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REVISTA BRASILEIRA DE GESTÃO E DESENVOLVIMENTO REGIONAL
V.21, N°3, Set-Dez/2025 | Taubaté/SP - Brasil | ISSN 1809-239x

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Received: 03/21/2025
Accepted: 10/18/2025

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ABSTRACT

The present research aimed to interpret the meaning of the transformations observed in agricultural production in Brazil and the Southern Region, compared to changes in family farming, focusing on the crops of rice, beans, cassava, corn, and soybeans, during the period from 1982 to 2022. For this purpose, data collection was conducted for the study period, taking into account the planted area and production of the selected crops based on the Municipal Agricultural Survey (PAM) and the Agricultural Censuses of 2006 and 2017, in addition to a literature review. The results show that Brazil increased soybean production from 4.2% to 11.3%, and corn from 7.2% to 10.2%, while the combined share of the other three products decreased from 12% to 2.9% during the investigated period, a trend followed by agriculture in the Southern Region, except for rice. Regarding family farming, at both scales, a reduction in production was observed for all analyzed crops, except for soybeans, which were expanded. These data reinforce findings from other studies, which indicate an increasing specialization of Brazilian agriculture in the production of agricultural commodities, as well as a certain detachment of family farmers from their historical role in food production, a relatively new phenomenon. These substantial transformations occur in a scenario of the economy's re-primarization, prioritizing international market demands over the domestic market.

Keywords: Reprimarization. Land use. Land structure. Food. Productive transformations.

RESUMO

Esta pesquisa teve por objetivo interpretar o sentido das transformações observadas na produção agrícola no Brasil e na Região Sul, comparativamente às mudanças ocorridas na agricultura familiar, considerando as culturas de arroz, feijão, mandioca, milho e soja, no período de 1982 a 2022. Para isso, procedeu-se ao levantamento de dados referente ao período de estudo, levando em conta a área plantada e a produção das culturas selecionadas a partir da Pesquisa Agrícola Municipal (PAM) e dos Censos Agropecuários de 2006 e 2017, além de revisão bibliográfica. Os resultados mostram que o Brasil aumentou a produção de soja de 4,2% para 11,3%, de milho de 7,2% para 10,2%, enquanto os três produtos restantes, somados, reduziram sua representatividade de 12% para 2,9% no período investigado, tendência seguida pela agricultura da Região Sul, com exceção do arroz. Com relação à agricultura familiar, em ambas as escalas, observou-se redução na produção de todas as culturas analisadas, exceto da soja, que foi ampliada. Esses dados reforçam resultados de outras pesquisas, que apontam uma especialização crescente da agricultura brasileira na produção de commodities agrícolas, assim como certo afastamento dos agricultores familiares quanto ao seu papel histórico na produção de alimentos, fato relativamente novo. Essas substantivas transformações se desenvolvem à luz da reprimarização da economia, priorização as demandas do mercado internacional, em detrimento do mercado interno.

Palavras-chave: Reprimarização. Uso da terra. Estrutura fundiária. Alimentação. Transformações produtivas.

INTRODUCTION

The economic options that arose during the 1960s and 1970s in Brazil created favorable conditions for the subsequent specialization of business-oriented agriculture in the production of commodities, clearly promoted from the 1990s onwards. Since then, agromineral exports have become the dynamic axis of the economy, concurrent with a process of deindustrialization, transforming the country into one of the largest soybean, sugar cane, meat and mineral exporters (Ramos 2007; Delgado, 2012; Sampaio, 2019; BACEN, 2021; Macedo, 2023; Sampaio, 2024).

The aim of the present research is to interpret the meaning of the transformations observed in farming production in Brazil and in the southern region from 1982 to 2022 compared to those that occurred in family farming, in relation the rice, bean, cassava, corn and soybean crops. The comparative analysis with the southern region is particularly relevant for studies on regional development since early on agribusiness and family farming are found to coexist in the region, which makes it a focal point to observe tendencies, as well as points of contact and rupture between these two historically different types of production in terms of farming.

To reach its goal, this article is organized into five sections, besides this brief introduction. Below, the methodology adopted in this study is presented. The third section presents the changes in rice, bean, cassava, corn and soybean crops in Brazil from 1982 to 2022. Following that, the productive transformations in the southern region are examined. The fifth section discusses the use of land in family farming. Finally, closing considerations are made, synthetizing the findings of this research.

Results show that Brazil has increased its production of soybean and corn, while the three other products (rice, beans and cassava) have decreased in the period under investigation, a tendency seen in farming in the southern region, with the exception of rice. As for family farming, historically defined by a varied offer of in natura food, in both scales, the reduction in all crops analyzed was observed, with the exception of soybean, which expanded. These substantial transformations expose the prioritization of international market demands in detriment of the domestic market and has reconfigured regional productive structures with effects on the productive diversity that has historically characterized certain territorial areas such as the southern region.

METHODOLOGY

This research is the result of a bibliographic review and the survey and analysis of secondary data of the Pesquisa Agrícola Municipal (PAM – Municipal Agricultural Survey) between 1982 and 2022, as well as the Agricultural Censuses between 2006 and 2017, available on the Instituto Brasileiro de Geografia e Estatística (IBGE – Brazilian Institute of Geography and Statistics) de Recuperação Automática (SIDRA) System. The integration and systematization of considerations and data aimed at reaching the proposed objectives both theoretically and empirically.

