

Panorama of cooperativism in Brazilian agriculture in Alexander Chayanov's perspective

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Abstract. In the last decade, Brazil has witnessed a significant expansion of cooperativism in agriculture. However, the cooperative movement did not follow a uniform pattern, revealing asymmetries and inequalities in Brazilian cooperativism. The article aims at describing cooperativism in Brazilian agriculture, for which the authors analyze data of agricultural censuses (IBGE, 2006; 2017), using markers to distinguish social-political categories of family and non-family agriculture. In addition, the authors examine variables related to gender and education characteristics of farmers, distribution of rural units by area, purpose of agricultural production, sources of income, and access to technology. According to the results, there is a significant number of farmers affiliated with cooperatives in Brazil. However, cooperativism is concentrated in one of the five macroregions of the country and is more typical for non-family rather than family agriculture. Moreover, there are differences in cooperativism by size of property, and units associated with cooperatives in Brazil are more focused on marketing their production than the non-cooperative ones, which is reflected in the share of agricultural income in the total income of farmers and their families. Based on the results, the authors reconsider the ideas of Alexander Chayanov (2017) to assess the potential of cooperativism in the development of Brazilian agriculture if based on a more planned society and economy.

Key words: cooperativism, agriculture, Brazil, Alexander Chayanov

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Introduction

Cooperatives were originally established in Europe in the mid-19th century to address social inequalities and promote economic equity. Thus, the cooperative movement spread from Europe across the Western world, uniting cooperatives around shared values, principles, identity, and a common brand (Bancel, 2022). In Brazil, cooperativism has historically been rooted in a wide range of organizations, particularly of farmers who sought to create and consolidate their organizations to resist changes in the country's agrarian landscape over

the past 130 years. Although not limited to rural areas, cooperative practices were experimented with and disseminated throughout Brazil, revealing the ability of farmers to design their social, economic, and political organizations.

The official introduction of cooperativism in Brazil dates back to 1889 — the founding of the Economic Cooperative of Public Employees of Ouro Preto, organized for the consumption of agricultural products. The first agricultural cooperative in Brazil was founded shortly after, in 1892, — the *Società Cooperativa delle Convenzione Agricoli* was organized by small farmers in the state of Rio Grande do Sul to make their small-scale production viable. Thus, the start of cooperativism in Brazilian agriculture is determined by survival strategies in response to the challenges faced by European immigrants who colonized the region (Gaiger, 2013).

In the second half of the 20th century, cooperativism in Brazilian agriculture entered a period of expansion, particularly in the South and Southeast macroregions, under the expansion of markets for wheat and soybeans and modernization policies actively implemented since the 1960s. The peak of this second major phase of Brazilian cooperativism can be attributed to the Law 5.764, which defined the National Cooperative Policy, formed the legal framework for cooperative societies, and created the Brazilian Cooperative Organization (OCB) to present the national cooperative system.

In this period, agricultural cooperatives showed a strong tendency to become large corporations which consisted of many members and were engaged not only in commercialization of agricultural production but also in agro-industrialization, sales of inputs and agricultural machinery, and access to rural credit (Delgado, 1985). Such cooperatives often reproduced traditional organizational practices of private companies (Santos, 1978; Delgado, 1985), thus developing a cooperative model highly sensitive to competitive markets and financial power.

Thus, although cooperativism in Brazilian agriculture developed as a survival strategy for small farmers, its rapid expansion in the 20th century determined active participation of large rural producers who sought to invest in new machinery and equipment and were engaged in large-scale, specialized market-oriented production (Benetti, 1992). As a result, the wave of agricultural modernization policies positioned cooperativism as a strategic mechanism of the national agricultural policy, related to the “new rural” (Vasconcelos, Castro, 1999) under the Green Revolution.

Among the consequences of the cooperative model developing since the second half of the 20th century, the most disastrous was the movement of “breaking up” agricultural cooperatives, which led to bankruptcies from 1985. Crúzio in the article “Why do Brazilian agricultural and agro-industrial cooperative fail?” provides the following answer: “it is cooperative superstructures, too complex to meet objectives of cooperative members” (Crúzio, 1999: 25). According to Gaiger

(2013), agro-industrial cooperativism that marked the second half of the 20th century lost its social and political support due to the trend of cooperatives turning into organizations of conventional type, with cooperation being instrumentalized as a mere means for reducing social costs just for profit.

Since the turn of the millennium, Brazilian agricultural cooperativism has undergone a third significant transformation under the new rural development policies of a more left-wing government. Thus, family farming¹ consolidated in the political-institutional arena, attracting most rural development programs and policies (Grisa, Schneider, 2014). Such rural development policies as the Food Purchase Program (PAA) and the reorganization of the National School Meals Program (PNAE) clarified interaction, articulation, negotiation, cooperation, and organizational modes within a broad framework of actors (Grisa, Schneider, 2014). Thus, more than just contracts for purchase and sale of food — public procurement programs created a fertile ground for a new model of cooperativism based on the organizational capacity of Brazilian family agriculture (Tomazzoni, 2022).

Unlike agricultural cooperativism of the 20th century, characterized by large cooperative organizations, this new model implied small and medium-sized cooperatives strongly linked to local territories and focused on solidarity and self-governance by family farmers. This new model of cooperativism is also marked by inter-cooperation as a logistics and advantages of scale strategy for meeting the geographically distributed demand determined by public procurement programs. Inter-cooperation has been used to preserve farmers' self-governance and cooperatives' connections with their local territories without losing advantages of complex large-scale operations (Tomazzoni, 2022).

Within the scope of the new cooperativism, in 2005 the National Union of Cooperatives of Family Farming and Solidarity Economy (UNICAFES) was founded as a non-governmental organization representing solidarity cooperativism, family agriculture, traditional peoples, and land reform settlements. Unlike the OCB consisting of the largest Brazilian cooperatives, UNICAFES is an institutional

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1. Family farming is a social part of the national economic formation. However, it has been legally-institutionally defined only recently. According to the Brazilian legislation in force — the Law No. 11,326/2006 (Decree No. 9,064/2017), family farmers are producers who (Del-Grossi, 2019): a) have an area of up to 4 fiscal modules, whose units can vary from 5 to 110 hectares; b) use at least half of family workforce in production and income-generating activities; c) get at least half of family income from economic activities of their establishment or enterprise; d) manage such establishment or business solely with their family. These criteria were applied in the last Brazilian Agricultural Census (2017/2018): family farmers accounted for 3.9 million rural establishments (77% of the national total), of which only 10.6% were associated with cooperatives (IBGE, 2019).

representative body for cooperativism in family farming and solidarity economy, typical for small and medium-sized cooperatives.

Thus, the three waves of cooperativism in Brazil determined the today's two major fields in national agro-cooperativism. Despite challenges of the "breaking up" period, the traditional model of large agro-cooperatives is still present in national agriculture and constitutes one of the central pillars of Brazilian agribusiness, thus proving Carlson's (2022) ideas of the key and central role of agrarian dynamics in understanding divergent processes of economic development. Carlson highlighted important regional differences in rural property relations as leading to different production logic and investment patterns in agriculture, which greatly affect economic and industrial growth.

According to the 2025 Annual Report of the Brazilian Cooperative Organization (OCB, 2025), cooperativism is a ground for agribusiness expansion: 1,172 cooperatives in agricultural sector consist of over 1 million members and generate R\$ 438 billion off annual revenue, with a surplus of R\$ 30 billion in 2024; 49% of agro-industrial cooperatives focus on inputs and goods supply, 43% — on unprocessed plant products, and 22% — on unprocessed livestock products (OCB, 2025).

The 2023 Report of the World Cooperative Monitor (COOP, 2023) named nine Brazilian agricultural cooperatives among the 300 largest cooperatives worldwide, presenting all economic sectors: three Brazilian cooperatives — Copersucar, Coamo, and Aurora — stand out for being in the top ten global cooperatives in agribusiness based on the criterion of gross revenue per employee. Such rankings highlight the importance of cooperativism in Brazilian agribusiness structure, and the country's largest cooperatives unite thousands of farmers and generate billions in annual revenue. A notable example is Coamo located in Southern Brazil — the largest agro-industrial cooperative in Latin America with over 30,000 members and global revenues of over R\$ 30 billion.

