

ANALYSIS OF DEVELOPMENT PROCESSES OF RURAL SETTLEMENTS: THE CASE OF THE IBICUI, RECANTO AND SÃO JOAQUIM SETTLEMENTS IN THE MUNICIPALITY OF SANTANA DO LIVRAMENTO/RS



<https://doi.org/10.56238/arev6n4-098>

Submitted on: 11/09/2024

Publication date: 12/09/2024

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ABSTRACT

The history of Brazil can be told considering as fundamental the role of social movements and their achievements, in this case specifically the social movements of the countryside, or rural social movements. Through this social organization, the various advances and achievements collaborate for Brazilian rural development. Through the struggles of social movements, especially after the redemocratization of Brazil in 1988, with the Citizen Constitution, social, economic and political demands emerged in the rural population, never "experienced" in the country, where the Brazilian State saw the emergence of popular pressure issues that were not previously evoked by the people. In rural areas, the pressures for better living conditions were being inserted into the State's agendas. The rural settlements are the result of these claims and created to ease the spirits of this

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marginalized population, they highlight because of the struggles of social movements, the "recampesinization" and a new proposal for the Brazilian rural environment. The present work aims to demonstrate through the analysis of data on the development processes of agrarian reform settlements (Ibicuí, Recanto and São Joaquim) in the municipality of Sant'Ana do Livramento/RS and how they developed according to their particularities, making a comparison of data from the ATES Integrated Rural Management System (SIGRA) from the years 2016 and 2022. Among this information are: population, education, infrastructure, access roads, health, etc. The methodology used combines quantitative and qualitative approaches, with the analysis of data collected by technicians from the Technical, Social and Environmental Advisory (ATES) in 2016, and by the collection of the Interdisciplinary Group on Studies and Rural Development (GIEDER) in 2022, to update the SIGRA database. The results highlight the diversities found among the settlements, distributed in three distinct blocks in the region of the municipality of Sant'Ana do Livramento. This study indicates that settlements have different forms of development, and that their full consolidation may take more than two decades. Given that, the most consolidated settlements are those with more than 25 years of history, in addition to good social organization and appropriate access infrastructure. Being through the SIGRA data, referring to the region of Sant'Ana do Livramento, it is possible to emphasize both the strengths and the obstacles faced by the settlements, thus enabling a comprehensive view of the living conditions of the settled families.

Keywords: Settlements. Technical Advisory. Rural Extension.

INTRODUCTION

Over the years, the theme around rural development has been gaining space on the public policy agenda. Using the analysis of the development processes in rural settlements can be considered an important strategy in order to understand the different ways in which the settlements begin to develop over the years. The rural environment in Brazil has gone through several distinct historical moments, with advances and setbacks throughout history. This study begins its reflections and contributions from the 1990s with the redemocratization.

The Brazilian Federal Constitution of 1988⁷ inaugurated the process of redemocratization, this new configuration institutionally redesigned the Brazilian State, where decentralization and social participation assumed a fundamental role in the "reconstruction of Brazil" and democratizing political discourses and proposals began to gain space throughout the 90s. The Brazilian population, "rocked" by the 1988 citizen constitution, was taking the first steps towards redemocratization and considered that "all power emanates from the people, who exercise it through elected representatives or directly, under the terms of this Constitution" (BRASIL, 1988). The year 1988 inaugurated a new historical moment in Brazil with the materialization of the democratic precepts evoked by the population, the Magna Carta addresses the problem of agrarian reform⁸ as a theme, which was dealt with in the chapter of "Economic and Social Order" and revealed itself as the first Brazilian Major Law to address the theme.

In the period between 1988 and 2016, several rural settlements⁹ were implemented in Brazil, settling about 1,346,798 families throughout the country, this great movement in the creation of rural settlements, spread throughout Brazil. From the 90's on, rural

⁷The Federal Constitution of Brazil was instituted in 1988, with four guiding items: I - to build a free, fair and solidary society; II - to guarantee national development; III - eradicate poverty and marginalization and reduce social and regional inequalities; IV - to promote the good of all, without prejudice of origin, race, sex, color, age and any other forms of discrimination (BRASIL, 1988).

⁸In the Magna Carta of 1988, in article 5, item XXIII, it establishes that property will serve the social function (MEDEIROS, 2003). The agricultural, land and agrarian reform policy recommends: Art. 184. It is incumbent upon the Federal Government to expropriate for social interest, for the purposes of agrarian reform, the rural property that is not fulfilling its social function, by means of prior and fair compensation in agrarian debt securities, with a clause for the preservation of the real value, redeemable within a period of up to twenty years, from the second year of its issuance, and whose use will be defined by law (BRASIL, 1988).

⁹From the point of view of management and organization, there are settlements that are managed by the federal government - through Incra -, state and less frequently, municipal. In this case, there is recognition by INCRA and the settlements are entitled to Pronaf (National Program to Support Family Agriculture) (MEDEIROS, 2018, p. 89).

settlements ¹⁰began to emerge in the country, through the social pressure that arose at the same time from the political opening towards democracy and that collaborated with the end of the military regime and the beginning of a new phase in the history of Brazil, characterized by a new proposal for the Brazilian rural and that had as its assumptions to understand the reality and rediscover paths for the "new" Brazilian public management. In Brazil, rural settlements are the result of many *struggles of social movements*¹¹ that have been involved in the National Plan for Agrarian Reform (PNRA).¹² As Ploeg (2008) states, the implementation of rural settlements in Brazil represents the social pressures of peasants who went through "de-peasantization", in processes of rural exodus, and who experienced "re-peasantization", a return and reinforcement of the peasant condition.

It is noteworthy that the period with the highest number of families settled in Brazil occurred between 2003-2010, in which 614,088 families were settled. The period with the highest number of Settlement Projects - PA occurred between 1995-2002¹³, with 4,281 PA created (FERRON and TROIAN, 2019). Between 2003 and 2010¹⁴ there was an increase in the number of families settled in Brazil, and finally between 2011 and 2016¹⁵ the creation

¹⁰The term settlement is used for several different situations, from allocations, in expropriated areas, of rural workers without access to land, to the regularization of the situation of squatters, partners or outsiders in a situation of threat and eviction (MEDEIROS, 2018, p. 89).

¹¹The struggles of rural social movements resulted in the government of Fernando Henrique Cardoso between 1995 and 2002, inaugurating a large number of settlement projects, basically due to the conflicts and deaths in the countryside observed in the 1990s, caused by the strong pressure and mobilization of social movements linked to the struggle for land and the considerable reduction of resources for agricultural credit, encouraging a large part of the landowners - many even indebted - to sell their lands with INCRA (DEFANTE et al., 1999; MEDEIROS, 2003). Mattei (2012) points out that, although data from the 1990s show the large number of families being settled throughout the country, the concentration of land in the same period continued sharply, continuing the Brazilian agrarian problem (FERRON and TROIAN, 2019). In the government of Lula 1 and 2, the demands of the social movements (urban and rural) were an integral part of their government platform (GUERRERO; BERGAMASCO; ESQUERDA, 2016), the creation of new rural settlements. Thus, in 2003 the Federal Government presented the II National Plan for Agrarian Reform, whose goals aimed to settle 400 thousand families through expropriations, 150 thousand families through land credit, regularize the land tenure of 500 thousand families, among others (FERNANDES, 2007). Despite the settlement of more than 381 thousand families between 2003 and 2006, where According to information from INCRA (2006), the year 2006 represents a milestone in the settlement process, with more than 138 thousand families settled. In President Lula's second term, there was a gradual drop in this number, with 232 thousand families settled between 2007 and 2010.

¹²The National Plan for Agrarian Reform (PNRA) was the instrument created by the federal government to support the creation of agrarian reform settlements. Stimulated by the Land Statute in 1964, the PNRA aimed at land expropriation for the settlement of landless families.

¹³In the government of President Fernando Henrique Cardoso, between 1995 and 2002, he created 4,281 Settlement Project -PA, settling about 540,704 families.

¹⁴In the government of President Luís Inácio Lula da Silva, between the years 2003 and 2010, he created 3,544.

¹⁵In the government of President Dilma Rousseff, INCRA settled between 2011 and 2016, an average of 26 thousand families per year, totaling 133,689 families settled in 584 Settlement Projects - PA.

of rural settlements in the country ended. However, only a total of 972,289 families continued to live effectively in the settlements and areas renovated in 2017 (INCRA, 2019).

In the mid-1990s, the state of Rio Grande do Sul began to stand out with the number of settlements in its territory, in this sense the current scenario places the state of Rio Grande do Sul with a population of 32,829 people settled and organized among 11 thousand families located in 304 settlements located in 86 municipalities in Rio Grande do Sul SIGRA (2016).

According to Aguiar (2011), the rural settlements of Sant'ana do Livramento are extremely complex, as they combine the experience of the previous camp and the social relations established in that space with the cultural experience of each family, considering the diverse geographical origin of the settlers. Several rural workers from old farms were settled in the municipality, which - in some cases - made it possible for these farmers to play a fundamental role in the installation of the settlements. The rural settlements of the municipality generate numerous spontaneous relationships, such as self-organization processes, offering concrete possibilities for supplying food to society (FERRON and FROIN, 2020). This study seeks to highlight the differences in development between the Ibicuí, Recanto and São Joaquim by demonstrating the indicators that contribute to the differentiation of the settlements located in the municipality of Sant'ana do Livramento – RS.

