


EMPTYING AND FRAGMENTATION OF RURAL EXTENSION SERVICES IN BRAZIL: THE CASE OF THE STATE OF RIO DE JANEIRO

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ABSTRACT

Brazilian Rural Extension has been marked since its genesis by an intense process of political-ideological dispute. Over the decades, since the first attempt in 1948 in the state of São Paulo, its effective operationalization with the conception of ACAR/MG (Association of Credit and Rural Assistance) in 1949 and its spread to the other states of the federation throughout the fifties of the last century, has been divided between the social function of extensionism and the diffusionism of technological packages. The Green Revolution intensified this dichotomy, pointing to an unpromising future for the social commitment by which the original Rural Extension was guided. With the neoliberal process, the Brazilian State promoted the emptying of the ATER (Technical Assistance and Rural Extension) service, decentralizing, deactivating, scrapping and precarious the public government ATER, reaching the outsourcing of services. The Lumiar Project was the first experience in this sense, inaugurated in 1997 in the State of Rio de Janeiro, it had no future and was deactivated in 2000. With the popular government assuming the central power of the country, the social movements of the countryside rose with more strength and after six years of inactivity, the Rural Extension for agrarian reform settlements took on another guise. The Technical, Economic and Social Advisory (ATES) is presented as a new formula for serving settled families. However, the scarcity of resources in the midst of political and institutional crises culminated in the precariousness of services and the weakening of the program, which was completed in 2014. Brazil was not the only one to suffer from the processes of emptying the State, throughout Latin America the liberalizing wave scrapped and dismantled the State structure to varying degrees. Throughout Latin America, Rural Extension services have also suffered from the reforms implemented by liberal governments. The present study aims to characterize Rural Extension from the analysis of the scrapping and outsourcing of public ATER services, having as a point of analysis the state of Rio de Janeiro, describing the emptying of ATER services in Brazil, from the point of view of the settled families. To this end, we used interviews with semi-structured questionnaires, in addition to documentary analysis of reports and relevant legislation, as analytical methods. In this way, data were obtained that represent the current situation in

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which Rural Extension is in Brazil, state of Rio de Janeiro. The article is partially based on the research carried out for the thesis entitled Origins and Paths of Rural Extension in Argentina and Brazil: from Developmentalism to Fragmentation, defended at UFRRJ in 2023.

Keywords: Rural Extension, Family Farming, Public Policies.

INTRODUCTION

Over the last few decades, the Brazilian rural development model has suffered from numerous configurations and reconfigurations. With each change in the federal government and depending on the political force that assumes the chair of president of Brazil, the public policy of rural development takes on a new guise. Most of the time, he dresses in old and dusty clothes, full of marks of the old oligarchic system. This is what happened in the four years of Jair Bolsonaro's government. This represented a setback in public policies for family farming, a reduction in the values of PRONAF (Program for the Strengthening of Family Farming), scrapping of research and rural extension agencies in the states and, on the other hand, increasing incentives for the large export agribusiness sector.

Still in 2014, feeling the pressures of the conservative sector, the Dilma government did not renew the contracts of the rural extension program ATES (Technical, Economic, Social and Environmental Advisory) offered by INCRA (National Institute of Colonization and Agrarian Reform) to federal agrarian reform settlements. Soon after, the then President suffered a coup, carried out by her own vice president, Michel Temer. She was then "impeached" and left the presidential palace. Thus, the beginning of one of the darkest periods in the recent history of Brazil, in the midst of the democratic regime, the roots of autocracy were growing in the subsoil of Brasília.

With a series of lawsuits filed against the managers of previous popular governments and with the emergence of evidence without materiality and arguments based on pure "conviction" of one of the characters in this process, gradually the victories achieved by the social movements of the countryside, during the previous governments, were being dismantled.

With President Lula, unable to run in the 2018 elections, a retrograde phenomenon emerges in Brazil, proclaiming himself a defender of Brazilian families, which, as anachronistic as it was, obtained great popular support. Those nostalgic for the military regime finally managed to round up millions of people who did not understand and do not understand, to this day, that this process put the country in the opposite direction of history, which distanced us from the international community. Making the national flag his private flag, he unscrupulously disseminated the feeling of impunity.

It was in the midst of this turbulence that we started the research work. All the analysis based here, is located within this nebulous period that the history of Brazil went through. It is then perceived that although it is not the focus of our study, everything that

was researched is historically contextualized, and as can be understood throughout the reading, all this destruction of the country's cultural and social capital was reflected in public policies for the family farming sector. Not being able to completely extinguish the programs, the government of exception that installed itself in the plateau, weakened the funds, dismembered the agencies, removed positions and put rural development for family farming with peasant bases in the background. In fact, not at all.

Therefore, these opening words are important, to clarify that the present text is historically located in a nefarious and heinous period, through which Brazil has passed, in its most recent history.

With regard to the rural development policy itself, Brazil, historically, from the beginning, has separated into two modalities and two national agencies, one for rural extension the EMBRATER (Brazilian Company for Technical Assistance and Rural Extension) and the other for agricultural research, the EMBRAPA (Brazilian Agricultural Research Corporation). This, therefore, is a contradiction, crucial to understand the policies for the rural environment of Brazil, and this issue will also be addressed throughout the present work.