The theoretical basis is founded on the historical-structural perspective of the Brazilian economy and guided the research design. The process of re-primarization and commodification of farming motivated the selection of crops that represent both the export commodities (soybean and corn) and the food directed to the domestic market (rice, beans and cassava). The time cutoff of 1982 – 2022 was chosen to capture the meaning of the structural transformations in farming production – intensified after the 1990s - based on PAM data. Finally, the difference between family and non-family farming, based on the agricultural censuses, was important to comparatively investigate on a screen the significance of the transformations in both categories.

As for the data, initially the IBGE Municipal Agricultural Survey (PAM) was accessed. Thus, the variables of the harvested area (in hectares) and the quantity produced (in tons)[1] of the temporary and permanent plantations were found. This survey includes information about 71 products since 1974. In this research, the period of data collected was 1982 – 2022, a total of 40 years, during which it is possible to observe structural transformations in Brazilian farming. Within the range of information, as was mentioned before, the focus of the research was directed to the rice, bean, cassava, corn and soybean crops, which were chosen because these food products are a part of the diet of Brazilians in general and/or commodities widely demanded internationally.

It was not possible to identify who produces crops on the PAM data. Hence, the added examination based on the agricultural censuses from 2006 to 2017 was added to verify how family farming evolved in the production of these five crops. This survey was conducted both for the national and the southern region dimensions. There were two reasons for choosing this region: a) the historical presence of family farming in the region; b) it is where capitalist farming advanced earlier in comparison to other regions in the country, especially with the inclusion of the soybean and corn crops and the incorporation of techniques stemming from conservative modernization.

THE COMMODIFICATION OF BRAZILIAN FARMING

Brazil is an underdeveloped country that became a part of the capitalist system later on and peripherally (Furtado, 1974; Mello, 1982; Furtado, 2000). Throughout most of its history, it participated in the International Division of Labor (IDL) as the producer of raw materials from mining and farming, with the short exception of 1950 – 1980.

From the 1960s onwards, Brazilian rural areas were submitted to a process of conservative modernization, which meant changes in the technical basis of production, and started to adopt the technological paradigm of the Green Revolution, without compromising any pre-existing social structures (Furtado, 1974). This process created favorable conditions for agro-industrialization and the subsequent productive specialization in farm commodities from the middle of the 1990s onwards (Delgado, 2012; Pires, 2023).

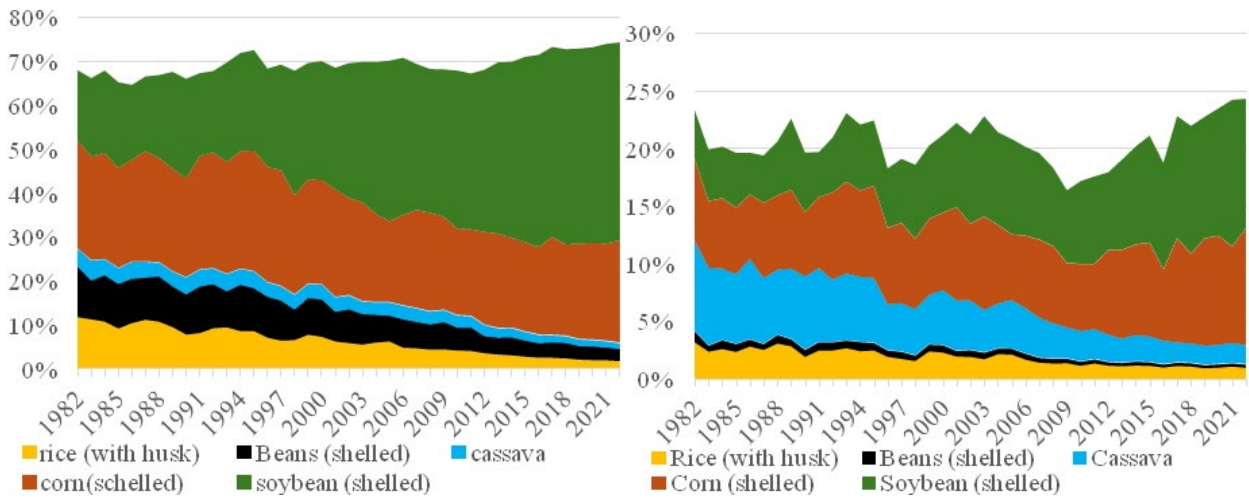
1 In the quantities produced, the fruit units were converted to tons based on the IBGE conversion table (2025b). For *coco-da-baia* and pineapple, the suggestions made by Almeida *et al*. (2004) were used.

Political preferences in the 1990s, favoring a neoliberal ideology, led to the abandonment of industrialization and the concomitant re-primarization and externalization of the economy's dynamic axis (Sampaio Jr., 2007; Delgado, 2012; Salama, 2016). The results in the present study indicate that, between 1982 and 2022, farming production in Brazil, among the 71 crops found in PAM, faced substantial changes in the percentage of participation of harvested areas in the production of rice, beans, cassava, corn and soybean (IBGE, 2024b), as will be seen below.

The rice, bean, cassava, corn and soybean crops corresponded to 68.1% of the total harvested area of temporary and permanent plantations in 1982 (34.8 million hectares). In 2022, this percentage was 74.5% in an area of 67.3 million hectares, with significant differences among the five crops (Figure 1).

In 1982, the corn crop was 24.6% of the total harvested area in temporary and permanent plantations. Soybean was 16%, while rice, beans and cassava combined shared 27.5%. In 2022, soybean corresponded to 45.2% of the total harvested area, and corn was 23.3%, while the other three crops showed a drastic decrease, coming down to only 6% (Figure 1).

Figure 1 | Percentage change of harvested area (A) and quantity produced (B) of rice, beans, cassava, soybean and corn in Brazil from 1982 to 2022.