The present study resulted in a portrait of the three settlements mentioned, through the following indicators: a) Population; b) Schooling; c) Houses with compromised structures; d) Conditions of access roads; e) Improvements within the lots; f) Comparative synthesis of the number of establishments, Production value (PV) of agricultural production, Area, PV/ha and PV/establishment.

METHODOLOGY

The methodology used in this work articulated quantitative and qualitative research. In the development of the study, the approaches and techniques of descriptive and analytical research were used. In the quantitative approach, initially a general survey was carried out on the families settled in the municipality of Sant'Ana do Livramento. In the qualitative approach, two characteristics are present: interpretation and data analysis. The basic databases of the work are the Integrated Rural Management System of ATES (SIGRA). The three settlements were selected through two criteria. Updated data on

families for the year 2016 and 2022 and settlements established in different locations that represent the regions that make up the municipality, in order to characterize the different types of settlement organizations in the territory of Sant'ana do Livramento.

The data for the year 2016 were collected by technicians who served the settled families from the Technical, Social and Environmental Advisory (ATES) throughout Rio Grande do Sul. In 2022, data on the three selected settlements were obtained from field trips during 2022. The data collection for the year 2022 was carried out by the Interdisciplinary Group of Studies in Rural Development (GIEDER), which is composed of scholarship students and volunteers from the Federal University of Pampa (UNIPAMPA) on the Itaqui campus, in partnership with the group Center for Extension and Research in Territoriality, Rural Extension and Agrarian Reform at UFSM (NEP TERRA) at the Federal University of Santa Maria (UFSM) and funding for scholarship holders through the Support Foundation to Technology and Science (FATEC), with accountability through printed reports from the 2016 SIGRA database. The executing team aimed to update the information contained in SIGRA, about the different aspects of the life of the settled families, such as productive data, number of families in the lots, etc.

The data collection work was organized in such a way that, later, it would be prepared in the form of a technical report, intended to be delivered in the future to the leaders of the settlement and the municipality, so that the work carried out by GIEDER is recorded, as well as serves as feedback to the families who placed their trust in the work carried out by the team, thus answering the questionnaire. It is believed that such attention to the settled families will generate recognition and keep the "doors open" for future collaborations.

The data collected were analyzed quantitatively and qualitatively, in order to seek indicators for the family nuclei in the settlements, aiming to assist the future work of rural extension agents in these places. Finally, in the study, a moment of feedback was organized on the syntheses of the information of the Ibicuí, Recanto and São Joaquim settlements. Leaders from each settlement were present at the event and a printed document was delivered with the "portrait" of each settlement, with data from the year 2016 and 2022.

RESULTS

MUNICIPALITY OF SANT'ANA DO LIVRAMENTO

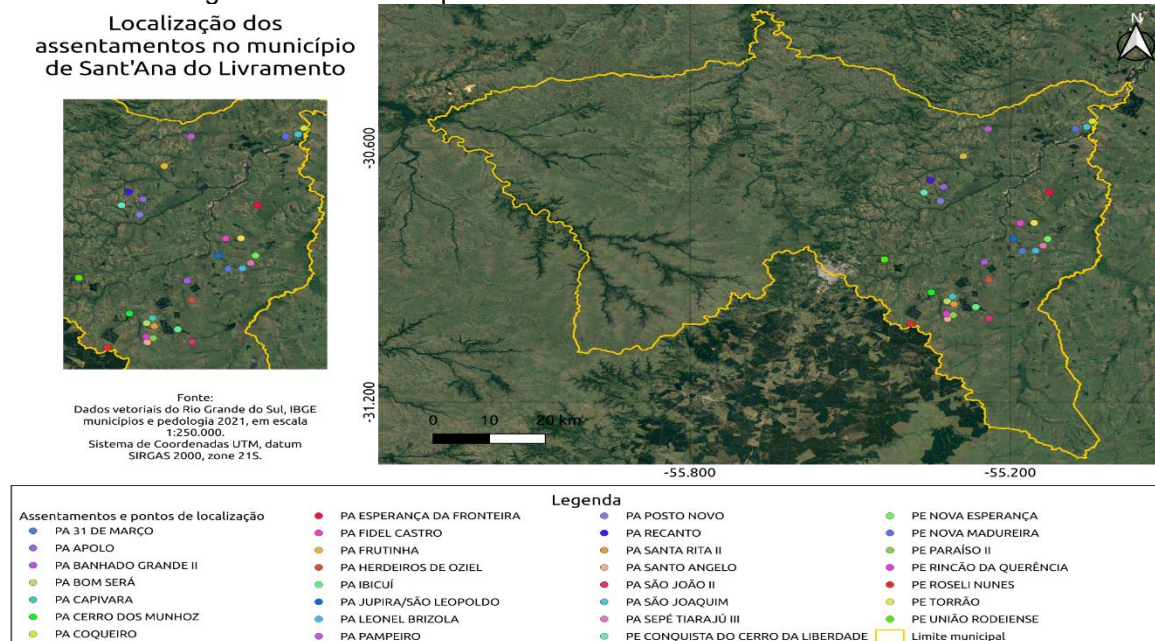
The municipality of Sant'ana do Livramento is located in the pampa biome and occupies a territorial extension of about 6,941.613 km², where of this total 6,246.973 km² represents the rural territory and 694.640 km² make up the urban territory, with a demographic density of 12.15 inhabitants per km² (IBGE, 2022). The municipality has a population of 84,421 people (IBGE, 2022), where about 75,135 people are in the urban territory and 9,286 in the rural area. From the point of view of management and organization, there are settlements that are managed by the federal government - through Incra -, state and less frequently, municipal. In this case, there is recognition by INCRA and the settlements are entitled to Pronaf (National Program to Support Family Agriculture) (MEDEIROS, 2018, p. 89).

In Sant'ana do Livramento there is a large number of settlements, which total about 30 rural settlements¹⁶ in its territory, 22 of which are under the tutelage of the federal government (INCRA) and 08 by the state government (SDR/DDA) with a total of 2499 people (IBGE), distributed among 856 families. All settlements are located in the eastern portion of the municipality in the hydrographic basin of the Santa Maria River, sub-basin of the Ibicuí da Armada River. The settlements are geographically distributed in 3 distinct blocks although in the same territorial portion, with emphasis on the block of 6 settlements that are close to BR 293, towards the municipality of Dom Pedrito and the other block of 4 settlements that is close to BR 158, which connects to the municipality of Rosário do Sul. The settlements are spread throughout the municipality with distances that can reach up to 90 km from the headquarters of Sant'ana do Livramento.

Below in "Figure 1 - Map of the location of the settlements of Sant'ana do Livramento" it is possible to observe the distribution of the settlements within the municipality.

¹⁶The rural settlements that are within the municipality of Sant'ana do Livramento are: PA 31 DE MARÇO, PA APOLO (PAC), PA BANHADO GRANDE II, PA CAPIVARA, PA CERRO DO MUNHOZ (PAC), PA COQUEIRO, PA FIDEL CASTRO, PA FRUTINHAS, PA HERDEIROS DE OZIEL, PA IBICUÍ, PA JUPIRA / SÃO LEOPOLDO, PA LEONEL BRIZOLA, PA PAMPEIRO, PA POSTO NOVO (PAC), PA RECANTO (PAC), PA SANTA RITA II, PA SANTO ÂNGELO, PA SÃO JOÃO II, PA SÃO JOAQUIM, PA SEPÉ TIARAJÚ III, PE CONQUISTA DO CERRO DA LIBERDADE, PE ESPERANÇA DA FRONTEIRA, PE NOVA ESPERANÇA, PE NOVA MADUREIRA, PE PARAÍSO II, PE RINCÃO DA QUERÊNCIA, PE ROSELI NUNES, PE TORRÃO, PE UNIÃO RODEIENSE.

Figure 1. Location map of the settlements of Sant'ana do Livramento



Source: DUNKER et al; 2022.

Above in "Figure 1 - Map of the location of the settlements of Sant'ana do Livramento" it is possible to observe the distribution of the settlements within the municipality.

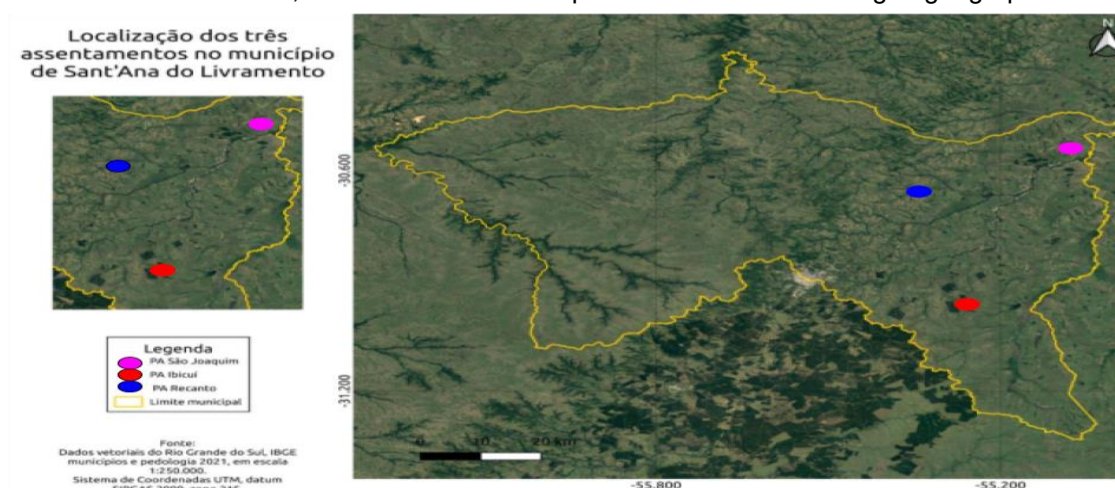
RURAL SETTLEMENTS OF SANT'ANA DO LIVRAMENTO: CONTEXTUALIZATION OF THE IBICUI, RECANTO AND SÃO JOAQUIM SETTLEMENTS

Over the years, multiple types of settlements have developed, due to the diversity of situations that require government land interventions¹⁷ (MEDEIROS, 2018, p. 89), this situation can be observed in several settlements. This study will expose some indicators of three settlements in the municipality of Sant'ana do Livramento in order to demonstrate how the settlements are diverse and also how in some cases they can modify their characteristics.

