



IFPRI – INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE  
UNICAMP – UNIVERSIDADE ESTADUAL DE CAMPINAS

## EVALUATION OF EXTENSION REFORMS IN BRAZIL

BRAZIL

2016





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UNICAMP – UNIVERSIDADE ESTADUAL DE CAMPINAS**

**EVALUATION OF EXTENSION REFORMS IN BRAZIL**

Final report presented to IFPRI (International Food Policy Research Institute) in accordance with the requirement of “Product 3” from the Research Study “Evaluation of Extension Reforms in Brazil”.

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THIS EXEMPLAR CORRESPONDS TO THE FINAL VERSION OF THE RESEARCH STUDY “EVALUATION OF EXTENSION REFORMS IN BRAZIL”, COORDINATED BY PROF. DR. SONIA MARIA PESSOA PEREIRA BERGAMASCO AND PROF. DR. RICARDO SERRA BORSATTO

BRAZIL





2016

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BRAZIL  
2016



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## LIST OF ACRONYMS

AAO - Organic Agriculture Association

ABCAR - Brazilian Association of Rural Credit and Assistance

ABIO - Biological Farmers Association of the State of Rio de Janeiro

ACAR - Rural Assistance and Credit Association

AEAs - Agricultural Engineers Associations

AIA - Economic and Social Development Association

ANATER - National Agency for Technical Assistance and Extension

ASBRAER - Brazilian Association of state entities of Technical Assistance and Rural Extension

ATER - Technical Assistance and Rural Extension

ATES - Service for Technical, Social and Environmental Assistance to the Agrarian Reform

CEAGRO- Center of Sustainable Development and Training in Agroecology

CEDRS- State Councils for Sustainable Rural Development

CEFFAs - Family Centers Training by Alternation

CLT- Consolidation of Labor Laws

CMDRS - Municipal council for Sustainable Rural Development and Family Farming

CNA - National Confederation of Agriculture

CNATER - National Conference for Technical Assistance and Rural Extension

CNDRS - National Council for Rural Sustainable Development

CNPq - National Council for Scientific and Technological Development

COMPATER - National Commission for Agricultural Research and Rural Extension

CONDRAF - National Council for Rural Development, Agrarian Reform and Family Farming

CONEPA - National Agricultural Research System

CONFAEAB - Brazilian Association of Agricultural Engineering

CONTAG - National Confederation of the Workers in Agriculture

CREAA - Federal Council of Engineering, Architecture and Agronomy

CRESOL -The Rural Credit Cooperative



DATER - Technical Assistance and Rural Extension Department

DIER - Infrastructure and Rural Extension Department

DTT - Department of Technology Transference

EBIA - Brazilian Food Insecurity Scale

EMATERs - Technical Assistance and Rural Extension Companies

EMBRAPA - Brazilian Agricultural Research Corporation

EMBRATER - Brazilian Company for Technical Assistance and Rural Extension

ETA - Agriculture Technical Project

FASER - National Confederation of Trade Unions of Rural Extension Workers

FETRAF - National Federation of Men and Women Family Farming Workers

GDP - Gross Domestic Product

GFRAS - Global Forum for Rural Advisory Services

HDI - Human Development Index

IBEC - International Basic Economy Corporation

IBRA - Brazilian Institute for Agrarian Reform

INCRA - National Institute for Colonization and Agrarian Reform

INDA - National Institute for Agricultural Development

IRI - Ibec Research Institute

ISA - Socio-Environmental Institute

ITESP - São Paulo Land Institute Foundation

MAARA - Ministry of Agriculture, Supply and Agrarian Reform

MAB - Movement of People Affected by Dams

MAPA - Ministry of Agriculture, Livestock and Food Supply

MARA - Ministry of Agriculture and Agrarian Reform

MDA - Ministry of Agrarian Development

MHDI - Municipal Human Development Index

MIRAD - Ministry of Agrarian Reform and Development

MMC - Movement of the Peasant Women

MPA - Small Farmers Movement

MST – The Landless Workers' Movement





OCB – Organization of Brazilian Cooperatives

PAA - National Program for Food Acquisition

PAEG - Economical Action Plan

PGMP - The Minimum Price Guarantee Policy for products of socio-biodiversity

PLANAPO - National Plan for Agroecology and Organic Production

PNAE - National Program for School Feeding

PNATER - National Policy of Technical Assistance and Rural Extension

PNHR - National Program of Rural Housing

PPA - Pluriannual Plan

PRONAF - National Program for Strengthening Family Farming

PRONATER - National Program for Technical Assistance to Family Farming and Agrarian Reform

PRONERA - National Program for Education in Agrarian Reform

PT - Labour Party

PTA/FASE - Alternative Technologies Project and Federation of Organizations for Social and Educational Assistance

PTC - Citizenship Territories Project

SAF - Family Farming Secretariat

SARC - Rural Support and Cooperatives Secretariat

SENAR - National Rural Learning Service

SER - Secretariat for Technical Assistance and Rural Extension

SIATER - Online System of Technical Assistance and Rural Extension

SIBER - Brazilian System of Rural Extension

SIBRATER - Brazilian Technical Assistance and Rural Extension System

SISAN - National System of Nutritional and Food Security

SNCR - National System of Rural Credit

SNPA - National Service of Agricultural Research

SUPRA - Superintendency of Agrarian Policy

TCU - Federal Court of Accounts

UNPD - United Nations Development Program



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## 1. EXECUTIVE SUMMARY

This document presents the final report concerning the research “Evaluation of Extension Reforms in Brazil”, which objective was to evaluate Brazilian federal government’s actions related to Technical Assistance and Rural Extension (ATER by its acronym in Portuguese). In order to do so, we have analyzed the implementation and execution of the National Policy of Technical Assistance and Rural Extension (PNATER by its acronym in Portuguese) from 2004 to 2015.

This report has been divided into five chapters. The first chapter presents a history of governmental actions related to ATER in Brazilian history. The objective of this chapter was to recover the main issues related to ATER 's Public Policies in Brazil based on documentary research and extensive literature review. It represents an attempt to understand the institutional arrangements and the behavior of different agents in the execution of rural development policies. The first chapter also presents a detailed explanation of the principles and guidelines in which the PNATER is based. In addition, it highlights its main innovations in comparison to previous ATER policies.

The second chapter deals specifically with the PNATER’s execution. In this sense, we explain both the two published versions of the PNATER (in 2004 and 2010) and the National Program of Technical Assistance and Rural Extension (PRONATER by its acronym in Portuguese). The PNATER presents the policy guidelines and principles and the PRONATER establishes its goals and the amount of public money to be spent on it. Therefore, through figures, graphs and tables, as well as a textual description, we illustrate how federal funds are transferred through its execution and how social control for its management has been designed.

The third chapter presents the methodology that guided the field research and data analysis applied to evaluate the relevance, efficiency, effectiveness, impact and sustainability of the PNATER and PRONATER. Thus, it is an extensive explanation of the designed indicators system, which supports our findings and proposals. Such methodology has a multidimensional approach and allows evaluating the different dimensions in which a public policy influences reality. As well, it’s a tool of analysis that can be applied and concisely reproduced in other countries.

We have developed a system of indicators capable of analyzing information from the different actors involved in the policy (farmers and extension agents). Our field research was

carried on five rural territories allocated in three different Brazilian states. In each territory, 200 farmers and at least 10 extension agents were interviewed. For the selection of the farmers participating in the research, we sought to represent the diversity of Family Farming through the inclusion of rural black communities and the Brazilian Land Reform settlements. In addition, public managers responsible for the implementation of the policy at national level were also interviewed.

The fourth chapter presents the field research results. A brief historical and socioeconomic characterization of the studied territories precedes the obtained results. Therefore, the analysis of the results seeks to relate the socioeconomic history to the obtained indicators in each territory. Following the same line, the fifth chapter consists on a general reading and evaluation of PNATER in Brazil, linking the results to the information collected through semi-structured interviews conducted with public managers responsible for caring on ATER policies in the country.

Finally, our conclusions present a general evaluation of PNATER guided by the criteria proposed by the Global Forum for Rural Advisory Services (GFRAS) that considers the policy's relevance, efficiency, efficacy, impact and sustainability. After this analysis, we also present recommendations for a better development of ATER policies in Brazil.

## 2. CHAPTER 1 – The history of Technical Assistance and Rural Extension in Brazil

### 2.1 Introduction

The objective of this study is to rescue, from a historical point of view, questions related to the ATER Public Policy in Brazil, in an attempt to understand the institutional arrangements and behavior of different agents in the Brazilian spaces of debate and management over the years. It is believed that the systematic comprehension of the historical policies of ATER in the country might contribute to the analysis of the current scenario where ANATER is created.

Accordingly, grounded on Historical Neo-Institutionalism, it is assumed that the consolidation of formal institutions and its instruments of power may result in profound transformations of the social structure, and in this special case, in the reality of farmers and extensionists.

To each historical milestone exhibited, we present a brief introduction of the macro political context of the time, in order to associate it with the guidelines of the organizations responsible for the ATER policies in that time, as well as to understand in which conditions the negotiations were taken between the different participants, to elaborate and execute these policies, being these participants inserted in the public machine, social movements, patronal class and other entities from the Civil Society. In this respect, the analysis will give more highlight to the institutions than to the individual voluntarism of its managers, although the opposite may be recognized in some punctual situations.

### 2.2 The first ATER actions in Brazil

The first Technical Assistance recorded in Brazil was from 1831. Then, the so-called “National Industry Aid Society” was created in Rio de Janeiro by an initiative of a group of rural producers (BERGAMASCO, 1983), with the support of the Ministry of the Empire Business. Its objectives aimed to stimulate the national industry development by means of inventions, to improve and to increase the access to the agricultural machinery, as well as the exchange of technical and scientific knowledge between Brazilian rural producers and industrial pioneers.

This experience stimulated a series of similar initiatives in other regions occupied by big producers, which formed associations at local level, and from these, the establishment of state Federations and the Brazilian Rural Confederation. Their representatives achieved a

considerable bargaining power with the newly independent Empire; after all, the national economy was greatly based on the production of the sugar cane, cocoa and coffee.

As the rural sector mobilized, its demands related to an improvement of the agricultural productivity and soil management guided new governmental initiatives. In 1860, the State Secretariat for Agriculture, Trade and Public Works was created. Moreover, between 1859 and 1860, five decrees were responsible for the foundation of the Imperial Institutes of Agriculture from the states of Bahia, Pernambuco, Sergipe, Rio Grande do Sul, and Rio de Janeiro (PEIXOTO, 2008). However, even with the official records that regulated its facilities and activities, according to Peixoto (2008) we cannot ascertain that all of them in deed existed.

It was responsibility of the Institutes of Agriculture to offer adapted introduction to agricultural machinery and instruments, experimentation and distribution of seeds, orientation applied to plague extermination, animal improvement, infrastructural support for production flow, promotion of farming products exhibitions, divulgation of scientific publication and the establishment of agricultural school that should include professionals and visits to agricultural properties. Also it was planned to create Municipal Agricultural Commissions, responsible for statistical data about the farming production in each region.

The most outstanding of these institutions was the Imperial Fluminense Institute of Agriculture (from Rio de Janeiro) and the Imperial Institute of Agriculture of Bahia. The first one had teaching and researching areas, as the Experimental Farms, Agricultural Shelter for the technical training of orphans, tool workshops, hat factories, and including the administration of the Botanical Garden in Rio de Janeiro. The later, created in 1874 in the municipality of São Bento de Lages (state of Bahia), is considered the first establishment totally devoted to farming research and agronomical education.

Based on these records, it is possible to ascertain that the beginning of the activities related to rural research, teaching and technical assistance was marked by State efforts to help organized patronal groups. Not coincidentally, the most outstanding Institutes of Agriculture were located in the states of Bahia and Rio de Janeiro, regions with powerful agrarian concentrations and mostly slave work.

After the Republic's proclamation in 1889, the management of the Brazilian State was maintained restrict to representatives of the agrarian elite, militaries, and the industrial bourgeoisie of the country. The alternation of the national power was then mainly concentrated in the Southeast Region, with continuous election of presidents representing the interests of coffee planters from São Paulo and cattlemen from Minas Gerais.

The Agriculture has become a Ministry of the new government in 1906, with the creation of the Ministry of Agriculture, Industry and Commerce, and twelve regional inspectorates (PEIXOTO, 2008 *apud* PETTAN, 2010). As we can see according to the name of the Ministry, it was clear the objective to strengthen an agricultural model to favor the national industrialization, in order to attend the exportation demand for national products.

In 1910, the government created the Agronomy Teaching and established Demonstration Fields, Experimental Farms and Model Farms all over the country. Teaching institutions had to answer inquiries made by farmers and professionals from the “rural industry”, as well as hold Agrarian Conferences, with demonstrative activities. From 1916, the Ministry budget was also responsible to send resources to the Service of Practical Agriculture, Service of Pastoral Industry, Inspection Services and Agricultural Development Service (PEIXOTO, 2008).

In this context, the Viçosa Agriculture and Veterinary Science College (state of Minas Gerais) was founded in 1926, and it still remains as an important reference for farming teaching, research and extension (RIBEIRO, 2000). Three years later, in 1929, it was held for the first time an event considered a mark for the national ATER, named Farmer Week. It is important to highlight the travelling practice of the technicians that participate, giving lectures in different municipalities of the region.

To support and subsidize coffee planters from the state of São Paulo, important actions and institutions were established, as the establishment of the agricultural credit guaranteed by the coffee price at the banks, in pure gold, in the year 1902; and the creation of the São Paulo State Mortgage, Credit and Agricultural Bank in 1909, Santos Official Coffee and Commodities Exchange in 1917, and the São Paulo State Coffee Institute in 1924. These actions, concatenated with the new teaching, research and extension institutes marked the transition period of ATER driven by organizations of rural owners, to a different one which initiative and tutorship was responsibility of the State.

Nevertheless, with the dollar devaluation during the 1920s, the national funds were constantly addressed to commodity producers for financing and subsidies (PRADO JUNIOR, 1945). Part of the military sector was not pleased with the agrarian oligarchies and organized a series of rebellions around the country, as the Revolt from the 18 of the Fortress of Copacabana in 1922, the 1924 Revolution, the Commune of Manaus in 1924 and the Prestes’ Commune in 1927. Although these revolts were immediately unsuccessful, the movement acquired more support among the militaries, and allied with the economic crisis of 1929 and the political crisis

between the states of Minas Gerais and São Paulo before the election of 1930, culminated in a State coup, and Getúlio Vargas took office.

The developmentalist agenda adopted by the Vargas' government defined as its priority the national industry consolidation. However, as in the past, the primary production for exportation was still decisive for the national economy, enabling the rural elites to strongly press the maintenance of the power in the rural sector.

The next years were marked by the mobilization of the Left sector in the Brazilian political scenario, that among other issues, were claiming for an Agrarian Reform and the extension of social rights to farmers and field workers. As a response, there was an increasing suppression at the Congress, which practically became single-party, and the centralization of the power in the hands of the Executive Branch. Lastly, in 1937, a State coup initiated the so called "New State" period, a dictatorship regime that lasted until 1945 with Vargas still in power.

Regarding the agrarian sector, Vargas's government adopted a policy to regulate prices and to integrate agroindustry. In 1930, the Ministry of Agriculture was created and in 1931, the National Coffee Council, aiming to establish a national policy for the rural sector and organize the requests from all the state producers.

While social and labor rights were being regulated in the cities, large land owners were pressing the government and the population against any similar initiatives at the rural sector. On the other hand, they were bargaining with the government for technical support, subsidies and credit.

As a result, the 1934's Constitution only generically ascertain some right for the rural workers and imposed that employers should establish rural schools where the government was not acting. Not differently, the Consolidation of Labor Laws (CLT), from 1937 (during the "New State" Period), expressly excluded rural workers from its text.

The Technical and Research Assistance farming institutions established in this period also clearly reflected the government support for rural entrepreneurs. Among these, we can cite the Bahia Cocoa Institute created in 1931, Sugar and Alcohol Institute created in 1933, Biological Animal Institute in 1934, Pine National Institute in 1941, and the National Council for Commercial Industrial and Policy in 1944 (MACHADO, 1980; RODRIGUES, 1997).

In 1940, the Ministry of Agriculture was finally created, and 200 farming seats were under its responsibility, which should operate as Demonstrative Farms. In each one of these, a

veterinarian and an agronomist should be working. However, according to Peixoto (2008), the services were not well managed and they remained restricted to a few privileged producers.

During the last months of the Vargas' government, he decreed that each municipality should create a rural association recognized by the Ministry of Agriculture. Each one should have a seat, the so called "Rural Houses", and broadcast knowledge to improve hygiene conditions in rural housing, promote farming teaching in partnership with the public administration, promote technical assistance services to the associates, and organize temporary and permanent exhibitions. From these, rural societies should be established in the states, and from these, the Brazilian Rural Union at a federal level, all of them as advisory organs of the government (PEIXOTO, 2008).

When the military dictatorship finished in 1945, Eurico Gaspar Dutra was then elected president by general elections. For the first time, the 1946's Constitution referred to field workers rights, as indemnity and stability. The private property remained an undefined issue as in the 1934's Constitution, and it was restricted to the subjective definition of the social role of the land and terms about the economical exploration.

At that moment, an intense relationship was established between the Brazilian and the American governments. Regarding the ATER course, it was especially important the relationship between the Rockefeller Foundation and the state governments, through the International Association for Economic and Social Development (AIA by its acronym in Portuguese), created in 1946, and the Ibec Research Institute (IRI), bound up with the International Basic Economy Corporation (IBEC), created in 1947 (OLIVEIRA, 1999). The reason is that since the end of the Vargas' government, the IBEC, support by IRI, started experiments with defoliant, chemical pesticides, nitrogen stabilizer, irrigation and techniques for grain processing and storage, funded by the Rockefeller Foundation and American agrochemical companies, in partnership with large land owners from the states of São Paulo, Minas Gerais e Paraná (OLIVEIRA, 1999).

The AIA was first established in the municipalities of Santa Rita do Passa Quatro and São José do Rio Preto (state of São Paulo), and its main financers were the companies Nestlé and Agrocères. It also made demonstrations at the Agricultural Institutes around the country and distributed publications to government employees. Nevertheless, AIA identified that the biggest problem for the producers to access the new technologies was the limited access to credit. Therefore, the Credit Associations were established to fill this gap, and concomitantly it should offer Technical Assistance for the adoption of new technologies.

Oliveira (1999) highlights that during this process, the American companies had economical interest in rural property speculation and commercialization of agricultural inputs. Pettan (2010) states that the American voluntarism to train local technicians and its active participation in this process was during the Cold War context, and the awareness that the rural population could adopt left-wing political ideals, and that in Brazil there was a growing mobilization of the Peasant Leagues (organized by the Brazilian Communist Party).

In 1948, the governor of Minas Gerais, Milton Santos, drove negotiations involving the AIA, the state government of Minas Gerais and the Viçosa Agriculture and Veterinary Science College to establish in the state the Rural Assistance and Credit Association (ACAR by its acronym in Portuguese). The ACAR administration was under the international association, but the financing was responsibility of the state banks.

The next governor of Minas Gerais, Juscelino Kubistchek, signed in 1954 an agreement of technical and financial partnership with the American government, which instituted the Agriculture Technical Project (ETA by its acronym in Portuguese) and agreed with the establishment of ETA offices in Minas Gerais and other Brazilian states, aiming to support the creation of new associations of ACAR (PEIXOTO, 2008).

Also in 1954, the Northeast Agricultural Assistance and Credit Association was established, with headquarters in Pernambuco, Ceará and Bahia, but it was responsible to attend the whole “Polygon of Droughts”, covering the eight states of the Northeast Region. In the next year, their own associations were established in the states of Rio Grande do Norte and Paraíba (PEIXOTO, 2008).

Legally, the Agricultural Assistance and Credit Associations in Brazil were non-profit, operating as civil entities. Their methodologies were based in the American model, in which the Technical Assistance was given by universities and credit was obtained from the banks (PEIXOTO, 2008). In Brazil, however, the associations were responsible for these two responsibilities, separating the research activities from the rural extension activities, until nowadays. Even in pioneer initiatives developed by the Federal University of Viçosa, the rural extension was since the beginning performed by isolate teams within the university context.

The extensionism in this period was based in social assistance humanism, aimed at Rural Families. The service focused on small farmers; and in the credit projects elaborated by the ACARs’ technicians, they would allow inputs purchase and investments in the rural properties (RODRIGUES, 1997). The decisions regarding the resource destinations were based on each family needs, made in cooperation with the field extensionists. The local administrators had the

control of every producer spending and even had access to their bank accounts (OLIVEIRA, 1999). This modality of Oriented Credit predominated in Brazil for 15 years, from 1948 to 1963 (RODRIGUES, 1997).

The extensionists acted as promoters of good practices, and in this respect, agents to improve life quality for the farmers, disseminating information about basic hygiene habits, home and production administration, house renovation and the adoption of new technologies to increase production. They also supported the Youth Clubs and Housewife Clubs in the rural communities. The field teams were formed by a domestic extensionist and an agricultural extensionist and their mean of transportation was an emblematic Jeep, symbol of the extensionists in that period. To increase the number of female extensionists as the ACARs were proliferating, the first Domestic Economy Course was created in the country in 1952, also by the Federal University of Viçosa.

When Juscelino Kubistchek took over the presidency in 1956, he established the Brazilian Association of Rural Credit and Assistance (ABCAR by its acronym in Portuguese), which should substitute the ETA in the national coordination of the associations. This model formed the so-called Brazilian System of Rural Extension (SIBER by its acronym in Portuguese).

A new presidential decree in 1961 defined that the ABCAR would coordinate the SIBER, and should establish a partnership with the Supervised Extension and Credit System. Another subsequent decree determined financial support by the government by means of the Five Year Plan (PEIXOTO, 2008). Therefore, the ACARs started being funded by federal and state resources (50 and 50 percent). In this context, the associations linked to the Northeast ANCAR became autonomous.

Kubistchek's term was marked by the growing opening to international capital and the government's plans were to boost the capitalist development of the rural properties, aiming to increase the income with the agricultural productivity increment. In this way, ATER service continued to be guided by the social assistance humanism, but in practice, the need to obtain results in a short-term period resulted in extensionism for production (BERGAMASCO, 1983).

The next elected president, Jânio Quadros, resigned in his first year of government. Then, João Goulart assumed and governed from 1961 to 1964 based in the nationalism model of Getúlio Vargas, due to extreme conservative right opposition, and on the other hand, pressure from the social movements and the basis of his political party, the Brazilian Labor Party.

In 1962, one of the first government's action related to rural work was the creation of the Superintendency of Agrarian Policy (SUPRA by its acronym in Portuguese) to deal with land ordering. The Rural Social Service was incorporated in the SUPRA, but it became responsible only for complementary activities of SIBER (PEIXOTO, 2008). In 1963, the Rural Social Welfare was established and the Rural Worker Statute was published, which regulate the relationship between field workers and employers.

The president Goulart also announced that in order to modernize the country, fundamental Core Reforms were necessary to transform the structure of the Brazilian society, as the Agrarian, Urban, Educational, Banking, Fiscal and Electoral Reforms. To each one of these, federal institutional reforms were related, including the SIBER nationalization, and the approximation of agricultural research with Rural Extension (PETTAN, 2010).

Nevertheless, the announcement of these reforms caused great commotion among the conservative militaries; industrial, financial and agrarian elites, as well has a large portion of the middle class. In 1964, claiming that the country was under a tentative to establish a communist regime, a military coup d'eat occurred.

### **2.3 Creation of the Brazilian Company for Technical Assistance and Rural Extension**

The modernization of the agricultural sector was a standout in the first Economical Action Plan (PAEG, by its acronym in Portuguese) (1964-1966) and the Development Strategic Program (1967-1970) at the beginning of the military government. Both highlighted the “cultural delay” of entrepreneurs and rural workers in Brazil (Pettan, 2010), expressing as urgent the need to modernize the rural sector. However, they made no references to ATER and its execution model.

In 1965, the SIBER was linked to the National System of Rural Credit (SNCR by its acronym in Portuguese), which enabled a massive increase in loans to producers. In this period, the loans reached negative interest (RODRIGUES, 1997). In the same direction, the Oriented Credits, typical of ACARs, were growingly replaced by Supervised Credits – which means that those loans were almost exclusively to purchase inputs and machinery. As a result of these negotiations, the military government decree that regulated the rural extension in 1966 kept such activities supervised by ABCAR, which in turn was subordinated to the National Institute for Agricultural Development (INDA by its acronym in Portuguese)

As the military government entered the period known as “The Lead Years”, which starting point was the publication of the Institutional Act N° 5 in 1968, dialogue canals with the Civil Society were extinguished and decisions were restricted to the high-level government. Regarding the ATER services, its guidelines became centralized in a national level and those leaders from the Civil Society linked to the ABCAR coordination were removed.

The federal states also lost the autonomy related to ACARs and a consequent verticalization of the system was observed. Olinger (1996) highlighted that the ABCAR maintenance in this period was only possible due to the considerable prestige that its executive secretary, Luiz Fernando Cirn  Lima, had inside the Ministry of Agriculture. Therefore, when the guidelines of ATER were reset, the transfer of federal funds to SIBER considerably increased.

In this moment of ATER methodologies transition, a period called diffusionist productivist was inaugurated, replacing the social assistance humanism from the past decades. The new approach was aimed at work and land productivity increase, instead of focusing on the rural family life quality. The number of agrarian extensionists started to be expressively higher than the domestic extensionists, starting from the proportion of 1 : 1 in 1962, to 5 : 1 in 1975 (RODRIGUES, 1997). The focus of the extensionists in the communities also changed, since instead of supporting the consolidation of new organizations, they should only work with the existing ones.

The militaries also ignored the Agrarian Reform demanded by the Left sector, which claimed for the division of large rural properties and the productive inclusion of groups that were historically neglected. The Land Statute, promulgated in 1964 and completely elaborated by a team indicated by the military government, extinguished the SUPRA and installed the INDA. Under this coordination, the Brazilian Institute for Agrarian Reform (IBRA by its acronym in Portuguese) was created, which was responsible to give technical assistance to the Agrarian Reform projects in partnership with other public organs. However, since its beginning, IBRA had fewer privileges and depended on strict budget. In 1970, the INDA and the IBRA were replaced by the National Institute for Colonization and Agrarian Reform (INCRA by its acronym in Portuguese), which was subordinated to SIBER.

The Agrarian Reform made by the military government limited to establish colonization projects in devaluated areas, especially in Amazonia, Mid-West and the Southernmost region of the country, causing a massive migration of farmers, leaseholders, and small producers from

the Southeast and Northeast regions to those border areas, however, with few infrastructure and resources were available to their establishment. In valued areas, there was a tax incentive to occupy the lands and implementation of agro-industries by companies of the agro industrial sector, as well as the establishment of a marketing policy through the creation of the Brazilian Food Company and the Brazilian Storage Company; and a policy of minimal prices subsidized by the government (PETTAN, 2010).

The military government's National Development Plan (1972-1974) included among its priorities a large investment in Science and Technology. In this respect, the Brazilian Agricultural Research Corporation (EMBRAPA by its acronym in Portuguese) was created in 1972, linked to the Ministry of Agriculture, responsible to carry on a national program for agricultural research and experimentation, focusing on the generation and adequacy of technologies to modernize agriculture, with especial emphasis in the machinery adaptation and chemical inputs, including fertilizers, correctors, and pesticides.

The scene changed dramatically to ABCAR when Ernesto Geisel took office in 1973, and named Alysson Paulinelli his minister of Agriculture, who didn't have a good relationship with the Executive Secretary of ABCAR. Then, in 1972 the nationalization of the SIBER began, through the Brazilian Company for Technical Assistance and Rural Extension (EMBRATER by its acronym in Portuguese). The ABCAR structure absorbed by EMBRATER was well established at that moment. It had associated 24 members in the federative units (excluding São Paulo), 1.485 offices, 4.724 technicians and three training centers (BERGAMASCO, 1983).

To manage the goals proposed by the government to modernize agriculture, the National Commission for Agricultural Research and Rural Extension (COMPATER by its acronym in Portuguese) was created in 1974, in order to coordinate the research and extension operations. It was determined that EMBRATER and EMBRAPA should execute their activities in partnership and financially support public institutions of extension and research.

EMBRATER's working plan was divided into two main lines of action with specific publics. In one hand, knowledge and technology diffusion oriented towards medium and high income producers, which would be the responsible for the national production increase and the exportation enlargement. On the other hand, there were the low income producers, to which the strategy was limited to adopt simplified technological package through credit and selling the surplus production to the Brazilian Food Company. Concluding, to the first group it was given all the protagonism of the agricultural modernization and the credits for the Brazilian Balance

of Trade surplus; while to the second, a supporting role responsible for internal supply, under the condition to maintain a minimum economic self-sufficiency level according to the conditions of the hired loans.

The Second National Development Plan (1975-1979) initiated an official partnership between the ATER services and the economic project executed by the government. ATER's agricultural goals were actually attained, due to the actions solidified by EMBRATER and EMBRAPA. From 1976, the ACARs were transformed in public companies, entitled Technical Assistance and Rural Extension Companies (EMATERs by its acronym in Portuguese), originating the Brazilian Technical Assistance and Rural Extension System (SIBRATER).

In this period, local specialized unities were established and formed by agricultural technicians, agricultural engineers and veterinarians, which replaced the former teams of rural and domestic extensionists (PETTAN, 2010). The priority of these new teams was the adoption of technologies from the Green Revolution by the assisted farmers, and the focus was clearly the incorporation of these technologies to increase agricultural productivity. Different organs became responsible for educations, health, and labor training.

Finally, this is the consolidation mark of the diffusionist productivist in the Brazilian ATER, due to the partnership of EMBRAPA, through the production of technological packages; EMBRATER, responsible for their disseminations; and the National Credit System, that through the Brazilian Bank guaranteed the financing necessary for its acquisition.

Due to these joint actions, the 1970s and 1980s resulted in the consolidation of a "conservative modernization" (term coined by PASSOS GUIMARÃES, 1968) of the country, resulting in a growing subsidized increase of the agricultural productivity and the creation of a highly capitalized rural businessmen class. Data from 1979 demonstrate that the public to be attended by the SIBRATER were clearly selected, representing only 16% of the total Brazilian producers, and less than 15% was destined to small producers (BERGAMASCO, 1983).

As a consequence, there was a growing exclusion related to credit policies and ATER, as well as the concentration of land and income in the rural areas. This is because the adopted policies resulted in unsustainability for the family based-agriculture, due to low price of agricultural products, subordination to long commercialization circuits and land speculation. Nevertheless, the governmental speech during the beginning of the 1980s was that the agricultural modernization had been well succeeded and that Brazil had become the "World's Barn"

However, this model of rural development resulted in a mass migration of rural population to urban areas searching for job and income, causing a severe social crisis, which added to the inflationary crisis and the growing external debt, threatened the government policies adopted during the last decades. As a result of the Civil Society pressure, and especially the international environmental movement, the Third National Development Plan (1980-1985) incorporated social and environmental matters in its guidelines for the agricultural modernization.

Also in 1980, the Ministry of Agriculture determined that more farmers should be attended by SIBRATER technicians, including small and medium producers, and that once again they should approximate life quality and rural family. The rapprochement of ATER guidelines with social issues was not necessarily voluntarism from the government, but instead, an attempt of EMBRATER to legitimize itself in the process of democratic opening.

At that moment, the debate about the extensionism in Brazil was divided in three branches: one that defended the technical assistance as specialized in technical-productive questions; a second one more critical and adapted to the social assistance humanism, named critical extensionism; and a third one that defended a return to the system ABCAR (PETTAN, 2010).

## 2.4 The extinction of EMBRATER

Despite the advances in the debates that were occurring internally, the EMBRATER existence was been frightened by the government, that mostly believed that the agricultural modernization had been well-succeeded, and therefore, the technical assistance should be limited to private services. In this respect, the Ministry of Agriculture should prioritize its funds to commercialization programs and agricultural credit aimed at producers that were already included in the market.

According to this scenario, the first proposal to fuse EMBRATER and EMBRAPA was presented in 1983 by Delfin Netto, minister of Agriculture. But at the moment, an articulate action of EMBRATER's directors with the government was enough to stop the minister's intentions (PETTAN, 2010).

After Tancredo Neves' election in 1985, professionals allied to progressive thinking took charge before Neves' death. Those professionals were then accepted by José Sarney, who actually became president. Among these professionals we can cite the extensionist Romeu

Padilha de Figueiredo, who took over the presidency of EMBRATER. At his presidential inauguration, Figueiredo announced that rural extension prioritizes small and medium farmers, according to the first National Development Plan from the New Republic guidelines, which established social debt as a government priority, and the letter from the IV Congress of the National Confederation of the Workers in Agriculture (CONTAG by its acronym in Portuguese), which had happened months before (PETTAN, 2010).

In 1985, the Ministry of Agrarian Reform and Development (MIRAD by its acronym in Portuguese) was created, which incorporated the INCRA; and the first National Plan for Agrarian Reform was launched, which incorporated to ATER's guidelines the participative methodologies and the pedagogy of alternation (PEIXOTO, 2008). According to these guidelines, EMBRATER also incorporated the support to agricultural organizations and the adoption of environmental practices.

The organized Civil Society had great participation in this new ATER version, especially through the participation of the National Confederation of Trade Unions of Rural Extension Workers (FASER by its acronym in Portuguese), the CONTAG, the Landless Workers' Movement (MST by its acronym in Portuguese), non-governmental organizations (NGOs), rural workers organizations, and other rural social movements (PETTAN, 2010). Rodrigues (1997) and Pettan (2010) state that the critical humanism was predominant in the Brazilian ATER at that time, which differentiates from the social assistance humanism by taking into account the empowerment of family farming, where the government is a partner and the extensionist should maintain the dialogue horizontal and democratic.

The main critic to the diffusionist productivist model and the agricultural modernization was the exclusion of historically marginalized groups, and the vertical transference of technology developed by EMBRAPA. Regarding ATER's history, it was pointed out that small farmers and traditional groups were always seen as ignorant, and their knowledge, rudimentary and primitive. The new proposal was based in Freire's view, which values traditional knowledge for the collective construction of solutions, guided by the farmers themselves, and the extensionist take the role of intermediary in the process.