Source: developed based on the Municipal Agricultural Survey of 1982 – 2022 (IBGE, 2024b).

In absolute terms, the harvested area of soybean increased from 8.2 million hectares (ha) to 40.9 million ha (an expansion of 397.5%). For corn, the increase went from 12.6 to 21.0 million ha (an increase of 66.7%). As for rice, there was a decrease from 6 to 1.6 million in the same period (a contraction of 73.1%), while beans decreased from 5.9 million ha to 2.6 million in 2022 (a reduction of 56%). Cassava declined from 2.1 million to 1.2 million ha (a reduction of 44.3%).

As for the quantity produced (Figure 1), in the first year of the period analyzed, the five crops represented 23.4% of the quantity produced in temporary and permanent plantations, while in 2022, it was 24.4%.[2] Even if we consider that, as a whole, the five crops showed little variation as to participation, when we look more closely at each crop, we can observe that corn and soybean production increased from 7.2% to 10.2%, and 4.2% to 11.3%, respectively. The other three products combined had a reduction, going from 12% to 2.9% in the period under study.

In absolute terms, soybean production grew from 12.8 to 120.7 million tons (+ 840.3%) in the 40-year period, nationally. The midwestern region presented the largest growth, from 2.5 million tons to 62.1 million (+ 2,387%), and is responsible for 51.5% of the national production in 2022. The second region with the largest production is the South, where growth went from 8.9 million to 25.3 million tons (+109.3%), a share of 20.9% of the entire national production in 2022. The northeastern, southeastern and northern regions produced 12.7, 12.1 and 8.5 million tons of soybean, respectively (IBGE, 2024b).

The quantity of corn produced nationally grew from 21.8 to 109.4 million tons (+400.9%). Regionally, in the Midwest, it grew from 2.5 million to 62.2 million tons (+2,418%) thus being responsible for 56.8% of all national production in 2022. In 1982, the South produced 11.2 million tons, increasing to 20.7 million tons in 2022 (+84.7%). In this year, the region produced 18.9% of the entire quantity of corn in the country. The Southeast, Northeast and North produced 12.7, 8.9 and 4.9 million tons of corn in 2022, respectively (IBGE, 2024b).

The volume of rice produced grew from 9.7 to 10.7 million tons (+10.7) in the same period. Regionally, the South increased production from 3.2 million to 9 million tons (+180%), with 84.1% of all rice in the country in 2022 produced in this region. In the North, there was a growth of 417.1

2 In 2022, sugar cane represented 67.58% of the total harvested in temporary and permanent plantations in the country.

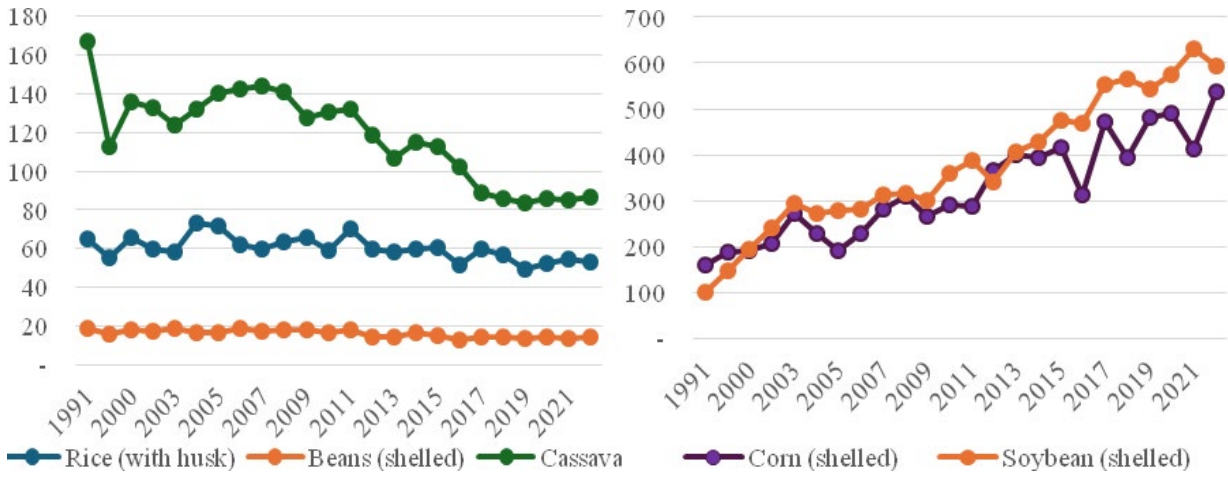
thousand to 847.6 thousand tons of rice (+ 103.2%), the second largest volume of this crop produced in 2022 (7.9%). In the Midwest, there was an intense decline in production, from 2.7 million to 515.6 thousand tons between 1982 and 2022 (a reduction of 81.3%). In the Northeast and Southeast there was also a reduction in rice production, with 337.7 thousand and 68 thousand tons, respectively (IBGE, 2024b).

As for beans, the quantity produced in Brazil grew from 2.9 million to 2.8 million tons (a reduction of 2.1%). In the South, the production of this crop decreased from 1.1 million to 926.7 thousand tons (- 18.3%); the region produced 33.1% of the national total in 2022. The Southeast is the region with the second highest volume of bean production, with a small reduction from 798.7 thousand to 721.5 thousand tons in the period (- 9.7%). In 2022, 25.7% of all Brazilian beans was produced in this region. In the Midwest, there is an increase in production, from 166.3 thousand to 668.1 thousand tons (+ 301.6%), which represents 23.8% of the national total in 2022. In the Northeast, in 2022, bean production was 438.1 thousand, while in the North it was 87.8 million tons (IBGE, 2024b).