¹⁷Government interventions in the case of settlements can be understood as: resettlement of populations affected by the construction of dams and who demanded land and not monetary compensation; agroextractivist settlements, in areas with extractive wealth and that would be exploited through economically traveled and ecologically sustainable activities; forest settlements, for areas suitable for multiple-use forest management; on a community family basis; sustainable development project, aimed at populations that base their subsistence on extractivism and family farming, with activities with low environmental impact. Extractive reserves, defined areas in the forest of ecological and social interest, intended for the sustainable exploitation of renewable natural resources subordinated to the Brazilian Institute of the Environment - IBAM, and are also considered as the scope of agrarian reform. At the same time, the model for dividing family lots has been made more flexible, allowing, in specific cases, titling in an association, respecting customary practices of common use (MEDEIROS, 2018, p. 89).

The settlements analyzed were Ibicuí, Recanto and São Joaquim, in both cases the settlements are located in the municipality of Sant'ana do Livramento. Below it is possible to see in figure 2 the location of the Ibicuí, Recanto and São Joaquim settlements, where the distance between the three settlements and their geographic coordinates can be observed.

Figure 2. Location of the Ibicuí, Recanto and São Joaquim settlements according to geographic coordinates



Source: DUNKER et al; 2022.

The settlers of Ibicuí, Recanto and São Joaquim, come from different municipalities, such as: São Gabriel - RS; Uruguaiana - RS; Chapecó - SC; Cruz Alta - RS; Colorado - RS; Parobé - RS; Palmeira das Missões - RS; among others. The settlements are characterized as follows: Ibicuí consists of 62 lots. Recanto is the smallest among the three settlements, formed by 22 lots. While the São Joaquim settlement consists of 37 lots.

Rural settlements in Sant'Ana do Livramento: Ibicuí settlement

The Ibicuí settlement was founded on June 20, 2008 (FERRON and TROIAN, 2019) and is located on the banks of the Ibicuí River, crossing the bridges over the Ibicuí da Cruz River, to the east of the municipal seat of Sant'ana do Livramento, a region characterized by mountainous terrain. The settlement was inaugurated with the capacity to allocate about 65 lots, holding one family in each lot, in the year of its foundation the settlement housed about 59 families in an area of 1,374.63 hectares. In 2016, the number of settled families was composed of 60 families distributed in 60 lots. In 2022, according to SIGRA data, the number of settled families rose to 62, destroyed in 62 lots. In other words, in the period of

14 years, the settlement rose from 59 families to 62 families in the Ibicuí settlement in 2022.

Rural settlements in Sant'Ana do Livramento: Recanto settlement

The Recanto settlement was founded on August 29, 1997 (FERRON and TROIAN, 2019) and is located about 38 km northeast of the seat of the municipality of Santana do Livramento, north of the BR 158 highway. The settlement was inaugurated with the capacity to allocate about 23 lots, with one family in each lot, in the year of its foundation the settlement housed about 23 families in an area of 665 hectares. In 2016, the number of settled families was composed of 22 families distributed in 23 lots. It is noteworthy that in one of the lots, a church and a community center were created, with a family allocated to live in another lot. In 2022, according to SIGRA data, the number of settled families stabilized at 22, destroyed in 22 lots, and a living space (church and community center). In other words, the settlement is more than 25 years old and maintains all occupied lots in its locality.

Rural settlements in Sant'Ana do Livramento: São Joaquim Settlement

The São Joaquim settlement was founded on November 11, 1996 (FERRON and TROIAN, 2019) and is located in the area covered by the Santa Maria River Basin, on the banks of the BR 158 highway, and has the Ibicuí River as its main tributary. The settlement was inaugurated with the capacity to allocate about 37 lots, holding one family in each lot, in the year of its foundation the settlement housed about 37 families in an area of 665 hectares. In 2016, the number of settled families was composed of 37 families distributed in 37 lots. In 2022, according to SIGRA data, the number of settled families stabilized at 37, distributed in 37 lots, and a living space (church and community center). In other words, the settlement is more than 26 years old and maintains in its locality all lots occupied with the same number of its creation.

Rural settlements in Sant'Ana do Livramento: the differences between the Ibicuí, Recanto and São Joaquim settlements

The Ibicuí, Recanto and São Joaquim settlements, although located in the same region of Sant'ana do Livramento, present notable differences in their histories of foundation, occupation and structural conditions. These variations reflect the diversity of

rural settlement processes in the municipality and reveal the specificities of each community.

The Ibicuí settlement is the most recent, founded in 2008, while the São Joaquim and Recanto settlements were created in 1996 and 1997, respectively. This temporal difference indicates that each settlement was established in distinct social and political contexts, influencing both the organization and the support received over the years. Regarding the occupation of the lots, Ibicuí has 62 lots for settled families, but, unlike Recanto and São Joaquim, which have maintained stable occupancy since their creation, Ibicuí has not yet reached its full capacity of occupied lots. Although there has been a gradual increase in families over time, some lots remain unoccupied due to difficulties in accessing the lots and which contributes to the low productivity of the lots in the Ibicuí settlement.

POPULATION OF THE IBICUÍ, RECANTO AND SÃO JOAQUIM SETTLEMENTS IN THE YEARS 2016 AND 2022

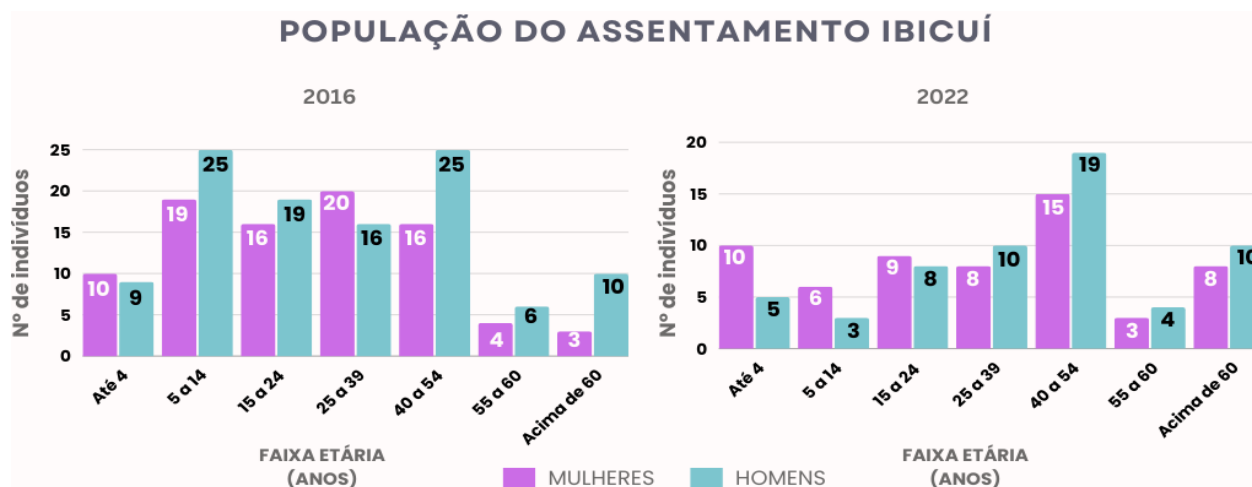
Graphs 1, 2 and 3 are presented below, it is possible to observe the population indicator for the years 2016 and 2022 of the respective settlements. Graph 1 deals with the settlers of Ibicuí, while graph 2 shows population information about the Recanto settlement. And finally, graph 3 shows data on the population of the São Joaquim settlement.

Population of the Ibicuí settlements in the years 2016 and 2022

The population of the Ibicuí settlement in 2016 was composed of children, adolescents and young people in the age groups of 0 to 24 years old, representing the percentage of 49% of the individuals who lived in that settlement. Regarding adults of working age, between 25 and 54 years old corresponded to about 39% of the settlers.

The predominant sex in that settlement is male, as it represents 55% of the total number of settlers in Ibicuí. The age group with the greatest disparity between the sexes is the group over 60 years old, where 77% of people in this age group are male. Females were predominant in the age groups between 4 years old and 52% and from 25 to 39 years old, in which they represent 56% of people in this age group.

Graph 1. Population of the Ibicuí settlement in 2016 and 2022



Source: Prepared by the authors, based on SIGRA data from the years 2016 and 2022.

The population of the settlement in 2022 underwent changes in the population composition, where children, adolescents and young people in the age groups of 0 to 24 years represented the percentage of 28% of the individuals who lived in that location, which represents about 30 individuals. The age group of individuals of working age between 25 and 54 years old corresponds to about 48% of the individuals who live in that locality, which represents about 30 individuals in the Ibicuí settlement.