According to the OCB Annual Report (2025), cooperatives play a significant role in exports and in positioning of Brazilian agribusiness in international markets. In partnership with the Brazilian Agency for Promoting Exports and Investments (ApexBrasil), in 2024 cooperatives supported by the program generated US\$ 8.4 billion in direct international business, which represented 2.5% of Brazil's exports, and in agribusiness cooperatives accounted for 5.2% of the sector's exports (mainly poultry meat, crushed soybeans, unroasted coffee, and pork meat). In some product categories, cooperatives accounted for the largest share of Brazilian exports, such as pork offal (43% of exports). Main international buyers were China (US\$ 2.2 billion), United States (US\$ 577 million), Netherlands (US\$ 523 million), Japan (US\$ 467 million), and Germany (US\$ 458 million) (OCB, 2025).

In solidarity cooperativism, there are cooperatives associated with UNICAFES which unites about 700 cooperative organizations across

the five macroregions of the country. Especially in the Southern region, credit cooperativism based on solidarity, just as some producer and consumer cooperatives, has grown in recent years, expanding opportunities for work, income, food production, and to improve the quality of life (UNICAFES, 2024).

While traditional cooperativism, represented by cooperatives associated with the OCB, has largely benefited from support policies since the 1970s, solidarity agricultural cooperatives, associated with the UNICAFES, developed after 1988 under socioeconomic exclusion and significant restrictions on public investment (Zanco, Zanco, Alves, 2018). Thus, solidarity cooperatives began to play a central role in production and market access for Brazilian family farming, and this social-political category was developed through the mobilization of social movements, researchers and non-governmental organizations during the 1990s.

However, since their emergence solidarity agricultural cooperatives have faced organizational challenges. According to Zanco, Corbari and Alves (2019), cooperatives associated with the UNICAFES tend to show a low level of institutional development and severe structural and operational limitations that reduce their efficiency. These limitations include weak technical and administrative management, lack of governance and training mechanisms, insufficient investments in agrarian industrialization and cooperative expansion. As a result, less than 8% of solidarity agricultural cooperatives report annual revenues over R\$50,000 and 64% do not have logistic structure for operation.

This brief historical review shows that after its introduction at the end of the 19th century cooperativism took root in Brazilian agriculture and became a fruitful alternative for social, political, and economic organization of farmers for years, centuries, and generations. Although cooperativism faced crises and transformations, collective actions proved effective for resistance and supporting Brazilian agriculture (Costa, Vizcaino, Costa, 2020; Strate, 2018). Activists, policy-makers, even commercial agents and scholars often explain the success of Brazilian agriculture by its strong cooperative base. Repeating narratives suggest that agricultural units associated with cooperatives are “more developed” compared to those not cooperated, which is supported by the argument that family units are more engaged in cooperation perceived as a way to ensure the survival and reproduction of family farming.

The analysis of the 2017 Agricultural Census (IBGE, 2017) shows that there is indeed a significant number of family farmers involved in cooperation. However, what has not been widely known is the strong presence of cooperativism in non-family agricultural units like medium-sized property owners. Moreover, the most recent Agricultural Censuses (IBGE, 2006; 2017) show that in the past decade Brazil has witnessed significant expansion of cooperativism in agriculture. The

number of establishments involved in cooperation grew by approximately 67% from 2006 to 2017. However, the spread of cooperativism in Brazil has not only followed different paths for family and non-family farming but also aggravated asymmetries between the country's five macroregions.

Given the above-mentioned expansion and asymmetries, the article aims at describing the situation with cooperativism in Brazilian agriculture, based on the data of the 2006 and 2017 Agricultural Censuses. For this, we use indicators of the social-political typologies of family and non-family farming, of gender and education characteristics of farmers, land area distribution of rural units, agricultural production purposes, sources of income, and access to technical guidance. Thus, based on the historical materials provided by the Brazilian Institute of Geography and Statistics (IBGE), we examine the development of cooperativism during the period (2006–2017) marked by the development and expansion of agricultural policies in Brazil. We believe that the results of this study would contribute to deeper analysis of the political, social, and economic context in which Brazilian agriculture operates and of how cooperativism can enhance its development.

For this purpose, the article is theoretically based on the ideas of Alexander Chayanov, the most important figure of the so-called organization-production school that created an impressive body of knowledge about rural Russia. Although his writings date back to the early 20th century, they remained largely unknown for decades. Among Brazilian scholars, Chayanov's writings have circulated widely only in recent decades, which has led to a vast body of research of his theories on the peasantry (Abramovay, 1992; 1998). Chayanov's works are frequently cited for their remarkable contributions to understanding "the morphology of the productive machine known as the peasant production unit" (Chayanov, 1986: 44).

Even less known were his writings on cooperativism, while many authors citing his works without recognizing that Chayanov was not a theorist of peasant isolation (Abramovay, 1998). In his most well-known work, Chayanov (1986) advocated cooperativism and vertical integration of peasant units, mentioning Denmark as an example of efficient agricultural collectivization. By criticizing horizontal integration, Chayanov (1986) defended cooperativism as one of the most important means of socialization of peasant labor.

For Chayanov, cooperativism represented a potentiality embedded in the very organizational dynamics of the peasantry, while vertical integration constituted a productive way to preserve existing forms of peasant social organization. These ideas are presented in *The Theory of Peasant Cooperatives*, originally published in 1919 and revised in 1927, which is considered his main work on peasant cooperativism. The book was written shortly after the 1917 Revolution to show how Russian economy could be organized on the basis of cooperative system capable of preserving private property of the peasant production

unit while vertically integrating it with agro-industries through cooperatives (Chayanov, 2017), thus forming what was later defined as agro-industrial chains.

In addition to describing the Brazilian case, the article contributes to broader debates on contemporary transformations of cooperativism under capitalism. The expansion of cooperatives in Brazilian agriculture reflects structural changes that transcend national boundaries: reconfiguration of agrarian markets, growing role of global value chains, and intensified financialization of agricultural production. In this sense, cooperativism is not only a localized organizational response but a mechanism through which agriculture seeks to integrate into markets while simultaneously preserving certain degrees of autonomy in production, labor organization, and sources of income.

The article consists of four sections: the first section describes the research methodology; the second section presents the systematized agricultural census data, providing a preliminary contextualization of the field; the third section analyzes the data in light of Chayanov's ideas (2017), assessing the potential of cooperativism for developing Brazilian agriculture; the final section presents the concluding remarks.

Methodology

This study is descriptive, empirically based on the collection, description and analysis of secondary data of agricultural censuses conducted by the Brazilian Institute of Geography and Statistics (IBGE), and its results are considered in the theoretical framework offered by the Russian agrarian economist Alexander Chayanov.

In Brazil, agricultural censuses have played an essential role in understanding the socioeconomic, environmental and productive characteristics of national agriculture, its structure and changes over time. The first national agricultural census was conducted in 1920 as part of the general census. Since then, surveys were conducted in 1940, 1950, 1960, 1970, 1975, 1980, 1985, 1995/1996, 2006, and 2017. The 2006 Agricultural Census was innovative in terms of expanding the questionnaire (Lourenço, Schneider, Gazolla, 2017), including "producer association with cooperatives and/or class organizations": Brazilian farmers reported their belonging to a) cooperative; b) class organization/syndicate; c) producer association/movement; d) residents' association. The same question was used in the 2017 Agricultural Census.

According to the IBGE (2019: 01), "cooperative is an organization formed by members of a specific economic or social group for a particular activity; cooperation is based on the participation of its members for achieving the common good". To assess cooperativism in Brazilian agriculture, the data of the 2006 and 2017 Agricultural Censuses related to the variable "producer association with cooperatives" were

quantified. It is important to note that the reference date for the 2006 Agricultural Census was December 31, 2006, while the reference date for the 2017 Agricultural Census — September 30, 2017.

Another relevant innovation introduced in the 2006 Agricultural Census and used in 2017, was the possibility to segment data by sociopolitical categories of family and non-family farming, based on the definition from the Law 11.326 of July 24, 2006, also known as the Family Farming Law.