In 1986, the Sarney's government started to point out the urgent need of institutional reforms, which meant to reduce the public machinery, especially the companies that did not contribute to the national treasure. The Ministries of Finance and Administration took the main

role in this process, organizing the "Operation Disassemble", responsible for extinguish ministries, local governments, and federal institutions.

At the same time, controversially with the discussions that occurred in EMBRATER and the MIRAD, but in accordance with the new government guidelines, the Agricultural Goals Plan from 1986 aimed to achieve national crop records, improving the vertical technology, according to the diffusionist model. To achieve them, the management board of MIRAD, Ministry of Agriculture and its respective offices, were replaced.

Once again, the fusion of EMBRATER and EMBRAPA was proposed by the "Operation Disassemble" team. At this time, it was the FASER that created a movement called "S.O.S. Rural Extension" during the I Congress of National Rural Extension and Public Sector Workers in 1987, where they have united forces with the EMBRATER Servers Association (ASBRAER by its acronym in Portuguese), the State Agricultural Engineers Associations (AEAs by its acronym in Portuguese), the Brazilian Association of Agricultural Engineering (CONFAEAB by its acronym in Portuguese), the Federal Council of Engineering, Architecture and Agronomy (CREAA by its acronym in Portuguese), and the organizations related to rural workers, as the CONTAG, and including employers' organizations as the National Confederation of Agriculture (CNA by its acronym in Portuguese) and the Organization of Brazilian Cooperatives (OCB by its acronym in Portuguese). Hence, the EMBRATER kept its structure in the following years.

However, the budget plan from 1989 sent to the Congress by the Executive Branch, did not predicted funds to several offices and public institutions, including EMBRATER, claiming the reduction of federal sources predicted by the new Constitution. This decision represented the embodiment of "Operation Disassemble".

In this context, EMBRATER and FASER board of directors articulated support to several congressmen to avoid the EMBRATER's extinction. Therefore, 445 amendments were included in the budget plan to guarantee the maintenance of funds to EMBRATER and EMATERs. Though, the president vetoed the budget approved by the Congress, and in 1989, announced a new set of policies with the "Summer Plan", that once again embraced the institutional reforms as a governmental goal.

Among the presidential decrees signed in January 1989, the decree N° 97.455 extinguished EMBRATER. Months later, according to the Law N° 7.739 from March 1989, the

Ministry of Agriculture incorporated MIRAD's attributions, that had been extinguished as an interim measure two months before (PEIXOTO, 2008).

To defend EMBRATER, CONTAG and FASER worked together again and promoted the "March on Brasília", where thousands of extensionists and small farmers participated (PETTAN, 2010). Moreover, FASER and other organizations of servers directly affected by the extinguished of public institutions started a national campaign against the measure, which gained support from the National Congress. As a result of the organized Civil Society, a Legislative Decree project was approved in July of the same year, halting the effects of the Presidential Decree that extinguished EMBRAPA. The company was then restored, under the coordination of the Ministry of Agriculture.

When president Fernando Collor took office in 1990, he announced the "Brazilian New Plan", or "Collor's Plan I", that included among its goals the retreat of the State from the private sector, the extinction of public services that were considered costly and not essential, and the end of customs protectionism. Therefore, from this moment, the State became a manager, instead of an executor, of the national development. The main arguments for the adoption of those measures was the fiscal responsibility necessary to control public spending, decrease in the price of national products due to competition with imported goods, the commitment to pay the external debt, and the need to accelerate the capitalism through investment and allocation of foreign capital in the country.

Once again, EMBRATER and other State-owned companies were extinguished by decree, and then without the support of the National Congress, the organized Civil Society could not reverse the situation. The government created the Ministry of Agriculture and Agrarian Reform (MARA by its acronym in Portuguese) that substituted the MIRAD, and the Law nº 8028 from April 1990 determined that the ATER activities should be executed by the new ministry, without specifying by which department or how activities would be managed.

Finally, in October 1990, a new decree transferred the patrimony and technical-collection of the extinct EMBRATER to the National Secretariat for Agrarian Reform, and the coordination of SIBRATER to EMBRAPA. One year later, all the EMBRATER patrimony, credits and litigations were transferred to the Union. At that time, ATER services were delimited by INCRA (PEIXOTO, 2008), which acted only in Agrarian Reform areas.

In the context of this new institutional arrangement, the Agricultural Law from 1991 only generically envisaged the services of ATER, without assigning the execution

responsibility to the federal, state or local government (PEIXOTO, 2008). Regarding EMBRAPA, its president created a team from the Department of Technology Transfer, aiming to consolidate a strategy to coordinate SIBRATER. Hence, the Secretariat for Technical Assistance and Rural Extension (SER by its acronym in Portuguese) was created, which traced the “Strategic Action Plan – 1991/1995”.

Despite de efforts, the EMBRAPA had no savoir-faire, resources or staff enough necessary to execute its new responsibility. Moreover, since its creation, EMBRAPA always had as its main competence the agricultural research aiming the vertical transference of technological packages produced in its unities, and its dialogue with the extinct EMBRATER was limited to this role. The EMBRAPA also stayed distant from the dialogue with the Civil Society during the years 1983 and 1989, when the relationship between production and participative knowledge, ATER, structural reforms and the role of the family farming in the rural development were profoundly discussed.

Besides the extinction of EMBRATER, the transference of federal funds to ATER state offices also ceased, resulting in the extinction or fusions of these offices in several states, and where they were able to be maintained, the services were scrapped. Their directors created in 1990 the Brazilian Association of public entities of Technical Assistance and Rural Extension (ASBRAER by its acronym in Portuguese), aiming to maintain the articulation among the entities. But since there were restrictions to SIBRATER coordination within EMBRAPA, and the funds were almost inexistent, the dismemberment of the ATER system was inevitable.

SIBRATER was again transferred during Itamar Franco’s term. A decree from 1992 transferred the services of ATER to MARA, however, without specifying the organ responsible for it. Next, in October, the ministry is transformed in the Ministry of Agriculture, Supply and Agrarian Reform (MAARA by its acronym in Portuguese). Only in 1993 that Secretariat for Rural Development is created, and then the secretary of SIBRATER is transferred to this new secretariat, separating it from EMBRAPA. Lastly, the Technical Assistance and Rural Extension Department (DATER by its acronym in Portuguese) was created and included in the structure of the reformed MAARA, which became responsible for the services.

A federal organ as a ministry department usually has autonomy, authority and hierarchical superiority when compared with ministry secretaries (or in the case of EMBRAPA, a public company secretariat), but the DATER activities were maintained restricted due to few funds and low prestige of ATER with the MAARA managers (PEIXOTO, 2008).

Even though the SIBRATER was officially maintained in the government, the 1990s was marked by the intense mobilization of the Tertiary Sector provider of ATER's services Brazil, once the State recognized that it was responsibility of private initiative to maintain the non-essential services. Therefore, the federal public services of ATER were, in practice, extinguished with the EMBRATER dismantle.

In this context, NGOs, trade unions, and farmer organizations (cooperatives and associations) started to lead regional experiences of ATER. At the same time, commercial companies of agricultural inputs and machinery also took this role, sending their technicians to rural properties and giving technical assistance recommending their own products.

The neoliberal policies reached their peak in the country in 1994, when the president Fernando Henrique Cardoso (from the Brazilian Social Democratic Party – PSDB) took office. Besides the extinction of State-owned companies made by previous governments, several public companies that generated public spending were privatized, including energetic sector and basic national industries. Politicians that did not agree with neoliberalism had few positions in the Executive Branch, forming a minority in the National Congress.

Regarding the rural development, the Civil Society was articulating as an alternative proposal. Since there was little support from the government, parallel forums, campaigns, meetings, occupations, marches were organized; and scientific and journalism production aimed at valorize and recognize the rural family as a specific category to be included in the government policies. These groups kept supporting the Agrarian Reform, capable of decentralize the income and land property; as well as the establishment of an ATER aimed at family farmers. In this process, it is important to recognize the efforts of the farmers themselves, as the CONTAG and MST, working together with extensionist organizations, as the FASER and ASBRAER, but also organizations involved in environmental movements, intellectuals and student movements.

Since the beginning of the 1990s, agroecological principles were disseminated in important rural extension NGOs, resulting in the projection of Agroecology as social movement, supported by the base movements of the Brazilian Alternative Agriculture (LUZZI, 2007; BRANDEBURG, 2002). In this process we can highlight the Alternative Technologies Project and Federation of Organizations for Social and Educational Assistance (PTA/FASE by their acronyms in Portuguese), the Organic Agriculture Association (AAO by its acronym in Portuguese), and the Biological Farmers Association of the State of Rio de Janeiro (ABIO by



its acronym in Portuguese). These organizations adopted agroecological principles and methodologies at the end of 1980s, focusing on stimulate local markets, valorization of traditional knowledge and technologies, strategies of food sovereignty, preservation of native seeds, and other issues (LUZZI, 2007).

Regarding the fighting for Agrarian Reform, the MST organized several occupations on large rural properties and public buildings in the first years of Cardoso's government, being violently repressed by police forces and armed groups funded by those that had their properties occupied. Two massacres had national and international impact, the one that happened in the municipality of Corumbiara (state of Rondônia) in 1995, and the one in Eldorado dos Carajás (state of Pará) in 1996. Given the increasing pressure of the social movements, the government began to open formal spaces for dialogue. Then, the Office of the Extraordinary Minister on Land Policies was created in 1996, responsible for dialogue with those involved in the Agrarian Reform and family farming.

In the same period, the National Program for Strengthening Family Farming (PRONAF by its acronym in Portuguese) was established in 1996, an import mark for the governmental programs. According to a PRONAF's law from 1996, the category of family farmer was conditioned by 80% of the income derived from family unit and labor mainly familiar. Moreover, financing were aimed at production of traditional food for internal supply.

According to Peixoto (2008), these new conditions started to compete with State-owner public companies of ATER, NGOs and family farming organizations for PRONAF financing. The debate about the proposal of a public and universal ATER that could handle these challenges was raised during the "National Seminar of Technical Assistance and Rural Extension – A new extension for family farming", that occurred in 1997 at the federal capital, organized by the FASER, CONTAG and ASBRAER, with the support of the Federal Government. In this event, the principles and guidelines for a public ATER were discussed, involving critical humanism and agroecological movement, as the proposals for its operation. In the three subsequent months, more seminars about the theme were organized in several states, where about 5 thousand participants were present, including mainly extensionists, family farmers, unionists and researchers.

In November of the same year, the "Workshop for a new Technical Assistance and Rural Extension for Family Farming" was organized by FASER, CONTAG, ASBRAER, MAA and the United Nations Development Program (UNPD). In this event, a new ATER model



exclusively aimed at family farming was proposed, with no costs for its beneficiaries and funded by public sources, but also NGOs, farmer associations and cooperatives, public companies and other entities could provide service. Moreover, its principles encompassed pluralism in the service provision, so that singularities of traditional communities, as the indigenous groups and black rural communities, could be included and respected (WORKSHOP, 1997).

The operation of this new ATER national system was based in network organization and social control management, through the participation of its beneficiaries and representatives in the service evaluation and proposals, as well as service providers. Additionally, the sustainable development was included as a work's guiding, based on Agroecological principles.

Agroecology it's based on the horizontal construction of knowledge, recognizes practices from traditional communities, promotes a biodiverse model of productivity and addresses gender, youth and field education questions. However, the agroecological focus was considered especially expensive for family farmers because it supports a production free of transgenic plants and pesticides

The proposal designed at the Workshop took years to concretize, however, its activities were fundamental to mobilize an extensive network actuating with rural extension around the country. According to Peixoto (2008), the greater resistance was from technicians from public companies that kept their services focused on agricultural modernization.

Peixoto (2008) also highlighted that in 1997 occurred the first experience of outsourcing the ATER services by the government, thought the Lumiar project coordinated by INCRA, and therefore, aimed at Agrarian Reform settlements. The project served more than one thousand families, but it was cancelled by the government in 2000.

In 1998, Cardoso was reelected, but this time the National Congress was less conservative and had enough strength allied to left-wing politics to press the Executive and approve budgets for innovative policies. Social movements linked to ATER network continued. Therefore, after a series of interim measures from the end of 1999 until January 2000, the Ministry of Agrarian Development (MDA by its acronym in Portuguese) was created, which decisively substituted the Office of the Extraordinary Minister on Land Policies. Inside MDA's structure, the National Council for Rural Sustainable Development (CNDRS by its acronym in Portuguese) had representatives from public servers and civil society, and one of its fifteen positions was guaranteed to ASBRAER.

Besides the CNDRS, the Secretariat for Agrarian Reform and the Family Farming Secretariat (SAF by its acronym in Portuguese) were also created, responsible for credit, research, assistance and extension policies in the settlements, and the family farming, respectively. However, the SIBRATER continued subordinated to the MAA. In 2000, the Secretariat for Rural Development from the MAA, and DATER were extinguished, while the Rural Support and Cooperatives Secretariat (SARC by its acronym in Portuguese) was created, where the Infrastructure and Rural Extension Department (DIER by its acronym in Portuguese) was established, responsible for coordinate the system. In 2001, the MAA was transformed in Ministry of Agriculture, Livestock and Food Supply (MAPA by its acronym in Portuguese). After this reconfiguration, ATER policies were under the responsibility of MAPA (through DIER) and MDA (through SAF). In the latter, however, the beneficiary public was specific: family farming.

The 2002s elections took an important turn for the policies based on Civil Society participation. The victory of Luis Inácio Lula da Silva, from the Labour Party (PT), marked the first left-wing government since the restoration of direct election, in 1989. Since then, family farmers became beneficiaries of important public policies.

In this new institutional context, on 13<sup>th</sup> June 2003, the decree n<sup>o</sup> 4.739 transferred the execution of ATER public services from DIER/MAPA to MDA, and consequently, the coordination of SIBRATER. Months later, the decree n<sup>o</sup> 4.854 from 8<sup>th</sup> October 2003 created the National Council for Rural Development, Agrarian Reform and Family Farming (CONDRAF by its acronym in Portuguese). This organ was composed by representatives from the organized Civil Society and the Executive Branch. The CONDRAF, subordinated to MDA's coordination, had the responsibility to propose guidelines to formulate, implement, and evaluate ATER public policies involving social participation (MDA/SAF/DATER, 2004).

Since then, with the governmental support, a series of seminars were organized in partnership with representatives from non-governmental entities, state institutions, family farmer's organizations and social movements, in order to consolidate public policies that privilege Family Farming, besides the PRONAF. During these meetings, strategies to guarantee that the public ATER embraces the whole diversity of Family Farming around the country were discussed, focusing on action of gender, ethnicity, youth, education and Agroecology policies.

In May 2004, the Federal Government launched the National Policy of Technical Assistance and Rural Extension (PNATER by its acronym in Portuguese) as a result of those

meetings with the Civil Society. Its document presented the guidelines and principles of the ATER in the country, including methodologies and principles proposed by Agroecology; the determination of its priority beneficiaries, as the family farmers; and the characterization of the service that would be offered as free and universal (BRASIL, 2004).

Also in 2004, the decree n° 5.033 from 5<sup>th</sup> April, approved the Regiment structure of the MDA, and the DATER became subordinated to SAF. The recently created DATER was responsible to elaborate, in partnership with the Civil Society, a governmental program to execute the proposals from the PNATER. At the same time, the INCRA created the program Service for Technical, Social and Environmental Assistance to the Agrarian Reform (ATES by its acronym in Portuguese), which again allowed the ATER services outsourcing in Agrarian Reform settlements. When the DIER was transformed in Department of Infrastructure and Logistics in 2005, it was not clear which organ would be responsible for the ATER services (PEIXOTO, 2008).

In 2005, the government launched the National Program for Technical Assistance and Rural Extension in Family Farming and Agrarian Reform (PRONATER by its acronym in Portuguese), establishing goals and specific actions to stimulate public ATER programs, training family farmers, developing sectorial ATER (working with indigenous communities, black rural communities, riverside communities, fisheries, extractivism, young and female rural workers), and improving and extending the ATER services in the country (MDA/SAF/DATER, 2004).

Besides the ATER policies aimed at executers and beneficiaries, the PRONATER also had partnership with the National Council for Scientific and Technological Development (CNPq by its acronym in Portuguese), to send resources to educational and research institutions, aiming to increase the number of technicians and the development of technologies to serve Family Farming.

In 2006, through the Ministry Order n° 25, the Federal Government formalized the decentralized operation of the Brazilian System for Technical Assistance and Rural Extension (SIBRATER by its acronym in Portuguese). The MDA, in partnership with other Ministries, Special Secretaries, INCRA and/or public companies, was the official federal organ responsible to send funds to the ATER organizations in the country (BRASIL, 2010).

The new SIBRATER conceptions were in accordance with the 1997's Workshop proposal, highlighting the establishment of a network articulation, through public or private

ATER organizations and social movements, as well as a territorial working methodology, instead of official regional and state divisions. Moreover, the control of ATER services privileged the participation of communities to be benefited by PRONATER in the control and evaluation of executed work.

In the following years, the present authors identified a series of barriers to the successful execution of PNATER guidelines and PRONATER goals, including the required bureaucracy to the entities eligibility to ATER bids, especially for NGOs and family farmers' associations and cooperatives, due to difficulties in accountability and payment for professionals.

So far, ATER services were covered by the Law N° 8.666 from 21<sup>st</sup> June 1993, known as the "Bids Law", which does not allow advance payment of services and requires payment receipts for further payment. These conditions reduced the possibility of small entities without capital to extend their operation, and/or harmed the working dynamics and quality in contracts with the public administration. Moreover, ATER organizations tend to be characterized by few employees, so the working dynamics imposed by the Public Administration overloaded the field workers, compromising the service's quality and continuity.

Finally, the Law N° 12.188 or the "ATER Law" was approved by the National Congress and sanctioned by the President in 2010. Although it was criticized by many authors, for example Diniz et al. (2011) and Caporal (2011), its publication represented an important political progress regarding the consolidation of a public ATER model aimed at family farming, as well as some independence considering the governmental alternation. The new version of PNATER pointed out the following action guidelines: the National Seed Program, ATER service execution, training of ATER agents and funds to Technological Innovation for family farming (BRASIL, 2010).

The ATER Law also modified the Bids Law, since bids were no longer necessary to hire public or private, profit or non-profit institutions or organizations to execute ATER services. The services were then contracted by Calls for Proposals, where it was possible to pay the entities after the presentation of an Execution Report, and auditing was made based on certificates.

Despite the increase of federal resources to finance services, it is important to highlight that the ATER Law did not solve all the difficulties faced by ATER organizations. It is still a problem for small private ATER entities the execution of initial activities in their projects. This

is because the contracts with public administration do not allow advance payment for hiring professionals, but only a call rate to afford materials, equipment and activity costing.

Furthermore, ATER public companies remained dependent from the state governments for staff payment, and in some states, also from the local governments for physical allocation of its entities; while most of its activities were financed by Calls for Proposals. In this context, the competition among the tertiary sector entities and public companies has been a problem to SIBRATER's articulation.

It has also been noticed the appearance of some associations that operate as business companies, which have been consuming a considerable amount of federal resources aimed at ATER. These organizations do not have the historical commitment with the ATER programs guidelines, being similar to labor outsourcing companies.

The ATER Law envisages state and national conferences with representatives of its beneficiary public, social movements and ATER entities, in order to execute the PNATER through the PRONATER. The National Conference for Technical Assistance and Rural Extension (CNATER by its acronym in Portuguese) should occur every four years, and based on PRONATER goals, the MDA sends the budget plan to be included in the Pluriannual Plan (PPA by its acronym in Portuguese), which could be modified by the National Congress or even vetoed by the president. The first and most recent CNATER occurred in 2012, when it was discussed the need to reestablish a national organ for ATER.

## 2.5 The creation of ANATER

As discussed at the first CNATER, one of the advantages of creating an institution responsible for coordinate and execute ATER policies in a national level, is the possibility of more funds and labor for service execution. Therefore, in 2012, a commission from the MDA was formed to discuss a proposal to be forwarded to the National Congress, in order to establish a federal organ responsible by the ATER's executive coordination and financial activities in the country. At these commission meetings attended public managers, FASER, ASBRAER, The National Federation of Men and Women Family Farming Workers (FETRAF by its acronym in Portuguese), CONTAG, and academic researchers interested in rural extension.

At the same time, another team coordinated by MAPA, in which participated managers from EMBRAPA, the National Agricultural Research System (CONEPA by its acronym in Portuguese) and the CNA, also started to elaborate a proposal to create a national organ for

ATER. Since its presentation to the MDA, an intense dialogue was established among the SAF, DATER and the EMBRAPA's Department of Technology Transference (DTT by its acronym in Portuguese). After negotiations, it was decided the creation of an Autonomous Social Service, called National Agency for Technical Assistance and Rural Extension (ANATER by its acronym in Portuguese). Therefore, the law project N° 5740/2013, that regulates the ANATER creation was signed by the President at the launch of the "Crop Plan" for family farming, on 6<sup>th</sup> June 2013, and sent to the National Congress on 10<sup>th</sup> June.

In the original document, three management organs were proposed: the Executive Board, Administration Council and Supervisory Board. The Administration Council should be composed by the ANATER's president, which would be indicated by the President of the Republic, EMBRAPA's president, five representatives from the Executive Branch, and four from private entities. Also, one of the Executive Board members should mandatorily be the Executive-Director from EMBRAPA, which should act in the field of technology transference.

It was clear that the law project predicted the coordination of ANATER to EMBRAPA, which would have positions at the Administration Council and Executive Board, specifically to execute technology transference activities. However, there was no mention of Agroecology in the proposal. In response, the agro-ecological movement elaborated a letter of rejection to ANATER's creation during the III International Meeting of Agroecology, which occurred in August 2013 (ENCONTRO INTERNACIONAL DE AGROECOLOGIA, 2013).

On this letter, participants from the meeting disagreed with the management model proposed, since "most of the technological collection developed by the National Service of Agricultural Research (SNPA by its acronym in Portuguese) was not aimed for family farming and traditional communities, inducing them to strong dependence on the Agro-Industrial system". In addition, for them "the agroecological perspective is not consistent with the intention of universal dissemination of technologies developed inside controlled research centers". In contrast, they were claiming that instead of the diffusionist model, the ATER system should keep the "approaches to knowledge construction based mainly on rural communities in partnership with extensionists and researchers".

Besides these critics, some of the polemic issues about the law project that was being considered in the National Congress at that moment, were the priority public to ATER services hiring, which will not be exclusively intended to family farmers; the coordination structure of the Online System of Technical Assistance and Rural Extension (SIATER by its acronym in

Portuguese), where the presence of representatives from the Civil Society involved with family farming was not guaranteed; and the extensionists training that would be responsibility of DTT.

One of the main concerns of social movements and the ATER network was the warranty that the ATER services would be exclusive for family farming, and the maintenance of the critical humanism principles, which has been orientating the rural extension in Brazil since the first version of PNATER.

FASER's actuation with the Parliamentary was fundamental when the law project was being considered, so that the documented could be modified in these critical points. Therefore, during this process, 41 amendments were presented by the House of Representatives for the Law Project 5740/2013, and one by the Federal Senate, resulting in the version approved by the Congress in December 2013, originating the Law N° 12.897 (BRASIL, 2013).

FASER's negotiations supported a broader coordination structure of the Administration Council, determining that it should be composed by the ANATER's president, EMBRAPA's president, four representatives from the Executive Branch, one from state governments and four from rural workers entities (one from CONTAG, one from FETRAF, one from CNA, and one from OCB). Therefore, two representatives from rural workers entities and two from employer class entities.

Nevertheless, despite the organizational structure envisages an ATER Management, responsible for Monitoring and Evaluation of ATER services and Funding Management for Technical Assistance, it became EMBRAPA's responsibility, through its DTT, in partnership with ANATER, to integrate the agricultural research system and the ATER system, to generate technologies and validate its transference methods, and training of multiplication agents. Moreover, medium rural producers were included.

In this respect, the ANATER creation withdraws part of the MDA responsibility to train ATER professionals in the country, which has been done through Calls for Proposals in partnership with the CNPq, designed through the dialogue with this organ, the agroecological movement, the rural social movements and the ATER network during the 1990s and 2000s.

## 2.6 Final considerations

According to the review presented here, it is possible to assert that activities related to research, teaching, technical assistance and extension to the rural sector were marked by state efforts to attend the needs of the national agrarian elites, through the alternation of the

governmental managements in Development Programs, aiming to deliberately concentrate land and income in the Brazilian rural sector. It is important to highlight in this process the role of MAPA, which promoted and consolidated a model of conventional agricultural modernization, based on Agro-export and specialized production; offering credit policies, technical assistance, production and transference of technologies which historically privileged a minority of highly capitalized producers and owners of large properties.

On the other hand, the MDA was created in the mid-1990s under a strong political pressure by rural social movements and Civil Society organizations, which were demanding a profound and effective Agrarian Reform, credit policies, and research and extension aimed at family farming. In this respect, it represented a project for rural development different from what have been historically presented by the Ministries of Agriculture.

However, it was only since 2003, during the Labor Party's government, that the MDA had human resources and materials to act, establishing and expanding forums and communication channels for social participation, where its policies were conceived, planned and operated. Since then, these efforts were materialized in the versions of PNATER, PRONATER and the decentralized management model of the current SIBRATER, that despite the critics and limitations, had strengthened a national ATER network acting in partnership with social movements, ATER public entities, NGOs, family farmers associations and cooperatives and Universities.

The proposal to create a new ATER federal organ emerged from the national ATER network's evaluation, after the first CNATER in 2012. Originally, it focused on strengthen and stimulate the SIBRATER, creating an organ that would dialogue instead of competence distribution or profound restructuration, as in the model proposed by ANATER.

The ANATER management and its implementation present many concerns to the ATER network, social movements and the agroecological movement which compose the SIBRATER. Among these, the main ones are concerning the inclusion of medium producers in the beneficiary public and the centralization assigned to the EMBRAPA's Department of Technology Transference for the integration between research, extension and multipliers training.

### **3. CHAPTER 2 – The operationalization of the National Policy of Technical Assistance and Rural Extension in Brazil**

#### **3.1 Introduction**

When President Lula took office in January 2013, family farmers became important beneficiaries of public policies, among which we will focus on those related to ATER.

Regarding this new institutional context, on 13<sup>th</sup> June 2003, the decree N° 4.739 transferred the responsibility to execute ATER services from MAPA to the MDA. Months later, the decree N° 4.854 from 8<sup>th</sup> October 2003 incorporated the term “family farming” into the National Council for Sustainable Rural Development, which became the National Council for Sustainable Rural Development, Agrarian Reform and Family Farming (CONDRAF by its acronym in Portuguese). Then, this public organ gained discretionary power and was composed by representatives from the organized Civil Society and the Executive Branch.

#### **3.2 The National Council for Sustainable Rural Development, Agrarian Reform and Family Farming**

The CONDRAF has partnership with the MDA. The Council is responsible, in a participative way, for planning, executing and monitoring the policies under the MDA’s responsibility related to sustainable rural development, Agrarian Reform, eradicating hunger, sovereignty, and food security. Therefore, its guideline is to elaborate the policies based on administrative division called territories, which prioritize socio-economic and cultural relationships in rural and urban areas (MDA, 2004).

Among its guiding principles, we can highlight the reduction of social and cultural inequality, diversification of farmers’ economic activities, and poverty overcoming in the Brazilian society.

Aiming to achieve these objectives, the CONDRAF should encourage and guarantee the social participation in its own decisions, not just based on the entities represented in its structure, but also through municipal and state Councils for Sustainable Rural Development and Family Farming (CEDRS and CMDRS, respectively) or similar, which have representatives from rural communities, rural social movements, black rural and indigenous communities, women groups, public power and ATER entities.

The CONDRAF is also responsible for organizing forums and studies, in partnership with public or private organizations, to evaluate the effective results from the MDA's programs, elaborating goals, procedures and indicators related to the activities developed by the projects hired by the organ (MDA, 2004).

In the functional and deliberation structure of CONDRAF there is the Plenary, Secretary, Committees and Technical Groups. The technical groups, which are temporary, are responsible for elaborating policy proposals for Rural Development based on specific subjects, and sent them to the Plenary. The committees, which are permanent, should manage and evaluate policies that are being applied, as well as deliberate and propose improvements for the policies. The committees are five: a) Agricultural Land Trust and Agrarian Reordering; b) Gender, Race and Ethnic Equality; c) Territorial Development; d) Technical Assistance and Rural Extension; and f) Agroecology (MDA, 2015).

### 3.3 The National Policy of Technical Assistance and Rural Extension (PNATER)

Regarding ATER policies, a series of seminars supported by the government were organized in 2003 with representatives from NGOs, governmental public institutions, family farmer's organizations and social movements, in order to consolidate public policies to favor Family Farming, besides the existing PRONAF. At these meetings, strategies to ensure that ATER's public would cover the whole diversity of Family Farming in the country were discussed, with action lines in gender, ethnic, youth, education, and Agroecological policies.

In May 2004, the Federal Government launched the PNATER as a result of these forums with the organized Civil Society. At its document, the guidelines and principles of the ATER in the country were listed, the definition of its priority public as family farmers, and the service characterization as free and universal (MDA, 2004).

Also in 2004, the decree N° 5.033 from 5<sup>th</sup> April approved the Regiment structure of the MDA and also instituted DATER, subordinated to SAF. The recently created DATER was responsible to elaborate, in partnership with the Civil Society, a governmental program to execute the proposals of PNATER. Hence, the coordination of the National Committee for ATER from CONDRAF became responsibility of DATER, which should plan, execute and evaluate the actions planned by PNATER and PRONATER goals.

Then in 2005, the PRONATER was created, establishing goals and specific actions to encourage state programs of ATER, family farmers qualification, staff training for Sectorial

ATER (work with indigenous and black rural communities, riverside communities, fisheries, extractivism, young and female rural workers) and qualification and improve of ATER services in the country (MDA, 2005).

Besides the ATER policies aimed at executers and direct beneficiaries, the PRONATER also has funds to establish partnership with CNPq, oriented towards educational and research institutes, aiming to increase technicians' training and technology development for Family Farming.

### 3.4 The Brazilian System for Technical Assistance and Rural Extension

The Ministry Order N° 25 from 2006, formalized the decentralized operation of the Brazilian System for Technical Assistance and Rural Extension (SIBRATER by its acronym in Portuguese). The MDA, in partnership with other Ministries, Special Secretaries, INCRA and/or public companies, was the official federal organ responsible to send funds to ATER organizations in the country (MDA, 2008).

Among the main innovations of the new ATER System, we can highlight the establishment of a network articulation, through public or private ATER organizations and social movement representatives, as well as a territorial working methodology, instead of official regional and state divisions. Moreover, the control of ATER services favored the participation of communities to be benefited by PRONATER in the control and evaluation of executed work.

In the following years, the present authors identified a series of barriers to the successful execution of PNATER guidelines and PRONATER goals, including the required bureaucracy to the entities eligibility to ATER bids, especially for NGOs and family farmers' associations and cooperatives, due to difficulties in accountability and payment for professionals.

So far, ATER services were covered by the Law N° 8.666 from 21<sup>st</sup> June 1993, also known as the "Bids Law", which does not allow advance payment of services and requires payment receipts for further payment. These conditions reduced the possibility of small entities without working capital to extend their operation, and/or harmed the working dynamics and quality in contracts with the public administration. Moreover, ATER organizations tend to be characterized by few employees, so the working dynamics imposed by the Public Administration overloaded the field workers, compromising the service's quality and continuity.

Finally, the Law N° 12.188 or the “ATER Law” was approved by the National Congress and sanctioned by the President in 2010. Its publication represented an important political progress regarding the consolidation of a public ATER model aimed at family farming, as well as some independence considering the governmental alternation. The new version of PNATER pointed out the following action guidelines: the National Seed Program, ATER service execution, training of ATER agents and funds to Technological Innovation for Family Farming (BRASIL, 2010).

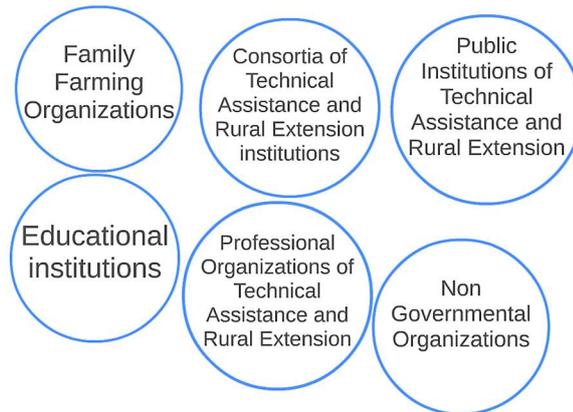
The ATER Law also modified the Bids Law, since bids were no longer necessary to hire public or private, profit or non-profit institutions or organizations to execute ATER services. The services were then contracted by Calls for Proposals, where it was possible to pay the entities after the presentation of an Execution Report, and auditing was made based on certificates.

Once the bids were no longer necessary since 2010, the habilitation of ATER entities to submit proposals to Calls for Proposals was then dependent on a simplified procedure called Accreditation. Accredited entities should be public or private, profit or non-profit ATER organizations or companies. For them, it is necessary “to contemplate in their social object the execution of technical assistance and rural extension services; be legally founded for more than 5 years; to possess acting base in the state that requires accreditation; to have a multidisciplinary technical staff capable of executing the required activities; and to have competent professional accredited in their own professional entities, when necessary” (BRASIL, 2010). Figure 1 shows the different types of institutions that can execute ATER services.

The accreditation should be done by the State Councils for Sustainable Rural Development (CEDRS by its acronym in Portuguese), or similar partner collegiate committed to implement PRONATER in the state. Once the application is approved, the entity is included at the SIATER. If such councils are not established in the state, then the documentation should be directly forwarded to the MDA. Currently, 741 ATER entities are accredited at the SIATER.