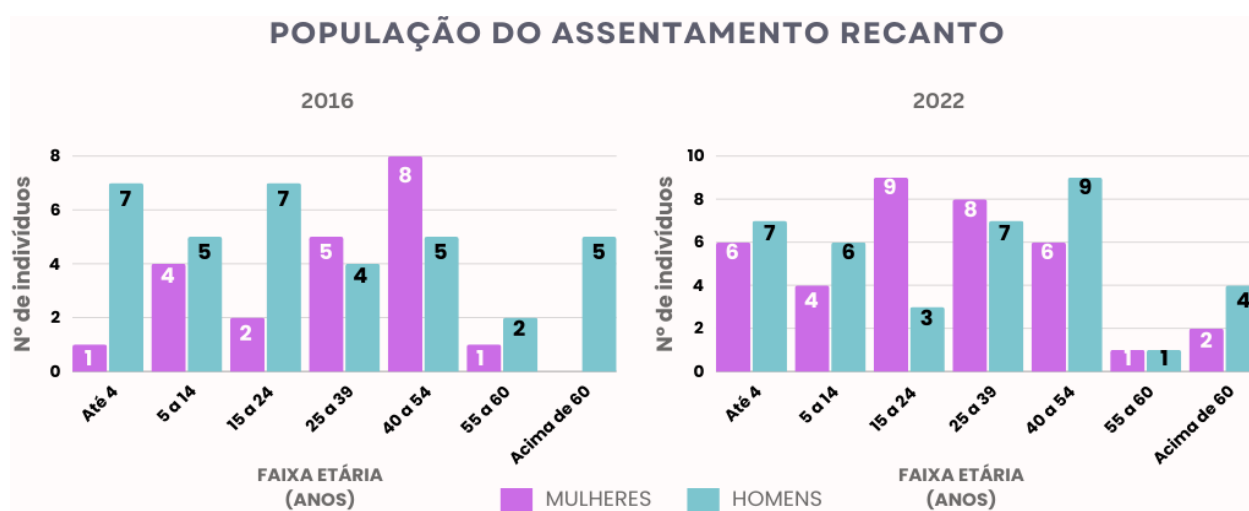
In the 2022 portrait, it showed the change in the prevalence of the age groups between 15 and 39 years old, which have about 18 men and 17 women at that age, this population represents about 30% of the people in the respective settlements in that age group. It should be noted that between the years 2016 and 2022 the population of the settlement decreased. It should be noted that in 2016 the population was composed of 198 people and in 2022 the number of settlers who were in Ibicuí was about 108 people, which represents 90 fewer people in the settlement.

Population of the Recanto settlements in the years 2016 and 2022

Graph 2 shows that the Recanto settlement in 2016 was characterized by children, adolescents and young people in the age groups of 0 to 24 years, which represents the percentage of 46% of the individuals who reside in that settlement. In relation to adults of working age between 25 and 54 years old, it corresponded to about 39% of the settlers. The age group with the greatest disparity between the sexes is the group over 60 years old, as there are no females in this age group.

Females were predominant in the age groups between 25 and 54 years old, representing 59% of people in this age group. However, the predominant sex in that settlement was male, representing 63% of the total number of settlers in Recanto.

Graph 2. Population of the Recanto settlement in 2016 and 2022



Source: Prepared by the authors, based on SIGRA data from the years 2016 and 2022.

In 2022, the Recanto Recanto settlement was represented with children, adolescents and young people in the age groups of 0 to 24 years with a percentage of 48% of the individuals who lived in that settlement, which represents about 35 people. Adults of working age between 25 and 54 years of age corresponded to about 41% of the settlers, which represents about 30 individuals. The age group over 60 years old or older represented about 11% of the settlements residing in the settlement, which can also be understood as 8 people who lived in the Recanto settlement. It should be noted that between the years 2016 and 2022 the Recanto settlement saw its population grow from 56 people to 73 people in 2022, in practically all age groups, there was an increase in the population.

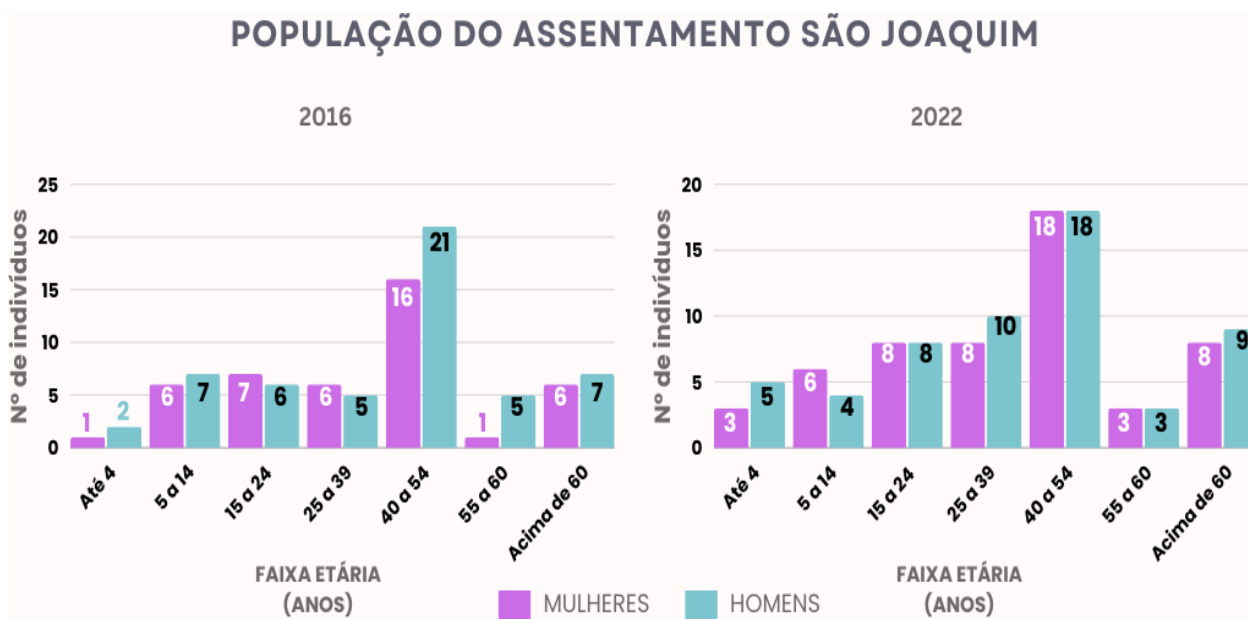
Population of the São Joaquim settlements in the years 2016 and 2022

Graph 3 characterized the São Joaquim settlement in 2016 with a population of children, adolescents and young people in the age groups of 0 to 24 years, which represented the percentage of 14% of the individuals who lived in that settlement. In relation to adults between 25 and 54 years old, it corresponds to about 50% of the settlers.

The predominant sex in that locality was male, as it represents 55% of the total

number of settlers The age group with the greatest disparity between the sexes is the group between 55 and 60 years old, in which 6 people are female, the male sex represents 83.33% of this age group. Females were predominant in the age groups between 15 and 39 years old, representing 54% of people in this age group.

Graph 3. Population of the São Joaquim settlement in 2016 and 2022



Source: Prepared by the authors, based on SIGRA data from the years 2016 and 2022.

In 2022, the São Joaquim settlement was composed of children, adolescents and young people in the age groups of 0 to 24 years with a percentage of 25% of the individuals who lived in that settlement. In relation to adults of working age between 25 and 54 years old, it corresponded to about 49% of the settlers. The age group over 60 years old represents about 36% of the settlements that reside in the São Joaquim settlement.

In 2022, it noticed a change in the prevalence of the age groups between 15 and 39 years old, which have about 27 men and 25 women at that age, this population represents about 47% of the people in the respective settlements in that age group.

It is noted that the population of this settlement is experiencing an aging process and that in 2022 about 53% of the population of the São Joaquim settlement was over 40 years old, considering the female and male sex. It is noteworthy that the population of the settlement also grew between the years 2016 and 2022. In 2016 the population was 96 people, moving to about 103 people in the settlement in 2022, it is important to highlight the balance between the sexes in the settlement, which has 54 women and 57 men in its

constitution as a population.

Population: the differences between the Ibicuí, Recanto and São Joaquim settlements in the years 2016 and 2022

The population analysis of the Ibicuí, Recanto and São Joaquim settlements between the years 2016 and 2022 reveals significant contrasts both in terms of age composition and population growth dynamics. In 2016, the Ibicuí settlement had a population of 198 people, marked by a predominance of young individuals, with 49% of the population between 0 and 24 years old, and 39% of working age, between 25 and 54 years old. The prevalence of men was clear, representing 55% of the settlers, with emphasis on the age group over 60 years, where males predominated with 77%. In 2022, Ibicuí experienced a significant population decrease, falling to about 108 people. There was a reduction in the youth population to 28%, while the working age group rose to 48%, indicating an aging population and a change in age proportions.

In contrast, the Recanto settlement experienced a population growth between the same years, going from 56 to 73 people. In 2016, young people represented 46% of the population and the active age group, 39%. As in Ibicuí, the male sex predominated, but with a notable disparity in the group over 60 years old, where there were no women. In 2022, the presence of young people increased to 48%, and the population of working-age adults to 41%, with those aged 60 and over corresponding to 11% of settlers. This population growth in almost all age groups suggests a stability and attraction for new residents, with a considerable increase in the number of families over the years.