Following this path and having as a starting point the issues involving rural development in Brazil and especially the construction/deconstruction of Rural Extension policies aimed at a specific public, the peasant and his dimensions of peasantry³. Our main objective was to outline the faces of rural development in Brazil and especially in the state of Rio de Janeiro. Permeating their trajectories and interjections, the result of the neoliberalizing processes that have permeated all of Latin America since the 90s of the last century.

The case of the Roseli Nunes Settlement, located in Pirai – RJ, was observed. Using field interviews with peasant families in agrarian reform. We will address the beginning of rural extension in Brazil, how it happened, what were the inflections suffered and, in what way this process was definitively institutionalized by laws and decrees throughout the twentieth century.

We will also present, below, the characterizations of the studied area as well as the results of the set of analyses of the data collected. Interweaving the information supported

³ For a better discussion of peasant and peasantry, we recommend reading the following works: Henri Mendras' Peasant Societies (MENDRAS, 1978), Karl Kautsky's The Agrarian Question (KAUTSKY, 1980), Chayanov and the Peasantry (CARVALHO, 2014) and Roberto José Moreira's Family Agriculture (MOREIRA, 1990)

by methodological attributes that favored the understanding of the different layers of the object studied.

Finally, we come to our final considerations, where we present the final notes on what was studied, thus enabling the completion of this article, outlining the similarities and differences between the public policies of rural extension in Brazil. Concluding that they are the result of the same process that sometimes constrains, sometimes drives the evolution of the country's agrarian space, thus constituting two faces of the same problem, in balance and imbalance. Therefore, a pendulum movement characteristic of Latin America that, in the motto of dismantling public policies of a social nature, disorganizes, empties and dismantles policies for the development and emancipation of peasant families. Making rural extension a weakened and fragmented process, depleted in resources and devalued by national and local governments.

ACAR AND THE INSTITUTIONALIZATION OF RURAL EXTENSION IN BRAZIL

The first experience that was tried to be implemented in the country was in the state of São Paulo in 1948, when understandings and agreements were signed between Brazil and the United States, culminating in the implementation of the Santa Rita do Passa Quatro Pilot Program and later in 1949, now in the state of Minas Gerais, with the foundation of the Association of Credit and Rural Assistance of Minas Gerais (ACAR-MG). It is important to note that both processes were encouraged and sponsored by the Rockefeller Foundation and directly by the special messenger of the U.S. mission, Mr. Nelson Rockefeller. (FONSECA, 1985), (RIBEIRO, 2000), (BARBOSA, 2009).

Initially, the proposal of Rural Extension was strongly influenced by the American model. However, when applied in the hinterlands of the interior of Brazil, this model gradually took on *tropical airs*, being then broken and assuming the colors of the Brazilian sertanejo people. The initial messianic character favored the diffusion, throughout the interior of the state of Minas Gerais, of the teams of Extension Technicians, composed of an agricultural technician and a domestic economist, enabling a closer relationship with the families of farmers. (RIBEIRO, 2000).

At this first moment, Rural Extension was guided by Supervised Credit, a model that was the result of discussions between the technical team and the farmers themselves, and had the purpose of improving the living conditions of the rural population, spreading the use

of toilets, water filters, production of jams with fruit remains, production techniques such as, the use of hybrid seeds and correct spacing at planting. (RIBEIRO, 2000).

However, in the 1960s, this story undergoes a profound inflection. The Brazilian State perceives the potential of extensionism to reach corners never before reached and sees in rural extension the opportunity to disseminate its government policy, strongly influenced by the changes that occurred in the post-World War II period and directly aimed at the diffusion of the technological packages of the Green Revolution. (FONSECA, 1985), (RIBEIRO, 2000), (BARBOSA, 2009).

During this period, the credit that was previously supervised, began to take on a new modality, now rural credit would be guided, that is, as its name suggests, credit began to be guided by objectives external to the will of the rural family. Social concern ⁴gradually gave way to the definition of quantitative objectives and results. As a result, each region became the object of production goals per product, as stated by Ribeiro (2000), in his book *The Saga of Rural Extension in Minas Gerais*. This same author argues that if the previous focus was on the quality of life of the agricultural family, the focus in the 60s became the agricultural product.

Still in this framework, historically analyzing the evolutionary framework of Brazilian extensionism, it can be observed that the experience of Minas Gerais served as a model for the other states of the federation and after the creation of ACAR-MG in 1949, it was followed by ANCAR (PE, BA and CE) in 1954; ASCAR (RS) in 1956; ACARES (SC) in 1956; ACARPA (PR) in 1956; ACARES (ES) in 1957; ACAR (RJ, GO, MA, PA, AM and DF) in 1958, 1959, 1963, 1965, 1966 and 1967, respectively; ANCAR (SE, AL and PI) in 1962, 1963 and 1966 respectively; ACRAMAT (MT) in 1965. In addition, ACAR-MG gave rise to a national rural extension body, when in 1956, during the government of Juscelino Kubitschek, ABCAR (Brazilian Association of Credit and Rural Assistance) was created. (FONSECA, 1985), (RIBEIRO, 2000), (BARBOSA, 2009).

The 1970s were marked by the transfer of public funds through subsidized rural credit at negative interest rates, in order to finance the agro-export model, based on the tripod Large Property, Monoculture and Mechanization. In other words, public money was

⁴Despite this statement and with due considerations and debates on the subject, it is known that the action of the Rockefeller Foundation in the countries of the "third world" was directly influenced by the Keynesian movement of occupying the spaces of poor countries, to prevent the expansion of revolts and revolutions of a socialist nature. It is thought that by occupying the rural spaces of these countries, the expansion of socialist ideals in rural areas would be avoided. This policy is characteristic of the bipolar world after World War II. (author's note)

used to sustain the agro-export model based on the principles of the green revolution⁵, which advocated the intensive use of agricultural machinery, industrial inputs and which resulted in the strengthening of social contradictions in the Brazilian rural environment, increasing land concentration and conflicts over land ownership.