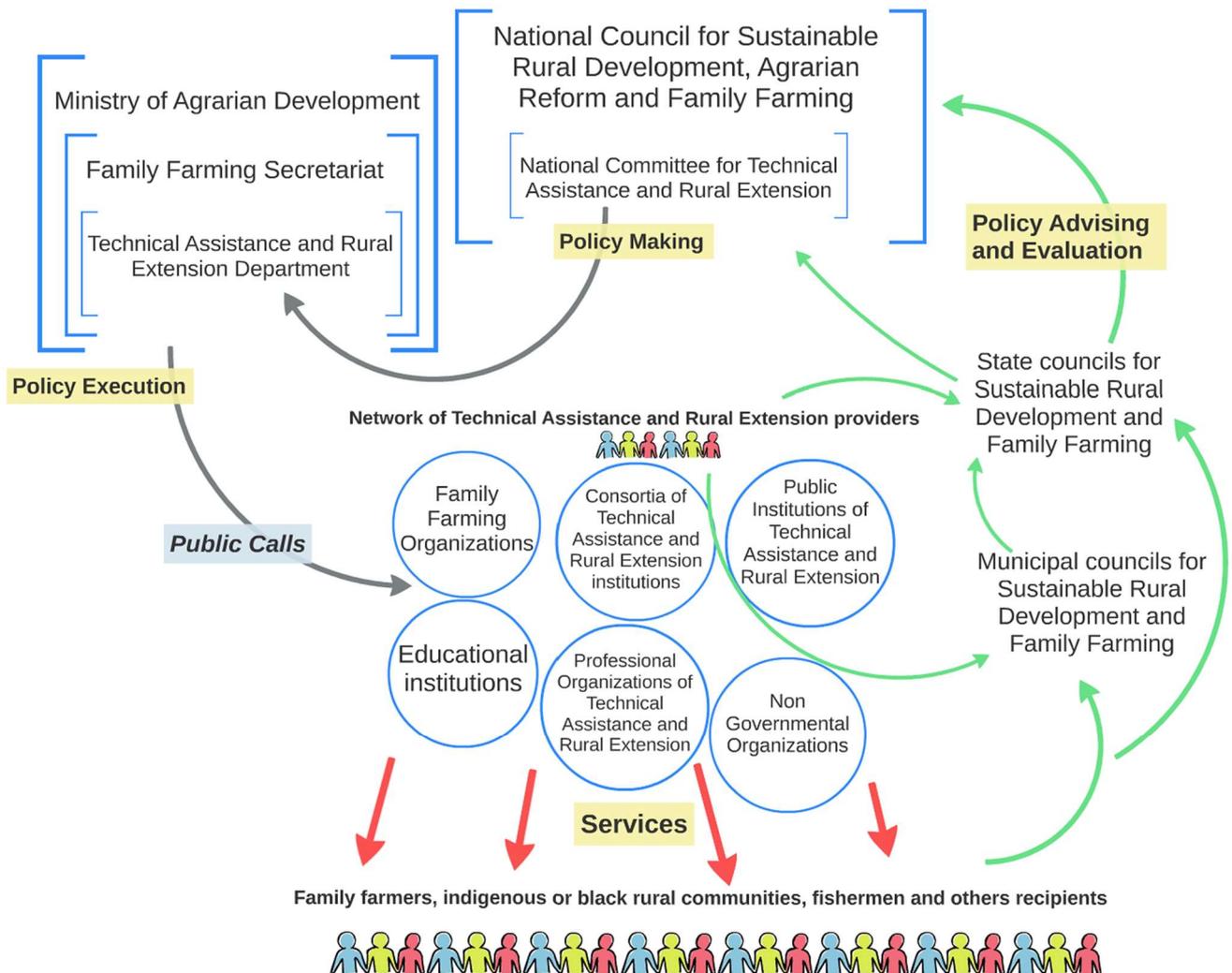
The SIBRATER management is under the responsibility of CONDRAF’s ATER Committee. Its operationalization is dependent on a national ATER network and also representativity of rural workers in local and state Councils for Sustainable Rural Development. Figure 1 and 2 show the management proposal for the Brazilian Decentralized System of ATER (SIBRATER by its acronym in Portuguese) through Calls for Proposals

Figure 1 – The Brazilian Network of Technical Assistance and Rural Extension providers



Source: Adapted by the authors from the MDA (2015)

Figure 2 - The Brazilian Decentralized System of ATER



Source: Adapted by the authors from the MDA (2015)

As we can observe, local and state councils are essential for the SIBRATER's effective operationalization, because these meetings are more frequent and easier to organize, since only four ordinary CONDRAF's meetings occur every year. Moreover, the continuous evaluation of SIBRATER's entities and organizations is essential for the effectiveness of the proposed model. In this context, the ATER Law from 2010 also envisaged state and national conferences with representatives of its beneficiary public, social movements and ATER entities, in order to execute the PNATER through the PRONATER. The National Conference for Technical Assistance and Rural Extension (CNATER by its acronym in Portuguese) should occur every four years. It establishes the PRONATER goals and based on it the MDA sends the budget plan to be included in the Pluriannual Plan (PPA by its acronym in Portuguese). The PPA, however, can be modified by the National Congress or even vetoed by the president.

The first CNATER occurred in 2012. At this first meeting, the main request was the need to create a national ATER organ, which resulted in the ANATER creation in 2013. The ANATER is still in implementation in 2016.

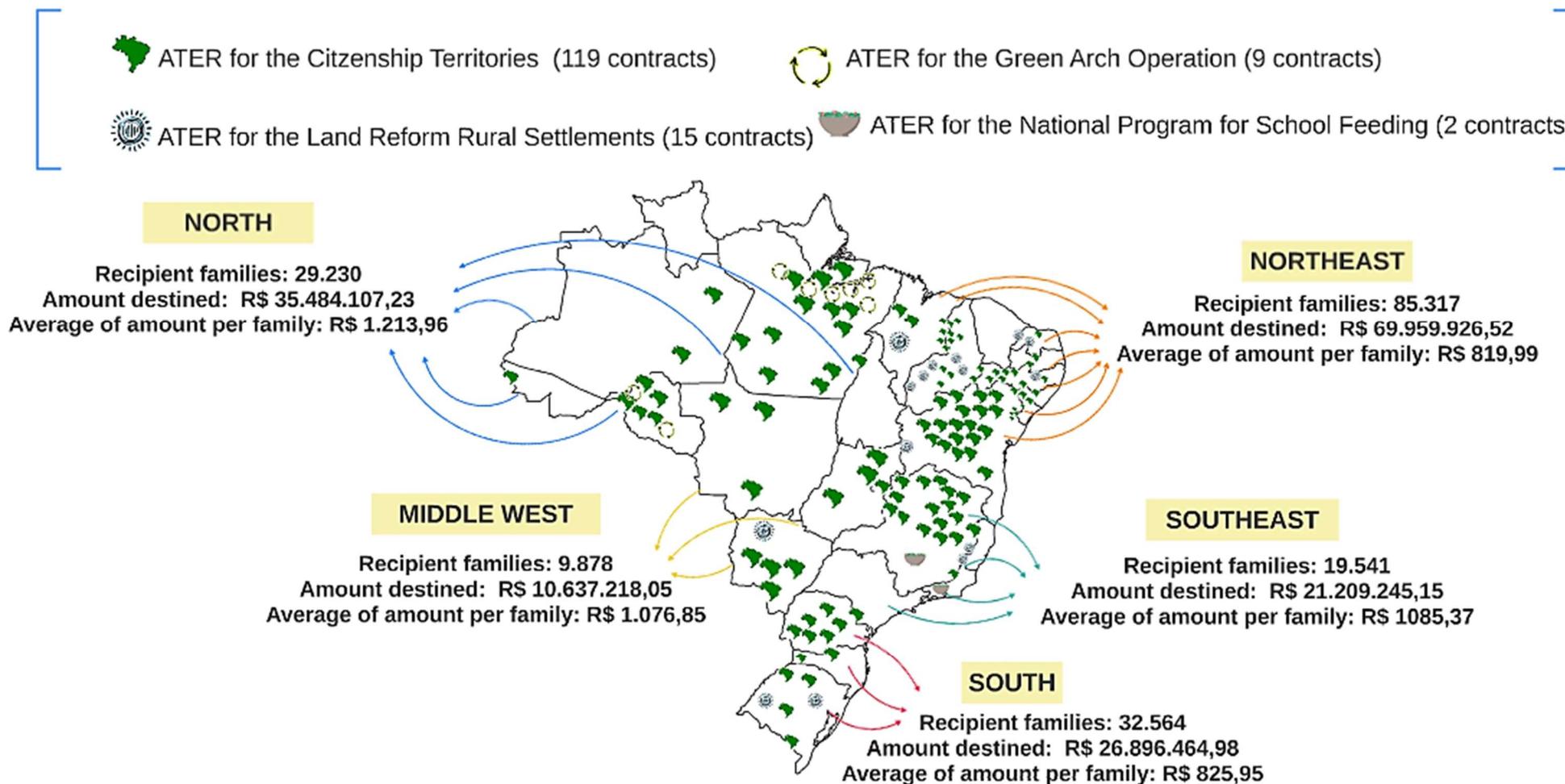
Local and state meetings for the 2<sup>nd</sup> National Conference of ATER occurred in the first months of 2016. The 2<sup>nd</sup> National Conference was held at the end of May 2016. Among its main debates, it's important to highlight the evaluation of the ATER system, that is still pointed out as not sufficiently dynamic. Therefore, as in 2012, the proposals that have been presented mainly suggest how to effectively guarantee the participation of local communities in municipal and state councils of Sustainable Rural Development. As well, the participants emphasized the need of improvement on extensionists' working conditions.

### 3.5 The ATER's Calls for Proposals

The ATER's Calls for Proposals should be very specific about the topic of the provided service, definition of the activities that should be executed, location, beneficiary public, and fixed price. To select the execution proposals presented by the entities, the MDA or INCRA staff should evaluate the proposed projects based on the following criteria: a) Entity experience; b) Technical proposal; c) Project's technical staff.

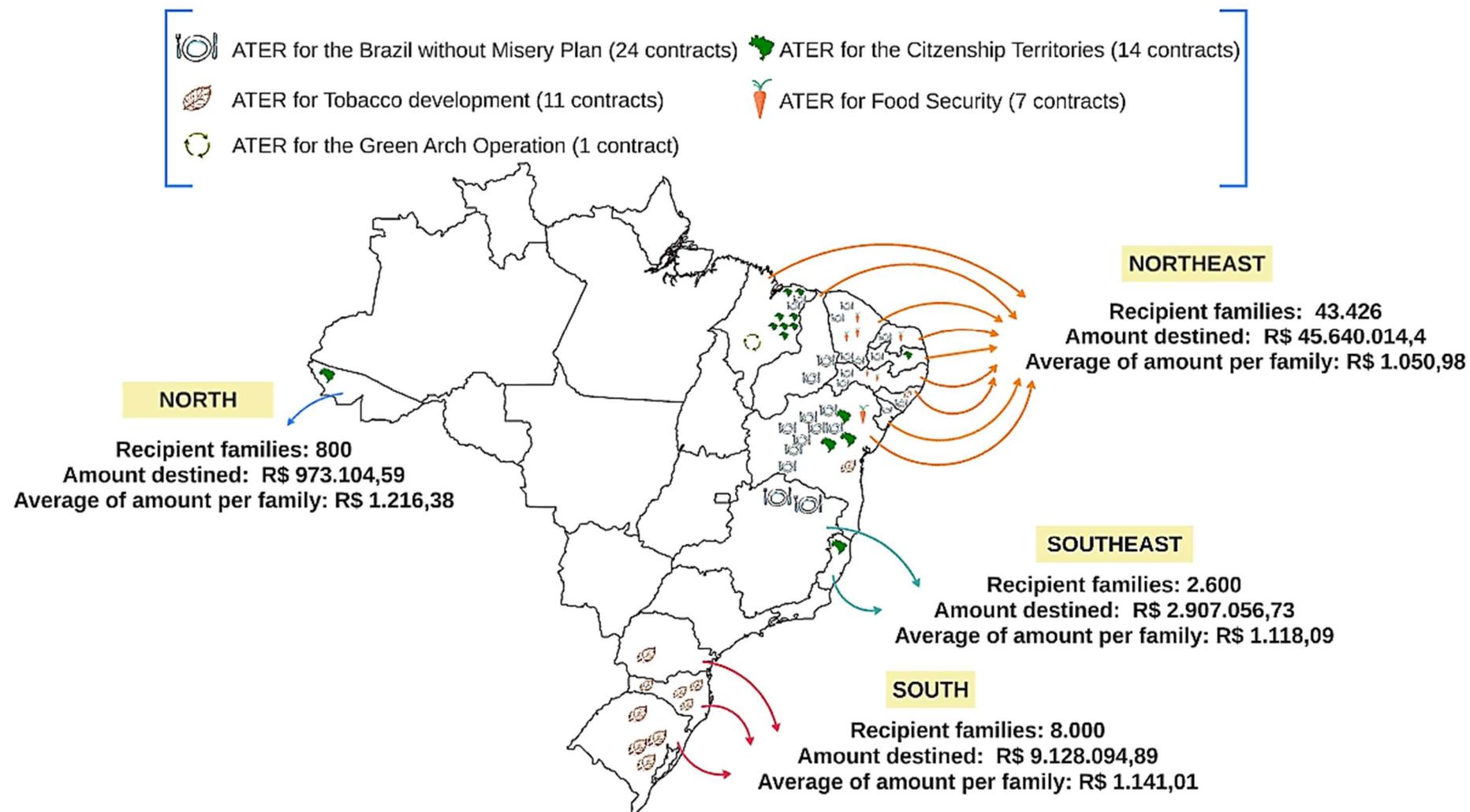
Figures 3–7 show the distribution of ATER contracts and each type of project hired by the MDA from 2010 to 2014. Each one of the approved projects should be executed within 3 years, in average. Therefore, the execution of services of the following years is added to those that started in 2010

Figure 3 - ATER projects in 2010



Source: Adapted by the authors from the MDA (2015)

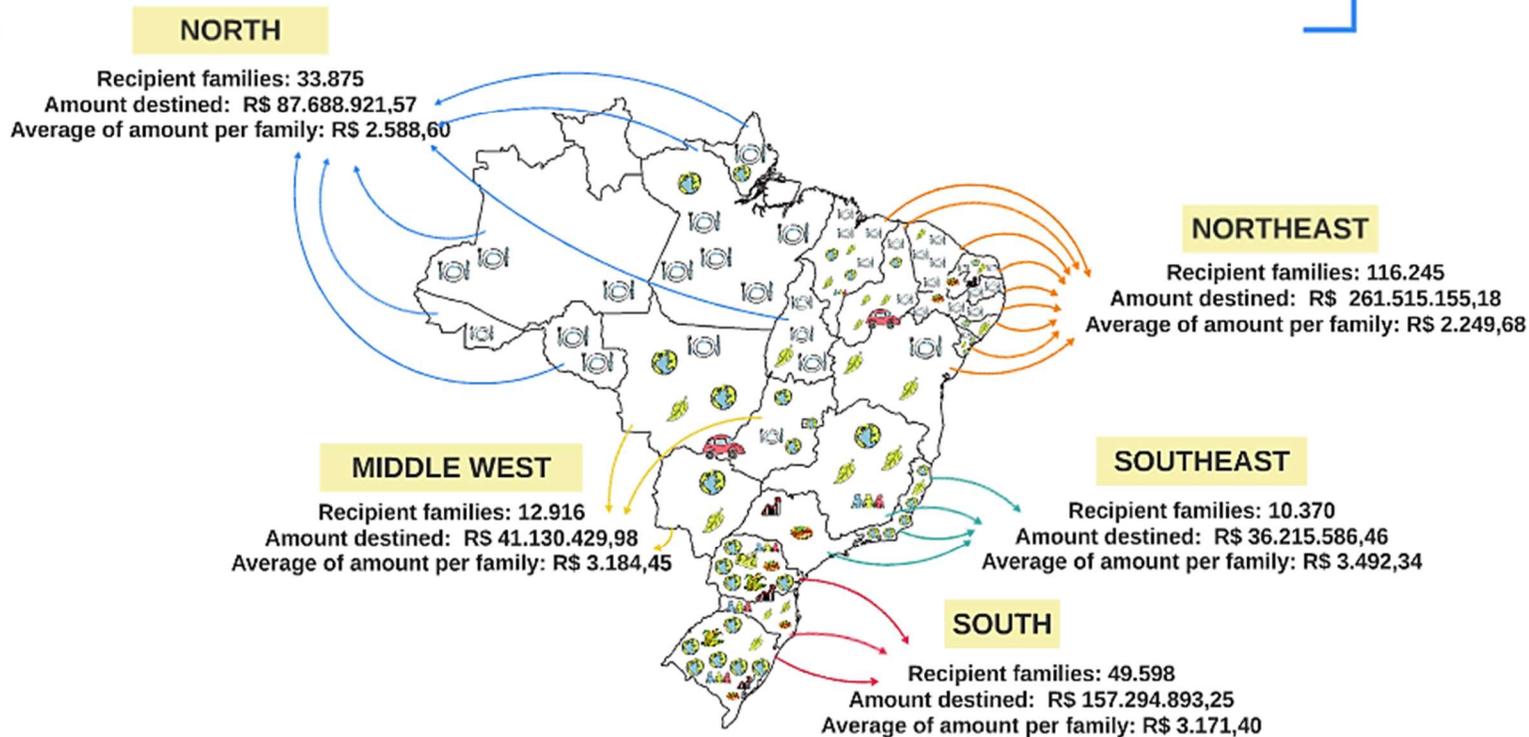
Figure 4 - ATER projects in 2011



Source: Adapted by the authors from the MDA (2015)

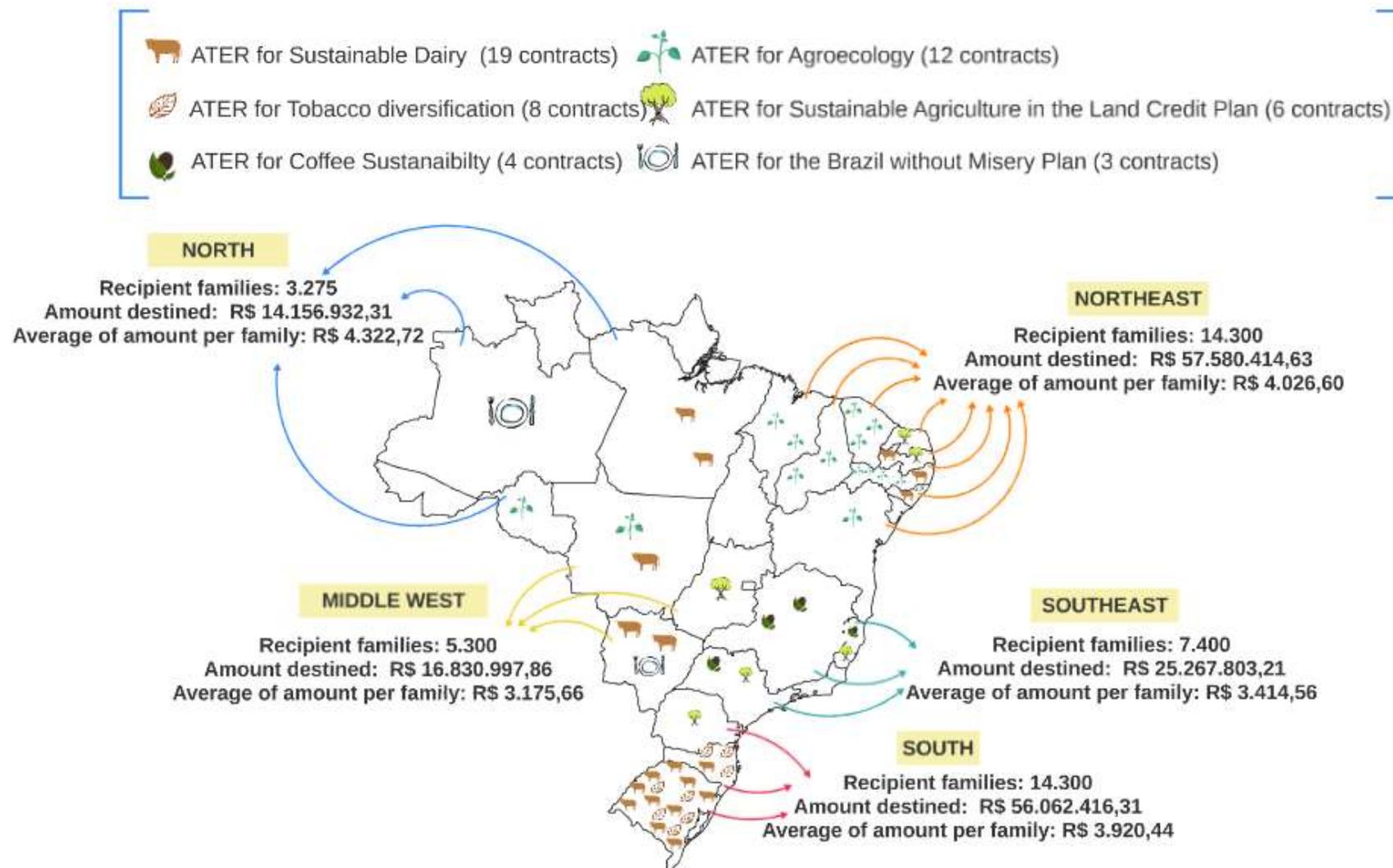
Figure 5 - ATER projects in 2012

-  ATER for Sustainable Agriculture (31 contracts)  ATER for the Brazil without Misery Plan (36 contracts)
-  ATER for Sustainable Agriculture in the Land Credit Plan (20 contracts)  ATER for the National Program for School Feeding (6 contracts)
-  ATER for the Rural Youth (5 contracts)
-  ATER - Native seeds (2 contracts)  ATER for better Rural Management (4 contracts)
-  ATER for the National Program for Strengthening Family Farming (1 contracts)  ATER for better Biodiesel Management (2 contracts)



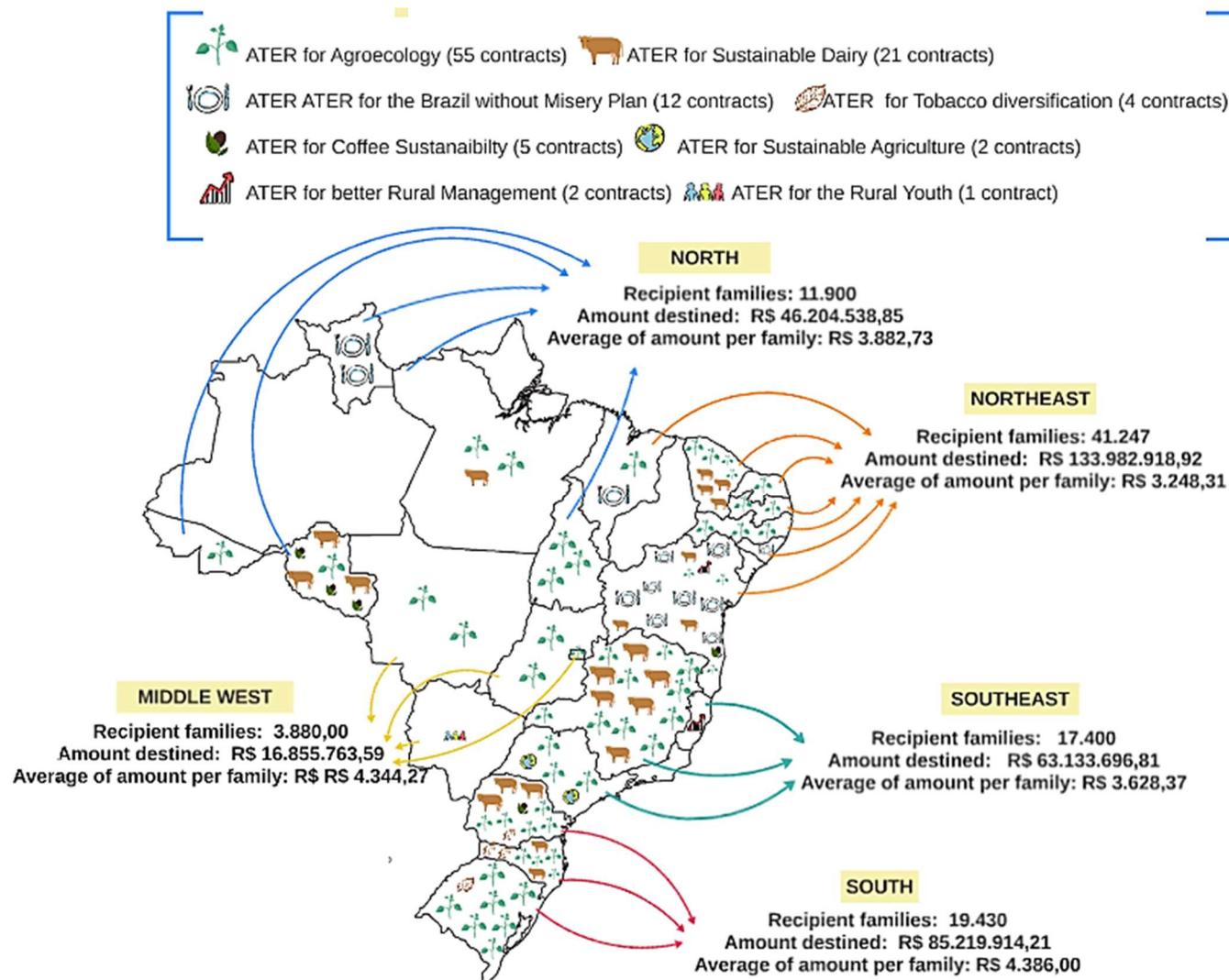
Source: Adapted by the authors from the MDA (2015)

Figure 6 - ATER projects in 2013



Source: Adapted by the authors from the MDA (2015)

Figure 7 - ATER projects in 2014

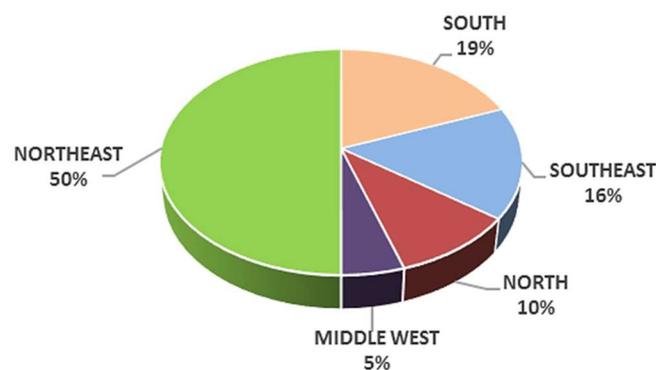


Source: Adapted by the authors from the MDA (2015)

The figures analysis points out the main strategies defined by the CONDRAF’s ATER Committee, responsible to determinate the topics for the ATER’s Calls for Proposals, so the SIBRATER can reach its goals. All the topics and the Calls were approved by the Committee.

First, it’s noticeable the concentration of Calls in the Northeast, South and Southeast Regions, especially during the years 2011 and 2013, when the funds to ATER projects decreased. This apparent disproportion, however, corresponds to the number of establishments of Family Farming in the country, as we can observe in Figure 8.

Figure 8 - Distribution of Family Farming Establishments per region in Brazil



Source: Adapted by the authors from the Agricultural Census of 2006 (BRASIL, 2010)

Regarding the Calls’ topics, it is possible to observe that in 2010 the projects focused on ATER services aimed at families in extreme poverty conditions, which were called “Citizenship Territories”. There were 119 contracts established between the MDA and ATER entities, focusing the Northeast Region and other territories known as “Poverty Spots” in the country. The expectation of the services to be executed in these territories was to organize and project the families and their communities not just in a productive level, but also strengthening the local and state councils, so the next policies could be more proper to each community reality.

In 2011, it’s possible to observe that the Calls’ topics were more diverse, according to the regions of the country. In the Northeast Region, for example, most of the public ATER services hired by the MDA were related to funding productive activities aimed at food security and improvement in the family incomes, through the Calls “Brazil without Misery Plan”. Therefore, the ATER services were, besides productive furtherance, to organize the farmers to

market access, acting as a mediator between the farmers and credit policies and/or to combat hunger, but also promote cultivation in the properties aimed at food security of the families.

On the other hand, in the South Region the 2011's Calls were the "Tobacco Development" aimed at activities diversification of families working with tobacco plantations. Besides the adoption of more sustainable practices, it should also be stimulated the diversification of productive activities in the properties, not just reducing the families' productive and commercial dependence on Tobacco, but also stimulating food production aimed at food security.

In 2012, it is possible to observe the abrupt increase of diversity in the ATER's Calls all over the country. Probably, it is a result of the requests and territorial priorities discussed during the 1<sup>st</sup> National Conference of ATER, which occurred at the beginning of the same year. The main novelty was the ATER's Calls aimed at "Sustainable Agriculture". The goal was to decrease or stop the use of chemical inputs in the visited properties, through sustainable management of soil and natural resources. Moreover, it was included the redrawing of the production system in the properties and the agroecological transition, according to PNATER guidelines.

The next year, 2013, it was marked by Calls for productive chains specific to each region, including more sustainable management and production diversification of families working with production of milk, coffee, and once again, tobacco. Besides, this was the first year that a Call named "Agroecological Transition" was launched, with specific goals.

The year 2014 was the one with greater territorial range of Calls. The "Agroecological Transition" Calls were predominant in the whole country. However, due to regional diversities, it's important to cite the number of Calls related to "Brazil without Misery Plan" in the Northeast Region, and the "Sustainable Milk" in the Southeast Region, especially in the state of Minas Gerais, where the production of milk is characteristic.

Hence, we can assume that the CONDRAF's ATER Committee was an important organ to organize the requests and elaborate topics for the Calls, which were diversified and in accordance with local realities.

However, data show a great variation in the federal funds aimed at ATER services. In Table 1 and Figure 9, the total amount of each year is listed, showing the decrease of funds for the Calls in 2011 and 2013.

Table 1 – ATER projects executed through the MDA

Year	Amount (in Brazilian Reais)	Number of contracts executed	Number of recipient families	Amount spent per family (average)
2010	R\$ 164.186.961,93	142	176.530	R\$ 930,08
2011	R\$ 58.648.270,61	57	54.826	R\$ 1.069,72
2012	R\$ 526.070.742,81	107	192.535	R\$ 2.732,34
2013	R\$ 166.454.292,36	52	43.575	R\$ 3.819,95
2014	R\$ 315.353.150,57	103	82.357	R\$ 3.829,10
<b>Total</b>	<b>R\$ 1.230.713.418,28</b>	<b>461</b>	<b>549.823</b>	<b>R\$ 2.238,38</b>

Source: Adapted by the authors from the MDA (2015)

Figure 9 - MDA's Financial resources for ATER projects (in Brazilian Reais)



Source: Adapted by the authors from the MDA (2015).

Therefore, it is clear that funds to ATER's Calls were discontinuous during the five investigated years, which greatly affects the perspective that the service could become universal. If we consider that in the country there are about 4.3 million productive units under the management of family farmers and that among these, about 1 million are located on Agrarian Reform settlements (INCRA, 2010), then, we conclude that about 3.3 million establishments should be under the MDA's responsibility to provide ATER services, and under INCRA's responsibility, about 1 million. In this sense, the federal public ATER services provided by the MDA didn't even serve 16% of the Family Farming establishments outside Agrarian Reform settlements. Also, this 16% could only be considered if different families were benefited during the analyzed five years, but we didn't have access to this data.

Therefore, the increase of funds should be considered a priority action to consolidate the universal model of ATER proposed by the PNATER, especially because the increase of families to be visited by ATER agents is unfeasible, and according to the ATER's Calls, each extensionist is responsible to cater for about 100 families. And this maximum number of families has been discussed at local and state meetings for the National Conference of ATER in 2016, as it had been discussed in the 2012's Conference. ATER entities and farmers declare that the number of 100 families to be visited by a single technician is unfeasible and it commits the service quality, especially in regions where family farms are distant from each other and travel costs are expensive, as in the Southeast region

However, if the funds maintain the same, but the number of visited families by each ATER agent is reduced, it is possible that even less farmers would have access to the services funded by federal resources, which could overload the ATER public entities, after the extinction of EMBRATER in 1990, or could decrease public services in states where no ATER entities exist.

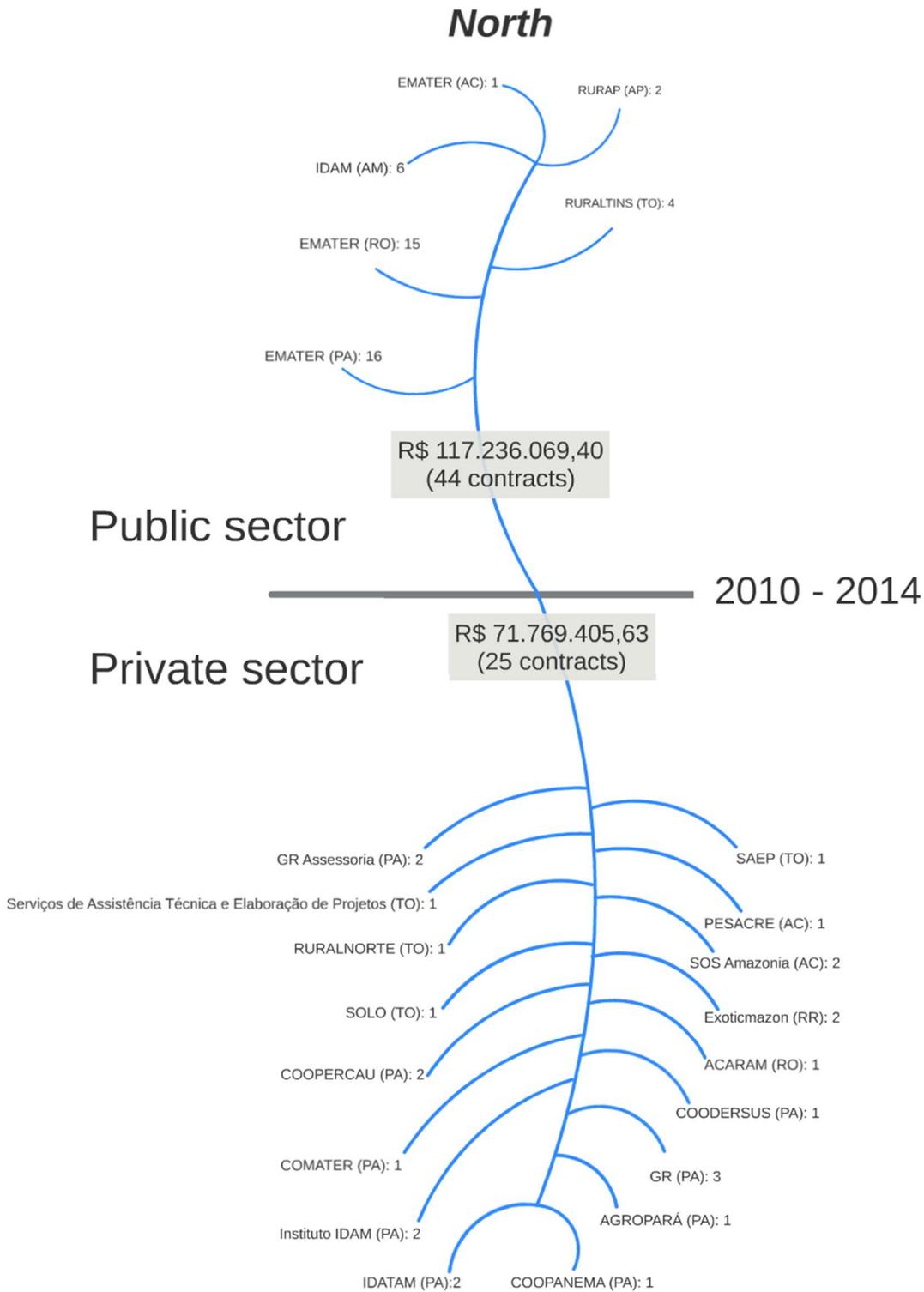
Therefore, to ascertain universal service for five years, considering that each ATER agent should visit about a 100 families; funds should be 6.6 times more than the annual average, which was 245 million. Hence, the ideal amount would be about 1 billion and 600 million annually.