In the São Joaquim settlement, the population also grew, although more moderately, from 96 people in 2016 to 103 in 2022. In 2016, the youth population corresponded to 14%, and adults of working age to 50%, with a male predominance. In 2022, the proportion of young people rose to 25%, and the age group of working-age adults was around 49%, showing an age balance. São Joaquim experienced an aging process, with 53% of the population over 40 years old. This settlement also demonstrated a more balanced gender ratio, with 54 females and 57 males.

These differences reflect the specific challenges and potentialities of each settlement. While Ibicuí faces difficulties in population retention, possibly linked to limitations in access and lower land productivity, Recanto and São Joaquim show greater stability, with growth in different age groups and more favorable structural conditions for

permanence and social development.

SCHOOLING OF THE RESIDENTS OF THE IBICUÍ, RECANTO AND SÃO JOAQUIM SETTLEMENTS IN THE YEARS 2016 - 2022

Next, the schooling indicators of the settlers of Ibicuí, Recanto and São Joaquim, in the years 2016 and 2022, will be highlighted. Table 1 shows data from the Ibicuí settlement in 2016 and 2022. Table 2 is data from the Recanto settlement in the years 2016 and 2022. Table 3 shows information on the São Joaquim settlement in 2016 and 2022

Schooling of the residents of the settlement in Ibicuí in the years 2016 - 2022

Table 1 shows data from the Ibicuí settlement in 2016 and 2022. In 2016, the Ibicuí settlement had a population of 198 people. About 54.04% of the settlers, which corresponds to about 107 individuals, had incomplete elementary school, and most of the settlers who had such schooling were in the age group of 40 to 54 years. None of the settlers declared having completed high school and higher education in the Ibicuí settlement, in the respective year of 2016.

Also in 2016, about 19.70% of the settlers, which represents 39 individuals, declared that they had completed elementary school. Another important point is that about 29 people in the settlement are illiterate, which represents about 14.65% of the population of the respective settlement.

Table 1. Schooling of Ibicuí settlers in 2016 and 2022

Education of the settlers in 2016		Settlement schooling year 2022	
Education level	Quantity	Education level	Quantity
Illiterate	22	Illiterate	08
Literate	29	Literate	02
Complete Fundamental	107	Complete Fundamental	69
Fundamental Incomplete	39	Fundamental Incomplete	12
Complete High School	00	Complete High School	07
Incomplete High School	01	Incomplete High School	10
Superior Complete	00	Superior Complete	00
Incomplete Superior	00	Incomplete Superior	00

Graduate	00	Graduate	00
Total	198	Total	108

Source: Prepared by the authors, based on SIGRA data from the years 2016 and 2022.

In 2022, a decrease in the number of people residing in the settlement was observed, where the number of settlers went from 198 people to about 108 people. However, educational indicators remained stagnant. About 64.89% of the settlers, which corresponds to about 69 individuals, had incomplete elementary school, and most of the settlers who had such schooling were in the age group of 25 to 39 years, which represents about 25% or 35 individuals. He noted that in 2022 the settlers who declared having completed high school or having incomplete high school totaled about 17, which represents about 13% of the settlers, it is worth remembering that in the Ibicuí settlement high school is the highest level of education that individuals access.

Analyzing the educational indicators in 2016 and 2022 in the Ibicuí settlement, it was possible to understand that there was a reduction in the number of illiterate people, from 29 people to 2. In incomplete elementary school, it continues to represent the majority of people (64.89%). However, in 2016 and 2022, the Complete Higher, Incomplete Higher Education and Postgraduate Degree did not have any record of any person in the year 2022.

Schooling of the residents of the settlement in Recanto in the years 2016 - 2022

Table 2 shows indicators related to the schooling of the settlers of Recanto in 2016 and 2022. In 2016, the Recanto settlement was composed of about 56 people. About 46.43% of the settlers, which corresponds to about 26 individuals, had incomplete elementary school. None of the settlers declared that they had completed higher education, but no illiterate people were observed in the respective settlement. In the same period, about 17.86% of the settlers, which represents 10 individuals, declared that they had incomplete high school, and only 3 people declared that they had completed high school, which represents about 5.36% of the people in the Recanto settlement.

Table 2. Education of Recanto settlers in 2016 and 2022

Education of the settlers in 2016		Settlement education in 2022	
Education level	Quantity	Education level	Quantity

Illiterate	09	Illiterate	13
Literate	00	Literate	01
Complete Fundamental	26	Complete Fundamental	34
Fundamental Incomplete	08	Fundamental Incomplete	08
Complete High School	03	Complete High School	03
Incomplete High School	10	Incomplete High School	14
Superior Complete	00	Superior Complete	00
Incomplete Superior	00	Incomplete Superior	00
Graduate	00	Graduate	00
Total	56	Total	73

Source: Prepared by the authors, based on SIGRA data from the years 2016 and 2022.

The population in 2022 was 73 people from the settlement and about 47% of the settlers, which corresponds to about 34 individuals, had incomplete elementary school. This settlement in the year 2022 did not have any individual who declared to have completed higher education or who was illiterate in the Recanto settlement.

Between 2016 and 2022, the Recanto settlement registered an increase of 17 people in its composition. Regarding educational data, there was no significant change in relation to 2016 data compared to 2022, with the exception of the increase in students under 14 years of age. The need for programs for rural education is highlighted, seeking to overcome incomplete elementary education, which represents 47% of the population of the settlement.

Schooling of residents of the settlement in São Joaquim in the years 2016 - 2022

Table 3 shows indicators related to the schooling of the São Joaquim settlers in 2016 and 2022. In 2016, the São Joaquim settlement was composed of 96 people. About 56.25% of the settlers, which corresponds to about 54 individuals, had incomplete elementary schooling, and most of the settlers who had this level of education in the age group of 40 to 54 years. Only two settlers declared that they had completed higher education, which represents about 2.08% of the individuals residing in the São Joaquim settlement, another point of convergence was that the individuals who had completed higher education were in the age group of 40 to 54 years. Also in 2016, about 13.54% of the settlers, which represents 13 individuals, declared that they had completed elementary

school and about 6.25% of the settlers declared that they had completed high school, which represents about 06 people in the settlement. No people were found in the settlement who had attended graduate school or who declared themselves illiterate.

Table 3. Schooling of São Joaquim settlers in 2016 and 2022

Education of the settlers in 2016		Settlement education in 2022	
Education level	Quantity	Education level	Quantity
Illiterate	07	Illiterate	06
Literate	07	Literate	07
Complete Fundamental	54	Complete Fundamental	51
Fundamental Incomplete	13	Fundamental Incomplete	12
Complete High School	06	Complete High School	12
Incomplete High School	06	Incomplete High School	12
Superior Complete	02	Superior Complete	01
Incomplete Superior	01	Incomplete Superior	02
Graduate	00	Graduate	00
Total	96	Total	103

Source: Prepared by the authors, based on SIGRA data from the years 2016 and 2022.

The population of the São Joaquim settlement went from 96 people in 2016 to 103 in 2022. About 49.51% of the settlers, which corresponds to about 51 individuals, had incomplete elementary school, and most of the settlers who had such schooling were in the age group of 40 to 54 years. He also observed that in 2022 the settlers who declared that they had completed higher education or had incomplete higher education were composed of a group of 3 individuals, but the age group was diverse and divided between the 18 to 39 age group, demonstrating that there was a change in the profile of the settlers who sought higher education in the São Joaquim settlement.

In 2022, about 11.65% of the settlers, which represents 12 individuals, declared that they had completed elementary school and about 11.65% of the settlers declared that they had completed high school, which represents about 12 people in the settlement. No people who had attended graduate school were found in the settlement.

In the São Joaquim settlement, educational indicators show that it is not important that there is no significant change in relation to the 2016 data compared to 2022. The need

for rural education programs is highlighted, seeking to overcome illiteracy (7 people in 2022) and increase the level of education, especially for those with incomplete primary education, who represent 50% of the settlement's population.

Schooling: the differences between the Ibicuí, Recanto and São Joaquim settlements in the years 2016 and 2022

The analysis of the schooling indicators in the Ibicuí, Recanto and São Joaquim settlements reveals significant differences and challenges between the years 2016 and 2022. The data highlight distinct patterns in each settlement, influenced both by local conditions and by possible rural-oriented education policies and initiatives.

In the Ibicuí settlement, there was a significant drop in the number of illiterate people, from 29 people in 2016 to only 2 in 2022. This advance indicates important progress in terms of literacy. However, even with the reduction in illiteracy, incomplete primary education is still predominant, representing 64.89% of the population in 2022. Another relevant data is the absence of records of people with higher education, both in 2016 and 2022. Secondary education was achieved by a small but growing share of the population, with 17 people (13%) who completed or are about to complete secondary education in 2022, showing a slight improvement compared to 2016.

In the Recanto settlement, the educational profile also presents challenges. In 2016, about 46.43% of the population had incomplete primary education, and this scenario persisted in 2022, with 47% of the settlers still with this level of education. Unlike Ibicuí, the Recanto settlement had an increase in the number of illiterate people, from 9 to 13 people. High school is also underrepresented, and there are no records of people with higher education in either of the two years. This settlement, therefore, lacks educational initiatives that encourage literacy and school advancement.