Rural extension then undergoes a second inflection, now of a philosophical and identity nature, the extension worker becomes a direct agent for the dissemination of state policy, implementing the technological packages of the green revolution. In the mid-1970s, President Ernesto Geisel nationalized the system, implementing the Brazilian System of Technical Assistance and Rural Extension (SIBRATER) making official the direct hand of the State over the work of the Extension Workers. This system was coordinated nationally by the Brazilian Company for Technical Assistance and Rural Extension (EMBRATER) and executed in the states by the Technical Assistance and Rural Extension Companies (EMATER). (BARBOSA, 2009). In 1973, on April 26, the Brazilian Agricultural Research Corporation (EMBRAPA) was created, which would assume the role of developing technologies for the Brazilian rural environment. But, at this historical moment, we are talking about the adaptation and implementation of the technological packages of the Green Revolution.

In the 1990s, with the election of Fernando Collor de Melo, EMBRATER was extinguished and with it, SIBRATER, leaving only the EMATERs (heirs of the previous structure of the ACARs) in each state of the federation and under the responsibility of local governments. This action was part of the set of liberalizing reforms implemented by the Collor government, inserted in the logic of the Washington Consensus⁶ and the Minimal State policy, within the structural adjustment programs of the economy (BARBOSA, 2009). In this way, rural extension suffered another hard blow, losing its degree of national articulation and being under the responsibility of local governments, tied to the rural oligarchies of each state.

After the end of EMBRATER, public rural extension was directly linked to local interests, being of little effectiveness for social promotion and the transformation of the reality of agricultural families. The emancipatory character of extension gave way to

⁵ The term as the implementation of new agricultural techniques for modernization and mechanization of the countryside became known after the Second World War. Also called Conservative Modernization. (author's note)

⁶ For a better understanding of the impacts of the Washington Consensus, we recommend consulting the article The Washington Consensus: The Neoliberal View of Latin American Problems, by Paulo Nogueira Batista (1994)

conformism and the political moves of state and municipal governments. It was after the incidents in Corumbiara on August 9, 1995 and in Eldorado dos Carajás on April 17, 1996, where 12 and 19, respectively, landless rural workers were murdered by gunmen and military police, that the government of Fernando Henrique Cardoso decided to implement policies aimed at solving conflicts over land ownership in rural Brazil. In addition to the 1995 National Program for the Strengthening of Family Farming (PRONAF), there was a reorientation of public rural extension, now within the framework of neoliberal plans and after the dismantling of the state structure, the LUMIAR program was created, which met the demands of Family Farming farmers. However, due to the scarcity of resources, as well as the fragility of the technicians' cooperatives, the program did not last long and in 2000, it was deactivated (DA ROS, 2012).

In 2004, the ATES program was created, Economic, Social and Environmental Technical Assistance to Agrarian Reform, which emerged with the aim of correcting the errors of the LUMIAR project and presenting a new proposal for rural extension, articulated between the cooperatives of technicians, farmers and their representations in social movements and unions and which aimed to solve historical problems with regard to public policies aimed at agrarian reform and family farming. However, once again, what was idealized ran into structural and financial problems and successive crises led the model to bankruptcy and in 2014 the work of the ATES teams was terminated.

The state of Rio de Janeiro, with all its territorial and productive diversity, was home to 80 Settlement Projects, which when they received the services, only 33 were served by the ATES program, coordinated by INCRA (National Institute of Colonization and Agrarian Reform), an advisory that extended from the southern region of the state, passing through the coastal lowlands and continuing to the north/northwest. This vast territorial extension was covered by two cooperatives of professionals in agricultural sciences, with little or no structure in equipment and vehicles for locomotion, in addition to the insecurity in financial transfers by the federal government, culminating in its extinction in 2014.

At that time, the state of Rio de Janeiro contained 5,898 families, distributed in 80 PAs (Settlement Projects), corresponding to an area of 177,638.43ha. These families were left without technical assistance and rural extension provided by the Federal Government through INCRA. Its monitoring is restricted to the actions of EMATER-RJ (State Company of Technical Assistance and Rural Extension of the State of Rio de Janeiro) and the municipal secretariats of agriculture.

All this helps us to understand more elements of the dismantling of the structure of the state's rural extension. The fragility of the municipal secretariats of agriculture, added to the weakening and scrapping of the local offices of EMATER, in addition to these structures often being directly linked to local and regional oligarchic power, demonstrates the emptying of public policies for assistance to families settled in the state of Rio de Janeiro.