Cassava production decreased from 24.1 to 17.6 million tons between 1982 and 2022 (a reduction of 26.7%). Regionally, the North produced the largest volume of this crop in 2022. In 1982, 3.3 million tons were produced, while in 2022, it was 6.3 million tons, corresponding to 35.8% of the national total. In the Northeast, an expressive decline in the volume produced can be observed, decreasing from 13 million to 3.8 million tons during the period under analysis. The South also presented a reduction, from 4 million to 3.8 million tons produced.

Hence, in 2022, the Northeast and South correspond to 21.6% of the total of cassava produced in the country. In the Southeast, the reduction was 2.8 million to 2.3 million tons, while in the Midwest, albeit the region with the smallest cassava production, there was an increase from 883.2 thousand tons to 1.4 million tons (IBGE, 2024b). These changes in farming affect the changes in the volume per capita of all crops available during the period of this study (1991 and 2022), have an impact on the items that are part of the food basket, as seen in Figure 2.

Figure 2 | Change in the quantity produced annually (in kg) per capita of rice, beans, cassava, corn and soybean in Brazil in the years shown[3].



Source: developed based on PAM (IBGE, 2024b) and populational (IBGE, 2025a) data.

In the case of rice, it is evident that the quantity increased from 64.6 kg annually in 1991 to 53.1 kg in 2022. The per capita production of beans decreased from 19.7 kg to 14 kg[4] annually, while cassava reduced from 167.1 kg to 86.9 kg in the same period. On the other hand, corn production increased from 160.9 kg per person to 538.8 kg, and soybean went from 101.7 kg to 594.3 kg per capita. These changes are the result of the government's directed stimulus for greater production of export crops, especially at the beginning of the 21st century when demand and prices increased and there was basically a lack backing for the production directed to the internal market (Delgado, 2012; Flexor; Kato; Leite, 2022).

These unstable fluctuations in production show a tendency favoring an increase in the quantities produced, especially of crops with an important role in the international market and that from the beginning of the 21st century have seen a growing demand and presented more attractive prices while also drawing the attention of major investments, as well as presenting larger volumes produced and larger occupied areas.

3 To calculate numbers per capita, the size of the population was obtained based on population censuses, population estimates and demographic censuses made available by IBGE (2025a).

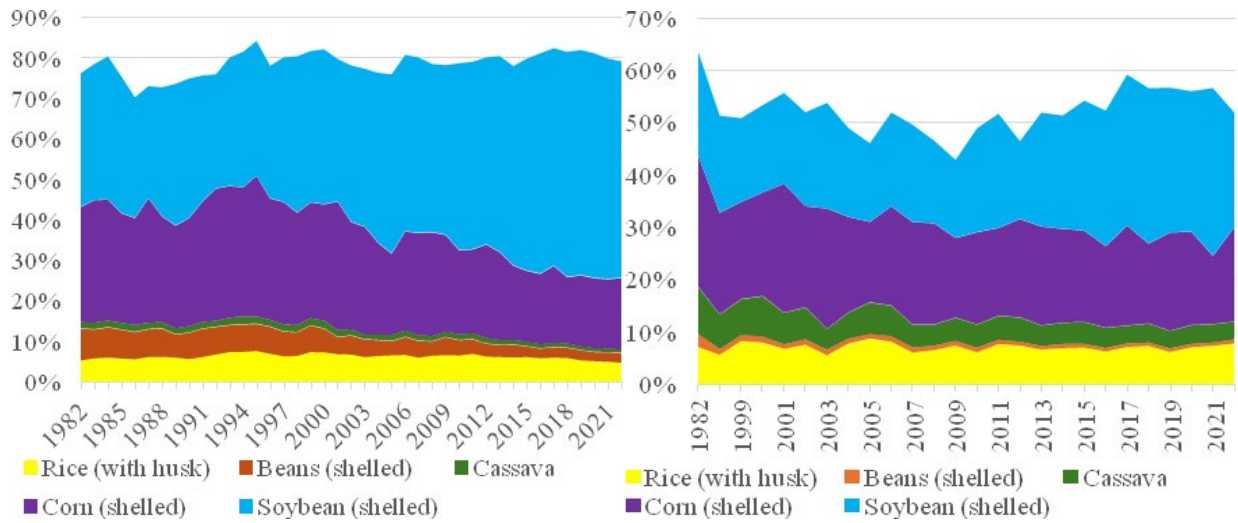
4 Flexor; Kato; Leite (2022, p. 23) state that "from 1980 to 2020, per capita consumption of beans in Brazil decreased 42.5%, going from 24.9 to 14.3 kg/inhabitant/year".

PRODUCTIVE TRANSFORMATIONS IN THE SOUTHERN REGION OF BRAZIL

In the southern region, soybean and corn crops presented relevant shares, both in the harvested areas and in the quantity produced, as early as 1974, as seen in the percentages of 27.3% and 17.5%, respectively. In the other Brazilian macro regions, these crops were introduced only in the 1980s.

With this in mind, when studying the rice, bean, cassava, corn and soybean crops, it is observed that in 1982 the harvested area (in hectares) was 76.4% of the total area cultivated by the 71 crops in temporary and permanent plantations. This area was expanded to 79.3% in 2022 (Figure 3). These five crops have a greater weight in the productive structure of the South when compared nationally, since in the country, the percentages of harvested areas went from 68.1% to 74.5%.

Figure 3 | Change in the percentage of harvested areas (A) and the quantity produced (B) for rice, beans, cassava, soybean and corn in the South from 1982 to 2022.