In the São Joaquim settlement, incomplete elementary education also predominates. In 2016, about 56.25% of the settlers had this level of education, and in 2022, the percentage remained high, with 49.51% of the population in incomplete elementary school. One aspect that distinguishes São Joaquim from other settlements is that it is the only one where the presence of individuals with higher education is observed, with two settlers in 2016 and one in 2022. The number of people with complete secondary education also increased, suggesting that there is a slight search for higher education, even if restricted.

Regarding population evolution, the Ibicuí settlement suffered a large reduction in residents, from 198 to 108 people between 2016 and 2022, which may have impacted the community's educational structure. The Recanto and São Joaquim settlements had population increases, reaching 73 and 103 people, respectively, which may maintain or even increase the demand for education in the future.

In general, it is observed that incomplete primary education is the most common level of education in the three settlements, reflecting a need for more comprehensive policies to ensure the educational continuity of the settlers. The absence of people with higher education in the three settlements reveals a long-term challenge to raise the level of education and promote the development of these communities. It is essential, therefore, to create specific rural education programs, especially aimed at literacy and the incentive to complete elementary and secondary education, for the development of these settlers and better conditions for social and economic participation.

HOUSES WITH COMPROMISED STRUCTURES IN THE IBICUÍ, RECANTO AND SÃO JOAQUIM SETTLEMENT IN THE YEARS 2016 - 2022

Next, the indicators of housing with compromised structures in the settlements of Ibicuí, Recanto and São Joaquim, in the years 2016 and 2022, will be highlighted. The settlements are composed of three varieties of house construction: wood, masonry and mixed (wood and masonry). Table 4 shows data from the Ibicuí settlement in 2016 and 2022. Table 5 is data from the Recanto settlement in the years 2016 and 2022. Table 6 shows information about the São Joaquim settlement in 2016 and 2022

Houses with compromised structures in the Ibicuí Settlement in the years 2016 - 2022

Table 4 shows data from the Ibicuí settlement in 2016 and 2022. In 2016, the settlement had 60 houses, and in two lots there were no houses. About 07 houses were built in wood, 09 mixed houses and most of the buildings are masonry with 44 of the houses.

In 2016, the settlement had 08 houses with compromised structures. The residences are characterized taking into account the type of material that was used for their construction. About 07 wooden houses, that is, all the houses that were built with this material had their structures compromised in 2016, totaling the 08 houses with deficient

structures, there was 01 house that had a compromised structure as well. Regarding the mixed constructions (masonry and wood), no house with compromised structure was recorded.

Table 4. Houses with structures in the Ibicuí settlement in 2016 and 2022

House with compromised structures - 2016		House with compromised structures -2022	
Type of construction	Quantity	Type of construction	Quantity
Wood	07	Wood	05
Masonry	01	Masonry	06
Mixed	00	Mixed	01
Total	08	Total	12

Source: Prepared by the authors, based on SIGRA data from the years 2016 and 2022.

In 2022 there was an increase in houses with compromised structures, from 08 in 2016 to 12 in 2022. In the period, about 06 houses were masonry, 01 mixed and 05 wood. In 2022, there were about 62 houses in the settlement, with at least one house per lot. The problem of houses with compromised structures not only persists, but the problem has been mitigated despite no record of families without a home.

Houses with compromised structures in the Recanto settlement in the years 2016 - 2022

Table 5 shows data from the Recanto settlement in 2016 and 2022. In 2016, the settlement had 22 houses, one house in each lot. About 04 houses were built in wood, 01 mixed houses and most of the buildings are masonry with 17 of the houses.

In 2016, the settlement had 04 houses with compromised structures. The residences are characterized taking into account the type of material that was used for their construction. About 03 wooden houses and 01 mixed structure were compromised in 2016, totaling 04 houses with deficient structures. Regarding masonry constructions, no house with compromised structure was registered.

Table 5. Houses with compromised structures in the Recanto settlement in 2016 and 2022

House with compromised structures - 2016		House with compromised structures -2022	
Type of construction	Quantity	Type of construction	Quantity

Wood	03	Wood	01
Masonry	00	Masonry	02
Mixed	01	Mixed	02
Total	04	Total	05

Source: Prepared by the authors, based on SIGRA data from the years 2016 and 2022.

In 2022 there was a small increase in houses with compromised structures, from 04 in 2016 to 05 in 2022. In the period of 2022, about 02 houses were made of masonry, 02 mixed and 01 wooden, with the structure compromised. However, in 2022 there were about 22 houses in the settlement, with at least one house per lot.

Houses with compromised structures in the São Joaquim Settlement in the years 2016 - 2022

Table 6 shows data from the São Joaquim settlement in 2016 and 2022. In 2016, the settlement had 37 houses, one house in each lot. About 01 house was built in wood, 06 mixed houses and most of the buildings are masonry with 32 of the houses.

In 2016, the settlement had 02 houses with compromised structures, these houses with problems of masonry structures. Regarding wooden constructions and mixed construction, no house with compromised structure was recorded in the period.

Table 6. Houses with compromised structures in the São Joaquim settlement in 2016 and 2022

House with compromised structures - 2016		House with compromised structures -2022	
Type of construction	Quantity	Type of construction	Quantity
Wood	00	Wood	00
Masonry	02	Masonry	04
Mixed	00	Mixed	00
Total	02	Total	04

Source: Prepared by the authors, based on SIGRA data from the years 2016 and 2022.

In 2022, there was an increase in houses with compromised structures, from 02 in 2016 to 04 in 2022. In the period of 2022, 04 masonry houses had their structure compromised. In 2022, there were about 37 houses in the settlement, with at least one house per lot.

Houses with compromised structures: the differences between the Ibicuí, Recanto and São Joaquim settlements in the years 2016 and 2022

Over the years, there have been significant changes in the structural conditions of housing in the Ibicuí, Recanto and São Joaquim settlements, reflecting possible advances in access to credit for the construction of masonry housing. With the increase in access to housing credit, there is a decrease in the number of wooden houses with compromised structure in the three settlements analyzed.

CONDITIONS OF THE ACCESS ROADS OF THE SETTLERS IN IBICUÍ, RECANTO AND SÃO JOAQUIM IN THE YEARS 2016 - 2022

Next, the indicators on the conditions on the access roads to Ibicuí, Recanto and São Joaquim, in the years 2016 and 2022, will be highlighted. The information will be shown in tables 7 (Ibicuí), 8 (Recanto) and 9 (São Joaquim).

Conditions of access roads in the Ibicuí settlement in the years 2016 - 2022

The Ibicui settlement is located on the banks of the Ibicuí River, passing through the bridges over the Ibicuí da Cruz River, to the east of the municipal seat of Sant'ana do Livramento, a region characterized by mountainous terrain. In 2016, the settlement had 62 families¹⁸. In the period, about 11 families had difficulty moving because the access roads were interrupted at some times of the year. For 52 families, the problem of interrupted access roads did not affect their locomotion.

Table 7. Conditions of the Ibicuí access roads in 2016 and 2022

Road conditions in 2016		Road conditions in 2022	
Situation of the roads	Qt. de fam. Affected	Situation of the roads	Qt. de fam. Affected
Permanent access	52	Permanent access	55
Interrupted Access	10	Interrupted Access	07

Source: Prepared by the authors, based on SIGRA data from the years 2016 and 2022.

¹⁸In 2016 in the Ibicuí settlement, 31 families used outsourced transport (public transport, taxi and app driver). 14 families declare that they only use their own vehicle for their transportation. In the case of 13 families, both their own vehicle and outsourced transportation were used for the trip. And in 4 cases, the settlers had no access to outsourced transportation or their own vehicle (these people used neighbors' rides to move from the settlement) (SIGRA, 2016).

In 2022, the settlement still had 62 families that were organized as follows: 07 families had difficulty moving around because the access roads were interrupted at some times of the year. For 55 families, the problem of interrupted access roads does not affect their locomotion.

Conditions of access roads in the Recanto settlement in the years 2016 - 2022

The Recanto settlement is located about 38 km northeast of the seat of the municipality of Santana do Livramento, north of the BR 158 highway. In 2016, the settlement had 22 families¹⁹. In the period, about 13 families were having difficulty moving around because the access roads were interrupted at some times of the year. For 09 families, the problem of interrupted access roads did not affect their locomotion.

Table 8. Conditions of the Recanto access roads in 2016 and 2022

Road conditions in 2016		Road conditions in 2022	
Situation of the roads	Qt. de fam. Affected	Situation of the roads	Qt. de fam. Affected
Permanent access	09	Permanent access	05
Interrupted Access	13	Interrupted Access	17

Source: Prepared by the authors, based on SIGRA data from the years 2016 and 2022.

In 2022, the settlement still had 22 families²⁰. In the period, about 17 families had difficulty moving because the access roads were interrupted at some times of the year. For 05 families, the problem of interrupted access roads did not affect their locomotion.

Conditions of access roads in the São Joaquim settlement in the years 2016 - 2022

The São Joaquim settlement is located in the area covered by the Santa Maria River Basin, on the banks of the BR 158 highway, and has the Ibicuí River as its main tributary. In 2016, the settlement had 37 families²¹. In the period, about 07 families were having

¹⁹In 2016 in the Recanto settlement, 09 families used outsourced transport (public transport, taxi and app driver). 06 families declare that they only use their own vehicle for their transportation. In the case of 05 families, both their own vehicle and outsourced transport were used for the displacement. And in 02 cases, the settlers had no access to outsourced transportation or their own vehicle (these people used neighbors' rides to move from the settlement) (SIGRA, 2016).