CHARACTERIZATION OF THE AGRARIAN SPACE OF THE STATE OF RIO DE JANEIRO

The XX Century: occupation of space, metropolization and emptying of the rural environment

The agrarian space of Rio de Janeiro has always been the target of constant modifications and restructuring, following the pace of economic development both in the times of colonial Brazil and from Independence and imperial and republican regimes. It is worth mentioning the importance of what is now called the state of Rio de Janeiro, which between 1960 and 1975 was divided into the state of Guanabara and the state of Rio de Janeiro. The first had been the federal capital while the second was one of the states of the federation. Alentejano (2005) describes this process:

"It is worth remembering that until 1960 the city of Rio de Janeiro had the status of Federal District, as it was the capital of the country, while the state of Rio de Janeiro had Niterói as its capital. Between 1960 and 1975, two states began to coexist, Guanabara, in the former territory of the Federal District, a state of a single municipality and a single city, and Rio de Janeiro, maintaining its old characteristics. From 1975, the two states were merged into a single state, called Rio de Janeiro, and its capital became the city of Rio de Janeiro." (ALENTEJANO, 2005)

From the arrival of Cabral's fleet on the coast of Bahia, where the city of Cabrália is located today (we do not need to explain here the reason for this name), until the turn of the millennium, the territory of Rio de Janeiro was marked by numerous historical, cultural and productive transformations. The arrival of the Portuguese court in 1808 transformed the dynamics of the colony's capital, transforming it into the capital of the United Kingdom of Brazil, Portugal and the Algarves, created in 1815. We thus became the political center of the Portuguese empire and, obviously, we suffered the consequences of this fact.

The Portuguese court arrived in Rio de Janeiro in the middle of the cotton cycle, with this geographical space having little productive importance in the sector, however it was to Rio de Janeiro that the surplus of the trade balance was destined. Thus meeting the need of the court, recently installed. In this period, the states with the greatest impact on

production were Pernambuco, Bahia, São Paulo and Ceará. This stage of Brazilian production was also known as the Agricultural Renaissance, as it significantly increased exports of Brazilian tropical products to Europe. This cycle is historically dated during the eighteenth and early nineteenth centuries.

After the cotton era (also called white gold), the cycle of Coffee, also known as black gold, begins. In this case, it was necessary to find soil compatible with the production of coffee, since it was an exotic plant. And, due to its edaphoclimatic characteristics, topography and soil type (terra roxa), the peak of production took place along the Paraíba Valley, which extends from the west of São Paulo to the mountainous region of the south of the state of Rio de Janeiro. This cycle extended throughout the nineteenth century until the beginning of the twentieth. And it profoundly marked the economy of the region, providing the expansion of the São Paulo railroads and the accumulation of capital necessary for the development of the first industries in Brazil. The decline of the coffee cycle sank the agricultural economy of the Paraíba Valley, leaving as a legacy a degraded soil, depleted of nutrients, opening space for the emergence of cattle ranching in the region, which further deepened the economic and environmental crisis⁷. Still on the geographical distribution in the state of Rio de Janeiro, Alentejano (2005) points out four divisions for the agrarian space of Rio de Janeiro:

- "(1) the region of the Paraíba Valley, dominated by the coffee oligarchy and marked by the extensive destruction of the Atlantic Forest produced by the extensive and degrading advance of coffee cultivation, in an environment where the original edaphoclimatic conditions were extremely favorable;
 - (2) the region of the lowlands located to the east of the region of the Baixada da Guanabara, extending to the limits with Espírito Santo, to the north, dominated by the sugarcane oligarchy and marked by the existence of numerous sugar mills in the midst of the ample sugarcane plantations that extended through the alluvial lowlands and coastal tablelands;
 - (3) the region of the Baixada da Guanabara, dominated by commercial capital that organized agro-exports and the internal redistribution of goods and wealth, based on control over the vast navigable area of the bay and the rivers that flowed into it;
 - (4) a vast region whose element of unity is the rugged topography, extending from the south coast to the northwest of the state, passing through the area of Serra dos Órgãos, which, as it was not claimed by any expressive fraction of capital, remained a frontier area and as such, a reproduction area for the peasantry, among them, former slaves recently freed and immigrants (mainly Germans and Swiss)."
- (ALENTEJANO, 2005)

⁷The consequences of this decline were very well evidenced in the documentary entitled *O Vale*, by João Moreira Salles and Marcos Sá Corrêa, as part of the series "6 Brazilian Stories" and originally aired in August 2000, on the cable channel GNT.

From the decline of the coffee cycle, industrial expansion began, mainly in São Paulo, but also in the state of Rio de Janeiro. This industrial expansion in Rio de Janeiro was characterized by the process of metropolization. Concentration of income in the capital and redirection of production from rural areas, to generate raw material for the recent industry and food products to meet the demand in the capital.

This process of redirecting agricultural production increased real estate speculation, both with regard to land concentration and the occupation of space with tourist potential. Thus, we have a dual, unequal and combined mechanism of concentration of the population in the industrialized capital, rural exodus taking place both to compose the labor force of the industries, and by the pressure of landowners.

It also includes the increase in land value, real estate speculation and reorganization of the space, which is directed to tourist vocations. In this sense, below is an important contribution to the theme given by Alentejano (2005):

"Until the beginning of the twentieth century, the organization of the space in Rio de Janeiro was hegemonized by agrarian capital and mercantile capital. However, the different environmental conditions existing in Rio de Janeiro - in fact, environmental diversity¹ is a fundamental element in the definition of the different spatial planning projects in Rio de Janeiro, whether in the past or in the present - contributed to the existence of different forms of territorial planning." (ALENTEJANO, 2005)

For what interests us at this moment, the decline of the Paraíba Valley, a region that was most affected by the coffee crisis, promoted the economic and demographic emptying of the region. The process of soil degradation, due to mistaken agricultural techniques, the planting in a row of "downhill", which intensifies the process of leaching and surface displacement of the soil, taking with it nutrients and causing erosion that evolved into gullies, drastically reducing soil fertility, promoting the decline of production and making the region unable to compete with the others. Thus, this economic and productive decadence led the Paraíba Valley to bankruptcy at the beginning of the twentieth century. Contributing to what has been exposed so far, Alentejano (2005) points out:

"It can be seen, therefore, that the fractions of agrarian and commercial capital organized the space based on the combination of their interests with the environmental particularities existing in the state, where these played an important role in defining the forms of territorial planning" (ALENTEJANO, 2005)

Other combined processes also reorganized the agrarian space in Rio de Janeiro, and this aspect is addressed in the following topics.

