenta-se uma breve caracterização dos territórios localizados os municípios estudados, utilizando-se principalmente dados do Censo Agropecuário de 2017. A análise dos dados secundários mostra que o processo de modernização do meio rural nestas regiões – sem reforma agrária – resulta em um pequeno número de produtores que concentram em suas mãos o maior percentual de terras. Os dados analisados mostram que ambos os territórios sofrem os impactos do processo de modernização, com uma grande concentração fundiária, apesar da existência de elevado número e percentual de agricultores familiares.

**Termos para indexação:** agricultura familiar, concentração fundiária, subdesenvolvimento, reforma agrária, censo agropecuário.

Janete Stoffel   
Universidade Federal da Fronteira do Sul,  
Campus Laranjeiras do Sul,  
Laranjeiras do Sul, PR, Brazil.  
E-mail: janete.stoffel@uffs.edu.br

Jaine Gomes de Amorim   
Universidade Federal da Fronteira do Sul,  
Campus Laranjeiras do Sul,  
Laranjeiras do Sul, PR, Brazil.  
E-mail: jaineamorin@gmail.com

Anelise Graciele Rambo   
Universidade Federal do Rio Grande do Sul,  
Campus Litoral Norte, Tramandaí, RS, Brazil.  
E-mail: anelise.rambo@ufrgs.br

 Corresponding author

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## INTRODUCTION

One of the biggest challenges for rural development is related to the agrarian issue. By focusing on the development of municipalities, the existing land structure in the rural zone is observed as an obstacle when the promotion of development is sought, mainly those related to social progress, income generation, and distribution. In the historical process, the land concentration observed in the Brazilian countryside is understood as serving a productive economic format sociopolitically organized in monoculture, and under employer administration whose principal production destination is the international market.

In the Brazilian rural model, the agrarian issue and the access to public policies have always been at the center of the debate, mainly due to issues related to land concentration in all regions of the country, and reverberate in the agricultural census data. There is a paradox in the Brazilian reality: in 2017, 77% of the agricultural establishments belonged to family farming and accessed 23% of the territorial area. However, the nonfamily farming segment, which has employer practices, holds 77% of the area occupied by agricultural establishments, with only 23% of these units (IBGE, 2021c).

The reality of land concentration has been present in the Brazilian rural environment since the colonial period, illustrated by productive cycles such as sugarcane and coffee (Furtado, 2007; Prado Jr., 2011). Nowadays, this characteristic remains evident mainly in the cultures of sugar cane, soy, corn, and cotton. This model was ratified from the format propagated by the Green Revolution, structured in the technological packages that supported the modernization of agriculture (Altieri, 2004; Delgado, 2009, 2012; Matos, 2010).

From the perspective of rural development, it can be understood that, in the last 30 years, emerged public policies directly influenced the improvement of the Brazilian rural model.

Public policies – such as PRONAF (the national program for the strengthen of family farming), PAA (the program for food acquisition), PNAE (the national program for school feeding), and the Territories of Citizenship Program – strengthened family farming at the regional level, so that municipalities with rural characteristics could have some influence on the development of the Brazilian rural model (Grisa & Schneider, 2014; Sabourin et al., 2016). However, policies related to the distribution and access to land did not have the same ease in that period (Ramos, 2014).

Since the implementation process of the Territories of Citizenship Program, implemented by the federal government in 2008, many studies have been and continue to be conducted using these spatial clippings, seeking to understand traces of advances, setbacks, and stagnation of territories linked to family farming, even with the discontinuity in the public policy.

The objective of this article was to contribute to the debate about the land structure based on the reality presented in the Brazilian municipalities of the Territories of Citizenship Program in Cantuquiriguaçu, in Paraná state, and in Noroeste Colonial, in Rio Grande do Sul state, based on the data found in the 2017 Brazilian agricultural census. From the collection of secondary data for each municipality of the two regions, an attempt was made to verify the characteristics of family farming in the places, with an intraregional and interregional comparison in both territories.

In methodological terms, in the construction of this article, bibliographical research was initially conducted to understand and present concepts of rural development and family farming, in addition to characterizing the Territories of Citizenship studied. In a second moment, a survey of secondary data was conducted at SIDRA/IBGE, with information referring to the 2017 Agricultural Census. In this database, information was obtained on the following variables: 1) number of establishments; and 2) area occupied by them, according to

family and nonfamily farming typologies, in the municipalities of both territories. Data from the index of municipal development (IFDM) of FIRJAN (Federação das Indústrias do Estado do Rio de Janeiro) – 2018 edition – were also used to verify the levels of development of the municipalities, whose results are current and comparable between the two regions.

## LITERATURE REVIEW

This section addresses aspects of rural development and family farming and their relationship with the process of occupation of rural areas.

### Rural development

For a long time, the concepts of development and economic growth were considered synonymous despite their distinct characteristics. While growth is related to productivity, the capital/labor ratio – essentially measured by the gross domestic product (GDP), the development includes economic issues, but also encompasses political, social, environmental, and cultural issues (Almeida, 1997; Kühn, 2015).

As early as 1960, when development was observed as not following the economic growth in underdeveloped countries, the United Nations (UN) moved to consider that the terms are distinct, and that they measure different issues. It was defined that when talking about development, one cannot only observe the *per capita* income (Zachow & Plein, 2018).

In the late 1990s, the human development index (HDI) was created to replace the GDP as a development indicator. The variables health, education, and income are used to calculate the HDI, which has been adopted to measure the level of development since the beginning of the 21st century. Although it cannot measure all variables that involve development, the HDI takes

a broader and more realistic approach than the *GDP per capita* (PNUD, 2021).

In addition to the HDI, there are other indicators to measure levels of development. In Brazil, one of these is the IFDM of FIRJAN created in 2008, which evaluates three main areas of human development (employment and income; education; and health) and it allows of the comparisons between municipalities over time, in addition to assessing municipal development (Avelino et al., 2013).

Kühn (2015, p.15, our translation)<sup>1</sup> explains that “development represents an improvement in the quality of life of the majority of people who live in the worst conditions in certain regions.” This concept does not rule out the importance of economic growth, but it adds the need for all involved in the process to have better living conditions. Specifically, for development to occur, inequality between the subordinate classes and the ruling class should decrease at the same pace as the economy grows, or even more rapidly.

Zachow & Plein (2018, p.3319, our translation)<sup>2</sup> believe that there are different definitions for development, which “include not only financial factors, but also social ones, which increase the quality of life and freedom of human beings”. The authors also state that the issue of environmental sustainability is part of the concept of development, and it cannot be excluded in any way.

Dealing with rural development to understand the Brazilian model necessarily implies an analysis of the historical process of agriculture, the land situation, and the emergence of the segments: large producer, medium producer, and family farming. It still requires observing the access to public policies and the

<sup>1</sup> Kühn (2015, p.15): “[...] desenvolvimento representa uma melhoria da qualidade de vida da maioria das pessoas que vivem nas piores condições de determinadas regiões.”