In 2017, the criteria used by the IBGE to define family farming included legal framework and regulations in force as of September 30, 2017, i.e., the Family Farming Law and Decree No. 9.064 of May 31, 2017, which established the family agricultural production unit and the National Family Farming Register. The regulation of this Decree was based on the Ordinance Sead No. 234 of April 4, 2017, and Ordinance SAF/Sead No. 001 of April 13, 2017, which address the eligibility of farmers for the National Program for Strengthening Family Farming (Pronaf). Thus, to compare the results of the 2017 and 2006 Agricultural Censuses (the 2006 data were processed before the publication of the legal framework), the IBGE revised and introduced a new classification of family farms in 2006, according to the regulatory frameworks in force in 2017.

The available data of the 2006 and 2017 Agricultural Censuses allowed to collect the following information: gender of producers-heads of agricultural establishments; their educational level; land area of agricultural establishments; income from agricultural activities of the establishment in relation to other sources of the producer income; main purpose of agricultural production; and technical assistance received. This information was systematized to compare family and non-family agricultural establishments and also those associated and not associated with cooperatives. All secondary data of agricultural censuses are available at the IBGE's SIDRA Database.

Analysis and systematization consisted of three stages: first, data matrices in SIDRA were mapped, focusing on the category “producer association with cooperatives and/or class organizations”, especially segmented by the variable “association with cooperatives”; second, the data were systematized and tabulated using the Microsoft Excel software; third, a descriptive analysis of cooperativism in Brazilian agriculture was conducted, referring to the chosen theoretical framework.

Agricultural cooperativism in Brazil

The 2017 Brazilian Agricultural Census (IBGE, 2017) identified 5,073,324 agricultural establishments in the country, 579,438 (11.42%) were associated with cooperatives. Compared to 2006, there is a significant increase in the number of agricultural units associated with cooperatives (Figure 1).

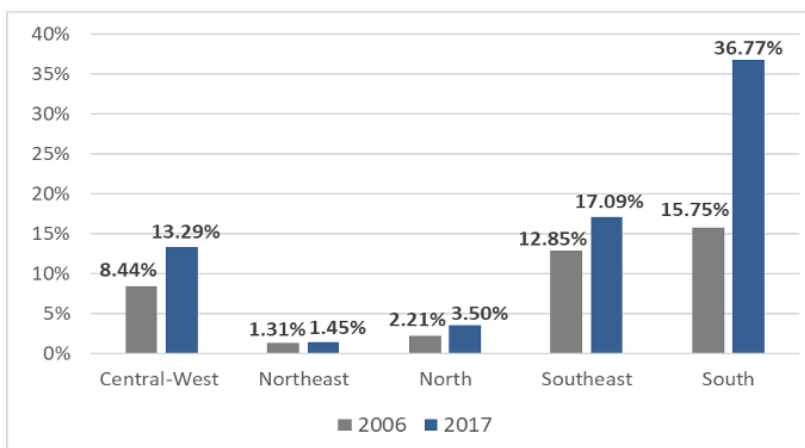


Fig. 1. Share of agricultural establishments associated with cooperatives by microregion (IBGE, 2006; 2017)

Despite the growing number of agricultural establishments associated with cooperatives in all macroregions, both the growth rate and the share of cooperative units show sharp asymmetries between Brazilian macroregions. In 2006, of the total 5,175,636 agricultural establishments 346,369 (6.69%) were associated with cooperatives, in 2017, there was a 67.29% increase in their number. In the South, the number of agricultural establishments associated with cooperatives increased from 158,428 (15.15% of the total in the macroregion) in 2006 to 313,763 (36.77%) in 2017. The 2017 census data show that although the South represents only 16.82% of all agricultural establishments in the country, it accounts for 54.15% of agricultural units associated with cooperatives. Like the South, the Southeast stood out for both growth and presence of cooperativism in agriculture. In 2006, 118,518 agricultural establishments (12.85% of the total in the macroregion) were associated with cooperatives, in 2017 — 165,630 (17.09%), demonstrating a significant consolidation of cooperatives in regional agriculture.

Unlike the South and Southeast, the Northeast macroregion showed moderate growth in cooperativism, remaining rather in its infancy. The number of agricultural establishments associated with cooperatives increased from 32,091 in 2006 (1.31% of the total in the macroregion) to 33,592 (1.45%) in 2017.

In the North, the number of agricultural establishments associated with cooperatives nearly doubled from 2006 to 2017, increasing from 10,537 (2.21% of the total in the macroregion) to 20,309 (3.5%). Despite this significant growth, the census data shows that cooperativism still plays a limited role in the agricultural strategies of this territory.

In the Central-West macroregion, widely recognized as a “world breadbasket” (Bourlegat, 2014) due to its significant production of grains (soybeans and corn), the number of agricultural establishments associated with cooperatives increased from 26,795 (8.44% of the total in the macroregion) in 2006 to 46,144 (13.29%) in 2017.

Significant differences in cooperativism between Brazil’s macroregions can be explained by land transformations and inequalities that have historically structured the country. Carlson (2022) argues that regional agrarian features have a decisive impact on long-term institutional and organizational trajectories. In his study of Brazil’s uneven development throughout the 20th century, he shows that the Southeast macroregion, especially the state of São Paulo, underwent deep agrarian transformations in the early 20th century, which were marked by small and medium-sized producers acquiring land through the market and investing in intensifying production. These transformations created strong links between agriculture and industry, expanded domestic consumer markets and provided institutional advantages for regional development. On the contrary, the Northeast macroregion retained concentrated, low-dynamic and low-productivity land structures, which limited the development of complex organizational forms like cooperatives and contributed to relative regional stagnation. Thus, the asymmetric territorial expansion of cooperativism in Brazil can be interpreted as a result of the divergent historical agrarian dynamics that determined opportunities for collective organization across the country.

Given the evident expansion of agricultural cooperativism in all macroregions of Brazil, we compared association with cooperatives by sociopolitical categories of family (Figure 2) and non-family farming (Figure 3). In 2017, the Brazilian Agricultural Census identified 5,073,324 agricultural units, of which 3,897,408 (76.82%) were classified as family farming, according to the IBGE (2017). Among these family units, 412,305 (10.58%) were associated with cooperatives. In 2006, there were 4,366,267 family agricultural units, 237,836 (5.45%) were associated with cooperatives. Thus, from 2006 to 2017, the number of family agricultural establishments associated with cooperatives increased by 73.36%. This significant growth boosted the share of cooperativism in family farming — 10.6% of family units in 2017. However, this increase was also influenced by a reduction in the total number of agricultural establishments classified as family farming by 10.73%.

As shown in Figure 2, the scale of association with cooperatives in family farming increased in all macroregions together with asymmetries between them. The South stands out for its prominent role in family farming cooperativism: in 2006, 123,264 family units (14.51% of the total in the macroregion), in 2017, this number more than doubled — 248,036 family units (37.26%). Although the South macroregion accounts for only 17.08% of Brazil’s 3,897,408

family farming establishments, there are 412,305 family units associated with cooperatives (60.16% of the total in Brazil). On the contrary, in the Northeast macroregion, the share of cooperativism in family farming was only 1.32% in 2017 (24,212 out of 1,838,846 family establishments in the macroregion). In 2006, 23,705 family farming establishments were associated with cooperatives (1.08% of this category in the macroregion). Therefore, although the Northeast represents 47.18% of family farming units in the country, it only accounts for 5.87% of Brazilian family establishments associated with cooperatives.

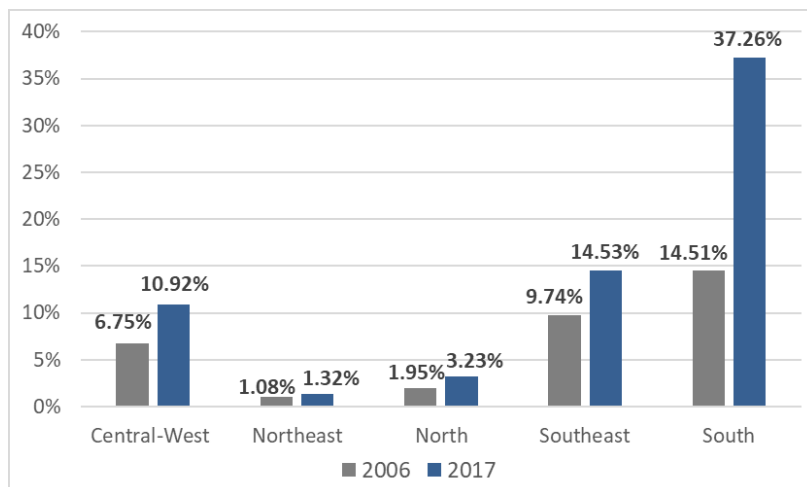


Fig. 2. Share of family agricultural units associated with cooperatives by microregion (IBGE, 2006; 2017)

In the Southeast macroregion with the second largest number of family farming units in Brazil, cooperativism grew increases in both absolute and relative terms. In 2006, 68,191 family farming establishments were associated with cooperatives (9.74% of family units in the macroregion), in 2017 — 100,129 (14.53%). The share of cooperativism in family farming also increased in the Central-West and North macroregions, although to varying degrees. In the Central-West, 14,645 family units were associated with cooperatives in 2006 (6.75% of family units in the macroregion); in 2017, this number increased to 24,386 units (10.92%). In the North, cooperativism is rather in its infancy; however, its growth from 2006 to 2017 was significant: in 2006, the macroregion had 8,031 family units associated with cooperatives (1.95% of family units in the macroregion), in 2017 — 15,542 (3.23%).