The south of Rio de Janeiro and the Paraíba Valley

The Paraíba do Sul River Valley, regionally known only as the Paraíba Valley, is a region of great importance in the agrarian context of the state. Comprising part of the coastal and mountainous areas. It also has geographical and climatic characteristics that shape its agricultural and economic activities. A region of accentuated topography, characteristic of Mares de Morro, the Paraíba Valley, starred in one of the most important events in the economy of the state of Rio de Janeiro, the apogee of the coffee cycle and the economic decadence of the region, in favor of the industrialization process that the state went through at the beginning of the twentieth century.

As in the northern region of the state, sugarcane production was relatively important in the southern region. However, due to the edaphoclimatic and topographical aspects, the region did not reach the economic status of the lowlands of Campista. However, with the political/social and economic changes that the nineteenth century went through, the economic picture of the region changed, assuming the necessary relevance for the enrichment of the rural oligarchy of the south of Rio de Janeiro. Let's talk a little more about the economic and productive characteristics of the region.

The Paraíba Valley is marked by its geographical diversity, which includes flat areas near the coast, undulating terrain and higher areas in the mountains. This variation in altitudes directly influenced not only the form of territorial occupation, but also the types of crops that could be cultivated in the region, but that had relevant economic importance for the local oligarchic powers. Ranging from tropical crops in the lower areas to crops adapted to milder climates in the higher areas, the Paraíba Valley became important for the implementation of coffee culture at the turn of the nineteenth to the twentieth century. Therefore, historically, coffee production begins in the Paraíba Valley of Rio de Janeiro and goes up to São Paulo, but with other social actors and constituting other relations of an economic and social nature, which it is not up to us to discuss at this moment.

Geographically speaking, the climate of the Paraíba Valley is influenced by its proximity to the ocean and the presence of the mountains. In the areas closer to the coast, the climate is hotter and more humid, characterized by a tropical-humid climate, favoring the cultivation of fruit trees, such as bananas, pineapples, mangoes, and even sugarcane in periods that meet the coffee cycle. As one moves towards the mountainous areas, temperatures decrease, making the climate milder and more suitable for olericulture.

On this path, the Paraíba Valley has played a historical tradition in coffee cultivation. In the higher areas of the mountains, especially in the region of Vassouras and Barra do Pirai, the mild climate and altitude conditions are conducive to the cultivation of high quality coffee, which today we call gourmet coffee, compared to what we produce in the mountains of the state of Espírito Santo. However, production was not always aimed at this type of consumption, with the coffee economy being the driving force behind the industrialization of the state of Rio de Janeiro, what was observed in the region was a production aimed at supplying the foreign market, without concern for elaborate cultivation techniques, which provided the nutritional emptying of the soil, weakening and impoverishment of the same, causing extensive areas of erosion and economic bankruptcy, as we will see below.⁸

Development of the Coffee Cycle in the Paraíba Valley

Historically speaking, coffee cultivation has been introduced in Brazil since the eighteenth century, initially in the northern region of the country. The region offered favorable climatic and soil conditions for the cultivation of this product, which boosted its rapid development, combined with international economic conditions, such as the bankruptcy of French production in the colony of Haiti and the resilient economic and labor rattles of the productive activities of the country's capital. Furtado (2007) makes an important contribution to this element:

"... by the middle of the century ... (18th century) ... , however, the predominance of a relatively new product had already been defined, whose production characteristics corresponded exactly to the ecological conditions of the country. Coffee, although it had been introduced in Brazil since the beginning of the eighteenth century and was cultivated everywhere for local consumption, assumed commercial importance at the end of that century." (FURTADO, 2007)

Furtado (2007) goes so far as to say that coffee bankrolled national unity by financing the Brazilian army to resist nativist movements. The coffee of the Paraíba Valley was the economic heart for most of the nineteenth century.

⁸ Regarding soil impoverishment, it is worth noting that the agricultural techniques used favored erosive processes and the disaggregation of edaphic attributes. The planting model called "Morro Acima", did not respect the contour lines in the mountainous elevations, planting in straight lines from top to bottom, which due to the high rainfall of the region, while favoring the growth and development of the plant, caused, through the leaching processes, the carrying of the superficial layer, taking with it, through the floods, nutrients and unifying components of the soil itself. Thus reaching the microbiological component, disaggregating particles and causing its dissociation. The result will be huge machetes of superficial and deep displacement, which will later form what we call in agriculture "gullies". (SILVA *et alli*, 2012)&(SILVA *et alli*, 2021)

With the growth in the international value of the product and with the increase in demand for production for export, mainly to Europe and the United States, there was an economic increase, which stimulated farmers to expand their plantations and invest more and more in coffee cultivation. The Vale do Paraíba region has become the main hub for coffee production in Brazil, rivaling other producing areas. However, the frank expansion of coffee production in the Paraíba Valley, as well as the use of non-preservationist production techniques, promoted accelerated soil degradation and the bankruptcy of local production. On this point, we will address it in more detail below.