<sup>2</sup> Zachow & Plein (2018, p.3319): “[...] incluem fatores não somente financeiros, mas fatores sociais, que ampliam a qualidade de vida e a liberdade do ser humano.”

environmental socioproductive relationship that is constant in the Brazilian rural model.

Three points stand out in the Brazilian rural model: monoculture, plantations in large extensions of land (*latifundium*), and production aimed at exporting, characteristics that permeate and guide the development in the Brazilian rural model from colonial times to the present day. In this perspective, Furtado (2007) and Prado Junior (2011) show that agricultural production cycles, emphasizing the sugarcane and coffee cycle, had a strong influence on the country's development, structured on monoculture in large estates that used slave labor (officially) until 1888 and exerted influence on the political directions of the country until the 1930s, with a strong characteristic and rural dependence until this period, but whose characteristics remain until present.

From the perspective of this historical analysis, another factor for understanding the development of the Brazilian rural model is the land structure. In a brief understanding of this patrimonial ownership of land, such action had its beginning in the period of hereditary captaincies, passing through the granting of *sesmaria*<sup>3</sup>, being confirmed by the Land Law<sup>4</sup> from 1850 that gave a legal and private character to the lands, favoring the acquisition by a few who already enjoyed and managed the land, with the consequence of excluding the others who worked on it (Gadelha, 1989; Stoffel, 2013).

The structuring of the Brazilian rural model had a strong intensification after the 1950s, stimulated mainly by international agricultural/land ownership credit, when – through the acquisition of machinery used in planting, irrigation, and harvesting, together with the purchase of new lands – and this is the period known for its agricultural modernization. This period was characterized by the Green Revolution, which combining the use of

agricultural machinery with chemical inputs and genetically modified seeds, considerably increased food production, while at the same time promoted the exclusion of a large number of farmers in rural areas (Matos, 2010; Delgado, 2012).

For Delgado (2009), after the 1964 coup, the conservative thinking set the course for Brazilian development and, therefore, for the agricultural modernization process that occurred without agrarian reform. Moreover, it did not include the agrarian question in the debate, which is linked to the Brazilian land structure. The author points out that the current of thought that was politically imposed only sees agriculture in its basic functions of food production, generation of raw materials for industry, and generation of foreign exchange. Therefore, “there would be no reason to talk about a primary sector crisis, or a crisis, in the primary sector” (Delgado, 2009, p.56, our translation)<sup>5</sup>. Thus, the agrarian reform debate appears only to the “left” of development theory.

Ramos (2014) explains that there is a lack of attention and even a denial of the agrarian question from some scholars, preventing agrarian development in Brazil. It means that “to deny the agrarian question is to deny that land is still one of the bases of economic, political, and social power and domination in the country” (p.689, our translation)<sup>6</sup>.

The concept of rural development was born in Europe in 1950, during the Green Revolution, a time of intense modernization of agriculture. Almeida & Navarro (2009) point out that the concept arose from the need to modernize the agricultural sector, in which the State, food industries, and “entrepreneurial” farmers acted together to transform agriculture from a “traditional and backward” sector to a so-called

<sup>3</sup> Form of distribution of public land by the Portuguese State, with the aim of populating and cultivating the colonial territory.

<sup>4</sup> Law no. 601 (from September 18, 1850, was sanctioned by Dom Pedro II and provided for lands devolved to the Portuguese Empire.

<sup>5</sup> Delgado (2009, p.56): “[...] não haveria porque falar em crise do ou no setor primário.”

<sup>6</sup> Ramos (2014, p.689): “[...] negar a Questão Agrária é negar que a terra ainda é uma das bases do poder e dominação econômica, política e social no País.”

“modern” one. Allied to Delgado’s (2009) point, Almeida & Navarro (2009) state that the definition of development used here is restricted to changes brought about by technical progress.

In the 1990s, the debate around rural development started from the recognition of the negative impacts caused in the rural environment by the Green Revolution and the recognition that the rural space has a multifunctionality that goes beyond its productive functions; it has the role of ecological balance and support of recreation and preservation of the landscape (Kageyama, 2004; Carneiro & Maluf, 2005; Cazella et al., 2009). Schneider (2010) points out that in this same process, there is a division between family farming and employer farming, where recognition of the potential of the former for rural development is gaining strength as a political category. Linked and organized in trade unions and social movements, it claims their rights, forcing the State to expand its action through public policies to strengthen family farming and agrarian reform.

According to Kageyama (2004, p.388, our translation)<sup>7</sup>, “rural development is specific in the fact that it refers to a territorial, local or regional basis, in which different productive and support sectors interact, and in this sense, it is a multisectoral development.” This author, agreeing with what Carneiro & Maluf (2005) and Cazella et al. (2009) stated, emphasizes that in addition to being multisectoral, rural development is multifunctional because the rural area performs several functions. In addition to agriculture, tourism, crafts, preservation of natural resources and the landscape, and preservation of cultural heritage are functions of family farming. Also, due to its population function, after industrialization, it was no longer a provider of labor force for the cities and started

to demand greater infrastructure for the rural environment.

In the words of Kühn (2015, p.19, our translation)<sup>8</sup>, according to Ellis (2001), “[...] rural development is currently associated with rural poverty reduction processes that seek, through survival strategies, to increase the opportunities and potential of the poor rural people.” For this to happen, the State must act via public policies for the rural environment.

As it is necessary for development, the environmental sustainability is also included in this more recent debate. In this context, the concept of sustainable development emerges, which has “[...] a strategic place in social analysis and debate because they articulate, or try to articulate, two dimensions of scientific knowledge that are nature and society” (Almeida, 1997, p.35, our translation)<sup>9</sup>. Sustainability is added to rural development, as a way of denouncing and reinforcing the need to change the management of natural resources brought about by the accelerated modernization process, which notably has negative externalities for the environment (Delgado, 2009).

Sustainable rural development seeks to reinforce the economic development of rural areas in harmony with nature, with constant preservation of the environment. Changing the paradigms of capitalist agro-industrial production in rural areas, “[...] sustainable rural development is a production process, in which economic development is sought to create a social change in the rural community and aims at the constant preservation of the environment” (Freitag et al., 2019, p.99, our translation)<sup>10</sup>.

<sup>8</sup> Kühn (2015, p.19) “[...] desenvolvimento rural estaria atualmente associado a processos de redução de pobreza rural que busquem, por meio das estratégias de sobrevivência, aumentar as oportunidades e o potencial dos pobres rurais (ELLIS, 2001).”

<sup>9</sup> Almeida, 1997, p.35: “[...] um lugar estratégico na análise e no debate social, porque elas articulam - ou tentam articular - duas dimensões do saber científico, ou seja, a natureza e a sociedade.”

<sup>10</sup> Freitag et al. (2019, p.99): “[...] desenvolvimento rural sustentável é um processo de produção, no qual se busca o desenvolvimento econômico, que crie uma mudança social na comunidade rural e vise à constante preservação do meio ambiente.”

<sup>7</sup> Kageyama (2004, p.388): “O desenvolvimento rural tem de específico o fato de referir-se a uma base territorial, local ou regional, na qual interagem diversos setores produtivos e de apoio, e nesse sentido trata-se de um desenvolvimento “multissetorial”.