Cooperativism also showed significant growth in Brazilian non-family farming. In 2017, there were 1,175,916 agricultural establish-

ments classified as non-family farming, of which 167,133 were associated with cooperatives (14.21% of this group), while in 2006 — only 108,533 (13.41%).

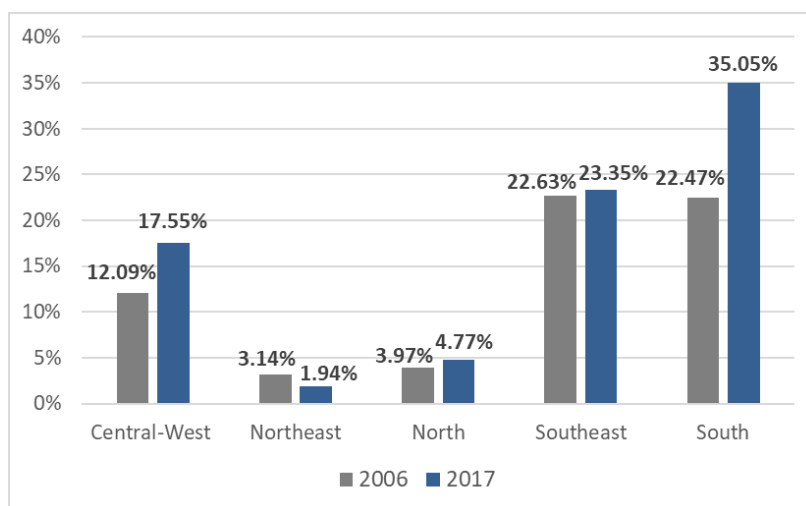


Fig. 3. Share of non-family agricultural establishments associated with cooperatives by microregion (IBGE, 2006; 2017)

Although the share of cooperativism in non-family farming increased moderately from 2006 to 2017, the number of non-family farming units associated with cooperatives increased significantly — from 108,533 to 167,133. Such moderate growth of the share is explained, among other factors, by the significant increase in the total number of non-family agricultural establishments in this period — from 809,369 in 2006 to 1,175,916 in 2017 (increase by 45.29%).

The growth of cooperativism in non-family farming is observed in all macroregions except for the Northeast in which its share decreased from 2006 to 2017. It is important to note that the number of non-family agricultural establishments associated with cooperatives in this macroregion slightly increased in this period — from 8,386 to 9,380. However, a reduction in the share of cooperativism was determined by the significant increase in the number of non-family farming units — from 266,929 in 2006, of which 8,386 (3.14% of the total in the macroregion) were associated with cooperatives, to 483,873 in 2017, of which 9,380 (1.94%) were associated with cooperatives. This increase in absolute terms combined with the stable number of cooperated establishments led to a decrease in the share of cooperativism in non-family farming.

In other macroregions, this index of cooperativism showed significant growth from 2006 to 2017. The South macroregion stands out

with the share of non-family units associated with cooperatives increased from 22.47% in 2006 to 35.05% in 2017, compared to the Central-West — from 12.09% to 17.55%. In absolute terms, the South macroregion had 156,510 non-family agricultural units in 2006, of which 35,164 were associated with cooperatives; in 2017 — 187,547 and 65,727 respectively, which shows significant strengthening of cooperativism in this territory.

In the Southeast and North macroregions, the index of cooperativism in non-family farming remained relatively stable from 2006 to 2017. In the Southeast, the index varied from 22.63% to 23.35%; however, in absolute terms the growth was more significant — the number of non-family units associated with cooperatives increasing from 50,327 to 65,501. In 2017, the stable pattern made the Southeast lose its leadership position as the region with the highest index of cooperativism in Brazilian non-family farming to the South. In the North, the share of cooperativism in non-family farming increased from 3.97% in 2006 to 4.77% in 2017 (from 2,506 to 4,767 units).

Figure 4 presents the comparative development of cooperativism in both family and non-family farming in Brazil from 2006 to 2017 (in absolute and relative terms). In family farming, there was a significant increase in the number of establishments associated with cooperatives — from 237,836 to 412,305, which is also reflected in the share of cooperatives — 5.45% in 2006 to 10.58% in 2017. Although family farming represents 76.82% of the total 5,073,324 agricultural establishments surveyed by the Agricultural Census (IBGE, 2017), it accounts for 71.16% of 579,438 units associated with cooperatives in Brazil. Non-family farming also showed significant growth — from 108,533 establishments to 167,133, with the index of association with cooperatives changing from 13.41% to 14.21%. Although non-family farming represents only 23.18% of the total agricultural units surveyed in 2017, it accounts for 28.84% of 579,438 agricultural units associated with cooperatives in Brazil. Thus, while family farming is presented by the largest number of agricultural establishments associated with cooperatives and shows greater growth from 2006 to 2017, non-family farming follows the path of stability with higher share of cooperativism.

Let us move on to the analysis of the social, productive and economic characteristics of agricultural establishments associated with cooperatives based on the most recent agricultural census data (IBGE, 2017). Figures 5 and 6 present the characteristics of heads of Brazilian agricultural establishments: most of them are male (81.02%), and among agricultural units associated with cooperatives this share is even greater (90.74%); therefore, gender imbalance is even more pronounced in agricultural units associated with cooperatives.

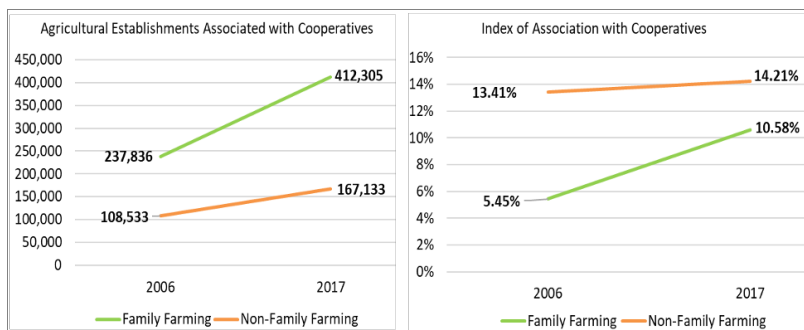


Fig. 4. Development of cooperativism from 2006 to 2017 (IBGE, 2006; 2017)

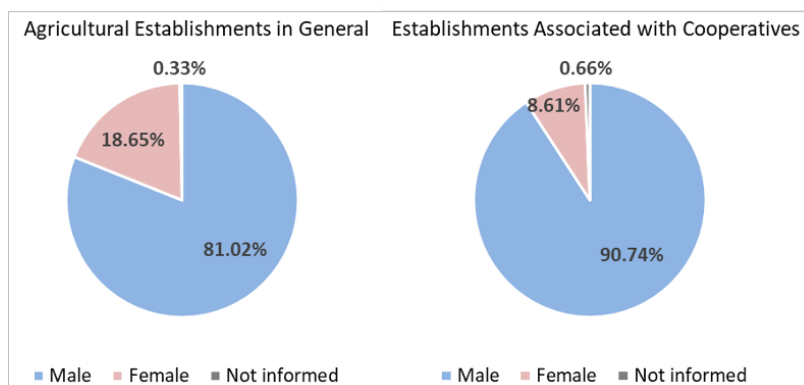


Fig. 5. Gender of heads of agricultural establishments (IBGE, 2017)

Regarding the literacy of heads of Brazilian agricultural establishments, the majority can read and write (76.71%), i.e., a significant share of 22.96% cannot. Among heads of agricultural establishments associated with cooperatives the literacy rate is considerably higher (95.81%). The higher level of literacy among cooperative members is supported by the higher educational level. In general, only 5.87% of heads of agricultural establishments have a higher education, and this share increases to 12.33% among heads of agricultural units associated with cooperatives. This suggests that cooperatives not only attract more educated farmers but may also contribute to an environment conducive to the educational development of their members.