Regarding the economic aspects, after the first ten years of independence, coffee already contributed with about eighteen percent of the value of national exports, reaching the level of third place after the sugar and cotton crops in Maranhão (FURTADO, 2007). At this point, Celso Furtado (2007) points out that after more than two decades, coffee had already reached the level of first place in the country's export economy, representing more than forty percent of the value of exports.

"...As we have already observed, every increase in the value of Brazilian exports during the first half of the eighteenth century is strictly due to the contribution of coffee." (FURTADO, 2007)

With the consolidation of coffee as the main export product, the development of its production was concentrated, as previously clarified, in the southern region of Rio de Janeiro, located closer to the country's capital. This was due to the relative abundance of labor, as a result, as Furtado (2007) asserts, of the degradation of the Minas Gerais economy. Another issue raised by the aforementioned author is precisely the proximity of the port, which favored the solution of the transportation problem, making use of the vehicle that existed at the time, as he himself states, the mule. Concluding, then, that in this way, the first phase of coffee expansion is carried out based on the use of pre-existing and underutilized resources.

In addition to the economic aspects, previously addressed, another striking element of coffee production in the Paraíba Valley was exactly the environmental issue. The expansion of coffee production has had a frontal impact on the landscape of the Paraíba Valley. Large tracts of land were deforested to make way for coffee plantations. Mountains and hills were modified to create terraces that accommodated the plantations on steep slopes, which for the technology of the time, made it difficult to respect the contour lines. Thus, planting took place in straight lines from top to bottom, which, associated with the

introduction of coffee monocultures, promoted erosive processes and the reduction of biodiversity. Much of the landscape of the Rio – SP highway is witness to this.

The accelerated growth of coffee production in the Paraíba Valley has generated a voracious demand for labor. Due to the intensity of work on the plantations, many planters turned to slavery to meet their labor needs. This led to a significant increase in the slave trade to the region, contributing to the expansion of the slave system and leaving a painful legacy in the region, characterized by land concentration and overexploitation of labor. We will see later that this agro-export model, directly linked to foreign market prices, will oscillate up and down, leading the region's economy to bankruptcy.

Now, a little further advanced in the evolution of the coffee cycle, it brought a large accumulation of capital to the rural oligarchy of the Paraíba Valley. In spite of the differences between the economies of coffee and sugarcane, as well as the lower monetary value of coffee in relation to sugarcane, the coffee crop is perennial, requiring low investment inflows to recompose the plantation, unlike the sugarcane crop, as we saw in the North/Northwest of Rio de Janeiro. With the increase in international prices and with low costs in labor and planting, the rural coffee elite became influential not only economically, but also politically. Its prosperity was reflected in luxurious mansions with furniture imported from France, infrastructure, and investments in education and culture. However, this relative economic strength would not be sustained for a long period.

The coffee cycle eventually went into decline due to a number of factors, including soil exhaustion, international market crises, and the gradual abolition of slavery. Over time, coffee production and exports were gradually overtaken by other economic activities, marking the end of this period of accelerated growth. The coffee cycle has left a lasting impact on the Vale do Paraíba region, with its visible marks on the architecture, culture and economy of the area. Even after the cycle declined, the history of this period continues to shape the region's identity and heritage to the present day.

Economic/productive current situation in the Paraíba Valley

In addition to vegetable crops, which characterize the Vale do Paraíba region, livestock is also an activity that assumes a certain relevance in local production and economy. The climatic and topographic conditions favor the breeding of dairy cattle with high productivity. Dairy production plays a significant role in the rural economy of the region,

being marked by medium and large milk producers. This contributes to the heating of local animal production.

In addition to agricultural activities, another branch of the economy that was established as a result of the mild climate was tourism. The Paraíba Valley has experienced a growth in rural tourism and agroecology practices. Many farms have opened their doors to visitors interested in learning about life in the countryside, participating in agricultural activities, and purchasing fresh produce directly from producers. Agroecology and organic production performed by family farming and agrarian reform settlers have gained prominence, meeting the demand for healthier and more sustainable food in the short circuits of the region's production chain.

In short, we can say that the agrarian space of the Paraíba Valley is characterized by its diversity of cultures, influenced by the relief, climate and local traditions. The region plays an important role in food production, the rural economy, and the promotion of sustainable agricultural practices, with family farming playing a central role in the economic development of the region. Many farms are operated by families who have been engaged in this activity for generations. This agricultural tradition not only keeps rural culture alive but also contributes to local food production and the strengthening of the region's identity.

Characterization of the Roseli Nunes Settlement, Pirai-RJ

The Roseli Nunes settlement was created in 2006, from a lengthy process of expropriation of the old CESBRA farm and is located in the Middle Vale do Paraíba region, in the municipality of Pirai, in the state of Rio de Janeiro. The settlement was created from pressure from the Landless Rural Workers Movement (MST) with INCRA (National Institute of Colonization and Agrarian Reform). The same happened as a result of the non-fulfillment of the social function of the land by the former owners of the farm. (BALTAR & PEREIRA, 2012)(TAVARES *et al*, 2010).

