The differentiated regional importance of family farming and its admittance to loans in Brazil during the 2000s and 2010s

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Brazil stands out as one of the leading agricultural producers. At least, since the 1990s, Brazilian farmers have been officially settled into two categories: family and non-family farmers. This distinction enables the Federal Government to implement differentiated policies through specific programs, including rural credit, minimum price, and agricultural insurance to afford differently each group of farmers. In particular, the National Program for Strengthening Family Agriculture (Pronaf) was established in 1996 to support family farmers. However, Pronaf has been subject to divergent evaluations. In one hand, some authors (such as LOPES, LOWERY, PEROBA, 2016; and DUARTE et al., 2017) have highlighted its crucial importance for the modernization of family farming, but, at other hand, there are authors (for example MATTEI et al, 2007; SILVA, CORREA, NEDER, 2007) that point out the significant concentration of Pronaf's resources among a restricted group of beneficiaries.

Motivated by this divergent literature, this paper aims to analyze the trajectory of family farming in Brazil during the period from 2006 to 2017, which are the two most recent agricultural censuses available at the time of this study was finished. The analysis focuses on two main aspects: the importance of family farming into the Brazilian agricultural economy and its differentiated evolution among the Brazilian regions, as well as the use of credits provided by Pronaf.

One of Pronaf's purpose is to mitigate the uneven income distribution and reduce poverty, which affects severely a share of the Brazilian rural population. In order to reach this goal, low interest rate loans are offered for activities carried out by family farmers and Agrarian Reform settlers. Loans added by technical assistance can allow Pronaf beneficiaries to expand their production, whether intended for their own consumption or for trading in the markets (both domestic or foreign markets). The granting of rural credit allows the purchasing of inputs and equipment by farmers what permit them to enlarge their production and, consequently, allow earning a higher income and the decrease of rural property (ANTUNES et al., 2013).

Currently, Pronaf beneficiaries are arranged into: i) Pronaf A - formed by families settled by the National Agrarian Reform Program (PNRA) or beneficiaries of the National Land Credit Program (PNCF); ii) Pronaf B - aimed at family farmers with a gross annual family

income of up to R\$ 20,000.00 (around US\$ 4,000 per year) and women farmers who are members of family units classified in Groups A, A/C and B of Pronaf; iii) Pronaf A/C - settled by the PNRA or beneficiaries of the PNCF who have contracted the first operation in group "A" and have not contracted financing, except in the "A/C" group itself; finally, iv) Pronaf V - the other beneficiaries of the program.

This paper has an exploratory nature and it is based on an analysis of data from the last two Brazilian agricultural censuses (referring to the years 2006 and 2017). The dataset is organized in the form of tables or graphs in order to achieve the objectives established above. The last two Brazilian Agricultural Census allows us to set farmers into family and non-family ones and the last one (dated as 2017) also allows us to evaluate family farmers grouped into Pronaf-granted (called "pronafianos") and non Pronaf-granted farmers. Also, the 2017 Agricultural Census split the Pronaf-granted farmers into B and V categories.

Over the years from 2006 to 2017, a significant decrease in the number of family farms has been observed in Brazil: a reduction of 468,859 units. Additionally, there was a decrease in the number of people employed in these establishments, totaling 2,207,551 fewer workers. However, it is important to note that there was an absolute increase in the area occupied by these establishments, with a growth of over 788 thousand hectares. This scenario suggests a complex phenomenon, in which there is a relative growth of the richer family farmers and an increasing mechanization has taken place in their farms.

The decrease in the number of family farms and their personnel had taken place predominantly in the Northeast and South regions of Brazil. Despite those regions remain as the areas with the highest concentration of family farms. Additionally, it is important to highlight that there was an increase in these variables in the other Brazilian regions: North, Center-West and Southeast.

The reduction in the importance of family farming in Brazil can be explained, in part, due to the severe drought that had affected the Brazilian semi-arid region from 2012 to 2017, especially the northeastern semiarid areas (REBELLO, 2018). Additionally, a significant share of what was previously considered family farming have now earned more than half of its income from non-agricultural activities. Consequently, this has led this share of former family farming to lose this label (NASCIMENTO, AQUINO, DEL GROSSI, 2022).

When analyzing the distribution of rural credit aimed at family farming, especially through the National Program for Strengthening Family Agriculture (Pronaf), it is observed that only a small share of farmers in this category have access to this type of financing. Furthermore, the distribution of credit is not equitable among the Brazilian regions and the distribution does not reflect necessarily the relative importance of each region for the analyzed category. In 2006, only 21.8% of the Brazil's family farmers had borrowed rural loans, while, in 2017, this percentage had decreased to 16.3%. For Northeastern family farmers, these percentages were 14.9% and 13%, respectively, and for Southern family farmers, they were 46.3% and 32.2%, respectively. Those shares unfold clearly a disparity in the regional distribution of this important program for the modernization of family farming.

Focusing only at Pronaf, which is, in Brazil, the loan lent at the lowest interest rate to the farmers, it is noted that the South Region held 41.3% of the farmers granted in 2006 by this program, a percentage that was 33.7% in 2017. Such percentages for the Northeast family

farmers were, respectively, 34.3% and 37.7%, in 2006 and 2017, despite this region had held, in those years, 50.1% and 47.2%, respectively, of family farms in Brazil. Such numbers reinforce the bias in favor of the Southern family farming granted with Pronaf loans.

A crucial factor that had significantly promoted the Southern region's access to rural loans was the role played by cooperatives. In 2006, these institutions were responsible for 11% of the farmers granted by Pronaf's loans, and this share had increased to 29.2% in 2017.

When analyzing how the Pronaf lines have been granted, it is observed that family farmers classified in the lowest income category, called Pronaf B, are predominantly concentrated in the Northeast region and the richer family farmers, granted with Pronaf V, are placed at the Brazilian Southern region. In 2017, family farmers from the Northeast accounted for 67.7% of those receiving Pronaf B credit in Brazil. At the same year, family farmers from the South accounted for 55.3% of those granted with Pronaf V credit. This is associated with, and feeds back into, the fact that family farms located in the South of Brazil are more mechanized than those placed in the Brazil's Northeast region.

In conclusion, it can be stated that family farming is not evenly distributed across the Brazilian territory. Furthermore, the paper points out that one of the main program supporting agriculture modernization, Pronaf, tends to benefit mainly family farmers located in more developed regions of the country, with emphasis on the South of Brazil. This contributes to perpetuating regional inequalities inside this category. The prominent role of credit cooperatives, especially in the Brazil's Southern Region, due to their historical European heritage, seems to exacerbate this disparity by channeling resources to already more developed areas, ultimately benefiting predominantly the considered more prosperous family farmers.

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