Source: developed based on the Municipal Agricultural Survey, 1982 – 2022 (IBGE, 2024b).

When analyzing the crops individually, it is clear that there were significant changes in harvested areas, especially soybean and corn. In the case of soybean, the harvested area in 1982 was 33.1% of the group of 71 crops in temporary and permanent plantations. This rose to 53.6% in 2022. Corn, on the other hand, decreased, going from 28.5% to 17. 6% in the same period. As for rice, bean and cassava crops, the harvested areas were equivalent to 14.8% at the start of the period and went down to 8.0% (IBGE, 2024b).

In absolute terms, the harvested area of soybean in 1982 was 6.1 million hectares, increasing to 12.6 million in 2022 (a growth of 107.1%), while nationally, this growth was 397.5%. The difference is probably due to the natural limits of expanding farming boundaries in the South since this region began its process of soybean crop production earlier (Frantz; Silva Neto, 2005).

The harvested area of corn in the South went from 5.2 to 4.1 million hectares (a reduction of 20.8%) in the same period, which differs from what took place in Brazil, where there was an increase of 66.7% in area. Among the other three crops, only rice presented a rise in area, going from 971 thousand to 1.1 million hectares (an increase of 13.4%), with the state of Rio Grande do Sul being the most important producer of this crop. The trend observed for rice is different than what is seen in the country since there was a contraction of 73% in the harvested area nationally.

The area for beans and cassava was also reduced in 58.7% and 34.1% respectively, a trend that was similar to what occurred in the country where the harvested area of beans decreased 56% and that of cassava, 44.3%. In absolute numbers, the harvested area of beans in the South went from 1.4 million to 604 thousand hectares, while cassava went from 279.3 thousand to 184 thousand hectares.

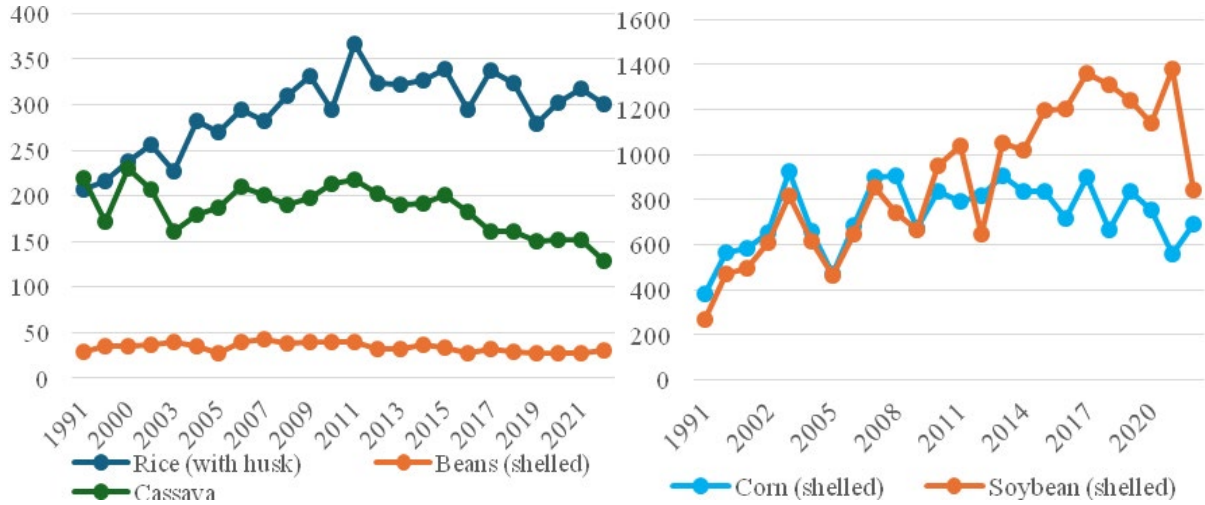
In terms of the quantity produced, in 1982, these five crops corresponded to 63.4% of the total quantity produced (in tons), which decreased to 51.8% in 2022. There is a significant difference here in relation to the national context since these five products correspond to more than half of the quantity produced in temporary and permanent plantations in the South, which is not the case for Brazil due to the amount of sugar cane produced (IBGE, 2024b).

Soybean and corn are the two crops with the largest volumes produced, with the former having an increase in participation from 19.9% to 21.9%, and the latter going from 24.9% to 17.9%. Rice, beans and cassava combined share 18.6% of the amount produced in 1982, which decreased to 12.0% in 2022.

In gross numbers, the production of soybean, corn and rice increased in the South. Soybean increased from 8.9 to 25.2 million tons (an increase of 182.3%). Corn increased from 11.2 to 20,7 million tons (an increase of 84.7%, while rice increased from 3.2 to 9.0 million tons (an increase of 179.6%). Beans and cassava presented a reduction in the quantity produced: the former fell from 1.1 million to 926 thousand (a decrease of 18.3%), while the latter fell from 4.0 to 3.8 million tons (a decrease of 4.2%).

The change in the production of the five crops per capita in the region can be seen in Figure 4, for 1991 to 2022. When analyzing the behavior of the quantity per capita produced of the five products, it is evident that only cassava presented a reduction, going from 220.1 kg in 1991 to 129.5 kg in 2021. The other crops had an increase: beans went from 29.2 kg to 31 kg; rice, from 206.5 kg to 300.9 kg; corn, from 379.5 kg to 691.5 kg; and soybean, from 271.2 kg to 844.4 kg.[5]

Figure 4 | Changes in the quantity produced annually (in kg) per capita of rice, beans, cassava, corn and soybean in the South in the period.