### 3.6 The Network of ATER providers

Now we are going to cross the analyzed data with the distribution of contracts by the type of entity (Public or Private) in Figures 10 to 15. Thus, we intend to clarify who are the providers that realize ATER services in the country and also analyze how this diversity affects the executed services and which are the main challenges of this model.

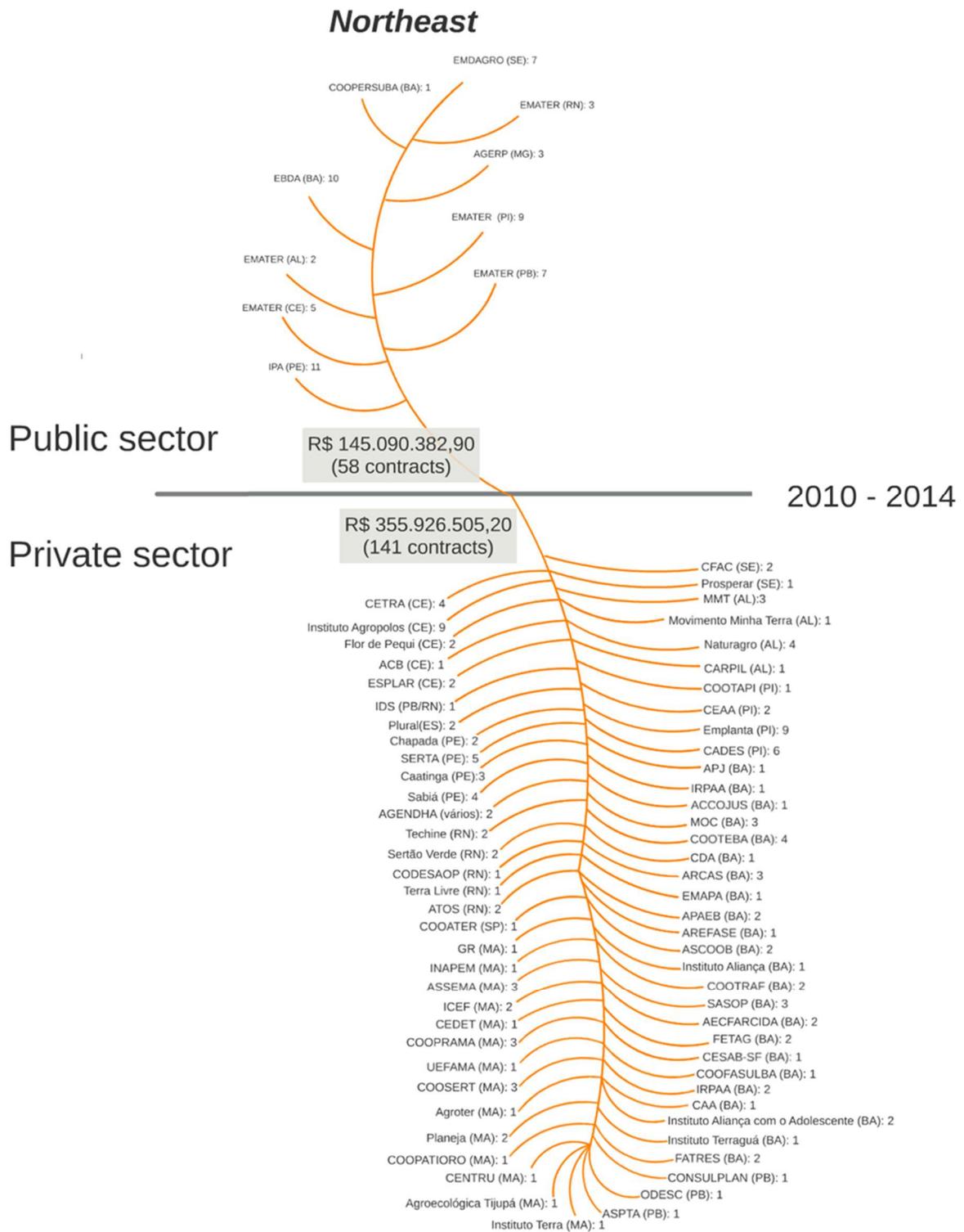


Figure 11 - ATER's contracts distribution from 2010 to 2014 in the North



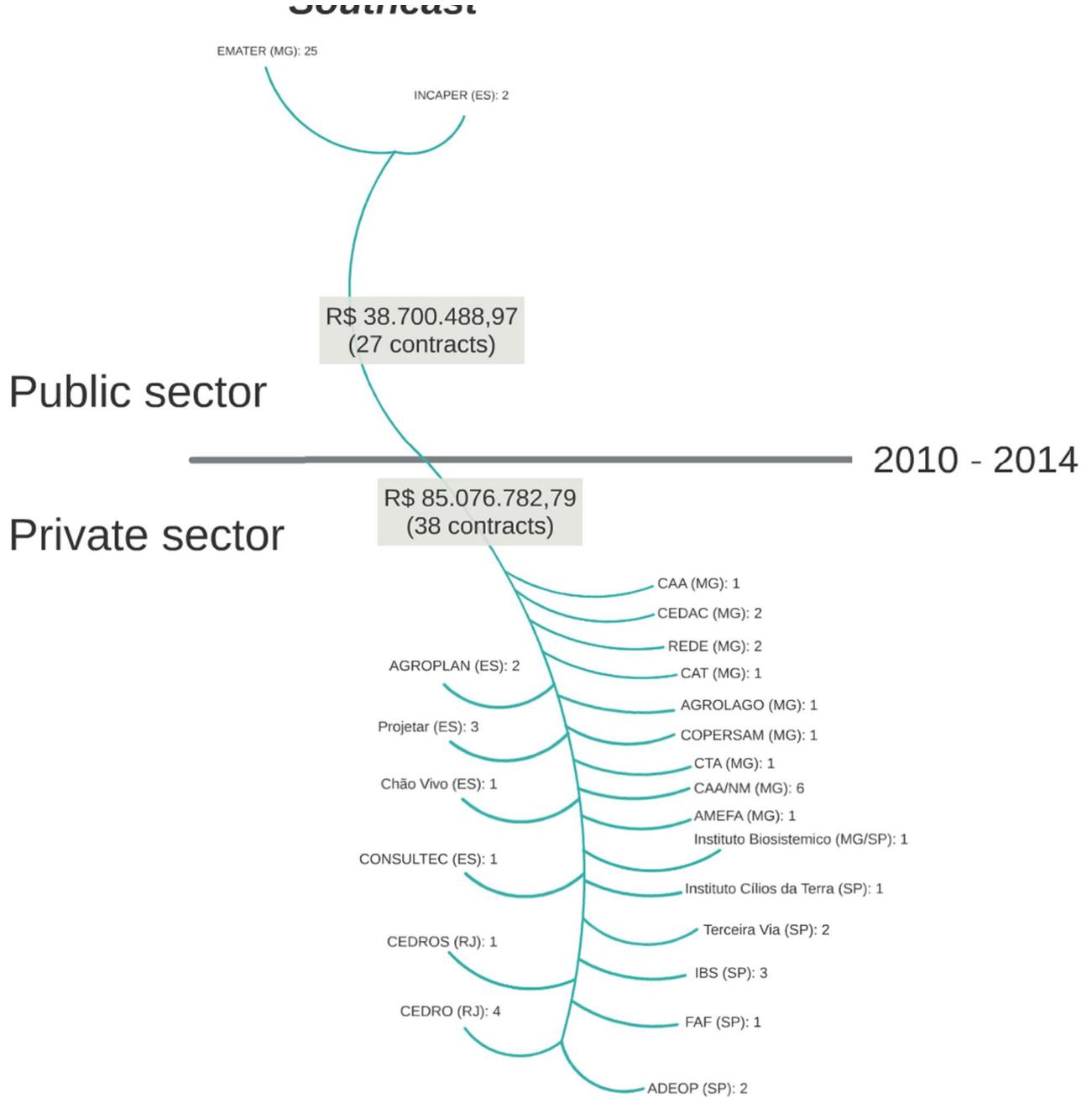
Source: Adapted by the authors from the MDA (2015)

Figure 12 - ATER's contracts distribution from 2010 to 2014 in the Northeast



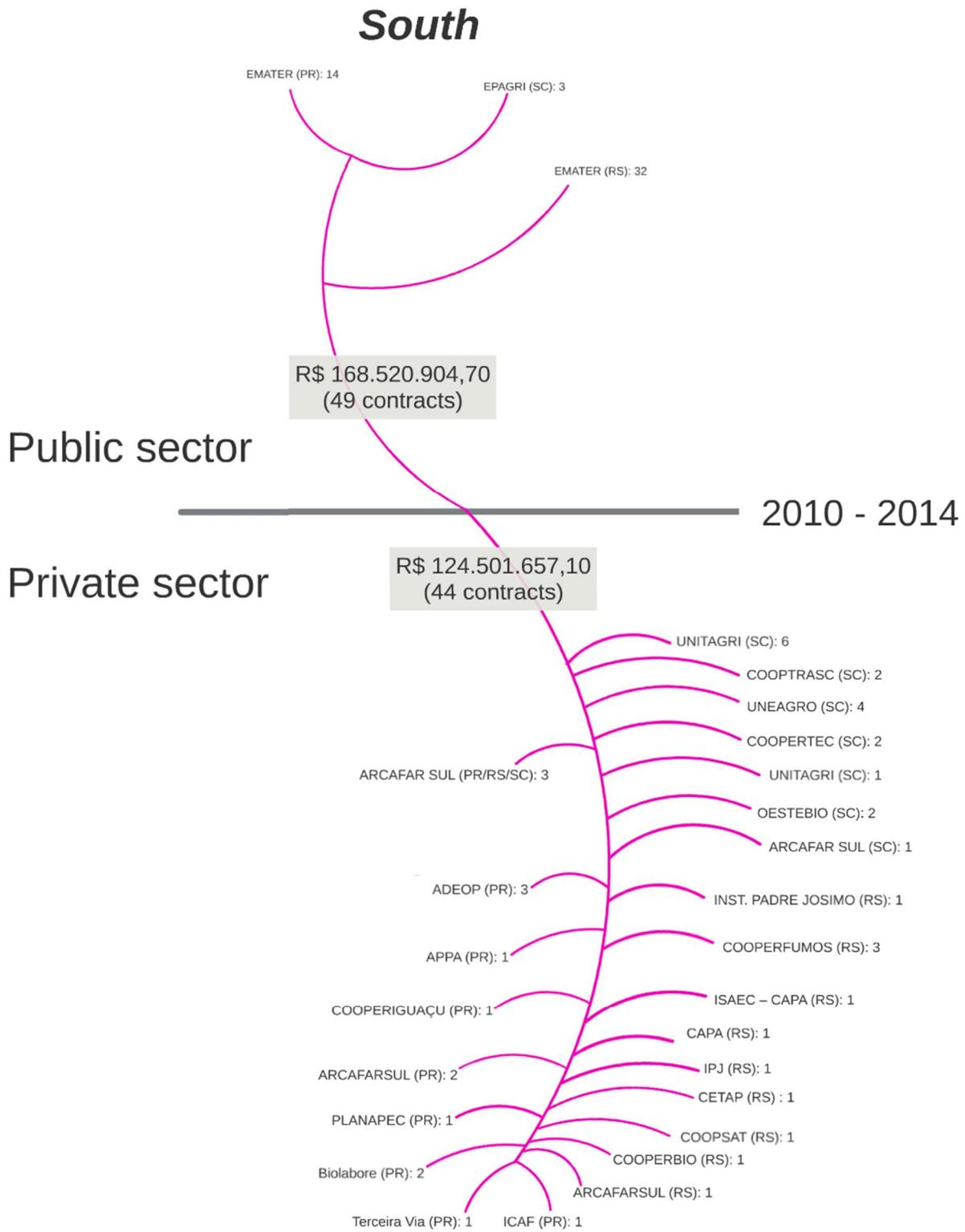
Source: Adapted by the authors from the MDA (2015)

Figure 13 - ATER's contracts distribution from 2010 to 2014 in the Southeast



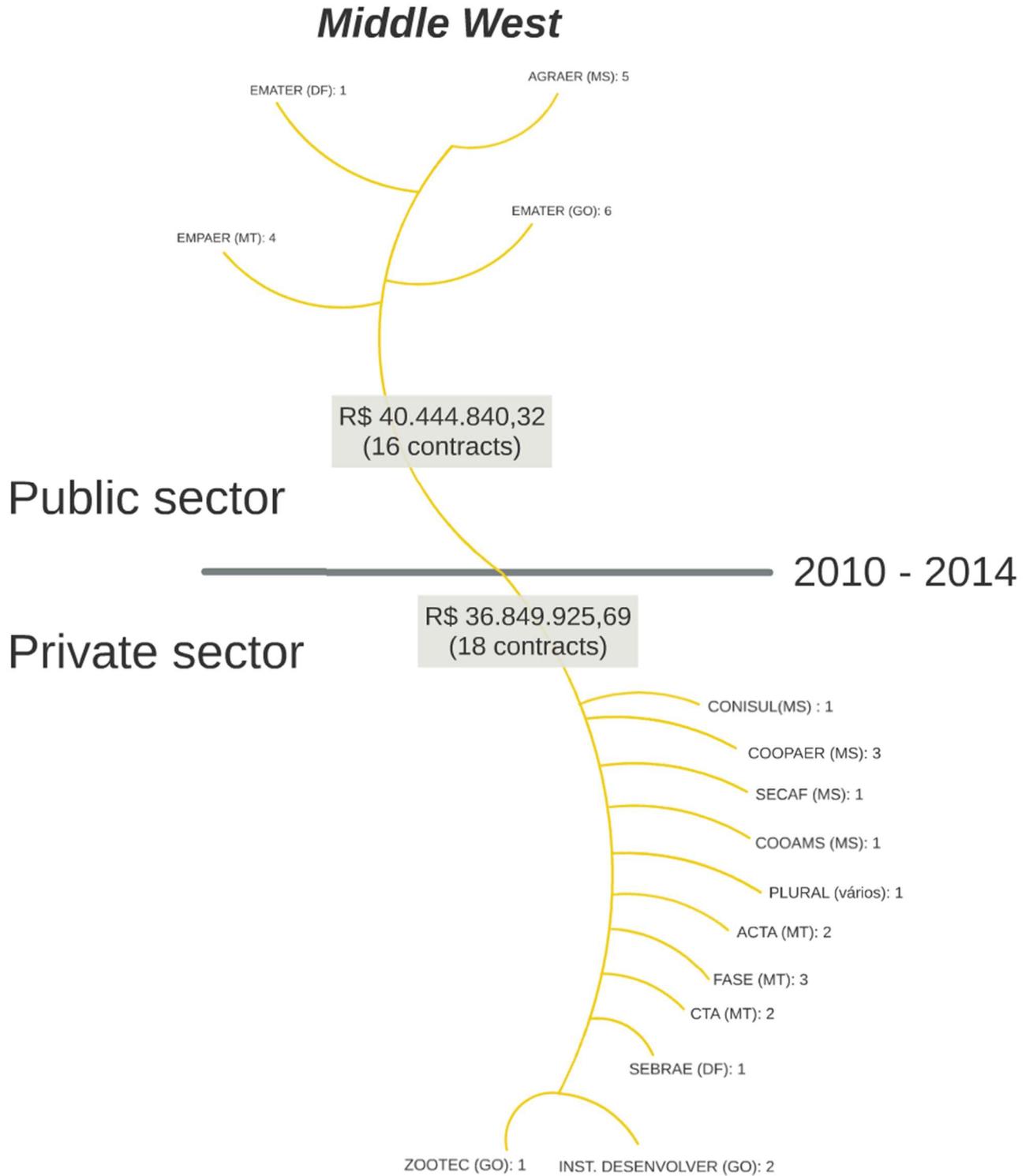
Source: Adapted by the authors from the MDA (2015).

Figure 14 - ATER's contracts distribution from 2010 to 2014 in the South



Source: Adapted by the authors from the MDA (2015)

Figure 15 - ATER's contracts distribution from 2010 to 2014 in the Middle West



Source: Adapted by the authors from the MDA (2015).



According to the identified networks, we can observe that during the analyzed years, the non-governmental entities were the main responsible to execute ATER services in The Northeast and Southeast Regions. In the South and Mid-West Regions the participation of both types of entities was almost proportional. On the other hand, the ATER services in the North Region are mostly executed by public entities.

The Northeast Region was especially affected by the extinction of EMBRATER in 1990. During the next decade, a large number of NGOs executed ATER services in the region, mostly funded by international institutions. As we can observe, in the Northeast Region the execution of ATER services was possible due to such institutions, regarding the nonexistence or limitation of public entities. In this sense, the institutional pluralism marked by the recruitment of public or private entities through the MDA was essential in the attempt to reach the PNATER goals.

In the Southeast Region, the high number of private entities is justified by limitations of public entities in the Region's states. Of the four states that comprise the Region, three of them, Minas Gerais, Espírito Santo and São Paulo, kept their ATER public companies. In the state of Rio de Janeiro all the Calls for Proposals were executed by non-governmental entities due to the inexistence of an ATER public company. The same happened in the state of São Paulo due to legal reasons, since its ATER public company could not execute ATER services in partnership with the Federal Government. In the state of Minas Gerais, where the larger number of Calls was executed due to many establishments of Family Farmers in the north of the state, private entities were necessary to complement the services executed by the ATER public company. And the same happened in the state of Espírito Santo.

In the South and Mid-West Regions, where the distribution of contracts was proportional between public and private entities, the public ATER companies have a strong historical presence in the regions. And, as observed, even in those conditions, the execution of services by private entities was important to complement the Calls.

In the North Region, we can notice that the contracts were mainly executed by public entities, but also complemented by private entities. In this region, it is important to point out the difficulty to travel from one territory to another and the great distance between Family Farms, which raise the prices to execute ATER services. These conditions especially affect those entities which are more limited, as typically occurs with NGOs.





It's worth mentioning that ATER agents from public entities usually have better working conditions than those from Private entities. This is because the extensionists' salary, the working offices, the vehicles acquisition and travelling costs are usually funded by state governments, except in a few situations. Regarding the private entities, these costs are responsibility of the own entity, and the payment of ATER agents and travelling costs are made by the Calls' projects; while the entities are responsible to finance the establishment and maintenance of offices and vehicles acquisition. In some cases, ATER agents from entities with less capital have to use their own vehicle to field work.

Moreover, if the MDA delays the payment to private entities, then their service is severely affected, once the delays will affect the agents' payment and refunding the travelling costs. Therefore, it becomes unfeasible to small companies to maintain service quality and continuity, especially those with low working capital.

In this sense, one of the main difficulties of ATER private entities is to execute initial activities in their projects. This is because the contracts with the public administration don't allow the payment in advance for professional services, but only a small amount to afford materials, equipment and activities costing.

### 3.7 Final considerations

As pointed out, the conception, planning and execution of ATER public policies for family farming in Brazil, since 2003, essentially followed distinct strategies than those adopted in the country until the 1980s, and the following decade with no activities due to the extinction of EMBRATER.

Comparing with the old ATER from the military government, the current policies differ mainly in the working methodological proposal for the field extensionists and the decentralized configuration of the public ATER service.

Such transformations are the result of a dialogue that lasted more than two decades, involving social movements, Civil Society organizations and public managers, committed with the reestablishment of a national public ATER. Hence, since 2003, facing new political-institutional scenery at the beginning of the Labor Party's term, the new ATER started to be discussed with social movements and Civil Society organizations, aiming to recognize new beneficiary public, as women, black rural communities, indigenous, fisheries, and others.





In this context, it is worth mentioning the importance of the Ministry for Agrarian Development (MDA) as the responsible organ for coordinating and executing such policies, reestablishing a national public organ devoted to promote and develop ATER for Family Farming in the country.

The operationalization of new public ATER is the main challenge, aiming to provide quality service to those that according to the ATER Law have the right to benefit from it. But it's important to highlight the budget and staff limitations in the public organs that are responsible for coordinating and executing ATER services, considering the low priority that Family Farming has among Brazilian congressmen, local and state governments, which mainly support the export-oriented agribusiness model based on farm business.

In the next chapters, we are going to present the indicators developed by us to evaluate how PNATER has been concretizing and the results of this methodology, pointing the main identified advances, barriers, and challenges to an efficient and effective SIBRATER's operationalization.





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## 4. CHAPTER 3 – The methodology used to evaluate The Nacional Policy For Technical Assistance and Rural Extension

### 4.1 Introduction

The implementation proposal of the National Policy for ATER (PNATER) professes to valorize a more systemic approach of reality, privileging systemic and holistic emphasis on technical assistance and rural extension processes.

Taking this into account, the conception of a methodology to evaluate the PNATER should be multidimensional, capable to contemplate and evaluate the several dimensions in which this public policy is committed to serve.

This approach requires a split with traditional evaluation models of performance which are made by punctual, more restrict evaluations. Therefore, the methodological approach adopted in this research followed a neo-institutionalist theoretical matrix, more specifically, its analytical branch called historical neo-institutionalism.

Hence, we are going to present the main characteristics of this theoretical framework, offering to the reader the opportunity to comprehend in which context the indicators were elaborated.

The choice to use neo-institutionalism as a theoretical reference for public policies is not just because of its growing importance in political sciences, but also because of its precepts, focusing on the institutions. For institutionalists, the social action is influenced by institutions, and not just by actors' preferences. The neo-institutionalism is an alternative to comprehend individuals' actions and their collective manifestations.

The neo-institutionalism emphasizes a political dependency on the society, in favor of interdependency between relatively autonomous political, economic and social institutions (MARSH e OLSEN, 1993).

In turn, the historical neo-institutionalism emphasizes that institutions embody historical trajectories that influence future events. For this theoretical branch, the historical process is the most important, because individuals build social structures but choices and opportunities are restrict and influenced by choices made in the past.

Considering the adopted theoretical reference, the starting point of this research was a historical review of ATER policies in Brazil presented in Chapter 1, and in Chapter 2, a review about how the National Policy for ATER is operationalized nowadays. The information systematized in both chapters was rescued to elaborate the final consideration of this research.





Another methodological approach based on the neo-institutionalist theoretical reference is the analysis of networks that conciliate for political execution. The studies that investigate networks emphasize the horizontal coordination dimensions of public action, informal arrangements, and governmental problems, more than hierarchical subjects.

According to Paulillo (2000), the study and monitoring of public action following the network approach means:

- a) to have in the same analysis ground the public and private actors, and the public power should be evaluate as the external actors – like the concrete actors (ministries, regulation agencies, legislative commissions, governmental local and public agencies, etc.) – and that may be differentiate by different roles (deliberative, regulatory, etc.), or objectives, even with different strategies that could be conflicting;
- b) to consider the public policies from the base, and not from the top, which means to emphasize the implementation methodology of a public policy (making decisions and reformulation of problems);
- c) to rescue the complexity of the public sector or the public sector action (examples: industrial, agricultural or educational politics), because in more than one of these sectors a network may be operating.

Therefore, to achieve the goal proposed by this research, which was to evaluate the National Policy for ATER, an indicator system was elaborated, capable to analyze information obtained from the different actors that participate in this policy (farmers and extensionists).

This indicator system was applied in five rural territories distributed in three Brazilian federal states described in Chapter 4.

Moreover, public managers responsible for the policy implementation in the national territory were interviewed, besides secondary data collection regarding the policy execution (amount spent with the policy, number of beneficiaries, execution entities, etc.).

Lastly, for the conclusions of this document, all the information was analyzed using rural extension evaluation criteria proposed by the Global Forum for Rural Advisory Services – GFRAS, which are:

- a) Relevance – when the goals of a development intervention are coherent with the beneficiaries' requests, the country needs, global priorities, and policies of partners and donors.

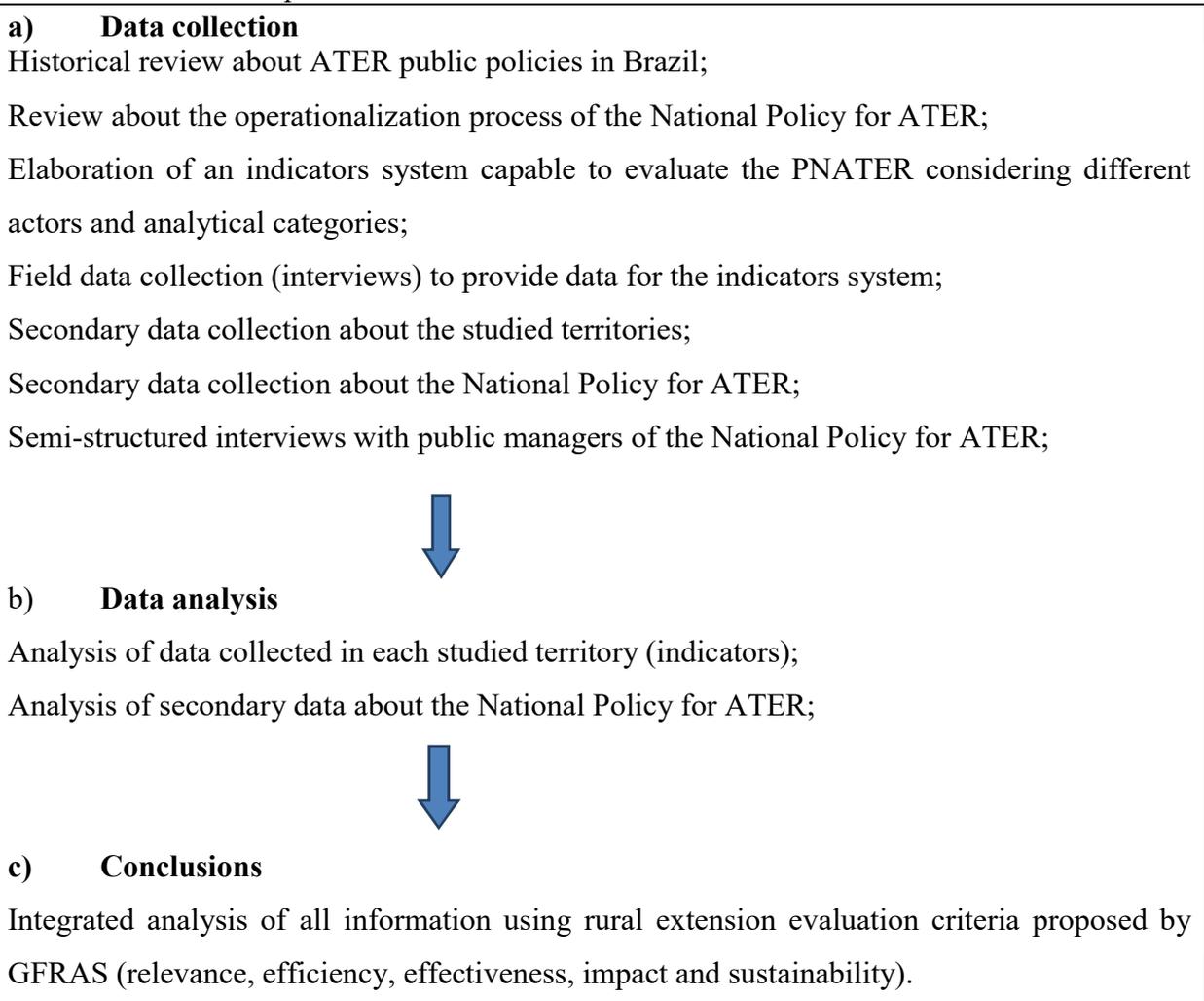




- b) Efficiency – a measure of how economical resources/contributions (resources, knowledge, time, etc.) are converted into results.
- c) Effectiveness – when the goals of a development intervention are reached, or will be reached, considering its importance.
- d) Impacts – Positive or negative, primary or secondary, intentional or unintentional long-term effects, produced by a development intervention.
- e) Sustainability – the benefits continuation of a development intervention, even when an important assistance for the development is concluded; the probability of the benefits to continue in a long-term period.

The steps followed by this research are presented in Chart 1.

Chart 1 - Research steps



Source: Elaborated by the authors



Next, we are going to present the indicators system used to analyze the collected field data to evaluate the PNATER

## 4.2 Indicators System

Following the scope of the proposed evaluation, we developed an indicators system for the PNATER from the perspective of different authors, and to make available to public managers an instrument able to evaluate the results of their actions.

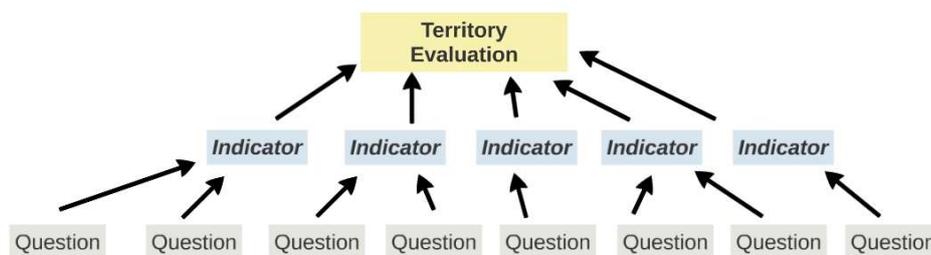
It is important to point out that data systematized by the utilized indicator system only express its meaning when analyzed considering the proposed theoretical reference.

In this topic, we present the operating procedure of this indicators system which was used to evaluate the Brazilian System of Technical Assistance and Rural Extension.

Beforehand, it is necessary to clarify that despite the system has a complexity in its conception, and consequently in its operation; this complexity is not observed when the system is used in the field.

The indicators system has a pyramidal structure, which means that it has different analysis and data integration levels, always in ascending flow, as presented in Figure 16.

Figure 16 - Schematic representation of information flux structure



Source: Elaborated by the authors

Next, we are going to describe in detail its operational procedure.

## 4.3 Defining indicators

The first step for the construction of the system was to define the indicators, which could be defined as “a measure with substantial social significance”. This measure, with quantitative and qualitative value, is used to replace or operationalize an abstract social concept, usually



with theoretical (for academic research) or programmatic (to formulate, analyze and evaluate policies) interest (JANNUZZI, 2009).



Defining an indicator, or a set of them, is a cognitive, abstract task, which aims to identify the essential characteristics of a given reality and express it in quantitative or qualitative values. Therefore, it is a reductionist process, which means, no indicator system, even the more sophisticated and complex ones, will be able to express the reality as it is. Some elements of this reality will always be lost; but this lost can be compensated by elaborating an indicator system capable of evidence the determinant elements of social, economic, cultural and political configurations of this reality, contributing with subsidies to desired changes (JANNUZZI, 2009; BELLEN, 2010). Therefore, 12 indicators were initially proposed to accomplish the desired evaluation.

These indicators should express the meaningful aspects of the PNATER values, principles and objectives. The indicators could be considered, in the scope of this system, the first level of analysis of a given reality.

We highlight that the 12 indicators adopted in this research are the same that were validated at a meeting from the ATER Indicators Working Group<sup>1</sup> organized by the MDA, held on 23<sup>rd</sup> April 2008. Hence, we consider that the indicators adopted for this research have relevance to managers of this policy. Following, we present the 12 indicators and a brief description of the analytical goal of each one.

a) *ATER Frequency*

The frequency that a technician has available to cater the agricultural community is considered an important indicator to evaluate ATER services.

b) *Social and Community Organization*

Social and community organization is understood based on dialectic interaction between the elements that constitute it, which are the individuals, their objective and subjective cultural practices, social actions and institutions. Once individuals, who are members of a community,

<sup>1</sup> The ATER Indicators Working Group of is composed by the following institutions: FETRAF (National Federation of Men and Women Family Farming Workers), CONTAG (National Confederation of Agricultural Workers), MPA (Small Farmers Movement), CEFFAs (Family Centers Training by Alternation), FASER (National Confederation of Trade Unions of Rural Extension Workers) and ASBRAER (Brazilian Association of public entities of Technical Assistance and Rural Extension), besides MDA (Ministry of Agrarian Development) representatives, which coordinate these actions.





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inscribe interpretations, actions and social structures that enable social reproduction and collectivity maintenance, but also experiment feelings as sense of security and freedom, of acting as individuals (WEBER, 1998/2000).

In this context, the social and community organization can reveal forms of constitution of kinship ties, friendships, cronyism, disputes, asymmetries, trade unions, political parties, associations, churches, cooperatives, ethnical groups, and generation groups; the power relationship among them, the individual and group practices of social and physical reproduction, cultural manifestations, and capacity to perceive and react to social and political stimuli.