²⁰In 2022 in the Recanto settlement, 05 families used outsourced transport (public transport, taxi and app driver). 12 families declare that they only use their own vehicle for their transportation. In the case of 01 family, both their own vehicle and outsourced transportation were used for travel (SIGRA, 2022).

²¹In 2016 in the São Joaquim settlement, 07 families used outsourced transport (public transport, taxi and app driver). 29 families declare that they only use their own vehicle for their transportation. In the case of 01

difficulty moving because the access roads were interrupted at some times of the year. For 30 families, the problem of interrupted access roads did not affect their locomotion.

Table 9. Conditions of the São Joaquim access roads in 2016 and 2022

Road conditions in 2016		Road conditions in 2022	
Situation of the roads	Qt. de fam. Affected	Situation of the roads	Qt. de fam. Affected
Permanent access	30	Permanent access	31
Interrupted Access	07	Interrupted Access	06

Source: Prepared by the authors, based on SIGRA data from the years 2016 and 2022.

In 2022, the settlement still had 37 families²². In the period, about 106 families had difficulty moving due to the access roads being interrupted at some times of the year. For 31 families, the problem of interrupted access roads did not affect their locomotion.

Conditions of access roads: the differences between the Ibicuí, Recanto and São Joaquim settlements in the years 2016 and 2022

When analyzing the data for the years 2016 and 2022, it is noted that the Ibicuí and São Joaquim PAs obtained a small improvement in permanent access to the access roads of the settlements. Regarding the Ibicuí PA in 2016, 10 families faced mobility problems due to interrupted access at some times of the year, in 2022, this number decreased to 7 families, causing a small improvement in the infrastructure or maintenance of the roads. While 52 families reported having permanent access to the roads in 2016, there was an increase to 55 families in 2022. And in the São Joaquim PA in 2016, 7 of the 37 families reported difficulties due to interrupted access at some times of the year, falling to 6 families in 2022. Meanwhile, 30 reported having permanent access in 2016, increasing to 31 families in 2022.

However, in the access roads of the PA Recanto there was a significant increase in the number of interrupted accesses at some times of the year. In 2016, of the 22 families in the settlement, 13 said they had interrupted access at some times of the year, rising to 17

family, both their own vehicle and outsourced transportation were used for the displacement. And in 7 cases, the settlers had no access to outsourced transportation or their own vehicle (these people used neighbors' rides to get from the settlement) (SIGRA, 2016).

²²In 2022 in the São Joaquim settlement, 05 families used outsourced transport (public transport, taxi and app driver). 32 families declare that they only use their own vehicle for their transportation. (SIGRA, 2022).

families in 2022. While 9 claimed to have permanent access to the roads in 2016, reducing to only 5 families in 2022.

Naturally, each locality has a different formation in its relief, with or without pavement, greater or lesser traffic of light and heavy vehicles, adverse weather conditions, etc., which in turn results in different maintenance needs on these roads, on the part of the settlers and the public power, the latter which often neglects rural areas.

IMPROVEMENTS WITHIN THE LOTS IN THE IBICUI, RECANTO AND SÃO JOAQUIM SETTLEMENTS IN THE YEARS 2016 - 2022

Next, the indicators of the improvements that were carried out in the lots of the settlers of Ibicuí, Recanto and São Joaquim, in the years 2016 and 2022, will be highlighted. Tables 10 (Ibicuí), 11 (Recanto) and 12 (São Joaquim). There was a diversity in relation to the type of improvement, which could be made from wood, masonry and mixed construction (wood and masonry). The tables below record that a family can have more than one type of improvement, meaning that the total sum is divergent from the total number of families.

Improvements within the lots in the Ibicuí settlements in the years 2016 - 2022

Table 10 addresses data from the Ibicuí settlement in 2016 and 2022. In 2016, there were 64 improvements made within the settlement. The improvement with the highest construction rate was the shed for general use (62 improvements), built in wood material. There was also the construction of a milking parlor on a lot and the construction of a chute/corral, in both cases using wood as raw material.

Table 10. Improvements within the lots of the Ibicuí settlement in the years 2016 and 2022

Improvements to the lot in 2016				Improvements to the lot in 2022			
Category	wood	masonry	mixed	Category	wood	masonry	mixed
General use shed	62	00	00	General use shed	61	00	00
Milking parlor	01	00	00	Milking parlor	01	00	01
Machine Shed	00	00	00	Machine Shed	00	05	00
Aviary	00	00	00	Aviary	10	00	00
Chiqueiro/Pocilga	00	00	00	Chiqueiro/Pocilga	02	10	00

Greenhouse	00	00	00	Greenhouse	00	00	00
Henhouse	00	00	00	Henhouse	02	00	00
Work	01	00	00	Work	02	00	00
Total by category	64	00	00	Total by category	68	00	00
Total 64				Total 94			

Source: Prepared by the authors, based on SIGRA data from the years 2016 and 2022.

In 2022, 94 improvements were made to the lots of the Ibicuí settlement. Again, the improvement with the highest construction rate was the shed for general use, built in wood material (61 improvements). There was also the construction of 10 aviaries made of wood and 10 pigsties/pigsties in masonry. Also noteworthy is the construction of 05 sheds for machines.

Improvements within the lots in the Recanto settlements in the years 2016 - 2022

Table 11 shows data from the Recanto settlement in 2016 and 2022. In 2016, there were 19 improvements made within the settlement. The improvement with the highest construction rate was the shed for general use (17 improvements), built in wood material. There was also the construction of an aviary on a lot and the construction of a greenhouse, in both cases using wood as raw material.

Table 11. Improvements within the lots of the Recanto settlement in the years 2016 and 2022

Improvements to the lot in 2016				Improvements to the lot in 2022			
Category	wood	masonry	mixed	Category	wood	masonry	mixed
General use shed	17	00	00	General use shed	17	00	02
Milking parlor	00	00	00	Milking parlor	01	00	00
Machine Shed	00	00	00	Machine Shed	00	00	00
Aviary	01	00	00	Aviary	17	01	00
Chiqueiro/Pocilga	00	00	00	Chiqueiro/Pocilga	07	01	00
Greenhouse	01	00	00	Greenhouse	03	00	00
Henhouse	00	00	00	Henhouse	00	00	00
Work	00	00	00	Work	00	00	00
Total by category	19	00	00	Total by category	32	02	02

Total	19	Total	46
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Source: Prepared by the authors, based on SIGRA data from the years 2016 and 2022.

In the period of 2022, 46 improvements were made to the lots of the Recanto settlement. Again, the improvement with the highest construction rate was the shed for general use, built in wood material (17 improvements). There was also the construction of 17 aviaries made of wood and 07 pigsties/pigsties in masonry. Also noteworthy is the construction of 03 greenhouses, also in masonry.

Improvements within the lots in the São Joaquim settlements in the years 2016 - 2022

Table 12 shows data from the São Joaquim settlement in 2016 and 2022. In 2016, there were 42 improvements made within the settlement. The improvement with the highest construction rate was the shed for general use (31 improvements), built in wood material. There was also the construction of 03 milking parlors in wood and 07 masonry. There was also the construction of a shed for machinery using wood as raw material.

Table 12. Improvements within the lots of the São Joaquim settlement in the years 2016 and 2022

Improvements to the lot in 2016				improvements to the lot in 2022			
Category	wood	masonry	mixed	Category	wood	masonry	mixed
General use shed	31	00	00	General use shed	40	00	00
Milking parlor	03	00	07	Milking parlor	05	00	05
Machine Shed	01	00	00	Machine Shed	01	00	00
Aviary	00	00	00	Aviary	01	00	00
Chiqueiro/Pocilga	00	00	00	Chiqueiro/Pocilga	23	00	00
Greenhouse	00	00	00	Greenhouse	05	00	00
Henhouse	00	00	00	Henhouse	19	00	00
Work	00	00	00	Work	00	00	00
Total by category	35	00	00	Total by category	95	00	00
Total	42			Total	100		

Source: Prepared by the authors, based on SIGRA data from the years 2016 and 2022.

In the period of 2022, 100 improvements were made to the lots of the Recanto settlement. Again, the improvement with the highest construction rate was the shed for general use, built in wood material (40 improvements). There was also the construction of 23 pigsties/pigsties made of wood and 19 chicken coops using wood as raw material. Also noteworthy is the construction of 05 milking parlors in masonry.

Improvements within the lots: the differences between the Ibicuí, Recanto and São Joaquim settlements in the years 2016 and 2022

When analyzing the benefactors in relation to the years 2016 and 2022, it is noted that the Ibicuí, Recanto and São Joaquim settlements obtained an increase and a better distribution of improvements within the lots, diversifying the means of livelihood of the families. However, the use of wood in buildings remains predominant, and the most likely reasons for this are the cost/benefit analysis between construction materials and the availability of resources itself. Thus, we can say, based on these advances, that there was an improvement in productivity and consequently in the lives of these settled families. We have as examples of changes, the following:

Ibicuí

- Increase in improvements: from 64 to 94;
- Greater diversity of structures, including aviaries and masonry pigsties.

Recanto

- Growth in improvements: from 19 to 46;
- Expansion in the construction of aviaries and pigsties, as well as new greenhouses.

Saint Joachim

- Significant increase in improvements: from 42 to 100;
- Diversification of structures, with an increase in chicken coops and wooden pigsties.