Source: developed based on PAM data (IBGE, 2024b) and population data (IBGE, 2025a).

The trend for rice is different in the South, with a growth in regional availability. This does not mean, however, there is abundance in the product for national consumers. With the harvests between 2015/2015 to 2024/2025, there was a growth in the exports volume of Brazilian husked rice, which went from 0.9 million to 2 million tons. It is paramount to see the growth of imports in the same period: in the first harvest they were 1.044 million, while in the last period they were 1.4 million tons. As for rice prices, there was an increase between January 2013 and October 2024: a bag which in 2013 cost R$ 97.6[6] increased to approximately R$ 160.00 in October 2024 (+63.9%) (Mapa, 2024b).

5 From 2021 to 2022, soybean production fell from 41.9 to 25.3 million tons in the South, probably due to drought in the region. In the other regions, production grew.

6 The nominal price informed by Mapa (2024b) was R$ 50.00 in January 2013. The corrected value via IPCA until October 2024 resulted in R$ 97.6 per bag (BACEN, 2024b).

For beans, data from the Ministério da Agricultura, Pecuária e Abastecimento (Mapa, 2024b - Department of Agriculture, Husbandry and Supply) reveals that domestic consumption is aligned with production, with an increase in the volume exported and a reduction in imports, and prices tending to increase between January 2013 and October 2024, from $ 206.6[7] to R$ 250.00 a bag.

As was mentioned above, the productive changes seen in the analysis of the rice, bean, cassava, corn and soybean crops based on PAM are aligned with the economic transformations promoted by the conservative modernization process, as well as by Brazil's role as an international supplier of a specific group of commodities. In this context, we can understand the exponential growth in the volumes of corn and soybean produced, with the expansion in areas nationally. In other words, there is a dispute over the farming space for different crops, with a clear reduction in the importance of the rice, cassava and corn crops, which is evident both in the reduction of areas and in the volume available per capita.

The reduction in the production of essential items such as beans and cassava, even with the increase in the total farming production, jeopardizes the sovereignty and food safety of the country. From the point of view of regional development, this means the loss of the capacity to ensure that the population has access to food. This is a trend that goes in the opposite direction of strengthening local and regional food systems, challenged by the expansion of the monoculture of commodities, as data has demonstrated.

PAM data does not provide the identification of the producers of these crops, whether family farmers or otherwise, although there is an indication that the tendency is towards the reduction in the production of important food items for the Brazilian diet, even with regional differences, such as in the increase in rice production in the South. Hence, with the aim of complementing the analyses and verifying the evolution in the production of family farming, historically responsible for the production of food, the next section will attempt to bring up these aspects.

7 The nominal price informed by Mapa (2024b) was R$ 90.00 in January 2013. This value was corrected with the help of the citizen's calculator (BACEN, 2024b) via IPCA until October 2024, resulting in R$ 206.6.

THE DISPUTE OVER LAND USE IN FAMILY FARMING

The changes described in the previous sections are related to State and not exclusively government policies, since their origin dates back to the 1960s with the conservative modernization process. This process established the foundations for the expansion of production for exports, counting on high volumes of rural credit via the Sistema Nacional de Crédito Rural (National System of Rural Credit), besides significant subsidies, access to technical assistance, the development of agricultural and animal husbandry research, among other measures geared towards the production of commodities on large extensions of land (Delgado, 2012). In the 1990s, these policies were restructured, directing more resources to a smaller quantity of export crops (Delgado, 2012; Atlas do Agronegócio, 2018; Campos, 2023).

Historically, the tendency for land use in family farming is the production of food, with a fundamental role in offering essential food basket items for the domestic market. Consequently, this production contributes substantially to the food and nutrition safety of the country (Flexor; Kato; Leite, 2022).

However, this has been constrained by the economic dynamics now prevalent in Brazil, directed to the exports of agromineral commodities and limiting the role of farmers as an essential link to the development of an agrifood system whose main objective is the access to food as a right in itself (Maluf; Menezes; Valente, 1996).

According to the 2017 Agricultural Census, family farming in Brazil is carried out by 10.2 million of a total of 15.1 million people associated to farming and animal husbandry establishments (IBGE, 2024a), meaning 67% of the people working in these establishments, with an average per unit from 2.4 (southern and southeastern regions) to 3.3 (in the North). This proves to be the case even when ownership is only 23% of the area occupied by farming and animal husbandry establishments. The average size of a property is 20.8 hectares, accounting for 23% of the Production Value (PV) of farming and animal husbandry establishments in Brazil (IBGE, 2024a; Valadares, 2022).

When comparing 2017 data with the Agricultural Census of 2006, there is a clear reduction of 10.7% in the number of family farming establishments[8] (468,859 fewer units), with the South