Regarding the characterization of the families that were settled in Roseli Nunes, Tavares *et al*, 2010 points to the following arguments:

*"... In all, 45 families were settled, most of whom came from the urban environment, originating from the urban centers of Volta Redonda, Barra Mansa and Barra do Pirai, in addition to the Baixada Fluminense, some families came from the rural area, having their origin in the same municipality of the settlement or in surrounding areas..."(TAVARES *et al*, 2010)*

The settled families are divided between working with crops and with the production of animals for the production of milk, meat and eggs. The products are sold locally, at the fairs of the municipality itself or in direct sales to consumers in the region. The topography of the settlement is quite rugged, making it difficult, in some lots, certain productive varieties. In the lowland areas, vegetables and vegetables are produced, while in the more mountainous and steep areas, families take advantage of it for the production of poultry and eggs, as well as for the breeding of small ruminants.

The routine of the settlement is divided between the planting and harvesting periods, as well as the meetings and workshops promoted by the MST itself and partner universities. Most of the settlers also work temporarily or permanently in jobs in the urban center of the city. This measure is necessary to complement the income of the family unit. In addition to having access to social programs offered by the municipality itself and the federal government, such as aid and scholarships, characteristic of direct income transfer programs, which also have great importance in shaping the income of the family unit.

In the settlement there is no rural school, children and young people are served by schools that are on the urban outskirts of the city. But the settlement is served by urban bus lines, as well as school buses.

METHODOLOGY

In order to understand the nuances that involve the context of the research, the following generating questions were necessary: How and when was rural extension effectively implemented by the governments of Brazil? At what point was this process affected by the foreign policies of expansion of capitalism in the post-World War II period? And, finally, how these changes impacted rural extension policies in both countries, both in the sphere of public power and in the dimension of peasant families. Therefore, to answer these generating questions, we built a methodological apparatus, based on qualitative-quantitative attributes. Exploring the interchangeable interfaces of the object in question.

At the beginning of our investigation, we considered relevant the assumption that State intervention in public policies for rural areas is directly linked to the development of international capital, being guided by external trade agreements and by the increasing valorization and intensification of commodities to supply central countries (European Union and United States) and peripheral countries in frank economic expansion (China). In this way, the importance of Rural Extension would be directly linked to the transfer of

technology for intensification and production increase on a scale to supply the foreign market. As a result, even with PRONAF, peasant-based family farming is on the margins of the rural development process, being caressed only by local and punctual social security policies. For a procedural analysis of the events, we sought to compare the mechanisms that shaped the extension and rural development of Brazil.

Thus, the qualitative-quantitative approach allowed us to get a glimpse of the intricacies of rural policies in each country studied. Bringing the data closer to what was sought to be understood. That is, the neoliberal dismantling of rural development and extension policies for peasant-based family farming.

Even then, on the qualitative analysis and use of quantitative data in the construction of the facts addressed, it is worth asserting, as Vasilachis (1992) pointed out, that "The practice of sociological research shows us the simultaneous presence of a plurality of methods whose application is possible in order to know a certain object or social phenomenon." (VASILACHIS, 1992).

We understand that the proposed methodology, of a qualitative-quantitative nature, is necessary to understand the processes and similarities between the rural development of both countries and locations studied. This allows us to travel through the different dimensions of the object, tangential to the gaze of field technicians and peasant families. Thus enriching the triangulation of the data collected.

In addition, the methodology was built based on the case study of the Roseli Nunes agrarian reform settlement, located in the municipality of Piraí, state of Rio de Janeiro. Aiming to identify the degree of perception of the settlers, referring to the public policies of rural extension developed by the Brazilian federal government through INCRA (National Institute of Colonization and Agrarian Reform).

We clarify that the monitoring of the settled families took place through the methodology of participant observation, making it possible to feel, live and observe the issues of the settlement and its settled families. We understand that participant observation is an excellent methodological resource for social research, as it enables a deeper insertion in the practices and representations experienced by settled peasant families. By this method, the researcher follows the event of his investigation more closely, allowing him to further decode the imaginaries, vocabulary, symbols and valid and coherent rites, with greater correspondence to the way in which the settlers themselves experience their agricultural practice. (PROENÇA, 2007); (QUEIRÓS *et al*, 2007).

To this end, interviews were applied with a semi-structured questionnaire, composed of open questions that sought to express the understanding of the families settled in the Roseli Nunes Settlement Project, about the scope of public policies of rural extension, as well as the impacts suffered, over the years of dismantling of the state apparatus under neoliberal policies.

Thus, the methodological aspects of the research were distributed in three stages. As step number one, the collection of secondary data was established, aiming at the search for updating the state of science on the topic in vogue. In a second moment, we used the Participant Observation of the events studied and, finally, we applied interviews using a semi-structured questionnaire. With this, it was sought to respect, throughout the research work, the multidimensionality of the agrarian question in Brazil, dialoguing with the interphases of rural development, public policies of rural extension and agrarian reform. In this sense, the field observations and notes constituted an important material of analysis, which facilitated the triangulation of the data collected throughout the researched period.

For the collection of information, the methods used were participant observation and the application of a semi-structured questionnaire, with questions separated by the spheres: social, environmental, economic and institutional. The interviews were applied to nine families representing the community. As privileged informants, their perceptions served as an instrument of fundamental importance for cutting out the reality of the settlement. The data analysis was based on the researcher's reflections, now in vogue, triangulating with the field notes and observations collected during the research work.