Based on what has been exposed, it is possible to conclude that rural development encompasses the rural space in all its economic, political, social, and environmental diversity. As far as a parallel is established with the concept of development that differs from growth, it is not restricted to the increase in GDP, but also to the management of natural resources in a sustainable way. For this, debates and actions about the agrarian issue are necessary, especially for the land structure. The difference between development and rural development refers to the spatial area, the rural space, which starts to be observed and understood based on its interrelationships with the environment that surrounds it. This environment includes family farming, which the next section discusses.

## Family farming

To better understand family farming and its importance, it is necessary to explain the understanding of the rural environment. In the capitalist economy, agriculture fulfills the role of providing raw materials and cheap labor for industry, food for the urban population, contributing to the balance of trade by increasing the volume of agricultural exports and transferring income for the urban sector (Delgado, 2009; Kühn, 2015). This occurred intensely and massively during the process of accelerated industrialization and conservative agricultural modernization (Silva, 1982; Delgado, 2009).

Although there are several definitions for “rural space”, Kageyama (2004) indicates four characteristics that permeate the theories of Veiga, Abramovay, Baptista, and Terluin:

- a) rural is not synonymous with agricultural and does not have exclusivity over the latter; b) rural is multisectoral (pluriactivity) and multifunctional (productive, environmental, ecological, social functions); c) rural areas have relatively low population density; d) there is no absolute isolation between rural spaces and urban areas. Mercantile,

social, and institutional networks are established between the rural area and adjacent cities and towns (Kageyama, 2004, p.382, our translation)<sup>11</sup>.

The term “rural” is considered by many as an empty and poor space where there is no crowding of people, but only vast fields called “nonurban” (Kühn, 2015). However, like Kageyama (2004), Kühn (2015) points out that this space is occupied indeed. The actors who occupy this space are peasants, indigenous people, family farmers, settlers, traditional people, *quilombolas*, riverside people, and forest people. A diversity of citizens and cultures inhabit the rural space. Among these actors are family farmers are highlighted and characterized, although there is no consensus on the specificities that differentiate them from peasants, colonists, and small-scale agriculture.

Wanderley (2003) points out that two main interconnected currents define the term peasant. One of them interprets the peasants as a civilization, or as a culture; and the other characterizes the definition of peasant as the production organization given by family, that is, the managed production unit organized by a family. The family organization of production is linked to a peasant culture. Therefore, although there is a rupture in history, the traditional peasantry gave rise to the current family agriculture. Thus, peasants never ceased to exist; as beings living in society, they just followed social changes and changed over time.

In this sense, it is crucial to consider that there are academic definitions of the categories and legal aspects that classify family farming. When collecting data for the agricultural census, the IBGE considered the current regulations, so it is important to consider such definitions. In this regard, the classification of family farming

<sup>11</sup> Kageyama (2004, p.382): “a) rural não é sinônimo de agrícola e nem tem exclusividade sobre este; b) o rural é multisectorial (pluriatividade) e multifuncional (funções produtiva, ambiental, ecológica, social); c) as áreas rurais têm densidade populacional relativamente baixa; d) não há um isolamento absoluto entre os espaços rurais e as áreas urbanas. Redes mercantis, sociais e institucionais se estabelecem entre o rural e as cidades e vilas adjacentes.”

used by the Instituto Brasileiro de Geografia e Estatística (IBGE, 2021C) is based on the Law 11.326/2006 which considers the following issues: the predominant use of family labor; the landowner and family jointly manage the establishment; most of the income is obtained by agricultural activities; and that the size is within the established delimitations (Stoffel, 2013).

Schneider (2016) emphasizes that there are similar aspects between family farming, peasantry, and small farming, but that there are also differences between them. According to the author, family farmers "have a specific social form of work and production located in a defined geographic space, with family group interaction, linked by kinship ties" (Schneider, 2016, p.95, our translation)<sup>12</sup>. In this definition, ties with the land, other means of production, family units beyond the family, and other social groups are still considered essential.

Zachow & Plein (2018) reaffirm the undeniable importance of the family category for food production. Bittencourt (2020, p.25, our translation)<sup>13</sup> agrees and highlights that "[...] in Brazil, family farming is intrinsically linked to the food and nutritional security of the population". The author also points out that the category boosts local/regional economies and contributes to sustainable rural development, as it establishes a relationship between the family and the land (and, in addition to providing work, it provides housing). It produces essentially for its sustenance, seeking the family's well-being and subsequently entering the food supply market (Bittencourt, 2020).

Even with the conservative modernization after the 1964 coup, peasant/family farmer activities did not cease to exist. However, this modernization based on the preservation

and expansion of large landholdings for the implementation of the "agribusiness" agricultural production model expelled thousands of these workers and residents from rural spaces. It pushed them to the cities to form a mass of unemployed or underemployed workers who began to live on the outskirts of large urban centers, or even small cities (Ramos, 2014).

From the perspective of access to public policies, it is understood that until the mid-1990s, there were no distinctions between family and nonfamily farming. Thus, until that period, the various categories in the family farming segment had to compete on an equal footing with the medium and large rural producers (Grisa & Schneider, 2015).

After the creation of the national program for strengthening of family agriculture (PRONAF), the family farming segment began to distinguish itself, mainly in the access to rural credit. Soon after, the food acquisition program (PAA) was created, and the national school feeding program (PNAE) was changed, directing 30% of the amount to purchases of products from family farming. These programs seek to provide conditions for the disposal of the segment production through institutional markets. In conjunction with policies such as the Territories of Citizenship Program, which had a strong presence in municipalities with high levels of poverty and with rural characteristics, the Brazilian State provided opportunities for the segment of family farming within the Brazilian rural model (Grisa & Schneider, 2015; Rambo & Freitas, 2019).

However, despite the "visibility" that has been given to family farming, the land structure in Brazil, the southern region make it clear that the concentration of land still remains. Alentejano (2018) claims that the agrarian reform announced and not conducted in Brazil perpetuates the high concentration of land, income, and wealth in the Brazilian countryside and society. In other words, promoting development and rural development involves a more equitable land distribution.

<sup>12</sup> Schneider (2106, p.95): "[...] agricultores familiares se caracterizam por uma forma social específica de trabalho e produção que se situa em um espaço geográfico definido e que consiste na interação de um grupo familiar, ligado por laços de parentesco [...]."

<sup>13</sup> Bittencourt (2020, p.25): "No Brasil, a agricultura familiar está intrinsecamente vinculada à segurança alimentar e nutricional da população."

Ramos (2014) highlights the importance of family farming and agrarian reform settlements for rural development. The author notes that, until the mid-1990s, family farming was not addressed by public policies tailored to its specific needs, a situation that only changed in 2006. Regarding the settlement process, the promotion of the First National Agrarian Reform Plan during the Sarney government was more extensive than the plan's actual implementation. In Fernando Henrique Cardoso's government, there was an increase in the number of settled families, as a result of pressure from agrarian conflicts. The period with the highest number of families settled occurred during the Lula government, through the Second National Agrarian Reform Plan (Ramos, 2014).