The Table presents the distribution of Brazilian agricultural establishments by the size of land, allowing comparison of cooperated and non-cooperated units, family and non-family farming.

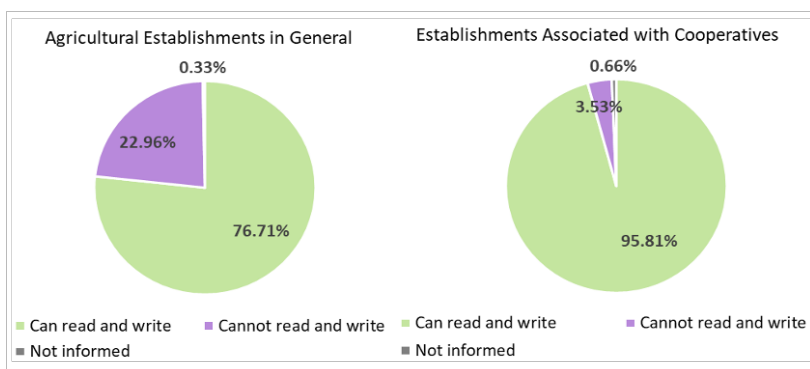


Fig. 6. Literacy of heads of agricultural establishments (IBGE, 2017)

Table 1. Distribution of agricultural establishments by area (IBGE, 2017)

Area (ha)	Non-family farming				Family farming			
	Total		Associated with cooperatives		Total		Associated with cooperatives	
	No.	%	No.	%	No.	%	No.	%
Total	1,175,916	100	167,133	100	3,897,408	100	412,305	100
No area	22,643	1.93	360	0.22	54,394	1.4	1,203	0.29
Less than 5 ha	390,280	33.19	12,763	7.64	1,502,687	38.56	54,504	13.22
5 – 10 ha	105,283	8.95	9,287	5.56	545,431	13.99	63,913	15.5
10 — 20 ha	107,449	9.14	12,360	7.4	623,213	15.99	109,884	26.65
20 — 50 ha	130,750	11.12	18,491	11.06	725,115	18.61	127,647	30.96
50 — 100 ha	93,449	7.95	23,728	14.2	300,708	7.72	44,003	10.67
100 — 200 ha	101,454	8.63	32,787	19.62	117,304	3.01	9,265	2.25
200 — 500 ha	119,132	10.13	31,969	19.13	27,951	0.72	1,810	0.44
More than 500 ha	105,476	8.97	25,388	15.19	605	0.02	76	0.02

According to the 2017 Agricultural Census (IBGE, 2017), in family farming most agricultural establishments have a total area of up to 10 hectares (53.95%), while among those associated with cooperatives — 29.01%. In contrast, 68.28% of family establishments associated with cooperatives have a total area from 10 to 100 hectares. 97.3% of family establishments in Brazil have a total area of less than 100 hectares. In non-family farming, most agricultural establishments have a total area of less than 20 hectares (53.21%), while among those associated with cooperatives — 20.8%. 53.94% of non-family agricultur-

al establishments associated with cooperatives in Brazil have an area larger than 100 hectares.

Figure 7 complements Table 1 by illustrating the presence of cooperativism by establishment size, comparing family and non-family farming.

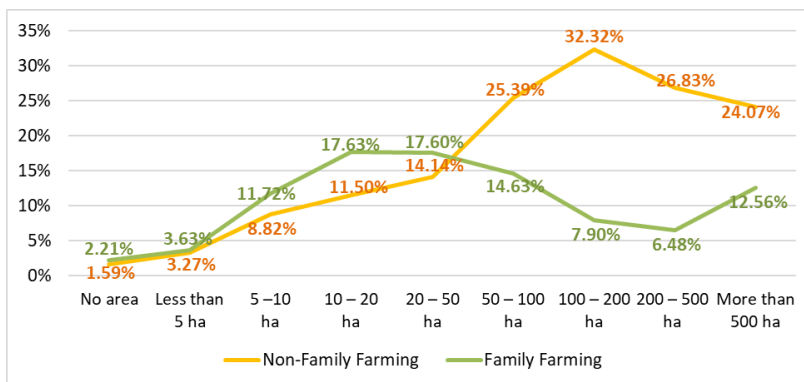


Fig. 7. Index of cooperativism by land area of establishment (IBGE, 2017)

According to Figure 7, 10.58% of family farming establishments are associated with cooperatives. However, this share is relatively lower in groups with no area and with less than 5 hectares, representing 2.21% and 3.63% of such agricultural units, respectively. In the group with land area from 5 to 10 hectares, this share is much larger — 11.72% of units engaged in cooperation. Among establishments with area from 10 to 50 hectares, cooperativism in family farming reaches its peak — more than 17%, but then this indicator begins to decline, dropping to 14.63% for units with 50–100 hectares, 7.9% — with 100–200 hectares, and 6.48% — with 200–500 hectares. Interestingly, there is a slight increase in the group with more than 500 hectares — 12.56%; however, this group consists of only 605 family agricultural establishments.

In non-family farming, the share of cooperativism is 14.21% of agricultural establishments. However, their distribution by land area differs from that in family farming. In smaller non-family units, the index of cooperation is low — 1.59% among units with no land and 3.27% — with less than 5 hectares. However, there is a significant increase with the size of land area: in the group with 5–10 hectares — 8.82%, with 10–20 hectares — 11.5%, with 50–100 hectares — 25.39%, with 100 to 200 hectares — 32.32%, respectively. In larger establishments, with more than 200 hectares, there is a slight decrease — the share of cooperativism drops to 26.83% among units with 200–500 hectares and to 24.07% — with more than 500 hectares, but these are still high levels.

Thus, cooperativism is more typical for family agricultural establishments with less than 50 hectares, while in non-family farming, the highest share of participation in cooperatives is found among establishments with more than 50 hectares. According to the 2017 Agricultural Census, cooperativism tends to expand in larger units in both family and non-family agriculture, although with clear differences depending on land size. In both categories — family and non-family — cooperativism is still in its infancy for establishments with less than 5 hectares or with no land.

It is important to emphasize that the advancement of agrarian capitalism in such macroregions as the South and Southeast was based on small and medium-sized landowners' engagement in market relations. As these producers got land and became dependent on surplus for social reproduction, they adopted strategies aimed at increasing productivity, diversifying production and promoting collective organization (Carlson, 2022). This created a relatively dynamic agrarian base with greater capacity to generate demand for inputs, services and marketing channels, which in turn contributed to the development of such institutions as cooperatives.

Figures 8–11 present the productive and economic characteristics of agricultural units associated with cooperatives, comparing family and non-family farming in Brazil. Figure 8 clarifies the main purpose of agricultural production in family farming, comparing self-consumption with commercialization.

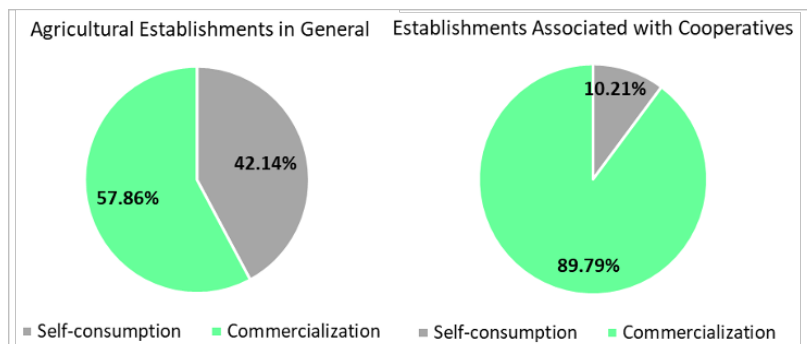


Fig. 8. Main purpose of agricultural production in family farming (IBGE, 2017)

57.86% of 3,897,408 family farming establishments produce mainly for commercialization, while 42.14% — for self-consumption, including wide family circle. Among 412,305 family units associated with cooperatives, market orientation is more significant: 89.79% prioritize commercialization of their production, while only 10.21% aim primarily at self-consumption. In non-family farming, 65.35% of 1,175,916 agricultural establishments produce mainly for commercialization, while 34.65% focus on self-consumption, including wide family circle.