As previously pointed out, the Roseli Nunes settlement has a diversified production of vegetables and small production of animals, and its products such as eggs and cheeses, in addition to vegetables, are sold at the fairs in the region. The fact that the settled families received technical assistance through the ATES/INCRA program, which ended in 2014 and that the MST technicians themselves continued the advisory services after this period, was one of the main reasons for choosing this settlement, as the focus of analysis of the result of the ATES program.

To start the work, the proper authorization was requested from the leaders of the settlement, which is organized by the MST itself. The visits to the families took place under the accompaniment of the leaders, as well as the families interviewed, were also indicated by the MST leadership. In addition to the interviews, reconnaissance visits were made to the settlement, as part of the activities of the Observatory of Sociology and Rural Extension,

founded and directed by the present author, being institutionally linked to the Department of Social Sciences of the Institute of Human and Social Sciences of the Federal Rural University of Rio de Janeiro.

RESULTS AND DISCUSSION

RESEARCH FINDINGS

The view of the families settled in Roseli Nunes – Pirai – RJ:

In the Roseli Nunes settlement, we used participant observation to obtain the perception of the settlers themselves about the years of activity of ATES, as well as about what changed with the end of the contract. In addition, we applied a semi-structured questionnaire addressing the social, economic and productive dimensions of the family, so that we could understand what was the insertion of families in public medical and social assistance programs, and what was the economic performance of their agricultural activities. A total of nine families were interviewed, which provided us with important data so that we could characterize not only the settlement, but also the families and the degree of continuity of the actions that were implemented by the actions of the ATES program.

The interviews were accompanied by the methodology of transversal walking in the lots of the families that received us, so we were able to share reports and situations experienced by the settlers themselves over the years of the settlement installation. As previously presented, the Roseli Nunes settlement was monitored from its installation by the ATES/INCRA program, through the preparation of the PDA (Settlement Development Project) to the PRA (Settlement Recovery Program). Thus, from 2006 to 2014, the settlement was assisted by rural extension technicians who were hired by the rural extension service cooperatives through the ATES/INCRA program.

The productive characterization proved to be of enormous value, since, even in the adversity of the discontinuities of technical assistance in the settlement, the families showed a high degree of organization of their income and production. It was possible to verify *in loco* and through the data obtained during the interviews, that the production is well diversified, providing not only self-subsistence, but also the sale of productive surpluses in the local fairs of the region.

The settlers are also well connected with the local government, having received visits from social assistance and health teams over the years, as well as having easy access to the center of the municipality, where schools and hospitals are located. Regarding

education, all children were enrolled in both elementary and high school and in one of the collective meetings we participated, we were informed that the school bus was being directed to a route within the settlement, as well as it was possible to observe the passage of urban buses through the streets of the settlement. This shows that the settlement is well structured and well connected with the local government, having access to social security, education and health policies.

As for agricultural production, it was possible to identify the productive diversity and the replication by the settlers of the agroecological production techniques that were passed on during the period of technical assistance carried out by the ATES team. This is very valuable, demonstrating that the actions of the field teams, even though they have been discontinued, have been perpetuated over the years, enabling productive autonomy for the settled families.

As for the treatment of crop pests, they make use of alternative solutions based on agroecological technologies, which respect the balance and biological diversity of the region. They use industrialized medicine under technical guidance, when necessary. And, when it comes to animal production activities, they only use industrialized medicines in accordance with the instructions of the competent health agencies and under the guidance of veterinarians from the municipality of Pirai. This denotes a high degree of sanitary and environmental responsibility. It can be said that this is also the result of the actions of the team of extension workers who work in the ATES/INCRA program.

In one of the visits to the settled families, when they were asked about the effectiveness of the ATES program, the answers were very similar, denoting satisfaction with the program and reporting the absence that it does in the daily monitoring of the families. It is worth mentioning that the Roseli Nunes settlement also receives monitoring from EMATER-RJ teams and sometimes from technicians from the municipal government. However, they report that these services are not enough and leave something to be desired with regard to the continuity of technical advice. We will talk about EMATER-RJ when we address the conclusive items of this work.

FINAL CONSIDERATIONS

Throughout the present work, different arguments were exposed about the contradictions presented in government policies over decades of action in rural areas. We found some similarities and convergences, characterizing that public policies for rural areas

in Brazil were influenced by internal and external factors. However, it was also possible to observe that the answer given was different. In addition, according to the neoliberal primers in the peripheral world, the Brazilian government decided to empty rural extension policies in the early 90s of the century. Past, further intensifying the land conflicts in the country and culminating with the massacre of Corumbiara and Eldorado dos Carajás, whose memorial the present researcher had the opportunity to visit during the execution of this research work.

It was possible to identify through interviews with settlers that the ATES program exerted real importance in the construction of the emancipation of families, an objective desired in every agrarian reform settlement. However, with the extinction of the program, the cooperatives not only suffered from the lack of financial transfer during the execution of the services, but also began to have increasing difficulties in maintaining themselves due to the absence of public policies for the rural environment.

Thus, we can conclude that Brazil went through the process of productive restructuring, implementing policies of "financial austerity" of neoliberal projects, reaching the turn of the century still suffering from the marks of the past and the unequal and combined responses of peripheral capitalism, due to the crises of the international market. We point out that Brazil suffers from two *sides of the same coin*, being the reflection of unequal public policies that favor large agro-export enterprises, to the detriment of support for small peasant family production. And that rural extension and rural development were treated in an unbalanced way, weakening support for family farming in the scope of extension and enhancing agribusiness.

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