#### c) *Income*

In this analysis, the income will be considered as the sum of monetary and not monetary income earned by the members of a given family group. This income could be originated from activities directly related to work in their own agricultural property, or from different origins, as social assistance and/or wage labor. The main propose of this indicator category is to verify the evolution of the economical dimension of those ATER beneficiaries, as well as the origins of the earned income.

#### d) *Life Quality*

Life quality may be understood as the perception that an individual has about his position in life, objectives, expectations, patterns and preoccupations, being contextualized by culture, personal and societal system of values, and times in which one live. It is a complex concept which surrounds material and non-material conditions, as goods and patrimony, physical and psychological health, social relationships, housing conditions, recreation access, education, freedom of expression and organization, and other relevant characteristics of the environment.

#### e) *Food Sovereignty and Food Security*

The indicators of this category, *Food Sovereignty and Food Security*, were defined based on the Law N° 11.346 <sup>2</sup> from 15 Sept. 2006, in which the National System of Nutritional and

<sup>2</sup> Available at: < [http://www.planalto.gov.br/ccivil\\_03/\\_Ato2004-2006/2006/Lei/L11346.htm](http://www.planalto.gov.br/ccivil_03/_Ato2004-2006/2006/Lei/L11346.htm) >.





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Food Security (SISAN by its acronym in Portuguese) in its creation defines that nutritional and food security should: “...ensure that regularly and permanently people have access to adequate nutrient rich-food, in sufficient quantity, without compromising the access to other basic needs, based on healthy food practices, respecting cultural diversity and being social, economic, and environmental sustainable”.

In this sense, a healthy, diversified eating, in sufficient quantity and socially recognized, represents a basic human right, a life and citizenship right, especially in the family farming context, since the self-consumption production has relevance in this analysis category. The self-consumption is defined as a share of the total production that the farmer takes for his own consumption or destines to animal feed.

Food sovereignty covers different dimensions which includes food security, since it is about the right of peoples to self-determine their own sustainable policies and strategies of production, distributions, and consumption of food, aiming to secure the feeding right to the whole population.

The food sovereignty is accomplished when it is possible to reach the strengthening of small and medium production; respect to the environment, cultures, and different ways of living and production by farmers, fishers, indigenous and black rural communities; and to support commercialization and local management of rural places, encouraging the sustainable development of territories.

Fundamental issues are also present in the political and ideological spectrum of food sovereignty, as the participation of women, young and elderly people in execution and decision-making processes, agrarian reform, technological independence of farmers from big companies, total independence of countries or well-delimited regions to produce regionally what the local population needs or desires to consume, without dependence of seeds or technological packages produced by transnational companies.

#### f) *Environmental issue*

The environmental issue regards the different ways that society throughout time relates to social, physical-natural environment (QUINTAS, 2002).

It became an important problem on a global scale in the 1970s, expressing a set of contradictions between the dominant economic-industrial development and the socioenvironmental reality. Currently, the environmental issue aggregates to the contemporary





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reality an innovator character, since it correlates apparently disconnected realities, and exhibits, even with regional differences, the universality of contemporary socioenvironmental problems related to biodiversity, soil, water, farming practices, forestry practices, environmental policies and laws, inputs, energy, land use and occupation, and environmental perception. It warns to the need to promote effective changes to ensure life continuity and life quality for a long-term period, in order to manage and ensure vital and finite resources in a social system characterized by inequality and unsustainability.

#### g) *Gender, generation and ethnicity*

##### *Gender*

According to a sociological perspective, some authors (PATEMAN, 1993; SAFFIOTI, 1995 e 1997; SCOTT, 1995; IZQUIERDO, 1998) consider gender as an analytical category that does not discard the biological factors of men and women, however, it fundamentally emphasizes their social and cultural differences from sexual division of labor, political and ideological construction of female and male; and in this sense, the public policies surely produce different impacts on women and men due to asymmetries forged during the processes of sociability and socialization between gender.

##### *Generation*

The idea of youth and old age is addressed, besides biological aspects that are constituted by social factors. Therefore, a “generation” is a social construction full of values, interests and disputes, usually in asymmetrical conditions between children, young people and adults, men and women (PEREIRA, 2007).

In the perspective of the generation analysis, the young tend to soon become autonomous, financially and morally independent from their parents, since they want to take over the chief position that parents have in the nuclear family – regarding family farmers – or in their companies – regarding the bourgeois class. In turn, the social agents considered “old” refuse to immediately or integrally transfer chief positions of the nuclear family or companies to their sons/daughters.

##### *Ethnicity*

Sociologically, the concept of ethnicity is beyond the biological definition, as in the concepts of gender and generation. Some authors (MUNANGA, 1988; 1998; 1999; RIBEIRO, 2000; WEBER, 1998/2000) point out that if race is linked to a morphobiological concept (skin color,





type of hair, shape of the head), ethnicity is intrinsically linked to sociocultural, historical, political and psychological factors. The ethnical group is composed by people that share the same common cultural values. These groups politically identify themselves as bearers of a set of cultural values and are recognized by others as members of an ethnicity. In this sense, the black rural communities and indigenous are cultural and political Brazilian ethnical groups.

#### h) *Pedagogical conception*

Pedagogical conceptions are connected to a time, a society, and are subjected to their practices in a broader social group, connecting a complex and not always expressed relationship network. In general, two different views about pedagogical conception in the teaching-learning process are highlighted, one about the transmission of knowledge, and another about the construction of knowledge.

One of the ATER principles is to: *“develop permanent and continuous educational processes, based on dialectic, humanistic and constructivist approach, aiming to form up competence, changing attitudes, and procedures of social actors, to maximize the goals to improve life quality and to promote sustainable rural development in a conception of knowledge construction and society transformation”* (MDA, 2007).

Therefore, in the construction process of indicators to evaluate PNATER, it should be taken into account the pedagogical conception, in the perspective of knowledge construction and knowledge interchange.

#### i) *Institution and professional staff*

This category aims to characterize and understand the situation of institutions that execute ATER services. Therefore, indicators were created to include the several dimensions that could influence the efficiency of ATER services execution. In this category are contemplated aspects as availability of human and operational resources, research and extension activities, and budget management.

#### j) *Access to natural resources*

The access to natural resources as farmable land, water and forestry resources, among others, is fundamental to acquire food security and life quality for populations, and could also be defined as an individual's right. Discussions regarding this right intensify as the environmental crisis,





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resulting from the current development model, causes the emergence of environmental protection supported by the State, aiming to promote sustainable development.

In the 1988's Constitution, the Article 225 (caput) regarding environment issues, states: *“Everyone has the right to an ecologically balanced environment, which is a public good for the people's use and is essential for a healthy life; being the Government and the community responsible to defend and to preserve it for present and future generations”*.

In this way, Araújo (2007) states that when human rights are legally protected by the Constitution, they can be called fundamental rights, which means, the right to an ecologically balanced environment é clearly a fundamental human right, necessary for the human dignity, and it is recognized and confirmed by the Brazilian Constitution.

#### k) *ATER in relation to other public policies*

The ATER service is essential to facilitate the access to other public policies regarding family farming. Hence, with this indicator we tried to evaluate how the extensionists work contributes to the access to other policies.

#### l) *Technological and management resources*

The adoption of technological and management resources by the farmers is a relevant category to be observed, since through this analysis, it is possible to verify the efficiency and effectiveness of ATER actions. It is worth mentioning that this indicator assumes that technological and management resources are not directly related to the adoption of expensive and cutting-edge technology, but instead, the use of adapted technological and management resources that could be adopted by the policy beneficiaries.

### 4.4 Elaboration of data collection instruments

After defining the indicators to be evaluated, data collection instruments were elaborated for field work. For this, data collection instruments were composed by questionnaires focusing on objective questions, allowing only closed answers capable to identify the interviewee's perception of his/her reality.

During the process of preparing the interview, we were careful to elaborate questions which answers would have a rating scale. If the answer is closer to a hypothetical ideal, then higher is its score. Consequently, it reflects the ATER actions evaluation in a given territory.





Two different data collection instruments were elaborated: one questionnaire for family farmers that were randomly selected from a given territory; and a second one for field technicians responsible to execute ATER services.

It is worth mentioning that besides closed questions, the questionnaires for farmers and extensionists also had open questions, aiming to add a qualitative perspective to the interview and increasing the explanatory capacity of the phenomena observed in the quantitative information.

The questionnaire elaborated for family farmers was composed by 56 questions (Appendix 1), encompassing different indicators, among which three were specific for black rural and indigenous communities. We also added questions from the Brazilian Food Insecurity Scale (EBIA by its acronym in Portuguese) (SEGAL-CORRÊA; MARIN-LEON, 2009).

The questionnaire elaborated for field technicians was composed by 78 questions (Appendix 2), and also encompassed different indicators.

The interviewing time for both questionnaires was about 40 to 50 minutes to each interviewee.

Preliminary tests in the field were made with an interview question notebook before starting the first valid evaluation. During the preliminary tests, part of the questions was modified for different reasons (interviewee difficulty to understand terms, ambiguities, insufficient options for answers, grammatical errors, and others).

#### 4.5 Tabulation and analysis proposal of data

All data tabulation and Math analysis were made in Microsoft Office Excel 2007 spreadsheets.

- *Integration of different analytical levels*

After defining the indicators and data collection instruments, an integrating document was constructed, where all the links between different analytical levels could be observed. Thus, all the questionnaire questions were linked with their respective indicator.

As explained previously, each answer option corresponds to a different score. After finishing the interviews, all the scores from a given question from all the interviewees within a territory were summed. The resulting score will be the one used to evaluate the ATER action in each territory.





- *Determining relevance weight for agents*

To calculate the evaluation result of each indicator, the questionnaire answers of different agents (farmers and technicians) were integrated. Depending on the agent, a different weight (multiplier factor) was given to each answer. Chart 2 presents the used multiplier factors.

Chart 2 - Weights used according to the interviewee

Agent	Weight
Farmers	3
Extensionist technicians	2

Source: Elaborated by the authors.

- *Determining relevance weight for indicators*

Although all the indicators are relevant to evaluate the PNATER, we consider that there are different levels of importance. Therefore, different weights (multiplier factors) were defined according to the importance of the indicator to evaluate the PNATER, ranging from 1 (relevant) to 3 (highly relevant). Chart 3 presents the used multiplier factors.

Chart 3 - Weights used according to the indicator

Indicator	Weight
ATER Frequency	3
Social and Community Organization	3
Income	2
Life quality	2
Food Sovereignty and Food Security	3
Environmental issue	3
Gender, generation and ethnicity	2
Pedagogical conception	3
Institution and professional staff	3
Access to natural resources	1
ATER in relation to other public	2
Technological and management	1

Source: Elaborated by the authors.

- *Data tabulation*

After interviewing farmers, the process of data tabulation began. Thus, score sheets were elaborated, with scores ranging from 0 (zero) to 10 (ten) for each question, defined by the researchers.





The given score for a particular question of all interviewees from the same territory were summed, obtaining a single evaluation for a particular question within a territory. This first step allowed that each question had only a single score for each evaluated territory.

From this moment, the score from each question was multiplied by the assigned weight according to the agent. The sum of these operations for each question resulted in the indicator score. This score was then divided by the maximum possible score for each category, and it would be possible to reach it if all the variables had maximum score, which we define as ideal hypothetical.

The result of this operation was converted into percentage, achieving an evaluation to each indicator.

To evaluate ATER action within a territory, the same calculation was made, but the sum of all indicators scores was then divided by its respective maximum possible score.

#### 4.6 Data collection

The chosen geographical areas for conducting the interviews were the same adopted by the Brazilian Government in its policy called “Citizenship Territories”.

Following this methodology, 1000 (one thousand) interviews with farmers and 87 (eighty seven) interviews with extensionists were conducted from August 2014 to January 2015, in five territories representing the Family Farming reality in Brazil: ‘Alto Jequitinhonha’ (state of Minas Gerais), ‘Cantuquiriguaçu’ (state of Paraná), ‘Pontal do Paranapanema’ (state of São Paulo), São Paulo’s Southwestern (state of São Paulo) and ‘Vale do Ribeira’ (Paraná).

Moreover, five structured interviews with public managers were made from August 2015 to January 2016 in Brasilia (federal capital of Brazil).

#### 4.7 Presenting Territorial and National results

The detailed presentation of each investigated territory and their respective results will be exposed in Chapter 4 through radar charts (graphs), where it is possible to visualize the evaluation of each indicator related to PNATER by each investigated territory. In each chart, there is a representative line of the results of the investigated indicators for farmers and extensionists. For each territory, we will present the obtained data interpretation.

In Chapter 5, we will then present a general analysis of the results, regarding the obtained results from farmers in all territories, and from extensionists in all territories. To interpret the





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data generated by the proposed indicators, we took into account for this national evaluation the data gathered with public managers with semi-structured interviews.





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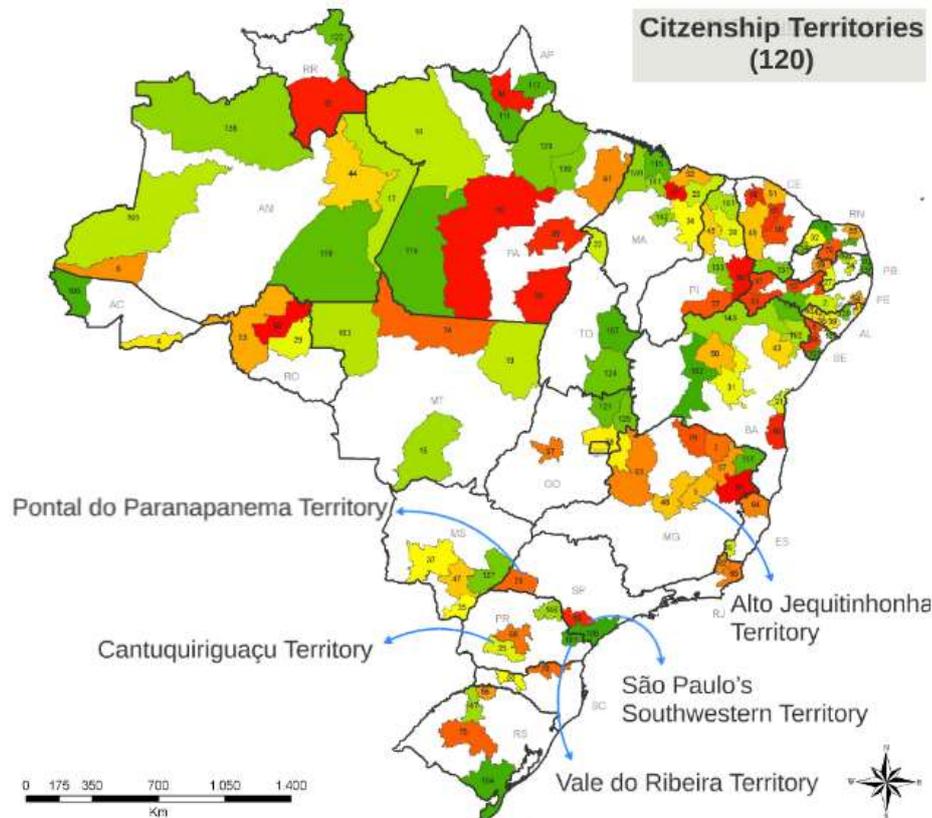
## 5. CHAPTER 4 – The evaluation of ATER services by farmers and extensionists in five citizenship territories

### 5.1 Introduction

For this study, ATER services were evaluated in five areas from three different Brazilian states. The areas were selected following the Brazilian Federal Government's Citizenship Territories Policy. Each Territory is composed by a set of municipalities with similar profiles, and that have social and cultural cohesion. Moreover, these municipalities have high socio-economic demands. The Citizenship Territories Policy envisages the social development, organization for sustainable production, infrastructure improvement and access to health, sanitation, water, education, and culture in the territories with low Human Development Index (HDI).

There are 120 Citizenship Territories in the country. The five territories selected for this research are showed in Figure 17.

Figure 17 – The Brazilian Citizenship Territories and the five studied Citizenship Territories



Source: Adapted by the authors from the MDA/SIT (2015)



In each selected territory, 200 farmers and at least 10 rural extension technicians (governmental and non-governmental) were interviewed. To select the participant farmers, we aimed diversity representatives from Family Farmers, including indigenous, black rural communities and farmers on Agrarian Reform settlements. The results for each territory are presented, preceded by historical and socio-economic data. The results' analysis attempts to correlate the presented social-economic historical with the obtained results.

## 5.2 The Alto Jequitinhonha Territory – State of Minas Gerais

### 5.2.1 Territory presentation

Alto Jequitinhonha Territory comprises 20 municipalities. According to the Demographic Census from 2010, its population is 270,529 inhabitants (IBGE, 2010). Table 2 presents: 1) the distribution of urban and rural population; 2) the number of Family Farming establishments; and 3) the number of families in rural settlements.

Table 2 - Distribution of urban and rural population in the Alto Jequitinhonha Territory

Municipality	Urban Population	Rural Population	Family Farming Establishments	Families in Rural Settlements
Aricanduva	1,695	3,075	526	0
Capelinha	24,753	10,050	1,138	34
Carbonita	6,738	2,410	539	0
Coluna	3,814	5,210	848	0
Couto de Magalhães	3,835	369	95	0
Datas	3,088	2,123	350	0
Diamantina	40,064	5,816	1,099	26
Felício dos Santos	2,229	2,913	699	0
Gouveia	8,229	3,452	279	0
Itamarandiba	21,988	10,187	1,755	89
Leme do Prado	1,761	3,043	335	95
Minas Novas	12,584	18,210	2,772	14
Presidente	2,017	942	111	0
Rio Vermelho	5,481	8,164	589	0
São Gonçalo do Rio	1,954	1,102	166	0
Senador Modestino	1,803	2,771	557	87
Serra Azul de Minas	1,710	2,510	451	0
Serro	12,895	7,940	1,261	0
Turmalina	12,926	5,129	922	45
Veredinha	3,769	1,780	597	0
<b>Total : 20</b>	<b>173,333</b>	<b>97,196</b>	<b>15,089</b>	<b>390</b>

Sources: MDA/SIT (2015); IBGE/INCRA (2010).





The region comprised in the territory was historically associated to poverty, starvation, and as a drought area. Table 3 presents the poverty index in the territory by municipality and the number of families benefited by ‘Bolsa Família’ (social welfare program of the Brazilian government), a public policy aimed at families in poverty condition.

Table 3 - Poverty situation at the Alto Jequitinhonha Territory

Municipality	Population in extreme poverty condition and its % representative in the municipality	‘Bolsa Família’s recipients and its % representative in the municipality
Aricanduva	1.175 24.6%	1,627 34.1%
Capelinha	4.403 12.7%	8,273 23.8%
Carbonita	825 9.0%	2,352 25.7%
Coluna	1.473 16.3%	2,964 32.8%
Couto de Magalhães de Minas	559 13.3%	1,040 24.7%
Datas	431 8.3%	1,761 33.8%
Diamantina	2.964 6.5%	10,580 23.1%
Felício dos Santos	1.053 20.5%	1,891 36.8%
Gouveia	801 6.9%	2,197 18.8%
Itamarandiba	4.065 12.6%	9,878 30.7%
Leme do Prado	578 12.0%	1,532 31.9%
Minas Novas	4.962 16.1%	8,586 27.9%
Presidente Kubitschek	374 12.6%	989 33.4%
Rio Vermelho	3.782 27.7%	4,248 31.1%
São Gonçalo do Rio Preto	369 12.1%	968 31.7%
Senador Modestino	715 15.6%	1,706 37.3%
Serra Azul de Minas	1.239 29.4%	1,302 30.9%
Serro	3.954 19.0%	4,573 21.9%
Turmalina	1.395 7.7%	4,186 23.2%
Veredinha	907 16.3%	1,909 34.4%
<b>Total: 20</b>	<b>36.024 13.3%</b>	<b>72,562 26,8%</b>

Sources: IBGE (2010); MDS (2011); SIT/MDA (2015).

As we can observe, the average of population in poverty situation in Alto Jequitinhonha was 13.3% in 2010. The Municipality of Turmalina had the lower percentage (7.7 %), and Serra Azul de Minas the higher (29.4%). Moreover, a significant number of families received the social welfare ‘Bolsa Família’, corresponding to 26.8% of the total population.

Regarding the land structure, the territory has a high concentration of land, as we can observe in Table 4.





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Table 4 - Producers' conditions in the Alto Jequitinhonha Territory

Producer's conditions	Number of farm establishments (units) and its % in relation to the total		Area of farm establishments (hectares) and its % in relation to the total	
	<b>Family Farming</b>	15,091	85.8%	175,153
<b>Non-Family Farming</b>	2,507	14.2%	475,063	73.1%
<b>Total</b>	17,598	100%	650,216	100%

Source: IBGE (2006)

Data from Table 4 show that even though 85.8% of farm establishments in the territory were managed by family farmers, the total of land occupied by them corresponds to only 26.9% of the total area occupied by farming activity in Alto Jequitinhonha.

The last Agrarian Census (IBGE, 2006) also revealed the high income concentration in the territory. The total income obtained from Family Farming was R\$ 50,675,000 and the amount obtained by Non-Family Farming was R\$ 129,685,000. Therefore, the official data show that annual average income was R\$ 3,358.00 per Family Farming establishments, and R\$ 51,729 per Non-Family Farming establishments.

However, despite the unfavorable conditions, Family Farming was the main responsible for creating labor in the rural area, as we can observe in Table 5.

Table 5 - Number of people over 14 years old working in Farming Establishments in the Alto Jequitinhonha Territory

	<b>Women</b>	<b>Men</b>	<b>Total</b>
<b>Family Farming</b>	17,377	26,600	43,977
<b>Non-Family Farming</b>	4,595	9,320	13,915

Source: IBGE (2006).

Table 5 also shows that Family Farming used 43,977 people more than Non-Family Farming establishments (13,915) (IBGE, 2006). However, crossing the data of hectares and working people, we can state that, in average, Family Farming was using one person per 4 hectares, and Non-Family Farming was using one person per 34 hectares.

Another important aspect is the production characterization in the territory, which can be observed in Table 6.





Table 6 - Land use in the Alto Jequitinhonha Territory



Land use in Alto Jequitinhonha		Family Farming	Non-Family Farming
		In hectares	
21.2%	Woods and/or forests – natural, intended to permanent	117,208	20,930
17.9%	Woods and/or forests – planted with forest elements	111,971	4,363
13.7%	Pasture – planted and in good conditions	58,487	30,718
10.9%	Woods and/or forests – natural, excluding preservation areas and	48,974	21,595
9.8%	Pasture – natural	35,882	27,788
7.5%	Plantation – permanent	34,579	14,445
5.3%	Plantation – temporary	11,244	23,279
5.2%	Unworkable land for farming (swamps, sandy and stony soil, etc.)	25,292	8,623
2.5%	Pasture – planted, degraded	9,929	6,133
2.0%	Agroforestry Systems – area cultivated with forest species but also	5,996	7,217
1.6%	Constructions, improvements or paths	5,424	5,259
1.3%	Plantation – area planted with forage	5,086	3,437
0.8%	Degraded Land (eroded, desertified, saline areas, etc.)	4,151	919
0.2%	Water tanks, lakes, weirs and/or areas with public water to be	677	442
0.0%	Plantation - area to cultivate flowers (including hydroponics and	164	13
<b>100%</b>		<b>475,064</b>	<b>175,161</b>

Source: IBGE (2010).

Data from Table 6 show that in 2006 the most common land use in Alto Jequitinhonha was ‘Woods and/or forests – planted with forest elements’ (17.9%), which means, Eucalypt plantations. A percentage of 96.2% of these plantations were managed by Non-Family Farmers.

On the other hand, Family Farming was responsible for 67.4% of areas destined to temporary plantations, typically associated to the production of food and grains for animal feeding. However, pastures are the productions that mostly occupy the productive areas of Family Farming establishments; totalizing 33.4% of 175.161 productive hectares.

Also, the majority of Agroforestry Systems areas (54.6%) were managed by family farmers in the Alto Jequitinhonha. Indeed, this is considered the most sustainable form of farming exploration, regarding the preservation of natural resources.

### 5.2.2 Data collection

A total of 200 (two hundred) interviews were made with family farmers and 13 (thirteen) with extensionists in 18 (eighteen) different municipalities in the Alto Jequitinhonha territory. The distribution of the applied questionnaires can be seen in Table 7.



Table 7 - Questionnaires applied in the Alto Jequitinhonha Territory

Nº	Municipality	Number of questionnaires applied to Family Farmers	Number of questionnaires applied to Rural Extensionists
01	Aricanduva	02	-
02	Capelinha	08	-
03	Carbonita	01	-
04	Colina	01	-
05	Couto de Magalhães de Minas	06	01
06	Datas	19	01
07	Diamantina	43	03
08	Felício dos Santos	22	02
09	Gouveia	11	01
10	Itamarandiba	14	-
11	Leme do Prado	02	-
12	Minas Novas	11	-
13	Presidente Kubitschek	09	01
14	Rio Vermelho	-	-
15	São Gonçalo do Rio Preto	-	-
16	Senador Modestino Gonçalves	03	-
17	Serra Azul de Minas	-	-
18	Serro	18	01
19	Turmalina	20	03
20	Veridiana	05	-
21	Chapada do Norte	05	-
Total		200	13

Source: Research Data (2014 and 2015).

Regarding the interviewed rural extensionists, 3 (three) of them were working in private entities of Rural Extension and 10 (ten) in public Companies of Technical Assistance and Rural Extension in Minas Gerais (Table 8).

Table 8 - Interviewed extensionists in the Alto Jequitinhonha Territory

Entity Name	Type	Nº of interviewed extensionists
Minas Gerais' Technical Assistance and Rural Extension Company (EMATER)	Public	10
Center of Alternative Agriculture Vicente Nica (CAV)	Private	3

Source: Research Data (2014 and 2015)

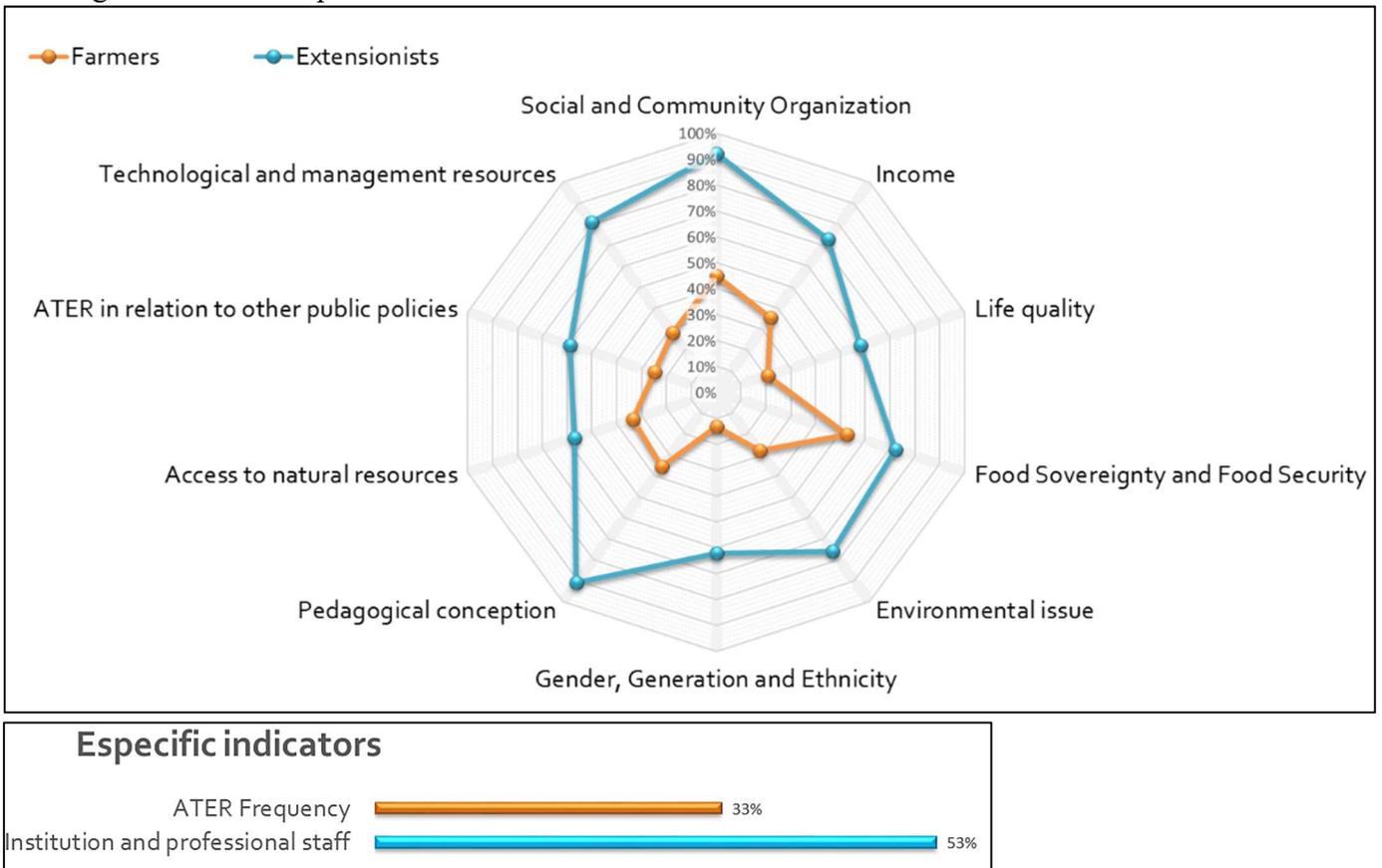


5.2.3 Results



Results of the evaluated indicators in Alto the Jequitinhonha Territory are presented in Figure 18. Indicators are presented according to the interviewed farmers and extensionists evaluation.

Figure 18 - Alto Jequitinhonha’s results for ATER services



Source: Research Data (2014 and 2015).

As we can observe, the indicators clearly show a divergence between extensionists and farmers evaluation, regarding the PNATER’s guidelines execution in this territory.

The main disagreements is regarding the indicators “Pedagogical Conception” and “Social and Community Organization”, which reached 91% and 92% respectively, according to extensionists, and 36% and 45% respectively, according to farmers.

Such divergence is due to the fact that most of interviewed extensionists are employed by the Minas Gerais’ public ATER company, which adopted the PNATER guidelines and has trained its extensionists accordingly to those. Therefore, many extensionists reported the encouragement to establish farmers associations and cooperatives in the communities, and the





importance and efforts to accomplish their services in a participative way with the farmers. However, the farmers' evaluation might be explained by the number of families visited by a single technician, even in collective formations, since is a large territory with difficult access. As pointed out in Chapter 3, the ATER services are still restrict in the country, being especially noticeable in this territory, which was about 15,000 Family Farming establishments (Table 4).

Moreover, according to the interviews, it was possible to state that these 13 (thirteen) interviewed extensionists were responsible to execute ATER services to 5448 families, an average of 419 families per extensionist. This average extrapolates the maximum stipulated by the ATER Calls for Proposals, which average should be a hundred families per extensionist. In the State of Minas Gerais, each technician from the ATER public company is responsible for all the farmers from the same municipality, and in some cases, the services are complemented by private entities.

During the questionnaire application, it was asked to the extensionists about the number of families that they believed that they should serve, preserving the service quality, and the average was 105 families per extensionist, according to the answers. Therefore, even though the technicians recognize the quality of their services, it is impracticable that farmers' evaluation would be proportional.

The insufficiency of extensionist services in the territory was also revealed by the indicator "ATER Frequency", evaluated by the farmers with the percentage of 33% of the hypothetical ideal. Crossing these results is therefore possible to explain the divergence of the evaluated indicators.

We can observe that the indicator with the best performance evaluated by farmers from Alto Jequitinhonha was "Food Sovereignty and Food Security" (53%). It is important to highlight the projection of territorial policies to eradicate starvation, as the social welfare 'Bolsa Família', allied with the improvement of social rights access, and rural retirement. Besides facilitates the access to those policies, ATER is also important in Food Security, since the farmers cited the encouragement from the extensionists (when farmers had access to the services) to diversify the production and valorization of plantation for self-consumption.

The indicator with the lowest performance, according to the farmers, was regarding the ATER actions in their communities aimed at "Gender, Generation and Ethnicity", which percentage was 13%. This indicator was also the second worst according to the extensionists, reaching the percentage of 63% in the evaluation of their own services.





Therefore, it is important to highlight the limitation of extensionists to develop services with specific groups of women, young and elderly people, indigenous, black rural and other traditional communities. Ahead, we are going to see that this indicator had a low percentage in all five territories.

Especially in the Alto Jequitinhonha Territory, the access of farmers to natural resources was also limiting, mainly the access to water. This indicator had the lower percentage (57%) when extensionists evaluated their own services. This restriction is explained by the farming modernization process, which started during the 1970s in the region. Since then, the State has been authorizing the use of public lands to paper and cellulose industry to plant Eucalypt. Before, these public lands, locally called ‘Mangas’, were for collective use, used for cattle in fattening period and for gathering of native fruits from ‘Cerrado’ (Brazilian Biome predominant in this region). The springs from important rivers of this region are also located at these ‘Mangas’, but due to monoculture plantations, the water resources are extinguishing and are not reaching the family farmers’ properties.

The process described in this territory characterization explains the conditions that extensionists are, once the interviewed farmers and extensionists associate the expansion of Eucalypt plantations with water scarcity, and that allied with low rainfall in the region, is the main challenge to maintain their productions.

### 5.3 The Cantuquiriguaçu Territory – State of Paraná

#### 5.3.1 Territory presentation

The Catuquiriguaçu Territory comprises 20 municipalities. Its name was inspired in three rivers from the region: Cantu River in the west; Piquiri River in the north; and Iguaçu River in the south. Its area of 13.947.73 km<sup>2</sup> corresponds to 7% of the State of Paraná. Table 9 presents the population’s distribution in the territory.