Among 167,133 non-family units associated with cooperatives, market orientation is even more significant: 93.7% prioritize commercialization, only 6.3% focus on self-consumption.

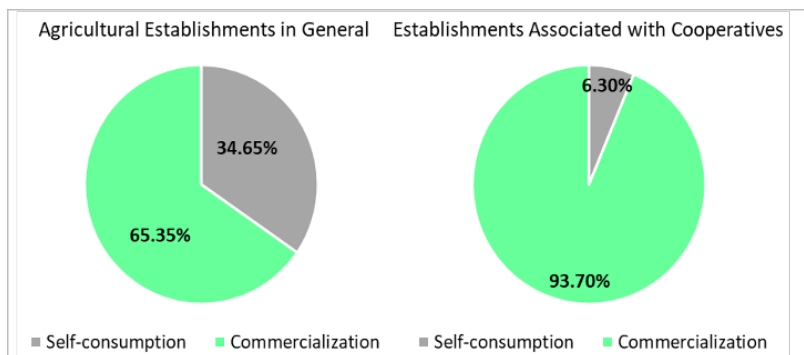


Fig. 9. Main purpose of agricultural production in non-family farming (IBGE, 2017)

Thus, in both family and non-family farming, association with cooperatives becomes an important factor of commercialization. This conclusion is supported by the share of income from agricultural production compared to other sources of income for farmers and their families (Figures 10–11). In family farming, 55.54% of agricultural units derive most of their income from non-agricultural activities, while for 44.46% agricultural production is their main source of income, surpassing other sources. On the contrary, among family units associated with cooperatives only 27.91% rely on external sources of income, i.e., 72.09% of family farming establishments associated with cooperatives rely on agricultural production as their primary source of income.

As shown in Figure 11, in 66.15% of non-family farming establishments agricultural income is lower than income from other sources, while for 32.42% agricultural income exceeds other sources. On the other hand, among non-family units associated with cooperatives, the situation is different: income from agriculture is higher than income from other sources in 57.84% of these units, while income from agriculture is lower than income from other sources in 39.88%.

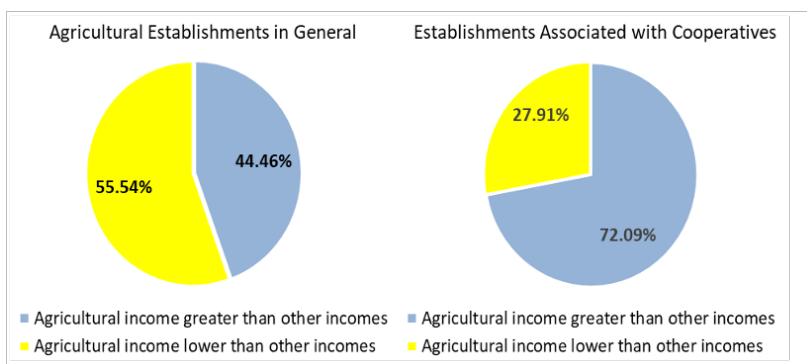


Fig. 10. Agricultural income compared to other sources of income for the producer in family farming (IBGE, 2017)

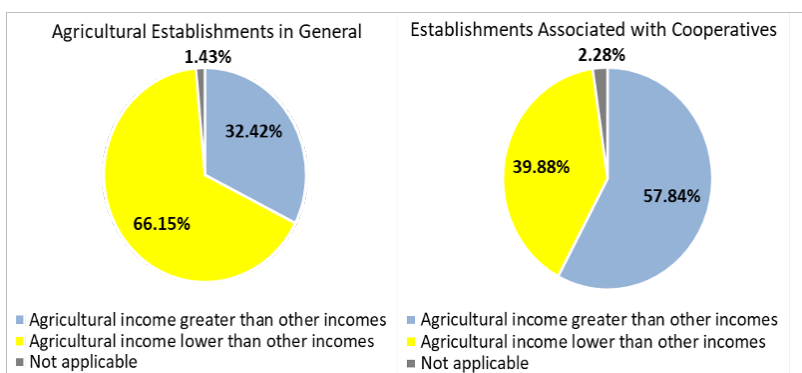


Fig. 11. Agricultural income compared to other sources of income for the producer in non-family farming (IBGE, 2017)

Thus, the data of the Agricultural Census (IBGE, 2017) proves the importance of cooperative membership for economic structure and access to markets for Brazilian agricultural establishments in both family and non-family farming. Membership in cooperatives increases the share of agricultural income in the total farmer household's income.

Beyond their impact on the share of agricultural income, cooperatives play a significant role in providing technical guidance to agricultural establishments (Figures 12–13). As shown in Figure 12, only 18.17% of family units received some form of technical guidance, while the majority, 81.83%, had no access to such support for their agricultural activities. However, among family establishments associated with cooperatives the situation is different: 61.54% receive technical support, and for 35.82% cooperatives provide it.

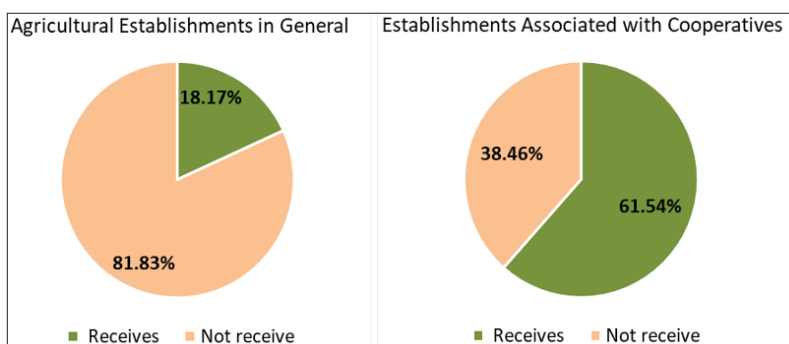


Fig. 12. Technical support for family agricultural establishments (IBGE, 2017)

As shown in Figure 13, the situation is the same in non-family farming: 26.97% of agricultural establishments received some technical support in 2017, while 73.03% did not. In the group of non-family units associated with cooperatives, 69.27% received technical guidance, and for 35.65% cooperatives provided it.

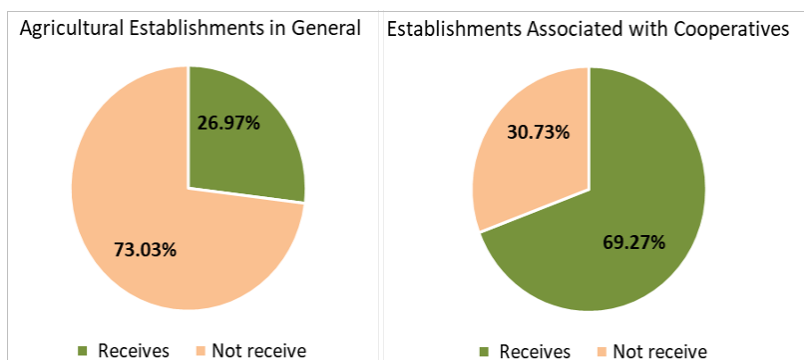


Fig. 13. Technical support for non-family agricultural establishments (IBGE, 2017)

The data on technical guidance emphasizes the role of cooperatives as key agents of technical assistance in both family and non-family farming in Brazil. The significant difference in access to technical guidance between cooperative-associated establishments and those not engaged in cooperation proves the importance of cooperatives as providers of such assistance, highlighting their central role in promoting the development and improvement of Brazilian agriculture.

Differences in the level of cooperativism between Brazilian macroregions are accompanied by significant differences between family and non-family farming. From 2006 to 2017, cooperativism in family farming showed more pronounced growth than in non-family farming; however, in the latter the rates of cooperative membership are higher (in both 2006 and 2017), which means that cooperativism is more common in non-family agricultural units than in family units.

Cooperativism in Brazil faces significant challenges, especially among smaller agricultural units. Although cooperativism is more common for larger non-family establishments (more than 50 hectares), in family farming, it is more typical for units with less than 50 hectares. However, in both categories — family and non-family — cooperativism is still in its early stages of development among small agricultural units (smaller than 5 hectares or without land). Such asymmetries of cooperativism are particularly evident among smaller units which represent more than 1.5 million family establishments and more than 400,000 non-family establishments.