Thus, when using data from the 2017 Agricultural Census, it is necessary to consider that the institutional classification considers the legal definitions of Law N°11326/06 (Brasil, 2006). More recently, the Decree No. 9064 (Brasil, 2017) determines that a family unit of agricultural production (Unidade Familiar de Produção Agrária - UFPA) must meet the following requirements: a) have up to four fiscal modules; b) use at least half of the family workforce in production and income generation; c) at least half of the family income must come from economic activities of the establishment

or family enterprise; d) the management of the establishment or undertaking is conducted by the family.

In the mentioned context, using data (Table 1) from the 2017 Brazilian agricultural census, it is observed that out of the 5,073,324 units of agricultural establishments in Brazil, family farming represents 77% (3,897,408). However, it occupies only 23% of the 351,289,816 hectares destined for agriculture and livestock. Therefore, 77% (270,398,732) of the total area is occupied by only 23% (1,175,916) of the establishments, with owners of nonfamily farmers, capitalists, and employers (IBGE, 2021c). For the southern region, similar to the total ones for the country, since while family farming represents 78% of the establishments and occupies only 27% of the occupied area, nonfamily farming establishments represent 22% of the units and occupy 73% of the 42,875,310 hectares of land. In Paraná, family agriculture represents 75% of establishments and occupies 24.1% of the area, while nonfamily agriculture occupies 75.8% of the area with 25% of establishments. In Rio Grande do Sul, data indicate that family farming represents 80.5% of establishments, occupying 25.2% of the area, while nonfamily farming represents 19.5% and occupies 74.7% of the area.

**Table 1.** Number of family and nonfamily agricultural establishments and occupied area (in hectares) in the Brazilian southern region (Paraná and Rio Grande do Sul states), in 2017.

Coverage	Agricultural establishments	Total	Nonfamily farming		Family farming	
			Units % (total)	Unit % (total)	Units % (total)	Unit % (total)
Brazil	Units	5,073,324	1,175,916	23	3,897,408	77
	Area (ha)	351,289,816	270,398,732	77	80,891,084	23
South	Units	853,314	187,547	22	665,767	78
	Area (ha)	42,875,310	31,382,790	73	11,492,520	27
Paraná	Units	305,154	76,266	25	228,888	75
	Area (ha)	14,741,967	11,182,128	75.8	3,559,838	24.1
Rio Grande do Sul	Units	365,094	71,202	19.5	293,892	80.5
	Area (ha)	21,684,558	16,208,095	74.7	5,476,463	25.2

Source: 2017 Brazilian agricultural census (IBGE, 2021c).

These data associated with the participation of family farming in the total values of production reinforce the role of this agriculture practicing in the promotion of development. While occupying 27% of the area, it accounts for 22.9% of the production value; in Paraná, 24.1% of the area and 27.39% of the production value; in Rio Grande do Sul, 25.2% of the area and 37.4% of the production value (IBGE, 2021c).

In the average size of agricultural establishments between the 2006 and 2017 censuses, both in Paraná and Rio Grande do Sul, a tendency is indicated toward an increase of land concentration in these regions. For the average size of establishments, the land structure is less unequal in the south region than in the other regions of Brazil. In the south, establishments with more than 2,500 hectares occupied 13.4% of the area, while those with up to 50 hectares occupied a larger area, corresponding to 23.1%. In Brazil, establishments with more than 2,500 hectares represented 32.8% of the area, and establishments with up to 50 hectares occupied only 12.8% (IBGE, 2021b). The index also varies between states, and it is higher in Mato Grosso, Mato Grosso do Sul, Bahia, and in the Matopiba region, where the production of commodities in large properties predominates. It is lower in states with a higher presence of family farming, such as Santa Catarina, Amapá, and Espírito Santo (IBGE, 2021b).

Furthermore, the Gini coefficient referring to the total area of agricultural establishments showed an increase of concentration in 2017, registering 0.867 points, the highest level concerning data verified in previous surveys: 0.854 (2006), 0.856 (1995-1996), and 0.857 (1985) (IBGE, 2021a). Only the Northeast region recorded a decrease of the index in the referred period, although it is the region with the highest Gini (IBGE, 2021b).

It is worth highlighting the observation by Pinto et al. (2020) for the relationship between Gini and settlements. The authors state that although the settlements' presence has resulted

in a decrease of inequality in Brazil – that is observable by comparing the Gini for private lands, which is greater than the Gini total – they still have a limited effect on the scale of inequality in most parts of the country.

From the national and regional realities, this paper seeks to highlight the land structure situation in municipalities of two *Territórios de Cidadania* – Cantuquiriguaçu, in Paraná state, and Noroeste Colonial, in Rio Grande do Sul state. The next section characterizes these two territories, for which secondary data were collected to contextualize the studied spaces.

## TERRITORIES OF CITIZENSHIP CANTUQUIRIGUAÇU, IN PARANÁ STATE, AND NOROESTE COLONIAL, IN RIO GRANDE DO SUL STATE

Established in 2008 by the federal government, the Territories of Citizenship Program (Programa Território da Cidadania - PTC) had as its central objective the promotion of actions to reduce social and regional inequalities through cooperation and solidarity, following what was proposed by the Rural Territory Program (Programa Território Rural) that started in 2003 (Benson & Allebrandt, 2014). The Territories of Citizenship were composed of municipalities with characteristics in common, which cooperating together gradually intended to insert the entire population into a unified process of regional territorial development (Souza & Hespanhol, 2017).

Deckert & Allebrandt (2013, p.140, our translation) said:

The program brought a proposal to a social approach, favoring solidarity and cooperation, involving different actors, and articulating public and private initiatives, social and productive policies, and local and extra-local instruments<sup>14</sup>.

<sup>14</sup> Deckert & Allebrandt (2013, p.140): "O programa trouxe uma proposta de aproximar socialmente favorecendo a solidariedade e a cooperação; envolver diversos atores; e articular as iniciativas públicas e privadas, as políticas sociais e produtivas, os instrumentos locais e extra-locais."

Through these actions, the objective was to stimulate better levels of development in vulnerable regions, using social organization and planning the application of public investments in territories with low levels of development.

In 2008, 60 the Territories of Citizenship were selected at the start of the program. In the following year, there were 120 Territories of Citizenship. The analysis for the constitution of each territory stated as a prerequisite that the municipalities should have populations of up to 50,000 inhabitants, with a population density of less than 80 inhabitants/km<sup>2</sup>; low HDI; concentration of family farmers and agrarian reform settlements; concentration of *quilombola* and indigenous populations; high number of beneficiaries of the Bolsa Família Program; and a higher number of municipalities with low economic dynamism (Brasil, 2008; Stoffel et al., 2019).

Among the Territories of Citizenship created by the presidential decree of the then President Luiz Inácio Lula da Silva are the Cantuquiriguá, located in the central-southern region of Paraná state, and the Colonial Noroeste, in the northwest of Rio Grande do Sul state, both in the south region of Brazil.