Table 9 – Distribution of urban and rural population in the Cantuquiriguaçu Territory

Municipality	% of Urban Population	% of Rural Population	Family Farming establishments and its % in relation to total of rural establishments	Families in Land Reform Settlements
Campo Bonito	46.89	41.46	483 (82%)	137
Candói	46.89	53.11	1,383 (78%)	237
Cantagalo	65.70	34.30	920 (79%)	233
Catanduvás	52.36	47.64	727 (77%)	44
Diamante do Sul	40.03	59.97	452 (77%)	0
Espigão Alto do Iguaçu	35.19	64.81	790 (89%)	23
Foz do Jordão	72.45	27.55	243 (87%)	0
Goioxim	23.40	76.60	1,064 (86%)	284
Guaraniaçu	53.52	46.48	1,724 (82%)	0
Ibema	81.45	18.55	249 (80%)	0
Laranjeiras do Sul	81.33	18.67	1,226 (75%)	115
Marquinho	10.52	89.48	843 (82%)	7
Nova Laranjeiras	21.10	78.90	1,359 (80%)	217
Pinhão	50.71	49.29	2,105 (79%)	199
Porto Barreiro	18.86	81.14	703 (86%)	0
Quedas do Iguaçu	68.57	31.43	2,186 (91%)	1,146
Reservas do Iguaçu	53.44	46.56	510 (85%)	167
Rio Bonito do Iguaçu	24.32	75.68	2,377 (90%)	1,542
Três Barras do Paraná	51.55	48.45	1,337 (90%)	75
Virmond	47.59	52.41	503 (81%)	0
Total	47.88	52.12	21,184 (83%)	4,426

Sources: SIT/MDA (2015); IBGE (2010); INCRA (2010).

This territory had a population of 232,551 inhabitants in 2010. In Table 9, we can see that 52.41% lived in rural areas. Also, we can see that 83% of rural establishments were occupied by family farming, totalizing 21,184 establishments. Regarding their distribution, 4,264 families were in 49 rural settlements. In the territory, there are also 4 (four) black rural communities and 2 (two) indigenous communities, being one of these the largest indigenous reserve in the State of Paraná, constituted by Kaingang and Guarani Tribes (IBGE, 2010).

According to the Agrarian Census from 2006, family farming establishments occupied 291,002 hectares from the territory rural area. This means that, although they represent 83% of the rural establishments, they occupied only 27.2% of the rural area. On the other hand, non-family farming establishments represented only 13% of the establishments, but occupied 72.8% of the area (IBGE, 2006). Therefore, the agrarian structure in Cantuquiriguaçu remains highly concentrated.





Also according to the Agrarian Census from 2006, the land use in family farming establishments is analyzed according to the classification of agricultures. In the Cantuquiriguaçu Territory, the 291,002 thousand hectares from Family farming are distributed in 38.6% of plantations (temporaries and permanents), 34.2% of pasture, and 21.2% of woods, forests, and agroforestry systems. Unworkable land corresponds to 1.3% of the territory.

Permanent and temporary production area (plantations) represents only 9.6% of the plantation areas from the State of Paraná. The State has 1,927,360 hectares of plantations, while Cantuquiriguaçu has 124,413 hectares (MORAES, 2013). In the region, the main production is different species and varieties of manioc, bean, corn, coffee, and rice. Regarding animal products, the territory mainly produces milk, pig farming and eggs.

The three activities that are predominant are the production of soy bean and corn, and cattle. In the industrial sector, industries develop agricultural activities, with emphasis in wood industry, besides sugar cane products as brandy and brown sugar, and also yerba mate, pig farming and milk. Another important sector in many municipalities is the transformation of cereals, especially corn and rice.

In the last decade, several initiatives based on Agroecology and Regional Development has been implemented in the territory. These initiatives were driven by the MST and the Movement of Small Farmers, supported by institutions as the Center of Sustainable Development and Training in Agroecology (CEAGRO its acronym in Portuguese). However, until recently we could not observe a massive adhesion of farmers to an agroecological production.

Due to the presence of rural settlements in the municipalities inside the territory of Cantuquiriguaçu, the region was included in the Federal Program “Citizenship Territories”, destined to help the development in territories with a large number of rural settlements and rural poverty.

However, since in the territory remains land and income concentration resulting from non-family farming, the social inequality is reflected as the second lowest index of Human Development Index (HDI) in the State of Paraná. This region has socio-economic vulnerability and poverty is predominant in rural families. Table 10 shows the poverty situation in the territory.





Table 10 - Poverty situation at the Cantuquiriguaçu Territory

Municipality	Families in poverty condition	Bolsa Família's beneficiaries	
		Total	% of beneficiaries in relation to those in poverty condition
Campo Bonito	667	394	59.1
Candói	1,591	1,408	88.5
Cantagalo	1,644	1,143	69.5
Catanduvas	1,168	673	57.6
Diamante do Sul	460	352	76.5
Espigão Alto do Iguaçu	684	382	55.8
Foz do Jordão	792	548	69.2
Goioxim	1,076	853	79.3
Guaraniaçu	1,730	1,080	62.4
Ibema	673	433	64.3
Laranjeiras do Sul	2,883	2,166	79.2
Marquinho	730	521	71.4
Nova Laranjeiras	1,472	1,166	79.2
Pinhão	3,166	2,655	83.9
Porto Barreiro	491	343	69.9
Quedas do Iguaçu	2,646	2,228	84.2
Reserva do Iguaçu	674	655	97.2
Rio Bonito do Iguaçu	1,954	1,384	70.8
Três Barras do Paraná	1,357	992	73.1
<b>Total</b>	<b>25,858</b>	<b>19,376</b>	<b>74.9</b>

Source: IBGE (2010).

As we can see in Table 10, the municipalities of Pinhão, Laranjeiras do Sul and Quedas do Iguaçu had the higher number of poverty families in the territory, but almost all the municipalities reached extremely high poverty rates, surpassing the double of the State average. Most poor families are in rural areas, although the high poverty rates in the rural families do not reveal the sum of family income resulting from self-consumption production.

The rates of income inequality are obtained from the ratio between the household medium rate per capita of the 10% of the richest and 40% of the poorest. In the Cantuquiriguaçu Territory, the economic dynamics privileged the income of richest 10%. In 2000, this indicator surpassed the State average, reaching the percentage of 28%.

The Government Program 'Bolsa Família' stands out for its coverage, since this social welfare is a program that monthly transfer income to families in poverty or extreme poverty conditions, with household monthly income per capita below R\$ 120 and R\$ 60, respectively (Table 10). The 'Bolsa Família' currently unifies all the social welfares ('School Welfare',





‘Feeding Welfare’, ‘Feeding Card’ and ‘Gas Aid’) in a single program. More than 98% of social welfares in Cantuquiriguaçu corresponds to ‘Bolsa Família’. Most of ‘Bolsa Família’ beneficiaries are in the municipalities of Pinhão, Quedas do Iguaçu e Laranjeiras do Sul.

The Cantuquiriguaçu Territory also has housing and infrastructure deficits in several localities. Regarding healthcare assistance, one of the main life quality indicators is the Infant Mortality Rate. In this territory, this rate was the highest in the State of Paraná, of about 20 deaths per 1000 live births. The Illiteracy Rate is 14.4% in the territory population, while its percentage in the State of Paraná is 9% (EMATER, 2004).

### 5.3.2 Data collection

A total of 200 (two hundred) interviews were made with family farmers and 14 (fourteen) with extensionists, in 10 (ten) different municipalities in the Cantuquiriguaçu Territory, as we can see in Table 11.

Table 11 - Questionnaires applied in the Cantuquiriguaçu Territory

Nº	Municipality	Number of questionnaires applied to Family Farmers	Number of questionnaires applied to Rural Extensionists
01	Campo Bonito	-	-
02	Candói	24	02
03	Cantagalo	24	02
04	Catanduvas	-	-
05	Diamante do Sul	-	-
06	Espigão Alto do Iguaçu	-	-
07	Foz do Jordão	-	-
08	Goioxim	-	-
09	Guaraniaçu	-	-
10	Ibema	-	-
11	Laranjeiras do Sul	29	06
12	Marquinho	04	-
13	Nova Laranjeiras	22	02
14	Pinhão	15	01
15	Porto Barreiro	13	-
16	Quedas do Iguaçu	-	-
17	Reserva do Iguaçu	24	01
18	Rio Bonito do Iguaçu	39	-
19	Três Barras do Paraná	-	-
20	Virmond	06	-
Total		200	14

Source: Research Data (2014 and 2015)





Regarding the interviewed rural extensionists, 1 (one) of them was working in a private entity of Rural Extension, and 14 (fourteen) in public companies.

Table 12 - Interviewed extensionists in the Cantuquiriguaçu Territory

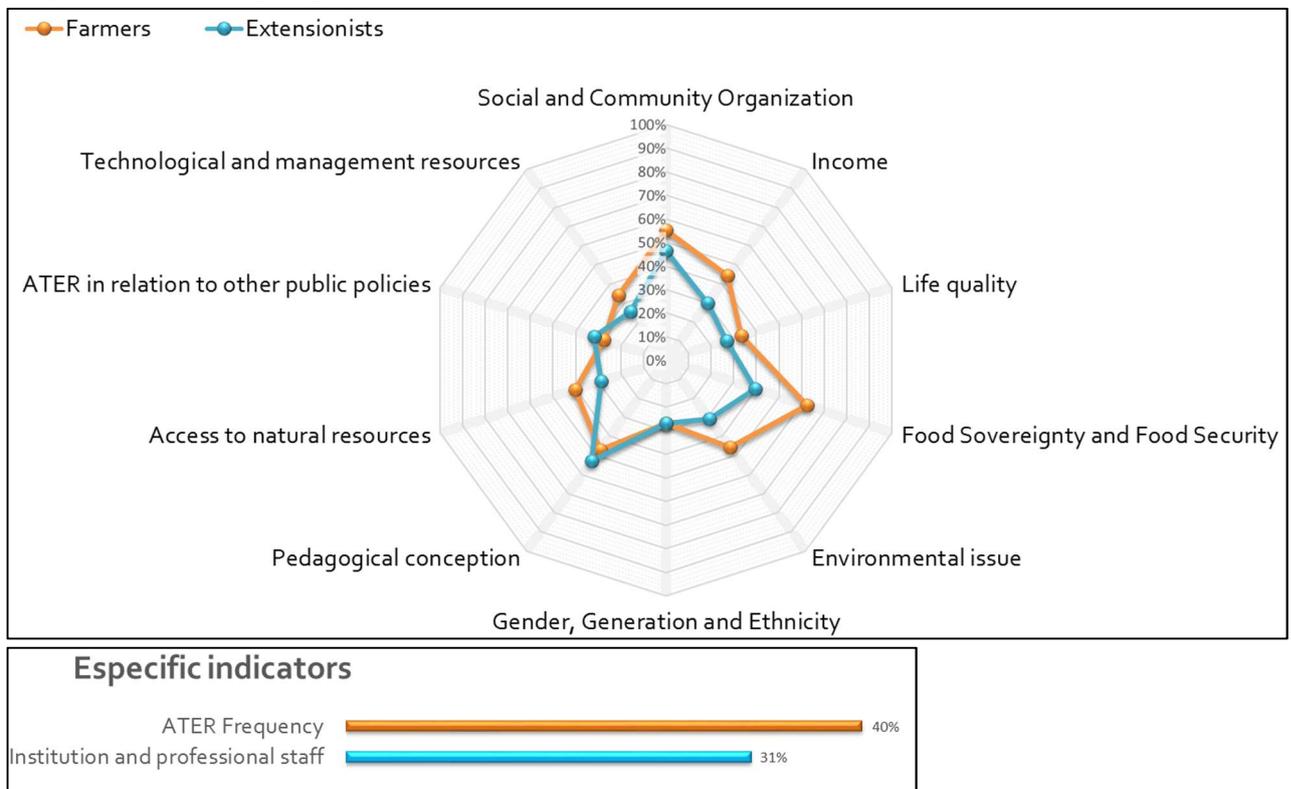
Entity Name	Type	N° of interviewed extensionists
Municipal Secretary of Agriculture	Public	4
Center of Sustainable Development and Training in Agroecology (CEAGRO)	Private	1
Paraná’s Technical Assistance and Rural Extension Company (EMATER)	Public	5
National Institute for Colonization and Agrarian Reform (INCRA)	Public	2
Federal University Fronteira Sul (UFFS)	Public	2

Source: Research Data (2014 and 2015).

### 5.3.3 Results

The indicators from the Cantuquiriguaçu Territory are presented in Figure 19. Indicators are presented according to the interviewed farmers and extensionists evaluation.

Figure 19 - Cantuquiriguaçu’s results for ATER services



Source: Research Data (2014 and 2015)





As we can observe, the indicators show a convergence between extensionists and farmers evaluation, regarding the PNATER's guidelines execution in this territory.

We believe that the lower evaluation of extensionists in this territory, when compared with the Alto Jequitinhonha Territory, is due to the fact that interviewed extensionists reported low appreciation of their carriers, insufficient professionals in their institutions, and the large number of family farmers in the Cantuquiriguaçu Territory. As we can see in Table 8, there are about 21 thousand establishments of Family Farming in the territory. According to the interviewed extensionists, there is an average of 204 families per extensionists. According to them, the ideal number should be about 60 families per extensionist.

We can see that the indicator "Institution and Professional Staff" had the percentage of 33%. In this territory, we can observe that the extensionists' evaluation was mostly lower than the farmers' evaluation. The extensionists understand the principles of the extensionist work, but they state that the precarious working conditions are the main reason that harms the service quality. This statement can be corroborated by the evaluation of the indicators "Pedagogical Conception" (53% according to extensionists and 47% according to farmers) and encouragement to "Social and Community Organization" (46% according to extensionists and 55% according to farmers).

Therefore, once the limitations in their institutions were pointed out, especially regarding displacement and number of families to be visited, the extensionists stressed out that they developed as main strategy to enable the development of Family Farming in the territory the encouragement to organize associations and cooperatives and participative methodological tools in the activities developed in partnership with the farmers. The farmers, in turn, highlighted the importance of such spaces to share experiences and strengthen socio-economic aspects in the community.

During our field works, we were able to observe that the main ATER strategy in the territory has been to support groups linked to social movements, as the MST, MPA, supported by institutions as the CEAGRO, which have been supporting the agroecological transition in the territory.

The ATER in this territory is therefore related to Agrarian Reform areas. The presence of rural settlements originated from Agrarian Reform in some municipalities from Cantuquiriguaçu Territory is from the 1990s, when INCRA created 40 rural settlements (IPARDES, 2007). This practice of land occupation is related to social movements, including





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mainly the MST. The expressive number of social movements is a reality that adds peculiarity to the Cantuquiriguaçu Territory. Besides the MST, other social movements are active in the territory, such as the Movement of the Peasant Women (MMC by its acronym in Portuguese), MPA, the Movement of People Affected by Dams (MAB by its acronym in Portuguese), and the Movement of Black Rural communities. They form a network of social movements that fights for land right.

According to the database of the Fight for the Land (DATALUTA, 2012), between 1988 and 2011 in this territory, 59 events of land occupation occurred, with the participation of 11,575 families. The main responsible was the MST, acting in 35 of these occupations, in partnership with MAB and black communities' descendants. In this period, 49 rural settlements were established, with 4,204 families occupying 95,222 hectares.

From the 20 municipalities of this territory, 14 of them have rural settlements, including the largest one from Latin America, the Ireno Alves Settlement. The municipality with the largest number of settlements is Goioxim (11), followed by Candói and Cantagalo, both with 5 settlements. However, the municipality of Rio Bonito do Iguaçu stands out due to the number of families and the area of settlements, totalizing 1,574 families occupying an area of 27,982 hectares, considered the largest reformed area in the country.

If we calculate the ATER coverage in the territory, considering the number of Family Farming establishments and the number of families visited by the interviewed extensionists, we would have the percentage of 13% of Family Farmers visited by extensionists in the territory. Therefore, we can evaluate that the extensionists' activities are efficient, once the indicator "ATER Frequency" evaluated by the farmers was 40% of the hypothetical ideal, considerably superior to the 13% that was calculated.

It is also important to observe that the indicator "Food Sovereignty and Food Security" reached 60% of the hypothetical ideal according to the farmers, even though the "Income" indicator reached only 44% of the hypothetical ideal. Once again, we can notice the importance of public policies to overcome extreme poverty and food sovereignty in the citizenship territories, since economic and social development is slower in Family Farming, especially where land and income are concentrated. In this territory, the social welfare 'Bolsa Família' was the main responsible for the success of the indicator "Food Sovereignty and Food Security", allied to ATER efforts to diversify production and self-consumption production for





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the families. The extensionists, however, once again evaluated their actions as inferior to those reported by the farmers, reaching 39% of the hypothetical ideal.

As in the Alto Jequitinhonha Territory, the indicator with the lowest percentage (27%) was related to ATER actions in their communities aimed at “Gender, Generation and Ethnicity” issues. And the extensionists’ evaluation reached the same percentage (27%). The farmers indicate a few or inexistent actions in this field, and extensionists claim that methodologies are lacking.

Together with the indicator “Gender, Generation and Ethnicity”, the indicator “ATER in relation to other public policies” had low percentage, 28% according to the farmers, and 32% according to the extensionists. These data are especially related to access to credit policies, as the PRONAF, and commercialization policies, as the National Program for Food Acquisition (PAA by its acronym in Portuguese), and the National Program for School Feeding (PNAE by its acronym in Portuguese). Default and bureaucratic difficulties are restrictions to access such policies. The extensionists report farmers’ difficulties to organize finances. On the other hand, farmers claim payment delays from the Federal Government, difficulties to regulate requested documentation, and resistance from the financial institutions to enable access to credit policies.

## 5.4 Pontal do Paranapanema Territory – State of São Paulo

### 5.4.1 Territory presentation

The Pontal do Paranapanema Territory is one of the three Citizenship Territories from the State of São Paulo. It is located in the extreme west from the State, on the border with the States of Mato Grosso do Sul and Paraná, which borders are delimited by the Rivers Paraná and Paranapanema, respectively. The territory is composed by 32 municipalities, distributed in a total area of 18,392.16 Km<sup>2</sup>. In Table 13 it is possible to observe the population distribution in this territory.





Table 13 - Distribution of urban and rural population in the Pontal do Paranapanema

Municipality	Urban Population	Rural Population	Family Farming Establishments	Families in Land Reform Settlements
Alfredo Marcondes	3,255	636	-	-
Álvares Machado	21,183	2,330	477	0
Anhumas	3,059	679	215	0
Caiubi	3,315	757	238	0
Caiuá	1,930	3,109	479	442
Emilianópolis	2,497	523	106	0
Estrela do Norte	2,099	559	102	0
Euclides da Cunha Paulista	6,111	3,474	598	480
Iepê	6,773	855	150	37
Indiana	4,127	698	148	0
João Ramalho	3,543	607	100	28
Marabá Paulista	2,142	2,670	349	258
Martinópolis	20,341	3,878	481	123
Mirante do Paranapanema	10,045	7,014	1,814	1,519
Nantes	2,431	276	35	0
Narandiba	3,105	1,183	144	0
Piquerobi	2,669	868	178	84
Pirapozinho	23,462	1,232	175	0
Presidente Bernardes	10,500	3,070	897	265
Presidente Epitácio	38,545	2,773	573	337
Presidente Prudente	203,375	4,235	680	0
Presidente Venceslau	36,272	1,638	472	309
Rancharia	25,828	2,976	469	177
Regente Feijó	17,049	1,445	236	0
Ribeirão dos Índios	1,850	337	126	0
Rosana	15,858	3,833	704	759
Sandovalina	2,581	1,118	181	197
Santo Anastácio	19,080	1,395	545	0
Santo Expedito	2,478	325	175	0
Taciba	4,852	862	200	0
Tarabai	6,109	498	114	0
Teodoro Sampaio	17,365	4,021	806	838
<b>Total</b>	<b>523,829</b>	<b>59,874</b>	<b>12,349</b>	<b>5,853</b>

Sources: SIT/MDA (2015); IBGE (2010); INCRA (2010).

As demonstrated in Table 13, the territory has a total population of 583,703 inhabitants. Of these, 523,829 live in urban areas, which represent 89.74%; and 59,874 live in rural areas, representing 10.26% (IBGE, 2010). Even though rural population is about 10%, it is a territory with predominant rural characteristics, since 23 from the 32 municipalities that compose the territory have population inferior to 20,000 inhabitants, and 20 municipalities have population





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density inferior to 20 people per km<sup>2</sup>. It is worth mentioning that the municipality of Presidente Prudente has a high percentage of urbanization (97.96%), concentrating 35.57% of the territory total population, and therefore, masks the level of regional urbanization.

The Agrarian Census (2006) states that the territory had 12,349 Family Farming establishments, according to the Law N° 11,326, from 24<sup>th</sup> July 2006. And according to IBGE (2010), the territory has 1,482 fishermen. Agrarian Reform settlements are present in 16 municipalities from the territory, and 5,853 families are distributed in 115 rural settlements, according to INCRA (2010), DATALUTA (2013) and ‘Fundação Instituto de Terras do Estado de São Paulo José Gomes da Silva’ - (ITESP, 2014). Official data from MDA do not indicate the presence of black rural or indigenous communities in this territory.

According to Leite (1998), until the beginning of the XIX century, Pontal was an unknown and uninhabited land. Only indigenous tribes, as the Xavantes, Kaingangs and Caiuás, were present in this region. Few white men that visited the region were ‘bandeirantes’ (Portuguese settlers in Brazil and fortune hunters), as Antônio Raposo Tavares. These ‘bandeirantes’ reached the area that nowadays is known as Pontal do Paranapanema to hunt indigenous peoples for slave work. These missions were called ‘Dadas’.

The undue appropriation of lands (in Portuguese called ‘grilagem’) in this territory started in 1856, when Antônio José Gouvêa reached the west pioneer border and assembled a large territory (later named ‘Fazenda Pirapó’) in the municipality of Santo Anastácio, State of São Paulo. The regional occupation intensified in the 1920s, due to the coffee industry and incorporation of new areas (urban and rural) by the real property (LEITE, 1998).

The State Government in the 1940s, trying to overcome the control of these territory lands, established a large forestry reserve called ‘the Great Reserve from Pontal’ (LEITE, 1998). However, new undue appropriations occurred, and only the ‘State Park Morro do Diabo’ remained in the region, in the municipality of Teodoro Sampaio, State of São Paulo.

With the irregular occupation of this territory by large landowners, the regional and economic development was linked to these agricultural businesses. First, was the coffee industry, then cotton, and then in the 1970s, animal husbandry (LEITE, 1998). More recently, sugar cane plantations were introduced. During this whole period, only a few official interventions happened, and a few actions of settlement were made to people affected by dams.

From the 1990s, the region became the largest initiative of rural settlements in the State of São Paulo, and gained worldwide attention due to conflicts, and State Government





intervention to promote settlements for rural workers (FERNANDES, 1996). Large land occupations made by rural workers and civil actions promoted by the State to identify and collect land to Agrarian Reform resulted in a large number of rural settlements. This happened during the governor Mário Covas' first term (1995-1998), when intense negotiations to collect land and the settlement of thousand families happened.

As a result for this land fight and support from social movements, 155 rural settlements were created, distributed in 16 municipalities of the territory, corresponding to the largest concentration of settlements in the State of São Paulo (DATA LUTA, 2013; ITESP, 2014).

According to Barone et al. (2011), the territory has a high number of populations in poverty condition, and it is marginalized by State and Federal Governments, since Pontal do Paranapanema is frequently reported as one of the poorest regions from the State of São Paulo.

The region was strongly marked by the presence of cattle industry, being called 'The Land of Nelore', and during decades there were disputes regarding land possession, resulting in economic stagnation. From the 1990s, the sugar cane industry gained distinction, introducing high level of mechanization and industrialization, but not creating jobs in the regional context. The region nowadays has oil and unsaturated fat industry, animal slaughters, and leather industry. Table 11 shows the distribution of rural establishments in the territory.

Table 14 - Producers' conditions in the Pontal do Paranapanema Territory

<b>Producers' condition</b>	<b>Number of establishments</b>	<b>%</b>	<b>Total Area (hectares)</b>	<b>%</b>
Non-Family Farming	4,502	26.76	1,288,896	83.60
Family Farming	12,319	73.24	252,883	16.40
<b>Total</b>	<b>16,821</b>	<b>100</b>	<b>1,541,779</b>	<b>100</b>

Source: IBGE (2006).

As we can observe in Table 14, according to the Agrarian Census (2006), from the 16.821 agricultural establishments, 73.24% (12,319) were from family farmers and occupied and area of 252,883 hectares, or just 16.40% from the region total area. On the other hand, non-family farming concentrated 1,288,896 hectares or 83.60% of the area, but with only 26.74% of the establishments.

When the first settlements were created in 1983, the families started to build their economic insertion specially exploring the milk industry. This was significant for the local and





regional economy, and therefore, a new social category appeared in the region (DUVAL; VALENCIO; FERRANTE, 2009). Ferrante & Barone (2008) highlight that the settlements are innovative experiences in the economic and social management in the territory, which generate tension between family farming and the Agroindustrial capital, regarding the social development in rural areas of São Paulo.

The relevance of these families in settlements for the municipalities is evident; however, to project the area in the settlements is still a dilemma and a challenge for local and regional public policies. Table 15 presents the rural establishment areas by groups of total area.

Table 15 - Establishments' areas in the Pontal do Paranapanema Territory

Groups of total area (hectares)	Number of establishments	%	Total Area (hectares)	%
More than 0 to 5 ha	1,975	11.74	5,541	0.36
From 5 to 10 ha	1,652	9.82	12,741	0.83
From 10 to 20 ha	5,810	34.54	93,239	6.05
From 20 to 50 ha	3,906	23.22	114,234	7.41
From 50 to 100 ha	1,257	7.47	89,524	5.81
From 100 to 200 ha	830	4.93	116,835	7.58
From 200 to 500 ha	837	4.98	259,695	16.84
More than 500 ha	516	3.07	849,970	55.13
Landless producer	38	0.23	0	0.00
<b>Total</b>	<b>16,821</b>	<b>100</b>	<b>1,541,779</b>	<b>100</b>

Source: IBGE (2006).

As we can observe in Table 15, establishments with more than 500 hectares represent only 3.07% of the region, however, have a percentage of 55.13% from the total area, or 849,970 hectares. Such situation, observed in 2006, is not worst because several rural settlements were created in the region.

The distribution of labor in the territory can be observed in Table 16.

Table 16 - Number of people over 14 years old working in Farming Establishments in the Pontal do Paranapanema Territory

Condition	Women	%	Men	%	Total	%
Family Farming	8,169	16.61	18,404	37.41	26,573	54.02
Non-Family Farming	4,882	9.92	17,735	36.05	22,617	45.98
<b>Total</b>	<b>13,051</b>	<b>26.53</b>	<b>36,139</b>	<b>73.47</b>	<b>49,190</b>	<b>100</b>

Source: IBGE (2006).



As we can see in Table 16, family farming has an area significantly smaller than non-family farming, however, from the 49,190 people in rural establishments, 54.02% are family farmers. It is worth mentioning the number of women working in rural establishments. Relating the total area in hectares with labor, family farming in average occupied one person per 10 hectares, while non-family farming occupied one person per 57 hectares.

Land use in the territory can be observed in Table 17.

Table 17 - Land use in the Pontal do Paranapanema Territory

%	Land use	Non-Family Farming (hectares)	%	Family Farming (hectares)	%
27.72	Pasture – planted and in good conditions	73,558,041	29.01	18,945,219	23.65
17.27	Pasture – natural	43,082,447	16.99	14,550,742	18.17
15.26	Woods and/or forests – natural, intended to permanent preservation or legal reserve areas	42,813,085	16.88	8,120,651	10.14
13.37	Plantation – temporary	32,592,327	12.85	12,016,716	15
10.81	Woods and/or forests – natural, excluding preservation areas and those in Agroforestry	25,446,704	10.04	10,610,156	13.25
3.5	Plantation – permanent	7,387,618	2.91	4,291,534	5.36
2.97	Pasture – planted, degraded	7,149,998	2.82	2,755,614	3.44
2.49	Agroforestry Systems – area cultivated with forest species but also used for plantation and animal	5,420,991	2.14	2,895,128	3.61
1.84	Unworkable land for farming (swamps, sandy and stony soil, etc.)	4,417,809	1.74	1,725,656	2.15
1.42	Woods and/or forests – planted with forest elements	4,141,285	1.63	592,933	0.74
1.42	Constructions, improvements or paths	3,003,242	1.18	1,730,284	2.16
1.26	Plantation – area planted with forage	2,891,309	1.14	1,312,466	1.64
0.4	Water tanks, lakes, weirs and/or areas with public water to be explored by aquaculture	1,032,489	0.41	301,401	0.38
0.24	Degraded Land (eroded, desertified, saline areas, etc.)	558,108	0.22	237,889	0.3
0.03	Plantation - area to cultivate flowers (including hydroponics and plastic culture), plant nursery and greenhouses	82,250	0.03	18,357	0.02

Source: IBGE (2010).



Regarding land use, even with sugar cane industry in the territory, areas with pasture (natural or planted) are still superior to others, with a percentage of 48.82% for non-family farming and 45.26% for family farming (Table 17).

Among the plantations, temporary ones have higher percentage. They represent 15% of family farming areas and 12.85% of non-family farming areas. Permanent plantations represent about 5% of family farming areas, and about 3% of non-family farming areas.

Natural woods and/or forests destined to preservation areas have a percentage of 16.88% and 10.14% for non-family and family farming areas, respectively; followed by natural woods and/or forests (excluding preservation areas and those in Agroforestry Systems), with a percentage of 10.04% and 13.25%, respectively.

Although areas with Agroforestry Systems represent only 2.49% of the total land (or 8,316,119 hectares), they are still a “great potential to restore natural areas and degraded ecosystems” (AMADOR, 2003, p. 4), due to their approximation with natural ecosystems.

The Municipal Human Development Index (MHDI) for the municipalities that compose the Pontal do Paranapanema Territory has increased in the last years. In 1991, the MHDI average was 0.496, the highest was from the municipality of Presidente Prudente (0.623) and the lowest from the municipality of Nantes (0.400). Therefore, in that year, the index difference between the highest and the lowest was 0.223.

In 2000, the improvement is noticeable, since municipalities with MHDI lower than 0.600 were only 16%, while in 1991 they were 97%. In 2014, again, the municipality of Presidente Prudente had the highest index, 0.746, and the lowest was 0.584 in Marabá Paulista. The MHDI average in 2000 was 0.644, which is 0.148 higher than in 1991.

The MHDI in the region is still increasing, according to data from 2010. The lowest index observed in 2010, 0.677, was already higher than the highest index from 1991, 0.623. The lowest index in 1991 was 0.400 and in 2010, 0.806, almost the double. Most of the municipalities had index superior to 0.700 and only 6% of the municipalities had an index inferior than this. Since MHDI values ranging between 0.600 and 0.669 are considered Medium, and between 0.700 and 0.799 are considered High, data show that the region was improved its indices, although only the municipality of Presidente Prudente reached a Very High MHDI.

Regarding income concentration, we can use the Gini Index to represent the income distribution. This index varies from 0 to 1, where the coefficient of zero expresses perfect





equality (everyone has the same income), while 1 expresses maximal inequality (only one person has all the income), therefore, it can estimate differences between the poorest and the richest incomes. In 2010, the Gini Index for the State of São Paulo was 0.51, and in Pontal do Paranapanema, the higher Gini Index value was in Rosana, 0.60, which means, the municipality with higher inequality concerning income distribution. The lower value was from the municipality of Nantes, 0.35. In this territory, most municipalities (50 or 62.5%) had values lower than the one calculated for the State (0.51).

Besides estimating income distribution, Gini Index can also estimate the percentage of population in poverty or extreme poverty situation. Therefore, we could verify that the percentage of population in extreme poverty condition is less than 2% in most municipalities (59% or 19 municipalities). The municipality of Mirante do Paranapanema has the highest percentage of population in extreme poverty condition, 6.41%. Also in this municipality, we could verify the highest percentage of population in poverty condition, 16.47%.

The percentage of population in poverty condition is too variable in the municipalities of Pontal, but 5 municipalities (= 15.63%) have values over 10%. In 25% of the municipalities (or eight municipalities), this percentage is less than 5%, and in the other 19 municipalities, the percentage ranged between 5% and 10%. We can observe in Table 18 the poverty situation in the territory, and in Table 19, the number of 'Bolsa Família' beneficiaries.





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Table 18 - Poverty situation in the Pontal do Paranapanema Territory

Municipalities	Per Capita Income (in Brazilian Reais - BRL)	% Extreme Poverty	% Poverty
Alfredo Marcondes	R\$ 558.38	1.29	4.66
Álvares Machado	R\$ 672.03	1.57	5.37
Anhumas	R\$ 561.82	1.75	6.90
Caiabu	R\$ 559.13	1.30	5.09
Caiuá	R\$ 500.47	4.02	13.35
Emilianópolis	R\$ 584.76	1.08	4.81
Estrela do Norte	R\$ 597.74	1.45	3.82
Euclides da Cunha	R\$ 493.91	5.16	14.46
Iepê	R\$ 623.96	1.84	7.40
Indiana	R\$ 681.29	1.18	4.42
João Ramalho	R\$ 627.59	1.50	7.16
Marabá Paulista	R\$ 457.56	3.04	8.23
Martinópolis	R\$ 636.00	1.42	7.36
Mirante do	R\$ 516.30	6.41	16.47
Nantes	R\$ 472.28	0.42	5.19
Narandiba	R\$ 482.74	1.38	5.34
Piquerobi	R\$ 514.47	3.12	9.05
Pirapozinho	R\$ 798.00	1.09	6.17
Presidente Bernardes	R\$ 695.29	2.14	6.52
Presidente Epitácio	R\$ 680.56	2.22	6.86
Presidente Prudente	R\$ 1.080.22	0.85	3.28
Presidente Venceslau	R\$ 846.18	0.89	4.53
Rancharia	R\$ 707.37	1.50	5.23
Regente Feijó	R\$ 774.14	0.50	3.50
Ribeirão dos Índios	R\$ 489.94	2.04	5.73
Rosana	R\$ 843.59	4.84	11.37
Sandovalina	R\$ 502.40	3.09	11.12
Santo Anastácio	R\$ 726.34	1.13	6.74
Santo Expedito	R\$ 497.60	2.85	11.41
Taciba	R\$ 559.10	1.61	4.34
Tarabaí	R\$ 505.51	2.41	8.20
Teodoro Sampaio	R\$ 619.79	5.10	9.12
Lowest	R\$ 457.56	0.42	3.28
Average	R\$ 620.83	2.19	7.29
Highest	R\$ 1.080.22	6.41	16.47

Sources: SIT/MDA (2015); IBGE (2010); MDS (2011).