Therefore, cooperativism in Brazil is not limited to survival practices of small family farmers, as often mentioned in literature. On the contrary, cooperativism seems to be an important organizational strategy for medium-sized and large agricultural units, mostly represented in non-family farming. Although studies of cooperativism among large producers remain relatively rare, such phenomena as globalization, inclusion into global agri-food chains and growing competitiveness, combined with the legacy of the 20th-century agricultural cooperativism focused on large rural units (Benetti, 1992), can explain the adoption of cooperativism by large producers as a way to overcome competition and market difficulties.

In this scenario of expansion and opportunities, including inequalities and asymmetries of cooperativism in Brazilian agriculture, Chayanov's *Theory of Peasant Cooperatives* (2017) can contribute to the revival and revitalization of cooperativism, providing an analysis of the role and place of cooperative actions in the national development strategies, especially among Brazilian small farmers.

Literature accumulates evidence in support of cooperativism as a strategy primarily used by small farmers, especially family farmers, due to their organizational and scale limitations (Silva et al., 2014; FAO, 2016; Hoken, Su, 2018). Chayanov (2017) also develops a model of peasant cooperativism, which helps small family units to reconcile the market economies of scale and the social-productive characteristics that have historically determined family farming. However, the historical and contextual background of early 20th-century Russia implies that Chayanov's writings on cooperation are not limited to peasant units or small-scale economies: his model of cooperativism creates preconditions for the social-economic organization of the

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entire rural space. Given the above-presented data, it becomes evident that Chayanov's work helps to understand the importance of strengthening the historical and structural aspects of agrarian development and the grounds for cooperative organization in agriculture. The greater presence of cooperativism among medium-sized establishments (more than 10 hectares in family farming and 50 hectares in non-family farming) in Brazil supports the idea that cooperative organization in agriculture is not simply an institutional choice made by farmers, but rather a viable and functional response to specific regional agrarian structures.

Indeed, every day many Brazilian farmers, who buy inputs, plant seeds and organize production for sale, face the dilemma of market access. Most peasants, family farmers or small producers, who grow crops for commercial purposes, face great difficulties in "bringing their product to market", i.e., do not have easy access to commercialization channels. When market relations do not ensure the autonomy and self-governance of farmers, the agricultural unit ends up being tied to markets whose dynamics are based on subordination to prices set by the buyer, including payment terms and offers. These conditions are harmful and gradually undermine the ability of farmers and their families to continue agricultural activities.

The disadvantages of family and non-family farming in Brazil can be mitigated through a cooperative approach, for which a structural foundation is necessary — with more accessible markets, expanded farmers' self-governance and land organization that ensures the development of Brazilian agriculture (Carlson, 2022). For Chayanov (2017), cooperativism can be a fruitful alternative combining the advantages of economies of scale with the needs of small producers, helping them overcome production limitations and improve agricultural commercialization, while maintaining their autonomy and self-governance inside and outside agricultural establishments. Through cooperation, farmers can connect their agricultural units to markets and benefit from economies of scale, while still preserving their autonomy and self-governance in market relations, because cooperativism supports access to better and more markets, raising the quality of market relations to the highest level be it downstream commercialization in agricultural production or upstream access to production inputs and technologies.

In this sense, the results of our study confirm the provisions of Chayanov by showing how association with cooperatives can provide family and non-family farmers with access to broader and better markets, help with agricultural production commercialization, and increase agricultural incomes of farmers and their families. On the other hand, Brazilian cooperativism has been more common for larger agricultural units, which creates fertile ground for considering public policies based on cooperation and differentiating characteristics of small agricultural units.

Chayanov argued that cooperativism allows for the combination of technical and economic activities in a way that maximizes advantages of large-scale production, which should be separated and cooperatively integrated with similar activities of neighboring units, while activities in which large-scale production does not ensure significant advantages can be preserved for the family unit. Thereby, the question is not about the unit size — too large or too small, but how to reach through cooperation such productive levels that balance advantages and disadvantages of scale, which is Chayanov's concept of optimal differentials. Therefore, Chayanov's ideas are fundamental for addressing the central challenge of rural development: introducing elements of economies of scale while preserving family farmers' autonomy. The theory of differential optima shows how cooperatives can become a highly effective solution for peasant economies by helping farmers to cooperatively organize activities if large-scale production is advantageous, while maintaining less scalable activities within the family unit. In this way, cooperatives can offer small farmers the benefits typically associated with large agricultural production, promoting efficient and collaborative integration of producers.

Based on the study of differential optima, Chayanov developed a pluralistic cooperative model, arguing that "many of the types of cooperation we have analytically identified still do not actually exist; they have not yet been discovered in practice, just as our chemists have not yet discovered many elements of the Mendeleev periodic table" (Chayanov, 2017: 88). By considering cooperative ideas and structures deeply rooted in the features of peasant agriculture and adapted to the local context, Chayanov provides enlightening answers to contemporary criticism of such phenomena as institutional isomorphism and standardized cooperative identity (Gaiger, 2013; Draperi, 2017; Bancel, 2022). Chayanov's approach reveals how cooperatives can deviate from homogeneous standards and adapt to regional specifics and the needs of family farming, promoting a cooperative model based on farmers' autonomy, self-governance and connection with local territories.

Recent movements aimed at revitalizing solidarity cooperativism in Brazilian family farming and its integration into public policies for rural development have experimented with various forms of cooperativism that echo Chayanov's positions. Among the characteristics of such new movements is the emphasis on preserving farmers' autonomy and self-governance and the penetration of cooperatives into local territories (Tomazzoni, 2022). A notable example is the Mixed Cooperative of Family Farmers of Itati, Terra de Areia and Três Forquilhas, located in the state of Rio Grande do Sul: it was founded in 2006, reflects in its name the three municipalities that define its area of operation, stands out for its efforts to move away from the traditional model of the 20th-century agro-industrial cooperativism based on large commercial organizations.

Although Chayanov's work on cooperation dates back to the early 20th century, his writings go beyond the analysis of the Russian peasant cooperativism of that period. In fact, researchers, activists, policymakers, private agents and scholars can find in Chayanov's works grounds for understanding cooperativism as both an economic organization model for production and an approach for the planned society and economy in Brazilian agriculture. For this, we need to conduct new studies on consequences of the emerging territorial cooperative movement in the national family farming; examine public policies that promote the expansion of cooperativism in small agro-pastoral units with less than 5 hectares, in which cooperativism, if represented at all, is extremely weak; develop and test differential optima in each territory together with appropriate modes of cooperation and governance; propose theoretical models of decentralized social cooperation based on sociocultural traditions and institutions of our country; integrate emerging factors of the new digital economy into national agriculture to develop more effective forms of cooperation.

Conclusion

Brazil witnessed a significant expansion of cooperativism in agriculture from 2006 to 2017, which pointed to promising prospects for the development of cooperative relations. The article presented data proving that cooperativism is a prominent feature in the social-economic organization of Brazilian agriculture. Although it faced crises and transformations throughout the 20th century, Brazilian cooperativism has demonstrated resilience, spreading and establishing itself in the national economy in the 21st century. The data of the Agricultural Censuses (IBGE, 2006; 2017) not only shows the significant growth of agricultural cooperativism but also highlights the leading role of cooperatives in the development of Brazilian agriculture.

Historically, the South macroregion is a pioneer and leader of agricultural cooperativism. In addition to the cultural explanation, attributing a tendency toward cooperativeness to the legacy of European immigrants who colonized the region, the South has been in the focus of public policies, especially in family farming where cooperation is most developed. For instance, from 2005 to 2019, the South received from 43.4% to 53.9% of all annual investments of the National Program for Strengthening Family Farming (Pronaf), while the Northeast — only from 13.7% to 23.5% (Baccarin, Oliveira, 2021). This uneven distribution of investments between Brazilian macroregions has been pointed out since the adoption of the Pronaf (Abramovay, Veiga, 1999). Such attention to public policies like the Pronaf and other programs (like the Food Purchase Program (PAA) and the National School Meals Program (PNAE)), which outlined direct incentives for cooperative organization in family farming (Grisa, Schneider, 2014),

can explain the expansion of cooperativism in Brazil over the last decade, especially in family farming of the South.