The municipalities that constitute the Cantuquiriguá territory are: Campo Bonito, Candói, Cantagalo, Catanduvas, Diamante do Sul, Espigão Alto do Iguaçu, Foz do Jordão, Goioxim, Guaraniaçu, Ibema, Laranjeiras do Sul, Marquinho, Nova Laranjeiras, Pinhão, Porto Barreiro, Quedas do Iguaçu, Reserva do Iguaçu, Rio Bonito do Iguaçu, Tres Barras do Paraná, and Virmond (SIT, 2021a). These municipalities are located in the south-central region of Paraná, in the valley of Cantu, Piquiri, and Iguaçu Rivers, which originate its name: Territory Cantuquiriguá. The region covers an area of 13,947.74 km<sup>2</sup>, which is equivalent to 7% of the territory of Paraná state (Ipardes, 2007).

Krajevski (2018) points out that this territory is marked by inequality and poverty, since it is

the second poorest in Paraná. However, the author highlights the presence and struggle of social movements. The main ones are the Landless Rural Workers Movement (Movimento dos Trabalhadores Rurais Sem Terra – MST) and the Movement of People Affected by Dams (Movimento dos Atingidos por Barragens – MAB). In the region, 70% of the municipalities have at least one settlement, with a historic milestone of one of the largest land occupations conducted by the MST on April 17, 1996, when one of the largest estates in southern Brazil was occupied – the farm Giacomet-Marodin. There are fifty settlements in the region, which have about 4,400 families, equivalent to approximately 15,817 people, representing 6.8% of the regional population (Krajevski, 2018).

The MAB is another movement that acts strongly in the region and has its origin in the loss of land by peasants/family farmers from the implementation of several hydroelectric dams built along the Iguaçu and Jordão Rivers and operating within the territory<sup>15</sup>. The region also features Indigenous lands, *quilombolas*, and *faxinalenses*<sup>16</sup>, besides settlers, peasants, and family farmers (Krajevski, 2018).

The Territory of Citizenship Noroeste Colonial is located in the northwest region of Rio Grande do Sul state. The region has 34 municipalities, namely: Ajuricaba, Augusto Pestana, Barra do Guarita, Boa Vista do Cadeado, Bom Progresso, Bozano, Braga, Campo Novo, Catuípe, Chiapetta, Condor, Coronel Barros, Coronel Bicaco, Crissiumal, Cruz Alta, Derrubadas, Esperança do Sul, Humaitá, Ijuí, Inhacorá, Joia, Miraguaí, Nova Ramada, Panambi, Pejuçara, Redentora, Santo Augusto, São Martinho, São Valério do Sul, Sede Nova, Tenente Portela, Tiradentes do Sul, Três Passos, and Vista Gaúcha (SIT, 2021b). Figure 2 shows the location of the

<sup>15</sup> In the municipalities of Cantuquiriguá, eight hydroelectric plants are in operation: Governor Bento Munhoz da Rocha, Salto Osório, Salto Santiago, Governor Ney Aminthas de Barros Braga, Barra, Fundão, Santa Clara, and Salto Cururuca (Krajevski, 2018).

<sup>16</sup> *Faxinalenses* are the inhabitants of *faxinal* communities, which are traditional settlements located in the interior of Paraná state, Brazil.

municipalities in the Territory of Citizenship and Rio Grande do Sul state.

The municipalities of this territory constitute an area of 13,334.30 km<sup>2</sup>, that is, 4.7% of the total area of Rio Grande do Sul state. The region is marked by the resistance of native peoples who were marginalized by the arrival of white immigrants and by the struggle of social movements similar to what occurs in Cantuquiriguaçu. The MST is one of the movements with the strongest presence in the region, but other rural movements resist and continue in family farming, even with the increase of land concentration over time (Benson & Allebrandt, 2014).

Costa et al. (2019) reinforce that the territory is characterized by the concentration of rural activities predominantly conducted by family farmers. It is also marked by high illiteracy rates among the population over 18 years old, and no municipality had HDI-M education higher than 0.8 (ideal condition) in 2010. As for the Gini index, the authors point out that the index was above 0.5 in 47% of the municipalities, which corroborates the existence of inequalities in the income of the region's population.

The next section presents the analyses of the information on land structure of the two regions.

## RESULTS AND DISCUSSIONS

Based on data from the 2017 Brazilian agricultural census (IBGE, 2021c), we sought to understand the representativeness of the area occupied by family farming in the two Territories of Citizenship, observing the land structure of both this category and that of nonfamily farming. Thus, it was intended to observe how land distribution is characterized in the Territories of Citizenship Cantuquiriguaçu, PR, and Noroeste Colonial, RS, and if the phenomenon of land concentration is repeated in these territories. The following variables were used: 1) number of units

of agricultural establishments; 2) area occupied in hectares by family and nonfamily agriculture; and 3) area group occupied by the establishments.

The Territory of Citizenship Cantuquiriguaçu has 24,782 agricultural establishments (family and nonfamily) in a total area of 1,070,874 hectares. Out of the existing establishments, 78.7% are occupied by family farming, that is, 19,508 establishments in 304,456 hectares, corresponding to 28.4% of the total area. Nonfamily establishments total 5,274 units (21.0%) and occupy an area of 766,419 hectares (71.5%) (Table 2).

Among the municipalities in this territory, Rio Bonito do Iguaçu has the highest number of family establishments (95.6%), followed by Quedas do Iguaçu, with 87.56% of establishments.

When observing the territory, Krajevski (2018) found that the municipalities with the highest number of settled people are precisely Rio Bonito do Iguaçu and Quedas do Iguaçu, surpassing a thousand units of families settled by the agrarian reform in each municipality.

In all municipalities of the Cantuquiriguaçu territory, family farming overlaps nonfamily farming concerning the number of existing agricultural establishments. Foz do Jordão has the lowest percentage of family farming units, that is, 57.5% of the total number of establishments (Table 2).

In the area (hectares) occupied by family and nonfamily farming in the Cantuquiriguaçu territory, Rio Bonito do Iguaçu stands out – for the highest number of family establishments (95.6%) – as it is the only municipality in which family farming occupies more than 50% of the total area, occupying 78.5% of the 44,971 hectares. The municipality has three settlement projects, with 1,516 families settled on 27,983 hectares (INCRA, 2021). This favorable distribution for family farming results from the agrarian reform process conducted in the municipality.

**Table 2.** Number of establishments and the area occupied by family and nonfamily agriculture in the Territory of Citizenship Cantuquiriguaçu, PR, in 2017.