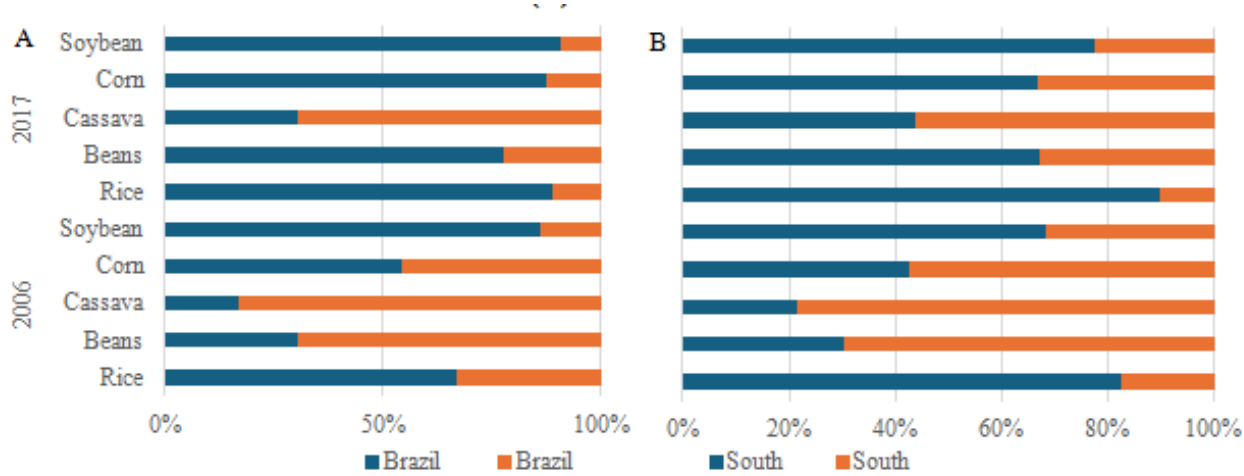
8 The change in the methodology adopted by the Agricultural Census in 2017 probably had an impact on the reduction in the number of establishments according to Valadares (2022) and Bianchini; Bazotti (2022).

presenting the greatest relative reduction: 184,230 fewer establishments (-22%) (Bianchini; Bazotti, 2022). Valadares (2022) states that the southern and northern regions lost the largest number of family farming establishments with up to 10 hectares.[9] Nevertheless, despite this, the number of this type of farming is still high in both regions, which makes it relevant to analyze how the category performed in relation to the production of the five crops chosen from 2006 to 2017.

In relation to the change in production in the years mentioned above for the five crops, in percentages, family farming showed a reduction in participation in relation to the quantity produced of the five crops. This happened both nationally and in the southern region (Figure 5).

In 2006, in Brazil, family farming was responsible for the production of 33% of rice, 69.6% of beans, 83.2% of cassava, 45.5% of corn and 14% of soybean. In 2017, these numbers were reduced to 10.9%, 22%, 69.5%, 12.5% and 9.3% respectively. Among the five crops, families still presented a significant role in the production of cassava and, in second place, beans (only 22%). However, non-family farming produces the largest percentage of rice, beans, corn and soybean.

Figure 5 | Quantity produced (in %) by family farming (FF) and non-family farming (NFF) in rice, cassava, corn, bean and soybean (shelled) crops in Brazil (A) and in the South (B) in 2006 and 2017.



Source: Agricultural Census, 2017 (IBGE 2024a).

9 For Bianchini; Bazotti (2022), these establishments were no longer considered family units because they did not fully meet what is found in the legislation, which classifies these categories.

In the South, data does not differ from the national profile since, in 2006, family farming was responsible for the production of 17.5% of rice, 69.7% of beans, 78.4% of cassava, 57.6% of corn and 31.6% of soybean. In 2017, this category produced 10.1%, 33%, 56.2%, 33.2% and 22.4%, respectively, with a clear growth in the production of beans and rice by non-family farming in the region.

When observing absolute numbers in the quantity produced, it is evident that, in Brazil, family farming produced less rice, beans, cassava and corn, but increased its production of soybean. The same occurred in the South. In other words, between 2006 and 2017, family farmers reduced the volume of production of items which traditionally they were responsible for, to expand the production of the main national farming commodity, soybean. This can be explained by an increase in the value of soybean production due to the price increase of this product (Campos, 2023).

Valadares (2022) states that, in the totality of temporary crops, family farming reduced its share in production value from 29% to 14% between the two censuses. Furthermore, the author explains that, in the case of soybean, there was an increase of 76% in production value, while for beans the decrease was 70% and for rice it was 63%.

In temporary plantations, the area harvested by family farmers went from 18.6 million (2006) to 9.8 million hectares (2017), corresponding to a decrease of 47.3%. In corn and bean crops alone the reduction was higher than six million hectares in the same period. In the Agricultural Censuses of 2006 and 2017, the eight main temporary crops developed by family farming were corn, beans, soybean, cassava, rice, tobacco, sugar cane and wheat. In 2006, these products amounted to a harvested area of 16.8 million hectares, while in 2017 this area was 8.3 million hectares (Valadares, 2022).

The decline in the area planted for bean crops by family farmers nationally, between 2006 and 2017, is due to the decrease of the northeastern crop[10], the same being the case for rice. As for the decrease in the production of cassava, this is due to the reduction in the harvested area of farmers in the North and Northeast[11], while the relative loss in corn area is equivalent to the loss in area of the Northeast and the South.

10 The five types of shelled beans (black, color, *fradinho*) informed by the census were added.

11 Between 2012 and 2017, the Northeast experienced the longest drought in its history which probably affected its landholding structure and the total production for farming and animal husbandry.

Going counter to this trend, soybean, in absolute terms, expanded in every region except in the Northeast. Its harvested area in family farms jumped from 13.7 thousand to 38.1 thousand hectares in the North; from 78.5 thousand to 150.7 thousand hectares in the Southeast; and from 260.4 thousand to 386.6 thousand hectares in the Midwest. In family farming in the South, however, soybean area was reduced (Valadares, 2022, p. 169). This reveals a connection between the size of farms and the type of land use.

The changes in the hierarchy of the crops produced, both in their value and in the landholding structure of family farming, are closely related to the characteristics of the most important farming policy for this sector, Pronaf. When analyzing the numbers made available by this agency, for 2013 to 2022, they indicate that, in terms of farming financing, the products with the highest financing values were bovine cattle, soybean, corn, coffee and wheat. In the same period, when observing the allocation of resources for investment, the program financed mainly bovines, tractors, farm equipment and machinery (BACEN, 2024a).