Still, these advances result in a problem to be faced, which is the need to develop an infrastructure that supports these local economic activities, such as better access roads, transportation, water, electricity, etc. However, this advance is necessary in the process of

expansion and adaptation of new productive structures, resulting in a considerable expansion of livestock activities, with emphasis on poultry farming in the settlements.

COMPARATIVE SUMMARY OF THE NUMBER OF ESTABLISHMENTS, VALUE OF PRODUCTION (VP) OF AGRICULTURAL PRODUCTION, AREA, VP/HA AND VP/ESTABLISHMENT

Table 13 shows a ranking taking into account the average productivity index of the following categories: family farmers, non-family farmers and farmers in rural settlements. In the case of rural settlements, data from the Ibicuí, Recanto and São Joaquim settlements were observed. The following were taken into account: number of establishments, Production value (PV) of agricultural production, Area, PV/ha and PV/establishment. The data from the Ibicuí, Recanto and São Joaquim settlements are data extracted from the Integrated Rural Management System - SIGRA for the year 2022. By way of comparison, the average of settlements in general with some record of production was used, according to the Automatic Recovery System - SIDRA data for the year 2017 (The most current data at the time of the research). The SIDRA database - 2017 was also used, disregarding the settlements and considering only family farmers, not family farmers.

Next, information and data crossings will be presented to compare the establishments, Production value (PV) of agricultural production, Area, PV/ha and PV/establishment.

Table 13. No. of establishments, (PV) of agricultural production, Area, PV/ha and PV/establishment

Establishment(s)	Establishment No.	VP Agriculture (mil R\$)	Area (ha)	VP/ha (R\$)	VP estab/ano (R\$)
São Joaquim Settlement*	39	5.096	1.162,00	4.385	130.666,66
Recanto Settlement*	22	2.174	552,00	3.938,41	94.521,74
Ibicuí Settlement*	62	1.881	1.218,70	1.543,75	30.340,79
Settlements**	557	18.181	15.230,00	2.966,57	81.114,90
Family***	927	29.362	31.105,00	943,46	31.674,21
Non-Family Members	920	339.434	497.689	682,02	368.950,00

* Source: SIGRA 2022.

** Average of settlements in general with some record of production. Source: SIDRA 2017.
without the settlements. Source: SIDRA 2017

The Ibicuí settlement has a lower production compared to other rural settlements. In the Recanto settlement, it stands out in relation to the VP of production per ha in relation to the other categories of agricultural establishments. In addition, in this settlement, PV per establishment is higher than that of family farming and other settlements. Finally, the São Joaquim settlement stands out in relation to the gross value of production per ha in relation to the other categories of agricultural establishments. In addition, in this settlement, PV per establishment is higher than that of family farming and other settlements.

FINAL CONSIDERATIONS

The view provided by the information of the settlements Ibicuí, Recanto and São Joaquim in Sant'Ana do Livramento, demonstrated that the settlements developed in different ways, and that this plurality of settlements influences the development of the territory of the city of Santana do Livramento and evidenced how each one contributes in a unique way to the socioeconomic context of Sant'Ana do Livramento.

Historically, the struggle for land and the establishment of rural settlements in Sant'ana do Livramento occurred concomitantly with the process of strengthening agrarian reform policies in Brazil (FERRON and FROIN). The municipality became a reference in rural settlements for agrarian reform because it was "the municipality in Rio Grande do Sul with the largest number of rural settlements" (CHELOTTI, 2003; AGUIAR, 2011; MONTEBLANCO, 2013; TROIAN, BREITENBACH, 2018). The analysis of the Ibicuí, Recanto and São Jaqui settlements reveals a diversity of trajectories and levels of development that directly impact the productive system and the local culture. Each of these settlements has its own characteristics, even though it is in the same municipality, reflecting the particularities in its infrastructure and productivity conditions.

We use as an example the social indicators that show that the Ibicuí settlement is the least developed, considering the productive aspect in relation to Recanto and São Joaquim. One of the factors that explains this performance is linked to the time of existence of the settlement, with the Ibicuí settlement being the most recent among the three, being founded in 2008, while the São Joaquim and Recanto settlements were created in 1996 and 1997, respectively. This temporal difference collaborates with the distinct social and political consolidation, influencing both the organization of the settlers and the support of public policies in the newer settlements. The occupation of the lots in the Ibicuí settlement has undergone a gradual increase over the years, unlike Recanto and

São Joaquim, which have maintained stable occupancy since their creation, however the Ibicuí settlement has not yet reached its full capacity of occupied lots. Although there has been a gradual increase in families over time, some lots remain unoccupied due to difficulties in accessing the lots and which contributes to the low productivity of the lots in the Ibicuí settlement.

The Ibicuí settlement is ranked below the average of the Production Value - PV, of the settlements. By way of comparison, the average of the settlements in general with some record of production was used, according to the Automatic Recovery System - SIDRA data for the year 2017 (The most current data at the time of the survey). The Ibicuí settlement has a lower production compared to the other settlements in Livramento.

This study demonstrates that the settlements develop differently, however it takes more than 20 years to consolidate the rural settlements. The best settlements are more than 25 years old and in line with good social organization and access roads in good conditions, they are elements that collaborate for the consolidation of the settlement. The present study sought to answer the following research question: Do settlements develop differently?

The answer is yes, the settlements develop differently due to several elements that it was possible to verify throughout the work, such as differences in indicators: population, educational, housing, lots, access roads, etc. This article fulfills the role of externalizing the potentialities and challenges of the agrarian reform settlements in the municipality of Sant'ana do Livramento, from the database available through SIGRA. Having analyzed quantitatively and qualitatively the data and those analyzed in a social context, making possible a better visibility of the general panorama of the living conditions of the settled families and the lots, infrastructure, productive aspects.

Seeking to make the information of the settlements public at first for the settlers, a moment of feedback of the data was organized in the format of a "portrait" of each settlement, for the leaders of the settlements and municipal representatives, reflecting the group's commitment to the continuity of future actions, as it is believed that, in future collaborations, in large part, whether it depends on the strengthening of relations between rural extension agents and settled families, enabling the continuity of academic research in the region. Ensuring that the knowledge generated throughout this process can be used as a tool to assist technical professionals in rural extension for future interventions and public policies for the development of these settlements.

This work also aims to contribute to the academic bibliography on the subject. This work concludes that there is a need for professionals with training in the areas of social sciences, engineering, health, human sciences, etc., that is, interdisciplinary professionals, because the various problems found in rural settlements need individuals who can coordinate actions, not only in the economic aspect, but also in the cultural and social aspects.

It is noticeable that such social problems that guide these communities, thus, actions in this field will demand from these professionals that they can handle the articulation of existing public policies for the target audience, with emphasis on the ability to establish permanent communication with professionals from the appropriate sectors of public agencies, in addition to establishing work strategies that meet the most relevant aspects of the social problems found. In addition, the promotion of public policies aimed at family farming, together with technical assistance and rural extension, with public aid provided by programs aimed at well-being in rural areas, so that the development of these territories and the strengthening of settled communities occurs.

REFERENCES

1. Chelotti, M. C. (2003). A instalação de assentamentos rurais e a inserção de novos agentes no espaço agrário do município de Sant'Ana do Livramento – RS (Dissertação de mestrado, Universidade Estadual Paulista, São Paulo).
2. Defante, M., Montoya, M. A., Veloso, P. R., & Costa, T. V. M. (1999). O papel do crédito agrícola brasileiro e sua distribuição por estratos de produtores. *Revista Teoria e Evidência Econômica*, 7(12), 87-110.
3. Eduardo, A. F. J. (2024). Política pública de ATER para assentamentos rurais: Constituição de uma proposta a partir do diagnóstico do Assentamento Ibicuí em Santana do Livramento - RS (Dissertação de mestrado, Universidade Federal do Pampa, São Borja, Rio Grande do Sul).
4. Fernandes, B. M. (2007). Formação e territorialização do MST no Brasil: 1979-2005. In G. J. Marafon, J. Rua, & M. A. Ribeiro (Orgs.), *Abordagens teórico-metodológicas em geografia agrária* (pp. 139-168). Rio de Janeiro: UERJ.
5. Ferron, J. D. L., & Troian, A. (2020). O processo de implantação dos assentamentos rurais em Santana do Livramento (RS). *Economia e Desenvolvimento*, 32, e5, 1-15.
6. Guerrero, I. C. O., Bergamasco, S. M. P. P., & Esquerdo, V. F. S. (2016). Reforma agrária: Contribuições para o debate. *Retratos de Assentamentos*, 19(1), 351-380.
7. Instituto Brasileiro de Geografia e Estatística (IBGE). (2024). IBGE Cidades. Sant'Ana do Livramento – História. Available at: <https://cidades.ibge.gov.br/brasil/rs/santana-do-livramento/historico>. Accessed on March 22, 2024.
8. Instituto Nacional de Colonização e Reforma Agrária (INCRA). (2016). INCRA. Available at: <https://www.incra.gov.br>. Accessed on November 10, 2024.
9. Medeiros, L. S. (2003). Reforma agrária no Brasil: História e atualidade da luta pela terra. São Paulo: Fundação Perseu Abramo.
10. Sant'Ana do Livramento. Prefeitura Municipal. (2024). Quem somos. Available at: <https://www.sdolivramento.com.br/cidade/>. Accessed on March 22, 2024.