Municipalities	Agricultural establishments				Area occupied by establishments			
	Nonfamily farming		Family farming		Nonfamily farming		Family farming	
	Units	%	Units	%	Hectares	%	Hectares	%
Total	5,274	21.2	19,508	78.7	766,419	71.5	304,456	28.4
Campo Bonito	162	29.4	390	70.7	31,150	81.3	7,175	18.7
Candói	380	25.7	1,101	74.3	77,739	82.2	16,860	17.8
Cantagalo	211	22.4	732	77.6	31,097	70.9	12,761	29.1
Catanduvas	288	26.7	788	73.2	42,846	80.2	10,528	19.7
Diamante do Sul	194	35.7	350	64.3	25,191	84.2	4,730	15.8
Espigão Alto do Iguaçu	127	18.8	547	81.2	13,586	61.7	8,451	38.4
Foz do Jordão	110	42.5	149	57.5	23,557	91.6	2,164	8.4
Goioxim	149	17.4	707	82.6	33,031	69.4	14,539	30.6
Guaraniaçu	540	32.6	1,118	67.4	95,095	82.8	19,761	17.2
Ibema	128	32.2	270	67.8	12,373	78.6	3,370	21.4
Laranjeiras do Sul	336	25.0	1,009	75.0	40,611	69.9	17,488	30.1
Marquinho	236	25.4	694	74.6	36,641	74.3	12,693	25.7
Nova Laranjeiras	438	21.5	1,603	78.5	59,833	70.5	25,101	29.6
Pinhão	794	27.8	2,058	72.2	97,022	71.9	37,887	28.1
Porto Barreiro	161	21.6	583	78.4	18,280	62.9	10,767	37.1
Quedas do Iguaçu	391	12.4	2,752	87.6	49,263	61.1	31,307	38.9
Reserva do Iguaçu	210	30.3	483	69.7	35,555	80.6	8,572	19.4
Rio Bonito do Iguaçu	128	4.4	2,791	95.6	9,655	21.5	35,316	78.5
Três Barras do Paraná	218	18.7	949	81.3	23,481	59.2	16,194	40.8
Virmond	73	14.4	434	85.6	10,413	54.2	8,792	45.8

Source: 2017 Agricultural Census (IBGE, 2021c).

In the other municipalities, family farming has the highest number of establishments (at least 64.3%) but occupies less than 50% of the total area. Among these, it is worth highlighting Quedas do Iguaçu, that despite having four settlement projects – with 1,041 families settled in 27,103 hectares (INCRA, 2021) – presents a high concentration of land in the hands of nonfamily farmers, so that family members occupy only 38.9% of the total area.

The number of establishments (in absolute and relative values) is presented by group of total area, to complement the information on the existing land structure in the municipalities of the Territory of Citizenship Cantuquiriguaçu (Table 3). In this territory of Paraná state, 85.85% of the agricultural establishments have an area between zero and 50 hectares, with 74.90% of this percentage being occupied by family farmers. This confirms that most of the area corresponds to nonfamily establishments, whose average area

is larger. The FIRJAN municipal development index (2018 edition) was used to observe the level of development of the municipalities in the region. According to the methodology of this index, municipalities that reach values higher than 0.8 are considered highly developed. Between 0.6 and 0.8, they are defined as having moderate development. According to FIRJAN (2021), when the index reaches values between 0.4 and 0.6, their development is regular, and when it is less than 0.4, their development is considered low. These values are presented below for the municipalities in the studied region of Paraná state (Table 4).

On average, it is possible to observe that only Nova Laranjeiras has a regular development, while the other municipalities are on a moderate scale. However, for employment and income, except for Quedas of Iguaçu, all other municipalities are in regular or low development ranges, since their position in the

**Table 3.** Number of establishments (in units and percentage) by group of total area and by family and nonfamily typology in the Territory of Citizenship Cantuquiriguá, PR, in 2017.

Group of total area	Total establishments		Nonfamily farming		Family farming	
	Units	Total establishments (%)	Unit	Total establishments (%)	Unit	Total establishments (%)
Total	24,782	100.00	5,274	21.28	19,508	78.72
More than 0 to less than 10 ha	9,840	39.71	1962	7.92	7,978	32.19
From 10 to less than 20 ha	6,880	27.76	505	2.04	6,375	25.72
From 20 to less than 50 ha	4,556	18.38	348	1.40	4,208	16.98
From 50 to less than 100 ha	1,421	5.73	624	2.52	797	3.22
From 100 to less than 500 ha	1,380	5.57	1,342	5.42	38	0.15
From 500 to less than 1,000 ha	320	1.29	316	1.28	4	0.02
From 1,000 to less than 2,500 ha	110	0.44	109	0.44	1	0.00
From 2,500 to less than 10,000 ha	40	0.16	40	0.16	0	0.00
From 10,000 ha and more	5	0.02	5	0.02	0	0.00
Farmer without area	17	0.07	7	0.03	10	0.04

Source: 2017 Agricultural Census (IBGE, 2021c).

**Table 4.** FIRJAN municipal development index (IFDM) (2018 edition) for the municipalities of the Territory of Citizenship Cantuquiriguá, PR.

Municipalities	Ranking		FIRJAN municipal development index			
	Brazil	Paraná	IFDM	Education	Health	Employment and income
Campo Bonito	1141º	152º	0.7512	0.8084	0.9345	0.5105
Candói	2766º	333º	0.673	0.7137	0.8465	0.4588
Cantagalo	2364º	306º	0.6899	0.7514	0.7782	0.502
Catanduvas	1985º	266º	0.707	0.7562	0.8879	0.4758
Diamante do Sul	1177º	157º	0.7484	0.7622	0.9837	0.4991
Espigão Alto do Iguaçu	2413º	310º	0.6876	0.7716	0.8576	0.4337
Foz do Jordão	2083º	276º	0.7017	0.699	0.9282	0.478
Goioxim	3660º	385º	0.6312	0.7297	0.7525	0.4115
Guaraniaçu	1222º	168º	0.7455	0.7704	0.9405	0.5256
Ibema	1013º	129º	0.758	0.8082	0.9254	0.5405
Laranjeiras do Sul	786º	102º	0.771	0.8573	0.891	0.5646
Marquinho	2026º	272º	0.7045	0.7922	0.8979	0.4234
Nova Laranjeiras	4573º	397º	0.57	0.7296	0.6706	0.3099
Pinhão	2670º	327º	0.6771	0.7141	0.7856	0.5317
Porto Barreiro	2808º	338º	0.6711	0.762	0.9179	0.3334
Quedas do Iguaçu	599º	74º	0.7857	0.8004	0.9272	0.6294
Reserva do Iguaçu	2546º	317º	0.6815	0.7115	0.8756	0.4576
Rio Bonito do Iguaçu	3031º	353º	0.6616	0.7608	0.8105	0.4136
Três Barras do Paraná	912º	118º	0.7638	0.8147	0.9704	0.5061
Virmond	1082º	139º	0.7543	0.8195	0.9415	0.5021

Source: FIRJAN (2021).

ranking of Paraná state shows that several of them are close to the last positions, especially Rio Bonito do Iguaçu (353°), Goioxim (385°), and Nova Laranjeiras (397°), which are close to the worst position, considering that the state has 399 municipalities. In Goioxim and Nova Laranjeiras, the land structure is concentrated in nonfamily agriculture, 2qesd ‘and this may be one of the factors explaining poverty. Nevertheless, in Rio Bonito do Iguaçu, although 78.5% of the land is family establishments, there is much to discuss in terms of improvements in the living conditions of that population.

Following this approach, the data on Noroeste Colonial (Table 5) show 22,285 agricultural establishments in the region, distributed in an area of 1,001,128 hectares. Out of the total units, family farming represents 84.3% (18,785 units), occupying 34.6% (346,271 hectares) of the area, while nonfamily agriculture corresponds to 15.7% of establishments (3,500 units), in one area equivalent to 65.4% of the total (654,860 hectares). Therefore, Noroeste Colonial shows a strong land concentration, which is a phenomenon similar to what occurs in Cantuquiriguáu.