Our findings support the ideas of other authors on the role of cooperatives in providing access to markets in Brazilian agriculture (Ferreira, Braga, 2004; Johnston et al., 2020). Agricultural units associated with cooperatives are more market-oriented, with a greater focus on commercialization as the primary purpose of production. In family farming, 57.86% of units send most of their produce for sale, especially units associated with cooperatives — 89.79%; in non-family farming, these indicators are, respectively, 65.35% and 93.7%.

It is important to note that production for personal use and consumption remains a key feature of Brazilian agriculture, with advantages widely recognized for social reproduction of farmers households in rural areas. On the other hand, self-consumption as the primary purpose of agricultural production may characterize a noneconomic strategy (Gazolla, Schneider, 2005), more often determined by difficulties in accessing markets than by calling or interest in such practices. Limitations in access to commercialization channels can have significant impact on the income structure of farmers and their families: in both family and non-family farming, most agricultural units have an income structure, in which income from agricultural activities is lower than income from external sources. However, in units associated with cooperatives, income from agricultural activities generally exceeds income from external sources. While 44.46% of family agricultural units in Brazil rely on agricultural production as their main source of income, this figure rises to 72.09% for family establishments associated with cooperatives; in non-family farming, these indicators are, respectively, 32.42% and 57.84%.

It should be emphasized that pluriactivity in Brazilian family farming has been studied and recognized as an important strategy for its social reproduction (Graziano-da-Silva, 1996; Del-Grossi, 1999; Mattei, 1999; Schneider, 2003; Escher, Schneider, Scarton, Conterato, 2014). According to Schneider et al. (2021), income from external sources should not be considered as a negative element or obstacle to agricultural production. The results of our research do not diminish the significance of pluriactivity but rather indicate that cooperative membership has a significant impact on the structure of income earned from both agriculture and other sources.

Cooperative membership can facilitate access to commercialization channels and contribute to favorable market relationships for farmers, thus ensuring better access to markets. Consequently, this increases the share of agricultural income compared to other sources of income for farmers and their families. Furthermore, cooperatives provide technical assistance to farmers (Castro, 2015; Freitas, Teixeira, Braga, Schuntzemberger, 2016; Oliveira, Faria, 2019). Under the weakening public agricultural technical assistance policies and institutions in Brazil, cooperatives took on a leading role in this support,

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which can be a decisive factor for efficiency, and added value to agricultural production in Brazilian establishments.

Since the beginning of the 21st century, Brazil has witnessed a new wave of cooperativism closely linked to family farming. This movement represents a significant shift from the organizational frameworks that characterized traditional cooperativism in the 20th century and historically aimed at supporting large organizations strongly focused on maximizing economic returns and sensitive to the dynamics of financial capital. The so-called “new cooperativism” seeks to stand out by confirming the territorial connection of cooperatives and their orientation towards local social and productive bases and by preserving family farmers’ autonomy within their productive units. Although this form of cooperativism is still consolidating in Brazilian family farming, it corresponds to the transformations empirically observed under the expansion of cooperativism from 2006 to 2017, particularly in those regions, in which specific public policies support collective organization and access to markets.

In this context, the ideas of Chayanov on the economic logic of the peasant economy, optimal scale differentials and forms of vertical integration provide a particularly fruitful analytical framework for understanding and renewing contemporary cooperative experience. By emphasizing the specific rationality of family farming and its strategies of social reproduction, the Chayanovian approach contributes to the development of cooperative models that do not uncritically subordinate family farming to market dynamics but rather enhance its capacity for economic integration while preserving its forms of self-governance, collective control, and productive autonomy.

Thus, empirical evidence on the role of cooperatives in market access, income structure and technical assistance from the Brazilian Agricultural Censuses (IBGE, 2006; 2017) and the theoretical framework proposed by Chayanov (2017) contribute to the study of cooperativism by extending the debate beyond the analytical limits of traditional cooperativism and by promoting new organizational forms capable of ensuring the socially-oriented and economically sustainable development of Brazilian family farming. The body of contemporary studies confirms and strengthens the relevance of Chayanov’s works for understanding the role and importance of cooperativism in rural development. Although such studies often apply a fragmented approach, they are important for proving Chayanov’s positions of the early 20th century. In *The Theory of Peasant Cooperatives*, Chayanov (2017) offers a broad and integrated analytical framework for understanding cooperativism beyond organizational models of the agricultural production unit, thus explaining the potential of cooperation in a planned society and economy.

Although our study highlights the importance of cooperativism for agricultural development in Brazil, the expansion of the cooperative movement over the past decade has not followed a uniform pat-

tern, showing significant asymmetries in the scale and growth of cooperation. Cooperativism is highly concentrated in one macroregion which alone accounts for more than half of agricultural establishments associated with cooperatives in the country. In general, 11.42% of agricultural establishments in Brazil are associated with cooperatives, but this indicator ranges from only 1.45% in the Northeast to 36.77% in the South.

Future studies of cooperativism in Brazilian agriculture should address more explicitly the historical, institutional and economic differences that have shaped the country's agrarian development. Chayanov's ideas remain relevant for the analysis of the 21st-century agriculture, because they provide theoretical grounds for identifying those institutional arrangements, technological trajectories and market structures that have transformed conditions for cooperative activities in Brazil. The systematic analysis of these transformations allows to critically apply the Chayanovian approach to the contemporary Brazilian agriculture, thereby expanding its explanatory power in light of the current dynamics of national cooperativism. Thus, future research can aim at more explicit analysis of the role of the state in shaping the development of cooperativism in Brazilian agriculture: how public policies, regulatory frameworks, credit systems and development programs affect cooperativism, its market integration and its ability to stimulate production. Longitudinal and comparative studies of different organizational forms based on cooperation can provide important insights into the development of cooperativism in Brazilian macroregions, beyond classical approaches focused on traditional cooperativism.

Since there are still significant gaps in understanding how financialization and integration into global value chains restructure the strategies, management and organizational dynamics of cooperatives, including their specific impact on family farming, the study of the extent to which agricultural cooperatives function as mechanisms of resistance to global market volatility or, conversely, as instruments that reinforce market subordination is essential for a more nuanced understanding of cooperativism in contemporary capitalism. Empirical studies that combine quantitative and qualitative approaches to explore governance practices and collective strategies of family farming organization are particularly relevant for assessing whether cooperatives preserve farmers' autonomy or foster new forms of dependency within global agri-food chains.

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*S. Schneider,
G. C. Tomazzoni*
Panorama of
cooperativism
in Brazilian
agriculture
in Alexander
Chayanov's
perspective

Панорама развития кооперативизма в бразильском сельском хозяйстве с позиций теории Александра Чаянова

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Аннотация. В последнее десятилетие в Бразилии наблюдается значительное расширение кооперативизма в сельском хозяйстве. Однако бразильское кооперативное движение не следует единой модели, что породило множественные

асимметрии и неравенство в аграрном секторе. Цель статьи — описать особенности кооперативизма в бразильском сельском хозяйстве, для чего авторы анализируют данные двух сельскохозяйственных переписей (IBGE, 2006; 2017), используя специальные индикаторы для различения социально-политических категорий семейного и несемейного сельского хозяйства. Кроме того, в статье представлены переменные, связанные с гендерными и образовательными характеристиками фермеров, распределением сельских хозяйственных единиц по площади, целями сельскохозяйственного производства, источниками дохода и доступом к технологиям. Согласно приведенным данным, в Бразилии значительное число фермеров являются членами кооперативов, однако кооперативизм сосредоточен в одном из пяти макрорегионов страны и характерен скорее для несемейного, чем для семейного сельского хозяйства. Более того, наблюдаются различия кооперативов в зависимости от размера хозяйств, и хозяйственные единицы, связанные с кооперативами, в большей степени ориентированы на сбыт своей продукции, чем некооперированные фермеры, и это отражается на доле сельскохозяйственного дохода в структуре доходов фермеров и их семей. Опираясь на результаты своего исследования, авторы пересматривают идеи Александра Чаянова (2017) для оценки потенциала кооперативизма в бразильском сельском хозяйстве при условии его развития в более планомерно организованном обществе и экономике.

Ключевые слова: кооперативизм, сельское хозяйство, Бразилия, Александр Чаянов