In Table 18, we can verify that the percentage of the population under extreme poverty and the poor population in the municipalities of Pontal in 2010. Since then, the region improved in all the municipalities. In order to decrease poverty and minimize inequality in the country, the Federal Government stipulated the social program ‘Bolsa Família’ since 2013., which sends to families in poverty condition the monthly value of R\$ 154.00 per capita (Table 19).

Table 19 - ‘Bolsa Família’ in the Pontal do Paranapanema Territory

Municipality	‘Bolsa Família’ (Number of Beneficiaries)	% in relation to the municipal population*	‘Bolsa Família’ Program (Value in R\$)
Alfredo Marcondes	168	4.32	24.576.00
Álvares Machado	1,330	5.66	222.900.00
Anhumas	171	4.57	32.368.00
Caiabu	144	3.54	20.394.00
Caiuá	359	7.12	47.456.00
Emilianópolis	164	5.43	27.129.00
Estrela do Norte	75	2.82	12.653.00
Euclides da Cunha	916	9.56	166.009.00
Iepê	432	5.66	60.854.00
Indiana	243	5.04	39.175.00
João Ramalho	179	4.31	28.195.00
Marabá Paulista	290	6.03	51.149.00
Martinópolis	860	3.55	128.640.00
Mirante do	1,135	6.65	156.198.00
Nantes	137	5.06	20.501.00
Narandiba	212	4.94	31.809.00
Piquerobi	279	7.89	46.608.00
Pirapozinho	633	2.56	78.121.00
Presidente Bernardes	613	4.52	88.129.00
Presidente Epitácio	1,713	4.15	216.001.00
Presidente Prudente	5,607	2.70	845.962.00
Presidente Venceslau	1,396	3.68	218.138.00
Rancharia	1,271	4.41	184.950.00
Regente Feijó	251	1.36	39.004.00
Ribeirão dos Índios	149	6.81	19.092.00
Rosana	996	5.06	134.027.00
Sandovalina	204	5.52	35.519.00
Santo Anastácio	706	3.45	79.991.00
Santo Expedito	119	4.25	17.648.00
Taciba	281	4.92	52.268.00
Tarabai	333	5.04	51.188.00
Teodoro Sampaio	1,353	6.33	212.722.00
<b>Total</b>	<b>22,719</b>	<b>-</b>	<b>3.389.374.00</b>

Sources: IBGE (2010)





In Table 19 we can observe the number of families benefited by the program (more than 22,000 beneficiaries) and the total value (R\$ 3,389,374.00) spent for the 32 municipalities in the Pontal do Paranapanema Territory. The municipalities with highest percentage of population in poverty and extreme poverty conditions were also the ones in which more families were benefited by the program ‘Bolsa Família’, as the municipalities of Caiuá, Euclides da Cunha Paulista, Marabá Paulista, Mirante do Paranapanema, Piquerobi and Teodoro Sampaio.

#### 5.4.2 Data Collection

A total of 200 (two hundred) interviews were made with family farmers and 20 (twenty) with extensionists in 19 (nineteen) different municipalities in the Pontal do Paranapanema Territory, according to Table 20.





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Table 20 - Questionnaires applied in the Pontal do Paranapanema Territory

Nº	Municipality	Number of questionnaires applied to Family Farmers	Number of questionnaires applied to Rural Extensionists
01	Caiubu	-	-
02	Indiana	-	-
03	Tarabai	04	-
04	Estrela do Norte	-	-
05	Alfredo Marcondes	09	02
06	Álvares Machado	10	-
07	Anhumas	-	-
08	Caiuá	15	-
09	Emilianópolis	06	-
10	Euclides da Cunha Paulista	-	-
11	Iepê	-	-
12	João Ramalho	03	-
13	Marabá Paulista	12	-
14	Martinópolis	05	02
15	Mirante do Paranapanema	15	05
16	Nantes	-	-
17	Narandiba	03	-
18	Piquerobi	14	-
19	Pirapozinho	-	-
20	Presidente Bernardes	26	04
21	Presidente Epitácio	21	-
22	Presidente Prudente	08	01
23	Presidente Venceslau	-	03
24	Rancharia	-	-
25	Regente Feijó	-	-
26	Ribeirão dos Índios	-	-
27	Rosana	-	-
28	Sandovalina	07	-
28	Santo Anastácio	26	-
30	Santo Expedito	01	-
31	Taciba	-	-
32	Teodoro Sampaio	15	03
Total		200	20

Source: Research Data (2014 and 2015).

Regarding the interviewed rural extensionists, 4 (four) of them were working in private entities, and 16 (sixteen) in public companies, as we can see in Table 21.

Table 21 - Interviewed extensionists in the Pontal do Paranapanema Territory

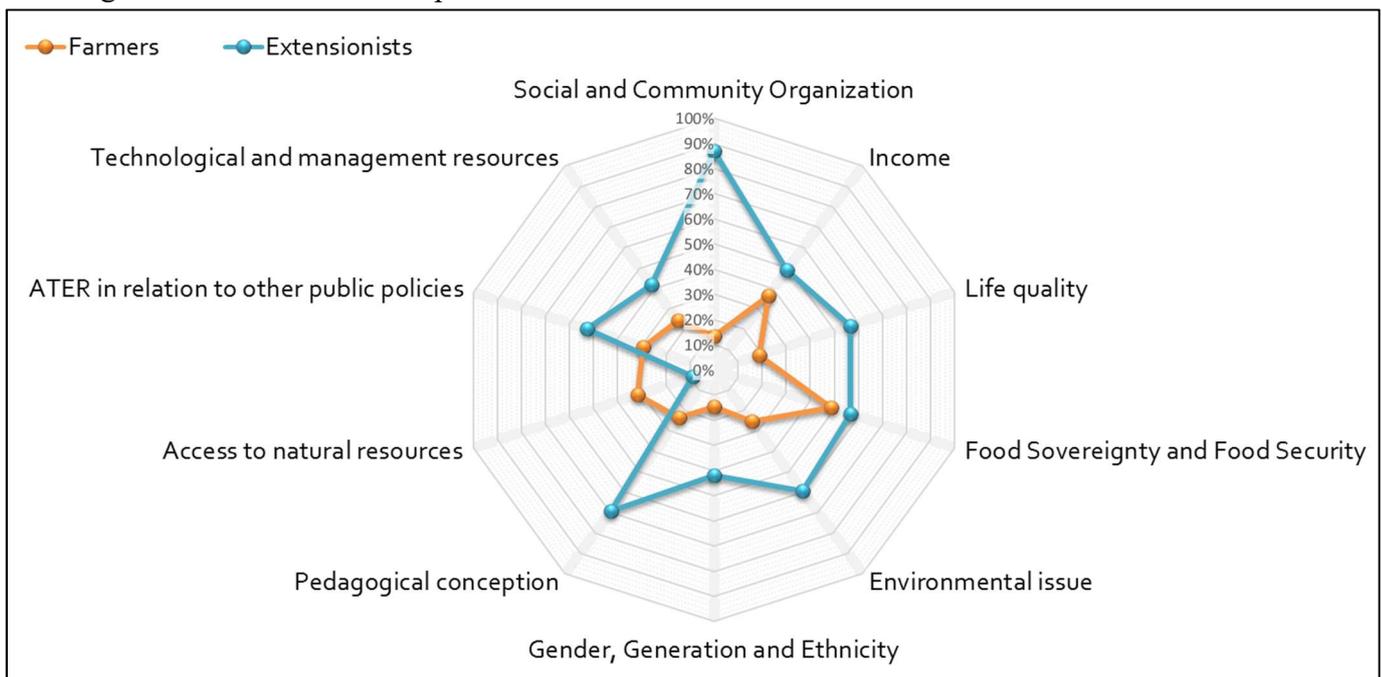
Entity Name	Type	Nº of interviewed extensionists
São Paulo Land Institute Foundation (ITESP)	Private	12
Coordination of Integral Technical Assistance (CATI)	Private	3
Autonomous Consultant	Public	3
Agriculture Secretary	Private	1
Cooperative South Brazil	Public	1

Source: Research Data (2014 and 2015).

### 5.4.3 Results

Results of the valuated indicators in the territory are presented in Figure 20. Indicators are presented according to the farmers and extensionists evaluations.

Figure 20- Pontal do Paranapanema’s results for ATER services



Source: Research Data (2014 and 2015).



The indicators in this territory represent the largest discrepancy between the extensionists and the rural families' evaluation. As to the farmers' evaluation, it presented the worst indices among the five investigated territories. This difference can be explained by the fact that most interviewed extensionists work for the São Paulo Land Institute Foundation (ITESP by its acronym in Portuguese) and they follow the PNATER guidelines, are aware of participative pedagogical conceptions and know about the importance to encourage farmers' social and communitarian organizations.

However, different from what have been observed in the other territories analyzed since now, despite the huge overload for extensionists (an average of 357 families per technician, while the ideal should be about 163 families, according to the interviewed extensionists), the indicator "ATER frequency" was 61% according to farmers. This was the highest percentage comparing to other territories. This could be explained by the fact that Pontal do Paranapanema region had experienced Agrarian Reform in the 1980s, where ATER and social movements' guidelines were marked by conventional agriculture model, which mainly persists in the interviewed farmer's productions. The biggest challenge for extensionists in this territory is to enable the New ATER guidelines, and to reestablish family farming organizations, which were widely extinct during the 1990s.

Another discrepancy that limits extensionists' work is the result from the indicator "Access to Natural Resources", which was 9% according to interviewed extensionists. The access and preservation of natural resources is pointed out by PNATER as one of the main guidelines to promote Agroecology, and therefore, this result reveals that even though extensionists declared that they are committed with PNATER guidelines, this item has not being accomplished.

Thus, we can consider that even though extensionists declare that they are committed with PNATER guidelines, their practices are not reflecting the guidelines in the territory. The indicator that highlights the observed discrepancy is "Social and Community Organization", the worst according to farmers' evaluation (13%), and the best according to extensionists (87%).

As in other studied territories, the indicators with higher convergence were "Food Sovereignty and Food Security" and "Income". Even though the percentage of these indicators were low, we can once again observe the importance of public policies to overcome extreme





poverty and provide food security. On the other hand, this territory is the one where family farming has higher social and economic vulnerability.

## 5.5 São Paulo's Southwestern Territory – State of São Paulo

### 5.5.1 Territory presentation

According to the Ministry of Social Development (BRASIL, 2012), the São Paulo's Southwestern Territory comprises 15 municipalities. The population distribution in this territory can be observed in Table 22.

Table 22 - Distribution of urban and rural population in the São Paulo's Southwestern

Municipality	Total Population	Urban Population	Rural Population
Apiáí	25.191	18.218	6.973
Barão de Antonina	3.116	1.913	1.203
Bom Sucesso de Itararé	3.571	2.430	1.141
Buri	18.563	14.992	3.571
Capão Bonito	46.178	37.824	8.354
Coronel Macedo	5.001	3.865	1.136
Guapiara	17.998	7.233	10.765
Itaberá	17.858	12.139	5.719
Itapeva	87.753	73.956	13.797
Itaporanga	14.549	11.033	3.516
Itararé	47.934	44.270	3.664
Nova Campina	8.515	5.762	2.753
Ribeirão Grande	7.422	2.344	5.078
Riversul	6.163	4.492	1.671
Taquarituba	22.291	19.579	2.712
Taquarivaí	5.151	2.811	2.340

Sources: SIT/MDA (2015); IBGE (2010).

As observed in Table 22, the municipalities from this territory are Taquarituba, Bom Sucesso de Itararé, Capão Bonito, Coronel Macedo, Guapiara, Itaberá, Nova Campina, Ribeirão Grande, Riversul, Taquarivaí, Barão de Antonina, Buri, Itapeva, Itaporanga and Itararé.

According to the Territorial Information System (SIT) from IBGE, the region had 312.063 inhabitants in 2010 (Demographic Census), from which 67.420 were living in rural areas, corresponding to 21.60% of the total population. The region had 6.605 family farmers,





415 families in rural settlements, one black rural community and 2 indigenous territories (SIT, 2013).

Currently, the territory's main economic activity is mining industry, and also the second largest tomato producer in the State of São Paulo, besides bean, corn and wheat. The municipality of Itapeva has a unit of Technological College of São Paulo (FATEC), six public Technical Schools (ETECs) and a Hospital, responsible to serve severe cases from all over the region. The population in extreme poverty condition in this territory can be seen in Table 23.

Table 23- Poverty Situation in the São Paulo's Southwestern Territory

Municipality	Population in extreme poverty condition						'Bolsa Família' Beneficiaries	
	Urban		Rural		Total			
Apiáí	935	39.3%	1,444	60.7%	2,379	9.4%	2,430	9.6%
Barão de Antonina	8	8.1%	87	91.9%	95	3.0%	245	7.9%
Bom Sucesso de Itararé	57	26.6%	157	73.4%	214	6.0%	368	10.3%
Buri	920	88.8%	116	11.2%	1,036	5.6%	1,805	9.7%
Capão Bonito	1,977	83.8%	382	16.2%	2,360	5.1%	3,883	8.4%
Coronel Macedo	207	75.4%	68	24.6%	275	5.5%	407	8.1%
Guapiara	599	26.8%	1,636	73.2%	2,235	12.4%	1,456	8.1%
Itaberá	522	35.1%	966	64.9%	1,488	8.3%	1,426	8.0%
Itapeva	1,817	69.9%	782	30.1%	2,599	3.0%	4,815	5.5%
Itaporanga	272	51.2%	259	48.8%	531	3.6%	1,143	7.9%
Itararé	2,218	90.3%	239	9.7%	2,457	5.1%	2,656	5.5%
Nova Campina	409	62.4%	246	37.6%	655	7.7%	969	11.4%
Ribeirão Grande	139	37.6%	230	62.4%	368	5.0%	507	6.9%
Riversul	434	71.3%	175	28.7%	609	9.9%	607	9.9%
Taquarituba	539	79.0%	143	21.0%	682	3.1%	1,123	5.0%
Taquarivaí	28	26.4%	77	73.6%	105	2.0%	385	7.5%

Sources: IBGE (2010); MDS (2011).

The municipality with highest percentage of extreme poverty in rural area is Guapiara, with 73.2%.of its population being classified as so. Taquarivaí has the highest percentage of extreme poor people living in rural areas, 73.6% of the municipality's population.

The 'Bolsa Família' Program is accessed by a small share of the territorial population, 7.2%. The producers' conditions in this territory can be observed in Table 24.



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Table 24 - Producers' condition in São Paulo's Southwestern Territory

Municipality	Producer condition x Establishment number						
	Total	Owner	In Land Reform settlements	Lessee	Partner	Occupant	Landless producer
Apiaí	458	378	-	26	-	46	8
Barão de	190	172	8	7	1	1	1
Bom Sucesso de	104	84	3	-	-	1	16
Buri	393	338	3	26	4	7	15
Capão Bonito	697	573	1	60	9	19	35
Coronel Macedo	326	249	-	50	7	20	-
Guapiara	890	675	1	58	12	112	32
Itaberá	1,441	1,189	126	72	4	45	5
Itapeva	1,315	1,015	139	50	13	19	79
Itaporanga	1,094	932	3	82	10	23	44
Itararé	875	599	54	143	10	15	54
Nova Campina	118	92	-	9	1	4	12
Ribeirão Grande	507	471	-	12	-	12	12
Riversul	454	378	-	42	-	32	2
Taquarituba	881	679	1	91	34	58	18
Taquarivaí	152	127	1	11	4	5	4
<b>Total</b>	<b>9,895</b>	<b>7,951</b>	<b>340</b>	<b>739</b>	<b>109</b>	<b>419</b>	<b>337</b>

Source: IBGE (2006).

As we can see in Table 24, the territory rural area is composed by different producers, as owners, producers in settlements with no definitive documentation, lessees, partners, occupants, and landless producers. It is worth mentioning the number of land owners in this region, totalizing 7,951 producers in this territory.



The distribution of activity group per area can be observed in Table 25.

Table 25 - Land use in the São Paulo's Southwestern Territory

Production Area × Activity Group						
Area (in hectares)	Temporary plantation	Horticulture and Flowerculture	Permanent plantation	Animal farming	Planted Forests	Native Forests
More than 0 to 0.1 ha	22	50	7	59	0	0
From 0.1 to 0.2 ha	32	51	6	45	0	0
From 0.2 to 0.5 ha	35	77	15	82	1	0
From 0.5 to 1 ha	36	57	13	60	2	0
From 1 to 2 ha	93	112	31	139	2	0
From 2 to 3 ha	90	116	42	245	6	0
From 3 to 4 ha	79	79	14	178	2	0
From 4 to 5 ha	107	95	27	273	16	3
From 5 to 10 ha	342	209	62	776	34	1
From 10 to 20 ha	590	201	79	914	28	3
From 20 to 50 ha	573	124	80	1,067	39	3
From 50 to 100 ha	272	46	30	502	21	4
From 100 to 200 ha	200	23	30	246	20	1
From 200 to 500 ha	154	16	27	158	22	0
From 500 to 1,000 ha	56	1	8	62	15	1
From 1,000 to 2,500 ha	27	1	5	18	6	3
More than 2,500 ha	8	1	3	9	9	1
Landless producer	23	67	0	247	0	0
<b>Total</b>	<b>2,739</b>	<b>1,326</b>	<b>479</b>	<b>5,080</b>	<b>223</b>	<b>20</b>

Source: IBGE (2010).

Agricultural area in São Paulo's Southwestern region is composed by permanent and temporary plantations, animal farming and silviculture, distributed in the several segments of the region agriculture: Industrial agriculture, Family Agriculture, Black rural communities, Indigenous communities and Land Reform Rural Settlements.

### 5.5.2 Data collection

A total of 200 (two hundred) interviews were made with family farmers and 19 (nineteen) with extensionists in 12 (eighteen) different municipalities from the territory, as demonstrated in Table 26.



Table 26 - Questionnaires applied in the São Paulo's Southwestern Territory

N°	Municipality	Number of questionnaires applied to Family Farmers	Number of questionnaires applied to Rural Extensionists
01	Barão de Antonina	13	01
02	Bom Sucesso de Itararé	-	-
03	Buri	25	03
04	Capão Bonito	09	02
05	Coronel Macedo	09	01
06	Guapiara	19	01
07	Itaberá	29	02
08	Itapeva	34	03
09	Itaporanga	-	-
10	Itararé	17	02
11	Nova Campina	-	-
12	Ribeirão Grande	09	01
13	Riversul	13	01
14	Taquarituba	-	-
15	Taquarivaí	03	01
16	Apiaiá (Vale do Ribeira – SP)	20	01
Total		200	19

Source: Research Data (2014 and 2015).

Regarding the interviewed rural extensionists, 7 (seven) of them were working in private entities of Rural Extension, and 12 (twelve) in public companies, as demonstrated in Table 27.

Table 27 - Interviewed extensionists in the São Paulo's Southwestern Territory

Entity Name	Type	N° of interviewed extensionists
Agriculture Secretary	Public	8
Coordination of Integral Technical Assistance (CATI)	Public	3
Agromaia	Private	2
Institute 'Via Pública'	Private	1
Cooperative of Families in Agrarian Reform settlements and Agricultural Cooperative from Capão Bonito	Private	1
Cooperative for Commercialization and Services for Family 'Unisol Brasil'	Private	1
São Paulo Land Institute Foundation (ITESP)	Public	1

Source: Research Data (2014 and 2015).

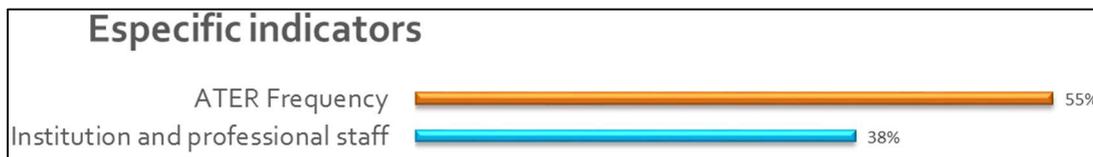
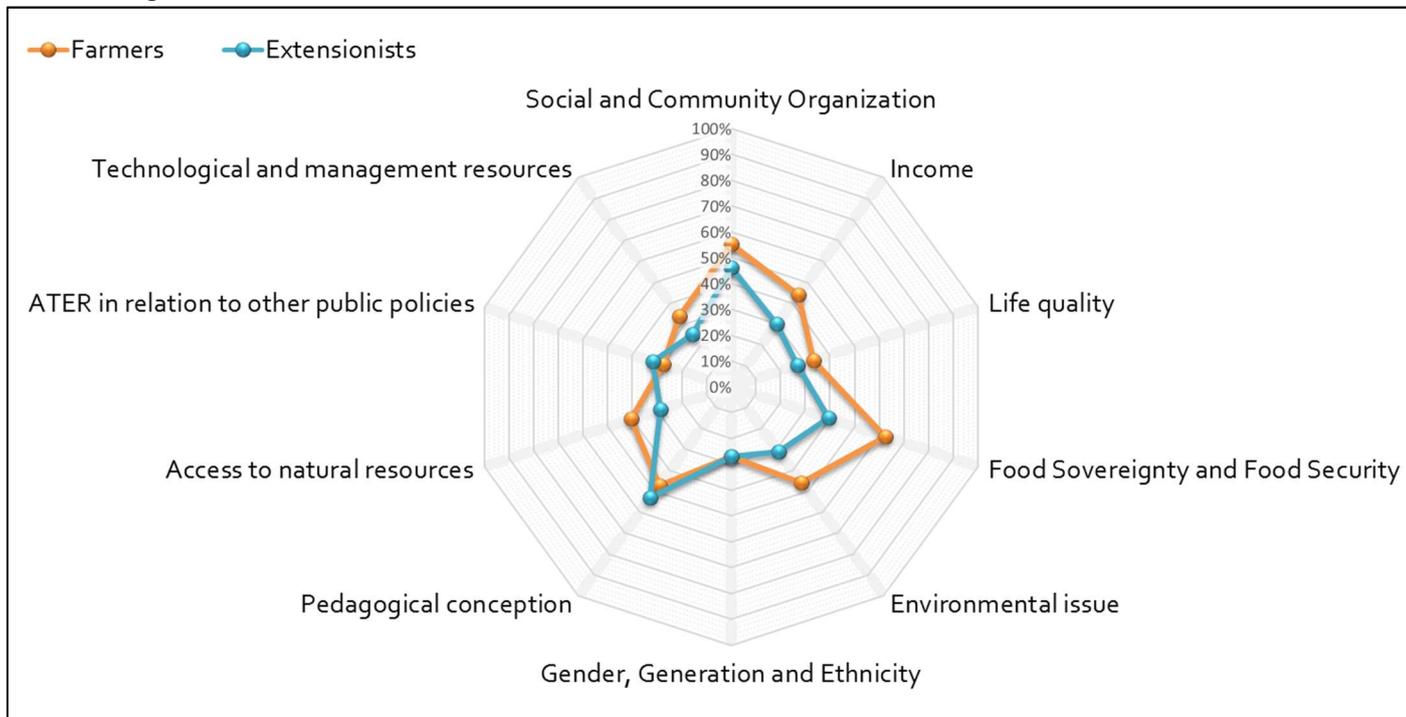


5.5.3 Results



Results of the evaluated indicators in the territory are presented in Figure 21. Indicators are presented according to the farmers and extensionists evaluations.

Figure 21 - São Paulo’s Southwestern’s results for ATER services



Source: Research Data (2014 and 2015).

In this territory, indicators revealed a great convergence between farmers and extensionists answers, although extensionists’ evaluation of indicators was inferior to farmers’ evaluation.

Indicators that were better evaluated were “Pedagogical conception” and “Social and Community Organization”. This is due to the fact that in this territory there are several associations and cooperatives aimed at institutional market, enabled by the Federal Government in the last decade. Therefore, farmers pointed out the importance of ATER in the organizations, especially, dealing with bureaucracy.

The existence of better conditions to access the market, and a superior logistic infrastructure resulted in the observed convergence. Thus, ATER services depend on external





conditions, so farmers' expectations can be accomplished by extensionists' activities, and also, enable dialogue about their objectives.

As in other territories, the percentage of the indicator “Food Sovereignty and Food Security” was high according to farmers' evaluation, reaching 65% of the hypothetical ideal.

It is worth mentioning that this territory corresponds to the poorest region in the State of São Paulo, so once again, we stand out the importance of public policies to overcome extreme poverty and promote food sovereignty, besides production for self-consumption.

As presented for the other territories, the indicator with the lowest evaluation is related to “Gender, Generation, and Ethnicity”. In this territory, this result should be considered serious, since there are indigenous communities and the need to specific ATER services for these communities.

## 5.6 Vale do Ribeira Territory – State of Paraná

### 5.6.1 Territory presentation

This territory covers two States: São Paulo and Paraná. To comprehend its dimension and the research particularities, we are going to focus on the territory sector in the State of Paraná.

The Vale do Ribeira Territory in the State of Paraná covers an area of 6,079.30 km<sup>2</sup> and it is composed by seven municipalities: Adrianópolis, Bocaiúva do Sul, Cerro Azul, Doutor Ulysses, Itaperuçu, Rio Branco do Sul and Tunas do Paraná.

According to the report presented by the Paraná State Institute for Economic and Social Development (IPARDES, 2007), this region is located at the ‘Paranaense’ Plateau, and corresponds to about 3% of the State territory, bordered on the north and east by the State of São Paulo, and northeast and west by the Ponta Grossa Territory.

According to its geomorphological features, the territory has an undulating surface, with great unevenness and predominance of limestone, and presence of sinkholes, ‘sumidors’, and caves. Since limestone is used for the production of quicklime and cement, this feature has been significantly changing the economy in the region, since the exploitation of raw material is the main economic source for many municipalities, as Adrianópolis, Rio Branco do Sul and Itaperuçu.





The region has a dense river system that flows to the Atlantic Ocean through the Ribeira de Iguape River. Near the urban area of Curitiba, we can find the springs from the rivers that form Ribeira River, as the Capivari and Açungui Rivers (IBGE, 2010).

Due to its uneven relief, we can find preserved remnants from the Atlantic Forest. The region has a warm tropical weather, especially the municipalities in the region of Adrianópolis, Doutor Ulysses and Cerro Azul, while the regions of Bocaiúva do Sul, Itaperuçu, Rio Branco do Sul and Tunas do Paraná have a more pleasant weather.

The occupation process in the region started at the end of the 20<sup>th</sup> century and beginning of 21<sup>st</sup> century, when the gold exploration began. However, the natural conditions of this territory determined its economic characteristics, mainly agriculture, and mineral exploration and extractivism.

According to IBGE's data, a significant number of people from Vale do Ribeira live in rural areas, corresponding to 42.76% of 100,821 inhabitants. According to IBGE's Agrarian Census, the region has 5,596 family farming establishments, which occupies 59,839 hectares. There are 902 establishments considered "non-family farming", occupying an area about three times more than the others, which corresponds to 156,891 hectares (IBGE, 2006).

Due to its undulating relief and high altitude, the region always had incipient development, especially concerning access to basic services, as housing, sanitation, health, education, income, employment, transport, and communication media.

Next paragraphs are going to present historical aspects, population dynamics, social and economic features, and the results from this research in the territory.

The Vale do Ribeira occupation started in the 16<sup>th</sup> century, with European explorers (Portuguese and Spanish). This occupation was related to gold and other precious metal exploration. Also in this territory, there is evidence of Guarani indigenous population, formed by families from the subgroups Mbyá e Ñandeva. The region also had slaves from Africa and 'bandeirantes'.

First occupied areas were those from the littoral zone, in the region of Cananéia and Iguape, and later the territory along the Ribeira River. Therefore, we can state that the first economic activity in the region was driven by the gold exploration, and this period was from the 16<sup>th</sup> century until 17<sup>th</sup> century. Different authors state that the movement in the territory only ended in the 19<sup>th</sup> century.





The search for gold in the region only declined due to the discovery of great gold and precious metal fields in the State of Minas Gerais. Then, plantations of rice, tea, coffee and more recently banana, started in the region.

This region harbors one of the largest extensions of Atlantic Forest in the States of São Paulo and Paraná, and besides its great diversity of flora and fauna, the region has a great ethnical and cultural diversity, formed by traditional communities, as indigenous, black rural and fishing families (traditional inhabitants of the coastal regions of the Southeast and South of Brazil, which descend from the indigenous people mixed with Europeans and Africans are named ‘caiçaras’).

Data show that Vale do Ribeira has about 80 fishing families, composed by 2,456 families, living along 140 km in the littoral zone of Iguape, Cananéia and Paranaguá. This population has an intense relationship with nature. Fishing for self-consumption is the main economic activity, which is traditional and with low environmental impact.

The indigenous community is organized in ten Guarani tribes, formed by families from the subgroups Mbyá e Ñandeva. According to the National Indian Foundation (FUNAI by its acronym in Portuguese), the indigenous population in the region is more than 400 individuals that live inside or near Conservation Units. Their relationship with natural resources is traditional, and their economy is based in subsistence agriculture.

Another very important population in this territory is formed by the black rural communities and their lands have been delimited and certificated in the last years. According to the Palmares Foundation (2016), the region has about 11 black rural communities as described in Chart 4.

Chart 4 - Certified Black rural communities in the Vale do Ribeira Territory

<b>Municipality</b>	<b>‘Quilombo’</b>	<b>Certification year</b>
Adrianópolis	Bairro Córrego do Franco	2006
Adrianópolis	Bairro Três Canais	2006
Adrianópolis	Comunidade Negra Rural de Sete Barras	2006
Adrianópolis	Córrego das Moças	2006
Adrianópolis	Estreitinho	2006
Adrianópolis	João Surá	2005
Adrianópolis	Porto Velho	2006
Adrianópolis	Praia do Peixe	2006
Adrianópolis	São João	2006
Bocaiúva do Sul	Areia Branca	2006
Doutor Ulysses	Varzeão	2006

Source: Zumbi dos Palmares Foundation (2016)





Regarding the occupation of the Vale do Ribeira Territory and its population dynamics, the territory always had low population density, due to large plantations of coffee, grains, sugar cane, and intensive industrial process. Although the municipalities of Vale do Ribeira from the State of Paraná are near the capital Curitiba and its large metropolitan area, this region predominantly has rural characteristics (IPARDES 2007), as we can see in Table 28.

Table 28 – Population's distribution in the Vale do Ribeira Territory

Municipality	Urban Population	Rural Population	Population Density (inhab/km <sup>2</sup> )	Urbanization Level (%)
Adrianópolis	2,060	4,316	4.72	32.31
Bocaiúva do Sul	5,128	5,859	14.72	46.67
Cerro Azul	4,808	12,131	13.24	28.39
Doutor Ulysses	929	4,798	7.38	16.22
Itaperuçu	19,956	3,931	83.57	83.54
Rio Branco do Sul	22,045	8,605	39.47	71.92
Tunas do Paraná	2,792	3,464	11.25	44.63
Total: 7	57,718 (57.24%)	43,103 (42.76%)	-	-

Sources: SIT/MDA (2015); IBGE (2010).

Regarding the MDHI and Gini Index in the territory, we could observe that the MDHI improved during the decade, evolving from **very low** (in municipalities as Azul, Doutor Ulysses, Itaperuçu and Tunas do Paraná = MDHI < 0.499) to **low** (Doutor Ulysses and Cerro Azul = MDHI < 0.599) and **medium** (Itaperuçu and Tunas do Paraná = MDHI < 0.699), especially due to investments in the healthcare sector, educational programs and social welfares (IBGE - Atlas do Desenvolvimento Humano – 2013).

The Gini Index evolved significantly during the decade, highlighting the municipality of Itaperuçu, that had the index near zero, and the municipalities of Adrianópolis and Tunas do Paraná, that more concentrated income in the territory.

Regarding social assistance programs from the Federal Government, the 'Bolsa Família' stands out for its coverage. This program monthly transfers benefits for families in poverty and extreme poverty condition.

In Table 29 we can see the number of beneficiaries of 'Bolsa Família' in this territory.





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Table 29 - Bolsa Família' beneficiaries in the Vale do Ribeira Territory

Municipality	Number of Bolsa Família's beneficiaries	Total of Bolsa Família's resources destined in R\$
Adrianópolis	502	77,926.00
Bocaiuva do Sul	829	137,743.00
Cerro Azul	2,080	305,623.00
Doutor Ulysses	844	159,915,00
Itaperuçu	1,799	268,836,00
Rio Branco do Sul	2,768	421,602,00
Tunas do Paraná	743	113,812,00
<b>Total</b>	<b>9,565</b>	<b>1,485,457.00</b>

Sources: IBGE (2010); MDS (2011).

As demonstrated in Table 29, the municipality of Rio Branco do Sul has the largest number of beneficiaries, probably because it is the most populous municipality in the territory. Interestingly, the municipality of Rio Branco do Sul has the higher MHDI in the region.

The Vale do Ribeira Territory has the actuation of different Social Movements, dealing with questions as Dam Constructions, Mining, and Land Regularization in traditional territories (indigenous, black rural and traditional fishing communities), besides family farmers. Claims are from both States that compose the territory (São Paulo and Paraná). Some of the movements acting in the region are: Movement of People Threatened by Dams, Articulation and Advisory Team for Afro-descendants Communities in Vale do Ribeira, MST, the Black Rural Communities National Coordination, Institute for Sustainable Development and Citizenship in Vale do Ribeira, Center for Studies, Defense and Environmental Education; Work Union Association of Family Farming in Vale do Ribeira Region, Unified Workers' Central (CUT), Workers Association for Family Farming in Vale do Ribeira and South Littoral zone of São Paulo, 'Pé no Mato', Sovereignty Movement for Mining, 'Prosa da Serra', besides civil society organizations, as the Socio-Environmental Institute (ISA) (ISA, 2008).