In the following data (Table 5), the first highlight is for the municipality Cruz Alta, where there are exactly 50% of the establishments for each type of agriculture, showing the lowest percentage of family farming establishments than other municipalities in the region. However, data for the area occupied by family farming in Cruz Alta displayed the smallest value: 4.41% of the 129,372 hectares. Nineteen municipalities have a percentage of family establishments above the regional average (84.3%), especially Tiradentes do Sul, where 95.4% of establishments are familiar ones, occupying an area of 65.3%.

Regarding the area occupied by family establishments in the municipalities of this territory, the average (34.6%) is higher than that in Cantuquiriguáu (28.4%); however, in nine of them the percentage occupied is lower than that

of the regional average. Although the results of these municipalities point to the possession of the highest percentage of the total area, it was proved that there is also a concentration of land in nonfamily agriculture. These results can be related to the size of family establishments in the region (Table 6), where 84% of total establishments occupy an area of up to 50 hectares, and out of this percentage, 77.3% are family farmers.

Regarding the analysis of development level of the municipalities, the 2018 edition of the FIRJAN municipal development index (FIRJAN, 2021) presents the configuration displayed in Table 7. It is possible to observe that only the municipality São Valério do Sul has a regular development. The municipalities Ijuí, Panambi, Cruz Alta, and Três Passos have an index considered high. The others show a moderate development. However, the results are not promising, when observing the employment and income variables. There are 497 municipalities in Rio Grande do Sul state, and the ranking of the municipalities of Noroeste Colonial territory shows ten municipalities in a position after the 300th place, with a negative prominence for São Valério do Sul, Redentora, Humaitá, and Inhacorá.

Based on the data presented in this section, it was possible to observe the land structure of Brazil, specifically from the southern region and the federative units of Paraná and Rio Grande do Sul, and the Territories of Citizenship Cantuquiriguáu and Noroeste Colonial. According to the 2017 Brazilian agricultural census, for the number of establishments at the national level, family farming occupies 77% of agricultural establishments, and, in the southern region, this percentage is 78%. In Paraná, 75% of these establishments belong to family farming, and in the Territory of Citizenship Cantuquiriguáu are 79.0%. In Rio Grande do Sul state, this percentage is 80%, and in the Noroeste Colonial, the percentage is 84.3%.

**Table 5.** Number of establishments and areas occupied by family and nonfamily farming in the Territory of Citizenship Noroeste Colonial, RS, in 2017.

Municipalities	Agricultural establishments				Area occupied by establishments			
	Nonfamily farming		Family farming		Nonfamily farming		Family farming	
	Units	(%)	Units	(%)	Hectares	(%)	Hectares	(%)
Total	3,500	15.7	18,785	84.3	654,860	65.4	346,271	34.6
Ajuricaba	144	19.1	609	80.9	11,264	37.8	18,556	62.2
Augusto Pestana	96	10.4	826	89.6	12,226	42.3	16,665	57.7
Barra do Guarita	22	10.3	191	89.7	1,442	35.7	2,600	64.3
Boa Vista do Cadeado	178	34.2	343	65.8	51,691	86.1	8,313	13.9
Bom Progresso	37	17.5	174	82.5	3,316	54.4	2,780	45.6
Bozano	72	19.8	291	80.2	4,749	46.0	5,586	54.1
Braga	43	11.3	337	88.7	9,291	52.8	8,323	47.3
Campo Novo	78	27.5	206	72.5	13,043	77.9	3,691	22.1
Catuípe	177	21.7	637	78.3	35,928	69.4	15,846	30.6
Chiapetta	88	21.1	329	78.9	31,925	82.7	6,661	17.3
Condor	79	13.6	500	86.4	28,972	73.0	10,704	27.0
Coronel Barros	50	12.5	349	87.5	6,416	42.8	8,585	57.2
Coronel Bicaco	150	19.9	603	80.1	31,623	78.4	8,707	21.6
Crissiumal	178	11.2	1,414	88.8	8,562	30.5	19,540	69.5
Cruz Alta	290	50.0	290	50.0	123,666	95.6	5,706	4.4
Derrubadas	69	12.7	473	87.3	5,401	35.7	9,716	64.3
Esperança do Sul	46	8.2	512	91.8	3,456	32.9	7,061	67.1
Humaitá	40	7.0	533	93.0	3,374	28.2	8,597	71.8
Ijuí	260	16.0	1,366	84.0	24,717	45.8	29,240	54.2
Inhacorá	48	19.9	193	80.1	6,564	65.4	3,471	34.6
Joia	204	14.1	1,240	85.9	78,418	74.0	27,541	26.0
Miraguaí	69	10.5	587	89.5	2,768	27.7	7,224	72.3
Nova Ramada	71	14.2	430	85.8	13,883	58.9	9,705	41.2
Panambi	165	19.4	686	80.6	23,389	61.6	14,590	38.4
Pejuçara	101	35.7	182	64.3	35,723	88.9	4,475	11.1
Redentora	151	13.9	935	86.1	18,184	65.8	9,458	34.2
Santo Augusto	126	21.5	460	78.5	32,541	79.3	8,479	20.7
São Valério do Sul	45	16.0	236	84.0	6,024	42.7	8,084	57.3
São Martinho	62	13.4	400	86.6	5,123	55.6	4,098	44.4
Sede Nova	47	14.0	288	86.0	4,357	44.8	5,378	55.2
Tiradentes do Sul	43	4.6	884	95.4	7,157	34.7	13,475	65.3
Tenente Portela	100	11.4	776	88.6	3,942	24.4	12,231	75.6
Três Passos	133	10.4	1,152	89.7	4,098	21.0	15,415	79.0
Vista Gaúcha	38	9.7	353	90.3	1,627	22.0	5,770	78.0

Source: 2017 Brazilian agricultural census (IBGE, 2021c).

**Table 6.** Number of establishments (in units and percentage) by group of total area, and by family and nonfamily typology, in the Territory of Citizenship Noroeste Colonial, for the year 2017.

Total area groups	Total establishments		Nonfamily farming		Family farming	
	Units	Percent of total establishments (%)	Units	Percent of total establishments (%)	Units	Percent of total establishments (%)
Total	22,285	100.00	3,500	15.71	18,785	84.29
More than 0 to less than 10 ha	8,478	38.04	1,120	5.03	7,358	33.02
From 10 to less than 20 ha	5,600	25.13	208	0.93	5,392	24.20
From 20 to less than 50 ha	4,637	20.81	153	0.69	4,484	20.12
From 50 to less than 100 ha	1,904	8.54	409	1.84	1,495	6.71
From 100 to less than 500 ha	1,336	6.00	1,296	5.82	40	0.18
From 500 to less than 1,000 ha	187	0.84	187	0.84	0	0
From 1,000 to less than 2,500 ha	106	0.48	106	0.48	0	0
From 2,500 to less than 10,000 ha	17	0.08	17	0.08	0	0
From 10,000 ha and more	1	0.00	1	0.00	0	0
Farmer without area	24	0.11	8	0.04	16	0.07

Source: 2017 Brazilian agricultural census (IBGE, 2021c).