It is important to understand that Pronaf presents regional, socio-economic and productive disparities. In regional terms, distribution concentrates a greater number of resources in the South. As for socio-economic differences, wealthier farmers have access to greater amounts of financial resources and funding, which is exemplified by the products with larger financed amounts.[12] In productive terms, commodity crops (bovine/beef, soybean, corn, coffee) and integrated activities have access to a larger share of resources (Valadares, 2021; Aquino; Gazolla; Schneider, 2018).

The analysis of Pronaf discloses a paradox for regional development. The main policy for family farming ends up reinforcing an agro-exporting model and deepens regional inequalities by concentrating resources in the South and financing soybean and corn (Gazola, Viganó e Marini, 2020; Valadares, 2021; Wesz Junior, 2021). Instead of acting as an instrument to strengthen the diversification of local economies, the policy seems to accelerate the integration of wealthier family farmers to the commodity logic, weakening food producers in their regions even more.

In spite of the changes in land use by family producers, these still predominate in the production of specific foods, such as açaí (70.8%), cassava (69.6%), pineapple (67.1%), lettuce (64.4%),

12 Despite the increase in resources for family farming via Pronaf (2019 – 2024), the gap in credit persists since business farming concentrated more than 80% of the resources in that period (Mapa, 2024a; Dieese, 2023).

and cow milk (64.2%), besides having an important role in the production of bananas (48.5%) and others (Rosa Neto, Silva e Araújo, 2020). Specifically in relation to vegetal extractive production, the participation of family farming in Brazil reaches almost 75% of the total production in the country (Valadares, 2022).

Wander et al. (2021) point out that this category can be successful by offering grain that has a relevant role in Brazilian diets, as is the case with beans where commercialization is feasible in small quantities, there is more value per unit produced in comparison with other grains, there is a possibility of mixed cultivation, production can occur in smaller areas with less labor and it is important as an item for self-consumption.

Along with its contribution for the production of a diverse range of healthy and sustainable food products, family farming has an essential role in rural economy since it "accounts for 40% of the income of the economically active population and for the economic dynamics of 90% of municipalities with up to 20 thousand inhabitants, which represents 68% of all units in Brazil" (Contag/Dieese, 2023, p. 6), also being an important instrument in suppressing hunger and poverty. This is direct contrast to business farming which is anchored to exporting farming commodities and characterized by creating a low number of formal jobs (Ramos, 2007), added to a decrease in food products that are a part of the diet of Brazilians (IBGE, 2024b).

Hence, it is important to mention that the weakening of small-sized family farming, besides leading to a decrease in the production of a greater diversity of food, directly affects the economy of small municipalities, especially in the South and Northeast. The data analyzed confirms that the volume of rice, beans, cassava and corn produced by family farmers is falling, with a reduction in the total production of beans and cassava and a small increase in the availability of rice. The outcome of this reduction is a smaller quantity of rice, beans and cassava available for the Brazilian population and, at the same time, higher prices, which affects sovereignty and food safety (Vigisan, 2022).

The analysis of the southern region demonstrates the tension between the production directed to the domestic and international market. On the one hand, agrobusiness, specialized in commodities such as soybean and corn has expanded and consolidated itself; on the other hand, there is family farming, characterized by the diversity in production and by supplying the internal

market. Results show that the production of commodities has been taking over the production directed to domestic consumption, even within family farming itself, which has increased soybean production in detriment of food. This suggests a transformation not only in terms of production, but a reconfiguration of power relations and the very economic vocation of a region, with direct implications for the sustainability and equity of its development.

FINAL CONSIDERATIONS

The dynamics in the process of capital accumulation, which is predominant in Brazilian economy, has infringed on the most basic needs of the population as is the case with food. This context is the backdrop for the recent transformations observed in the reproduction of business and family farming since there has been a replacement of crops for the internal market for soybean production, reducing the offer of essential food products in the food basket of Brazilians, such as beans and cassava.

In this sense, certain segments of family farming have come closer, at least in part, to the practices of agrobusiness, increasing the production of commodities. At the same time, there is a change in the scale of ventures, with a reduction in the number of small-sized family farmers in the Northeast and South, exposing their vulnerabilities.

The exponential expansion of harvested areas and volumes produced of corn and soybean nationally is replicated in the southern region. In this case, business farming is also responsible for the increase in the production of cassava and beans, crops that are historically predominant in family production.

Despite the decrease in family farming as an essential agent in the construction of a sovereign agrifood system in national terms, besides the quality shown by the main State policy for this class – Pronaf -, this type of farming is still the source of a diverse range of items in Brazil's agrifood system, when considering its role as a fundamental agent in this construction.

The productive transformations occurring in Brazilian farming nationally, and in the South of the country, directly impact the development of the nation. These changes have distanced Brazil from from the basic conditions needed to overcome underdevelopment, understood as "the

capacity to satisfy a set of needs that a community considers a priority, even if these are not defined precisely" (Furtado,1995, p. 159).

In this sense, a pact of domination that deepens inequalities and material deprivation in our society is reinforced. Going back to the words of Sampaio Jr. (2017), in the current phase of the International Division of Labor (IDL), Brazil has become once again the producer of primary goods, precluding its chances to overcome economic backwardness and broadening the deterioration of the life conditions of the population.

ACKNOWLEDGMENTS

We would like to acknowledge the Universidade Federal da Fronteira Sul for funding via public notice 73/GR/UFFS/2023, in which Project PES 2023_0292 was approved, and whose resources were used for the grammatical review of this article.

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