Regarding the area occupied by family farming establishments, the highest percentage appears in Noroeste Colonial (34.6%), followed by Cantuquiriguaçu (29.3%). In the southern region, this percentage is 27.0%, while in Rio Grande do Sul it is 25.2%. In Paraná state, family farmers occupy 24.1% of the existing area. And, finally, the index for the whole country is with only 23.0% of the total area of agricultural establishments occupied by family farming.

Although family farmers occupy a higher percentage of area in the analyzed Territories of Citizenship, in comparison with state and national averages, a trend of increased land concentration is observed in Paraná and Rio Grande do Sul states, where the municipalities of these Territories of Citizenship are located. This information can be observed in Girardi (2022),

who reports an increase of the average area of agricultural establishments between 2006 and 2017, from the data of the agricultural censuses. This information corroborates the fact that the agrarian reform announced and not conducted in Brazil perpetuates the high concentration of land, income, and wealth in the Brazilian agricultural fields (Alentejano, 2018).

Moreover, the southern region has the lower concentration of land in Brazil, yet the concentration has been growing. Thus, it is possible to raise the hypothesis that this reality is the result of the process of masculinization and especially the aging of the rural population, leading to increased average area, including among family farmers.

The results in this section suggest that land concentration is the reality of the rural

**Table 7.** FIRJAN municipal development index (IFDM) – (2018 edition) – for the municipalities of the Territory of Citizenship Noroeste Colonial, RS.

Municipality	Ranking		FIRJAN municipal development index			
	Brazil	Rio Grande do Sul	IFDM	Education	Health	Employment and income
Ajuricaba	919º	162º	0.7634	0.8678	0.9085	0.5138
Augusto Pestana	1300º	215º	0.7411	0.8106	0.9674	0.4453
Barra do Guarita	1545º	260º	0.7277	0.8341	0.8945	0.4546
Boa Vista do Cadeado	1851º	302º	0.7133	0.7446	0.8343	0.561
Bom Progresso	1708º	283º	0.7201	0.828	0.9188	0.4136
Bozano	2481º	379º	0.6842	0.7781	0.8254	0.449
Braga	2148º	335º	0.6988	0.7869	0.8625	0.4471
Campo Novo	793º	138º	0.7706	0.8413	0.8806	0.5899
Catuípe	998º	171º	0.7587	0.929	0.9016	0.4454
Chiapetta	1004º	173º	0.7584	0.8244	0.8969	0.5541
Condor	807º	140º	0.7702	0.7884	0.911	0.6113
Coronel Barros	1565º	262º	0.7267	0.8876	0.9163	0.3763
Coronel Bicaco	2511º	383º	0.6831	0.7936	0.7811	0.4746
Crüssiumal	1266º	211º	0.743	0.8354	0.8461	0.5475
Cruz Alta	328º	59º	0.8113	0.8133	0.8926	0.728
Derrubadas	1225º	204º	0.7454	0.9483	0.9549	0.333
Esperança do Sul	1394º	233º	0.7355	0.8308	0.9286	0.4471
Humaitá	3015º	432º	0.6623	0.8512	0.5943	0.5413
Ijuí	95º	15º	0.8466	0.9079	0.8995	0.7325
Inhacorá	2870º	415º	0.668	0.7847	0.7652	0.454
Joia	1561º	261º	0.7269	0.7835	0.9308	0.4664
Miraguaí	810º	141º	0.7701	0.7626	0.889	0.6586
Nova Ramada	2064º	328º	0.7025	0.7867	0.8553	0.4684
Panambi	206º	38º	0.8252	0.8722	0.899	0.7044
Pejuçara	804º	139º	0.7703	0.9447	0.8102	0.5561
Redentora	3606º	464º	0.6347	0.6492	0.8401	0.4147
Santo Augusto	692º	124º	0.7776	0.8547	0.9087	0.5693
São Valério do Sul	4575º	490º	0.5695	0.4658	0.7914	0.4213
São Martinho	1356º	222º	0.7378	0.8613	0.7805	0.5716
Sede Nova	1681º	277º	0.7216	0.8227	0.8656	0.4764
Tenente Portela	1255º	210º	0.7436	0.8012	0.8484	0.5811
Tiradentes do Sul	2281º	352º	0.6932	0.7666	0.817	0.4958
Três Passos	332º	60º	0.8109	0.9262	0.9028	0.6037
Vista Gaúcha	985º	168º	0.76	0.8874	0.9581	0.4346

Source: FIRJAN (2021).

environment in the municipalities of the Territories of Citizenship Cantuquiriguaçu, PR, and Noroeste Colonial, RS. Despite the resistance of family farmers in this rural environment, the conditions for development of the respective regions could be better if the lands were distributed more equally, in parallel to a set of public policies focused on the quality of life of the rural population and on the full exercise of the multifunctionality of rural space.

In this sense, Favareto et al. (2019) emphasize that not only economic inequality and land concentration limit economic growth, but they also represent obstacles to development in the broad sense, as well to the guarantee of rights and the generation of welfare for the entire population of a region or country (Favareto et al., 2019).

## FINAL CONSIDERATIONS

The presence of family farming in the studied Territories of Citizenship, for the number of establishments, concerns most the nonfamily agriculture. The process of agricultural development in rural areas happened through a conservative modernization, without land reform, which profoundly impacted the agrarian structure of the entire country, as well as the Territories of Citizenship. The existing land concentration at national level replicates in the Territories of Citizenship.

Although the numbers of the Territories of Citizenship are more promising than at the national level, farmers are still worried because these territories have a high land concentration in places where family farming is highly present, as well as social movements. The struggle of social movements for land reform (such as the MST) marks both regions and, without this presence, the concentration would probably be higher and less representative of family farming.

Data from the 2017 agricultural census point to growth in the average area of establishments

in the southern region. Initially, it can be assumed that it represents a higher concentration of land in nonfamiliar farmer hands, since in Noroeste Colonial, 84.3% of agricultural establishments are family farmers and, from these, 84% have a maximum total area of 100 hectares, occupying 34.6% of the total area. Still smaller than these percentages, in the territory of Cantuquiriguaçu, family farmers occupy 78.7% of establishments, and in 78.1% of these, the dimensions are up to 100 hectares and use a percentage of 28.4% of the area in the region. However, it is intended to draw attention here to another process associated with migration from the countryside to the city, masculinization, and aging of the rural population which may be generating the increase of the average area, including among family farmers. Thus, the need and urgency of a broad agrarian and rural development policy increases, which would meet the needs of family farmers and promote the multifunctionality of the rural space.

In the present study, data from the FIRJAN municipal development index were used to verify the conditions of development in both Territories of Citizenship, where precarious conditions, in terms of employment and income, were observed. Although these results may have multiple factors, if there were better land distribution coupled with agrarian and rural development policies, family farming itself would be better able to contribute to reducing the level of regional poverty.

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