The economy in Vale do Ribeira Territory is dependent on Agriculture, and industrial sector is very incipient when compared to other regions from the State of Paraná. Industries in this territory represent only 1.3% of the total industries in the State. Besides, it is based on natural resources exploration, especially non-metallic minerals.

In 2010, the territory's Gross Domestic Product (GDP) was R\$ 968 million, which corresponds to 0.60 of the total richness generated in the State of Paraná. In the municipality of





Rio Branco do Sul, 47% of the territory's GDP is produced, with R\$ 454,79 million, due to cement industry in this municipality since the 1970s.

Regarding the Agricultural Establishments, the municipalities of this territory have about 6,498 establishments that occupy an area of 216,730 hectares. This amount corresponds to 1.75% of agricultural establishments in the State of Paraná. The municipalities of Cerro Azul and Rio Branco do Sul have 2,250 and 1,688 establishments, respectively. The municipality with fewer establishments is Tunas do Paraná, with only 236.

In table 30 we can see the types of agricultural establishments in the Vale do Ribeira Territory and State of Paraná.

Table 30 – Types of agricultural establishments in Vale do Ribeira Territory and Paraná State

<b>Agricultural establishment</b>	<b>State of Paraná (%)</b>	<b>Vale do Ribeira (%)</b>
<b>Family</b>	66	77.8
<b>Family-employer</b>	24	16.7
<b>Non-family</b>	10	5.5
<b>Total</b>	100	100

Source: IBGE (2006)

The agricultural establishments according to the Agrarian Census (1996) are divided into: family, family-employer and non-family farming. Most establishments in Vale do Ribeira are family farming, totalizing 94.5%, while only 5.5% are non-family farming (Table 31)

The percentage of Family farming in the territory is higher than the State of Paraná, which is 90%. The family farmers that do not hire employees correspond to 77.8% of the establishments.

The number of formal employment in agricultural production is very low in this territory. From a total of 12,392 formal employments in the territory, only 1,009 are for agricultural activities, which correspond to 8.14%. Tunas do Paraná is the municipality with the highest number of formal employment in agriculture (385), followed by Cerro Azul (224), and Bocaiúva do Sul (141).

Land in Vale do Ribeira (State of Paraná) has large extensions of forests, due to extremely mountainous terrain, corresponding to 45.42% of the territory.

Areas destined to plantations (permanent and temporary) sum 47,006 hectares (21.69%). Areas with temporary plantations correspond to 32,387 hectares (14.94% of the territory). Areas





destined to pasture represent 27.38% of the territory, or 59,332 hectares, which is inferior to the State average, 33.25% (IBGE, 2006).

Corn plantation (permanent and temporary) corresponds to 55% of the production, occupying 31,400 ha and producing 142.6 thousand tons (IBGE, 2006). Secondly, bean plantations correspond to 17% of the planted area (9,835 hectares) and the production of 8.134 tons. Altogether, corn and bean plantations totalize 72% of the agricultural production in the territory. Animal husbandry in Vale do Ribeira is well diversified, including chicken, pig, cattle, sheep, goat, bee, silkworm, etc. Production is mainly for subsistence, and marketable surplus.

According to literature research based on data from public organs, as INCRA, EMATER-PR and IBGE, there are no Agrarian Reform settlements in the Vale do Ribeira Territory in the State of Paraná. In contrast, data from the Paraná Institute for Economic and Social Development (IPARDES, 2007) declare that there are 30 families in a rural settlement of 830 hectares, created by INCRA in the municipality of Tunas do Paraná.

### 5.6.3 Territory data collection

A total of 200 (two hundred) interviews were made with family farmers and 12 (twelve) with extensionists in 7 (seven) different municipalities, as we can see in Table 31.

Table 31 - Questionnaires applied in the Vale do Ribeira Territory

Nº	Municipality	Number of questionnaires applied to Family Farmers	Number of questionnaires applied to Rural Extensionists
01	Adrianópolis	31	03
02	Bocaiúva do Sul	29	04
03	Cerro Azul	27	-
04	Doutor Ulysses	33	01
05	Itaperuçu	32	01
06	Rio Branco	19	02
07	Tunas do Paraná	29	01
Total		200	12

Source: Research Data (2014 and 2015).

Regarding the interviewed rural extensionists, all of them, 12 (twelve), were working in public companies, as we can see in Table 32.





Table 32 - Interviewed extensionists in the Vale do Ribeira Territory

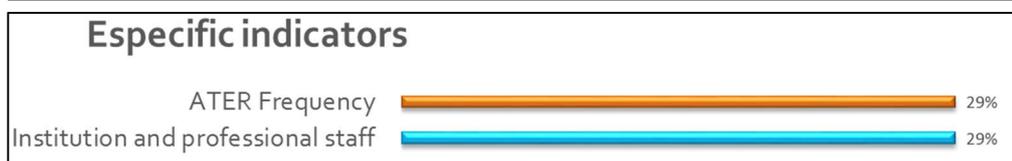
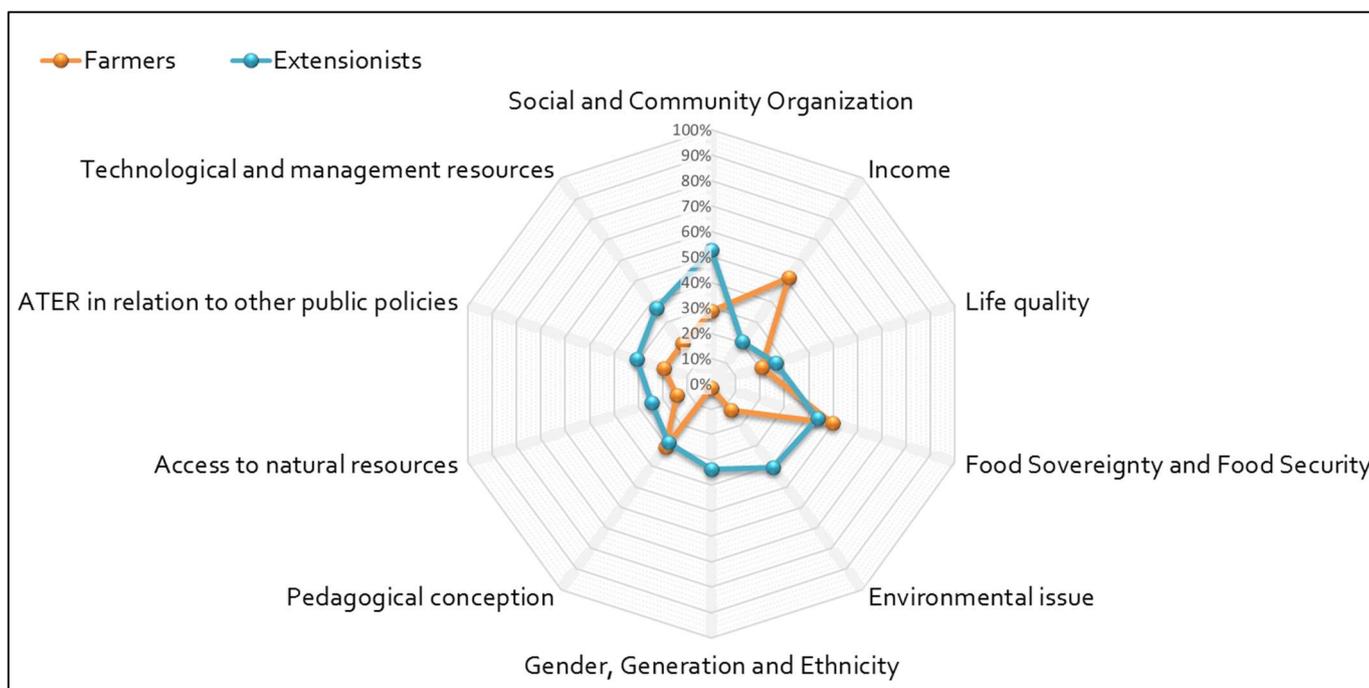
Entity name	Type	Nº of interviewed extensionists
Technical Assistance and Rural Extension	Public	11
National Rural Learning Service (SENAR)	Public	1

Source: Research Data (2014 and 2015).

### 5.6.3 Results

Results of the evaluated indicators in the territory are presented in Figure 21. Indicators are presented according to the farmers and extensionists evaluations.

Figure 22 - Vale do Ribeira’s results for ATER services



Source: Research Data (2014 and 2015).

During field research, we were able to follow extensionists’ activities with the farmers. The service is mainly offered by the Paraná’s Technical Assistance and Rural Extension Company (EMATER-PR), responsible for assisting farmers and facilitate access to rural credit, food sovereignty, social benefits, and other public policies.





We could also observe that the National Rural Learning Service (SENAR by its acronym in Portuguese) offers social assistance in the rural communities, especially in black rural communities. The Rural Credit Cooperative (CRESOL by its acronym in Portuguese) is also acting in the territory, especially facilitating access to rural credit.

In this territory, the indicator “Income” was better evaluated by farmers than by extensionists. Once we deeply analyzed the farmers’ and extensionists’ answers, we understood that farmers’ income is mainly composed by ‘Bolsa Família’ welfare and rural retirement, explaining why extensionists do not consider their services essential to improve farmers’ income.

Moreover, farmers from this territory commonly complement their income with temporary jobs, outside their properties. Only a small portion of the interviewed farmers’ income is from their rural activities in the properties. Therefore, production is mainly destined to self-consumption, reflecting the convergence of results for the indicator “Food Sovereignty and Food Security” by farmers and extensionists.

Field research also revealed that the territory was a difficult access to the market, and few logistic infrastructure to production distribution. Visited rural communities were in areas with difficult access, and had no permanent access to healthcare and education. Moreover, farmers related the difficulties to access local markets.

Since the local infrastructure is so precarious, this explains why extensionists reported that their services are insufficient to organize farmers in the territory, creating associations and/or cooperatives. This fact influenced the evaluation of the indicator “Social and Community Organization”, which was 30% of the hypothetical ideal, according to extensionists. Nevertheless, the same indicator was evaluated as 52% by farmers, since many interviewed farmers participated in credit cooperatives, but not commercialization cooperatives.

Farmers from this territory presented the worst evaluation for the indicator “Gender, Generation and Ethnicity”. This limitation is worth mentioning, since this is the studied territory with the largest number of black rural communities. Interviewed black rural farmers affirm that local and state governments neglect their communities, and extensionists are not trained to deal with black rural’s specific demands.





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## 6. CHAPTER 5 – The evaluation of the National Policy of Technical Assistance and Rural Extension

### 6.1 Introduction

The National Policy of ATER envisages a more systematic approach of reality in its implementation, privileging a systemic and holistic focus in the processes of technical assistance and rural extension. Taking this into account, the elaboration of a methodology to evaluate the PNATER should have a multidimensional approach, capable to observe and evaluate different dimensions where this public policy will act.

Therefore, the indicators elaborated for this study were based in the neo-institutionalism theoretical matrix, more specifically, its analytical branch called historical neo-institutionalism. This choice was based on its growing importance in political sciences, but also due to its precepts focusing on institutions.

The historical neo-institutionalism focus on the institution roles and also adaptation process of agents (individuals or organizations) that can, and frequent do, change policies. In this branch, institutions are highlighted to comprehend the development of public policies including individual's influence, and independently from other facts that can influence their structures, institutions embody historical trajectory and can lead future events.

In this sense, it is worth mentioning that the studies that investigate networks emphasize the horizontal dimension of public action coordination, informal arrangements, and governmental problems, more than hierarchical subjects. According to Paulillo (2000), the study and monitoring of public action following the network approach means:

- a) to have in the same analysis ground the public and private actors, and the public power should be evaluate as the external actors – like the concrete actors (as ministries, regulation agencies, legislative commissions, governmental local and public agencies, etc.) – and that may be differentiate by different roles (deliberative, regulatory, etc.), or objectives, even with different strategies that could be conflicting;
- b) to consider public policies from the base, and not from the top, which means to emphasize the implementation methodology of a public policy (making decisions and reformulation of problems);
- c) to rescue the complexity of the public sector or the public sector action (examples:





industrial, agricultural or educational policies), because in more than one of these sectors a network may be operating.

According to this approach, institutions are placed in the center of human sociability, enabling to understand the development as a historical result of certain determinate forms of coordination. Institutional organization is understood as a political and economic system, which structures collective behavior and generates distinct results.

### 6.1.2 Methodology

For this research, as presented in Chapter 3, we decided to evaluate ATER action in five different territories, distributed in three Brazilian States. The geographical selection was the same adopted by the Brazilian Federal Government in its policy called “Citizenship Territories”, which aims to promote economic development and to universalize basic citizenship programs, adopting a strategy of territorial sustainable development. Actions related to social development, sustainable organization of production, healthcare, sanitation, access to water, education, culture, infrastructure, and land actions are being articulated in these territories, evolving social participation and local, state and federal governments’ integration.

Each Citizenship Territory is composed by a set of municipalities with similar profiles, and that have social and cultural cohesion. Moreover, these municipalities have high socio-economic demands. Currently, aiming the implementation of public policies, 120 citizenship territories were determined in the Brazilian territory.

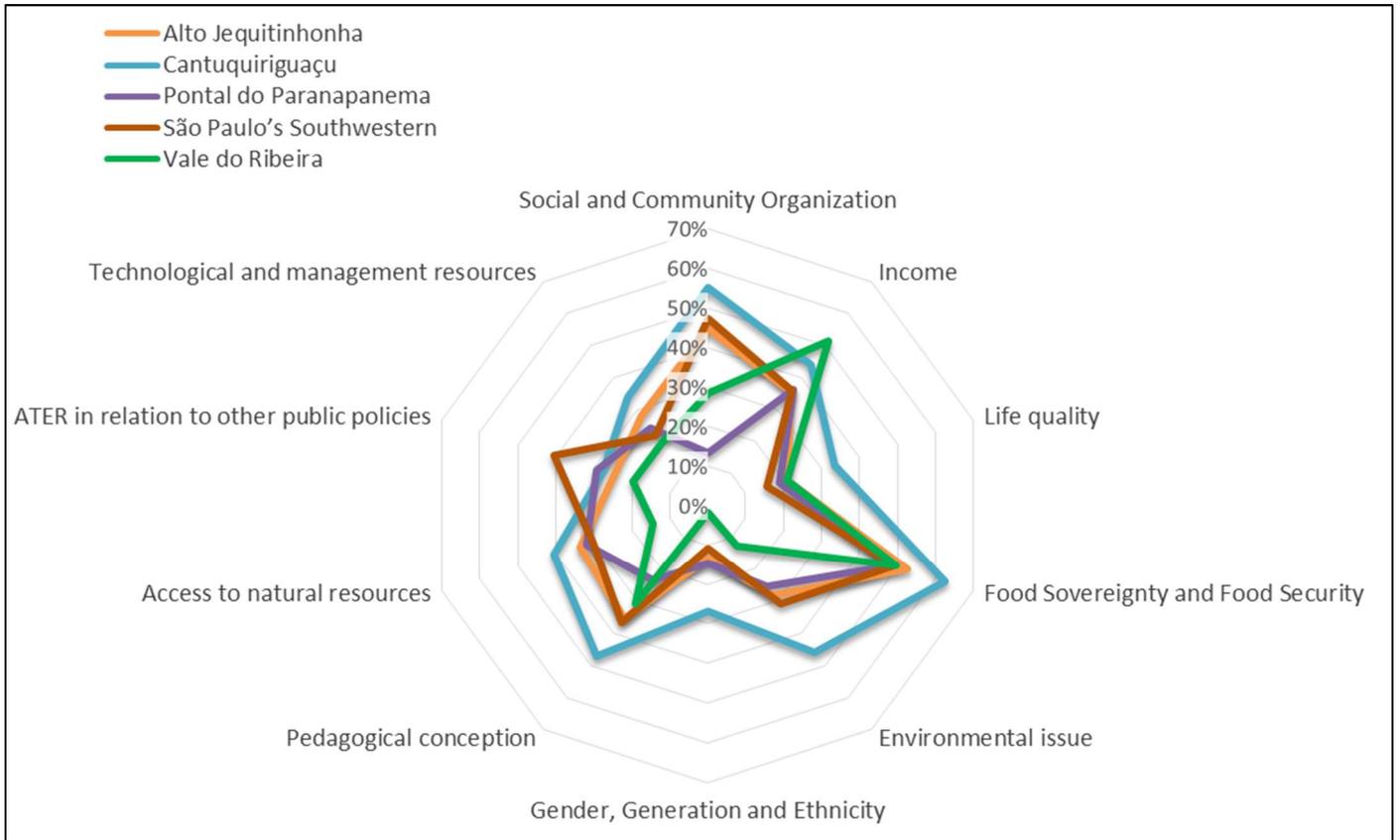
## 6.2 National results

Next we can see the results of national indicators from farmers and extensionists, as well as the performance of each indicator. The analysis of Efficiency, Effectiveness, Relevance, Impact and Sustainability of PNATER considered, besides field results, information and reports gathered during the interviews with public managers (Figs. 23, 24 and 25).





Figure 23 – Farmers’ national results for the ATER services

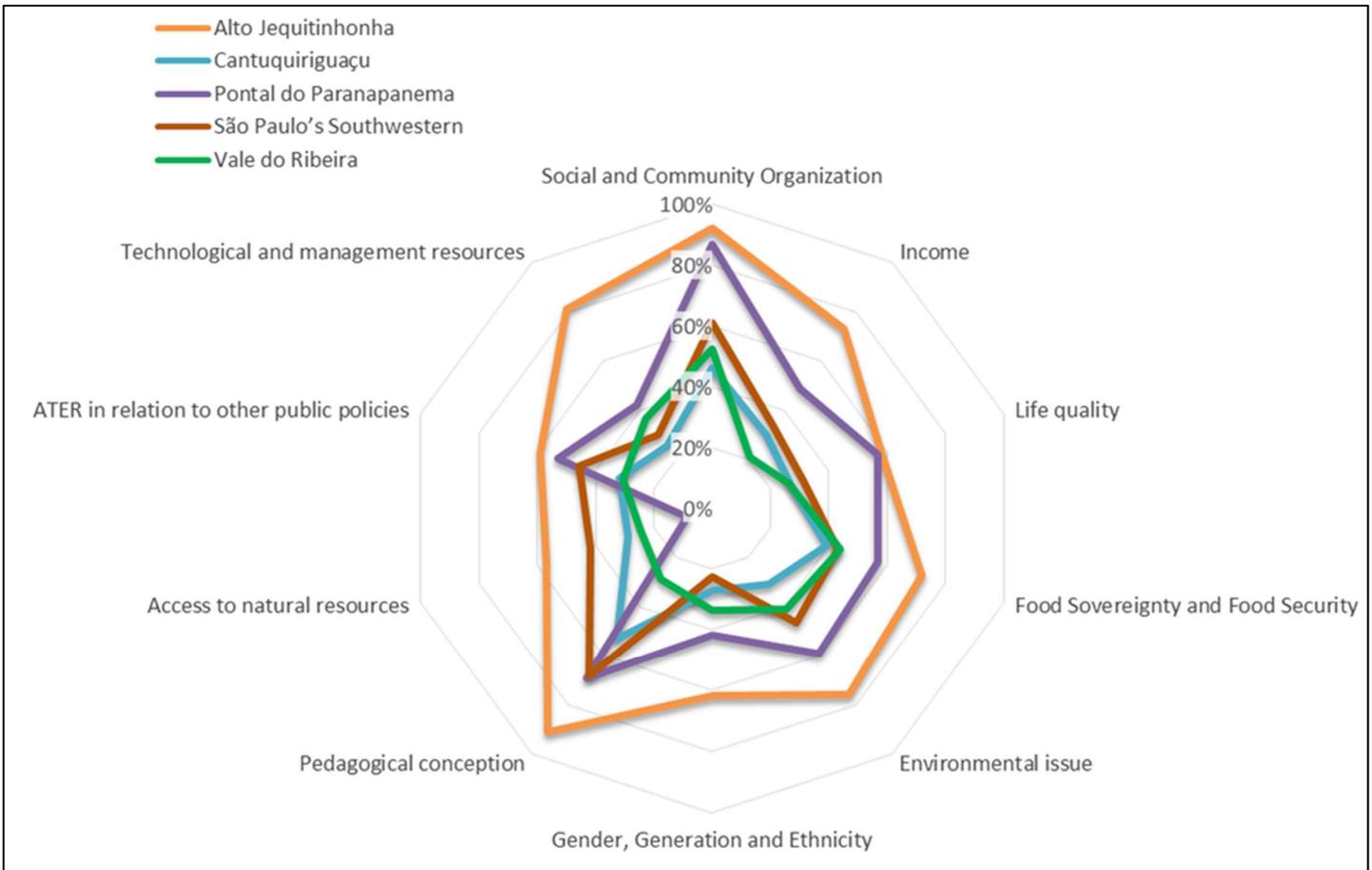


Source: Research Data (2014 and 2015)





Figure 24 – Extensionists’ national results for the ATER services.



Source: Research Data (2014 and 2015).





Figure 25 – Indicators’ performances



Source: Research Data (2014 and 2015)

As we can see from results obtained from field work, there is a tendency in results distribution in the five territories. The main convergences observed from a general view are specifically related to the best and worst evaluated indicators, being “Food Sovereignty and Food Security” the best evaluated indicator, and “Gender, Generation and Ethnicity” the worst.

The indicator “Food Sovereignty and Food Security” reveals the importance of policies for fighting hunger in the Citizenship Territories, and especially in rural areas it also reveals that ATER’s actions to encourage diversified production for food security collaborates to eradicate extreme poverty condition that historically affects these territories. Doubtless, this condition is not yet eradicated in the Brazilian society, but it is undeniable the importance of actions taken by the Federal Government since 2003.

Regarding the family incomes, we also identify that its performance in all five territories highlighted the dependence on rural retirement, ‘Bolsa Família’ welfare, and





temporary activities outside the family establishments, since these were determinant income source for the interviewed families.

This finding about income origin explains why in the two territories, where the evaluation of the indicator “Social and Community Organization” was low, Pontal do Paranapanema and Vale do Ribeira, the evaluation of indicator “Income” was superior. In these territories we interviewed the highest number of farmers that declared that at least one member of the family had paid employment outside the rural establishment or had temporary jobs.

In the other three territories, where most interviewed farmers declared that they income depend on activities in the establishment, also was higher the number of farmers members of Cooperatives or Associations. The phenomenon, apparently paradoxical, that values for the indicator “Social and Community Organization” lead to an inferior value for the indicator “Income”, it is because farmers that are trying to work in partnership with associations and cooperatives report payment delay from the Federal Government related to commercialization policies of their production, as the National Program for Food Acquisition (PAA) and the National Program for School Feeding (PNAE) (especially during the research period, in which payment delay was for three months); logistic difficulties to access non-institutional markets, and other difficulties in the organizations management.

If, in one hand, this research revealed inconsistencies in agricultural production payments, on the other hand, it highlighted the importance of public social policies for Family Farming, especially those destined to fight extreme poverty, as ‘Bolsa Família’, in periods of difficult access to commercialization of credit policies, or economic recession, that affects not only the public/institutional market. Thus, we can ascertain that the PNATER’s project for emancipation and autonomy of Family Farming is still threatened, as well as other public policies aimed at this public.

The indicator “Gender, Generation and Ethnicity”, the worst evaluated in all territories, reveals the limitations that ATER still faces. In the questionnaire, there were open and closed questions related to specific activities developed by extensionists in communities with groups of women, young and elderly people, and ethnical groups, as black rural and indigenous communities. Farmers related few or inexistent activities aimed at these groups, and extensionists reported that they develop none or insufficient activities in this field.

The indicator “Pedagogical Conception” had the highest evaluation regarding ATER practices, and it was considered the most relevant guideline for extensionists and farmers. The





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extensionists reported that their services were based on participative methodologies identified in the questionnaires, and also the farmers recognized such practices in the extensionists' services.

On the other hand, the indicator “Environmental Issue” revealed the persistent limitations to promote Agroecology principles. We could identify reduced initiatives from extensionists, given the importance of Agroecology in PNATER, and also limited appropriation from farmers, especially related to agroecological practices.

### 6.3 Conclusions

The conclusions presented in this chapter were elaborated based on the analytical approach proposed by the Global Forum for Rural Advisory Services – GFRAS, to evaluate technical assistance and rural extension activities.

Therefore, information and data gathered during the execution of this research and previously presented in this report, were integrally analyzed and based on the categories proposed by GFRAS

Thus, conclusions about PNATER are systemized in five categories: Relevance, Efficiency, Effectiveness, Impact and Sustainability.

At the end, based on the presented analysis, a list of recommendations is presented to improve the policy.

#### 6.3.1 Relevance

The first category, Relevance, aims to determinate if the goals of a public policy for human development are coherent with the beneficiaries' requests, the country needs, and global priorities. Thus, some guiding questions subsidize the evaluation from this category, as the questionings if PNATER's guidelines and priorities are coherent with expectations of different involved actors; and/or relation between PNATER actions and local/national agricultural policies; and/or policy capability to adept to conjuncture and structural changes, as modifications in market conditions or alternations in politic conjuncture; and/or if some principles of this policy are irrelevant or superfluous regarding the institutional context.

It is essential to understand that PNATER's policy is recent and it is aimed at family farming, defined in Brazil by the Law 11.326/2006, and that takes into account the size of





production unit, predominance of family work and earned income. Therefore, it is undeniable its relevance as the first ATER public policy exclusively destined to Family Farming.

It is also important to emphasize that besides the selection of the target audience for this research, the interviewed beneficiaries constitute a great heterogeneity, including people in agrarian reform settlements, indigenous communities, traditional peoples and communities, artisanal fishermen, besides technified family farmers inserted in agroindustrial chains.

Moreover, PNATER presents principles constructed based on contemporary debates of global relevance, as the promotion of sustainable agriculture; usage of participative approach in the extensionist activity; promotion of equity in relation with gender, generation, race and ethnicity; contribution to nutritional and food sovereignty and security.

Considering the features discussed so far, we would expect that actors involved should integrally appropriate the possibilities. However, the information gathered during the execution of this research demonstrate that this appropriation process does not occur homogenously, maybe due the diversity of involved actors and/or unfamiliarity about its innovative proposal and/or distrust related to action results.

It is known that PNATER is highly relevant to its target audience, Family Farming. This observation is due to the great participation of farmer representatives in local, state and national conferences about the subject, in 2012 and also in 2016.

Additionally, as this research results revealed, interviewed farmers criticized the way that services are being offered, this because they value ATER's importance and demand an important acquired right, essential to their socio-economic development.

One innovate characteristic of this policy, appropriated and considered relevant to its different actors, according to the indicators used in this research, is the usage of participative approach in its conception and execution. With the PNATER, there was a redirection in the pedagogical concept of the Brazilian ATER, changing from verticalized and hierarchic to horizontal and participative. Both farmers and extensionists recognize the importance of farmers' protagonism to emancipation and autonomy of Family Farming.

Regarding the promotion of more sustainable productive systems, this research identified that this PNATER guideline is more relevant to extensionists than to farmers. In a significant way, farmers are distrust to adopt production systems with industrialized inputs, as chemical fertilizers and pesticides, justifying their point of view in the efficiency of the conventional productive system, especially regarding the economic matter.





On the other hand, extensionists state that they have no proper training to help farmers to consolidate more sustainable production systems, once the knowledge necessary for this task is not offered by Brazilian educational institutions, and neither the policy has effectively advanced to offer proper training to technicians.

The results of this research also point out that there is a significant variation between studied territories based on the results of elaborated indicators from extensionist answers. This fact indicates that principles and approaches proposed by the PNATER are more appropriate by technicians from private entities, when compared to technicians from public companies. This can partly be explained by the professional profile from these institutions staff.

In public companies, after the adoption of neo-liberal policies by the Brazilian State in the 1990s, the transference of federal sources was suspended, which resulted in an intense process of scrapping, including staff shortage. Besides, the extensionists' career was devaluated, offering low pay and limited progression. Thus, a significant part of extensionist from public entities is unmotivated, but there is an institutional pressure to promote profound transformations in order to adopt the new PNATER guidelines.

Still regarding the professional staff from public companies, it is important to highlight a matter. The entrance of new professionals is dependent on civil service examination, which could be considered a limiting factor, once the evaluation of candidates is based on a written examination, usually technical, not always related to PNATER principles.

In a superior level, it was identify cases of uncertainty regarding the adoption of PNATER guidelines by local and/or regional public managers, which impacts technician's action in the field. In these conditions, we could verify that the execution of this policy also depends on hierarchical and individual decision processes in these institutions.

In Private entities, we could note that the professional staff is mainly composed by young extensionists. In its majority, these professionals have the knowledge and appropriation of principles related to sustainable production and are committed and motivated by their actions with the farmers. Moreover, it was specifically after the PNATER publication that many of these entities were specifically created to provide services. Therefore, it is possible to ascertain that the legitimization of these policy guidelines has a more fluid process in private entities, than in public companies.

One guideline that was demonstrated to be little appropriated by different actors is related to promotion of gender and generation equity. Research indicators revealed that this





subject is still underexplored in rural extension, based on its evaluation from farmers and extensionists.



An important consideration to be made about the PNATER is that this policy is unknown or considered of low relevance to actors not directly involved with it. Therefore, urban sectors of the Brazilian society recurrently relate ATER services to ‘assistencialism’, “illumination” of poor rural people, or even charity. According to the logic of urban values, the existence of a public service to aid those who already have an occupation (farmers) has no other reason than those cited above. The PNATER irrelevance in the urban sector is based on the stigma that relates Family Farming to poverty, inefficiency and cultural lag, while corporate farming is related to wealth, efficiency and avant-guard.

For the actors from corporate farming, PNATER is also considered irrelevant and even unnecessary, since this sector has enough funds to hire private and specialized technical assistance, and also have more access to commercialization and credit policies. Thus, PNATER is irrelevant, since it is not aimed at corporate farming, but also because its guidelines and principles are antagonistic with their production model.

### 6.3.2 Efficiency

A second analytical category used to evaluate this public policy was Efficiency. It was used to verify how socio-economic resources (as financing, technical knowledge, time, etc.) are converted into results. Thus, in this category we tried to verify if beneficiary groups are receiving services with appropriate costs, or if there was a change in the capacity of rural extension managers to reach beneficiaries and which were the costs; or which were the alternative systems to develop capacities aiming to serve with quality.

Trying to answer these questions, the first point is to highlight that PNATER operationalization shows evidence that there is potential to improve its procedures.

When the ATER Law was published in 2010, bids were no longer necessary and services for technical assistance and rural extension were then contracted by Calls for Proposals. This novelty resulted in a large, diversified network, composed by more than 300 ATER entities, with different legal natures, being public or private, profit or non-profit. It is important to emphasize that among these entities, there are the public companies for ATER, present in most of the Brazilian States. Usually, services of these companies are funded by State Governments, depending on Federal funds only to execute related activities.





However, despite the advances earned with the elimination of the Bids Law, there are still difficulties to PNATER's efficiency, related to Calls for Proposals' model and criteria, and bureaucracy requested to receive payment for executed services. It is important to emphasize the efforts from MDA and INCRA to elaborate conditions for Calls, so that PNATER guidelines are accomplished.

The Calls for Proposals elaborated by the MDA determined the theme to be addressed by service executers, the activities to be executed, place, target audience, and price. Thus, ATER entities that have an interest should present a project to this Call, and the selected proposal is the one that better meets the established criteria.

One constant complain from ATER entities managers is the low flexibility of activities envisaged by the Calls. Sometimes, activities are not consistent with demands from the local communities, fact that limits the construction of more suitable projects taking into account local reality and working conditions from entities. This, according to reports, has been determining the execution of dispensable activities in the communities, instead of relevant actions.

Another issue is the difficulties that small companies have to execute initial activities. This is because the transfer of funds from the Federal Government only happens after the execution of the service, or at least, part of it. Therefore, many non-profit private institutions start their projects precariously, waiting for the transference of funds.

Moreover, extensionists complain about the time necessary to elaborate final reports and to present accountability, besides the number of documents generated, with overlapping content many times. Thus, the efficiency of their services is affected, since the time dedicated to bureaucracy reduces the time that professionals have in the field, developing their activities with the communities.

Regarding public administration, it is evident the work overload of MDA tax auditors, responsible to analyze reports and evidentiary documents generated by ATER entities. This is due the low number of auditors to execute this task, but also because the excessive number of documents, fact that delay the transfer of funds to ATER entities.

At least, even thought when the activities are accomplished, payment delays may occur due to unavailability of funds.

In public companies, the salary payment, office infrastructure and travel costs are funded by the State government. These conditions were identified as facilitating the efficiency





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of ATER services, since payment delays to projects approved by the Calls do not affect so much the service of professionals of these entities.

On the other hand, in private entities, working condition is more precarious, and affects more the execution efficiency of PNATER guidelines. This is because the extensionists' payment depends on the execution of their services, so usually they do not receive monthly payments, as salaries. In the same way, payment delays from Federal Government affects more the continuity of services executed by extensionists from private entities.

Moreover, private companies are dependent from the project funds to execute services and establish their working infrastructure, including administrative activities and vehicles acquisition, gas costing and road fees. During the execution of this research, we could verify that this condition is responsible for the fact that many extensionists use their own vehicle for work-related reasons, or had their payments delayed, demonstrating inefficiencies in the policy

Such condition has induced, in some territories, the presence of private entities executing services with no historical link with local communities or the territory. These entities became experts to attend bureaucratic demands from the Calls, and have administrative structure and funding conditions superior to those local entities. These entities operate as business companies and have been appropriating a significant part of federal resources. Overall, these companies have no historical commitment with the PNATER guidelines, and are more similar to outsourcing companies with skilled labor.

In this context, there is the risk that these entities could be identified as efficient by the government, but farmers relate that their technicians' activities in the communities are reduced to signatures and photographs gathering.

### 6.3.3 Effectiveness

The category Effectiveness is about the goals proclaimed by the policy, when they are reached, or will be reached, aiming the development of its activities and taking into account its relative importance. Thus, in this category, we try to answer if the interventions in access to services and inputs have been improving; or if interventions have been facilitating the access of beneficiaries to the market; or if interventions have been facilitating the organization of sustainable groups of farmers.

As a starting point, it is important to consider that between the years 2010 and 2014, about 550 thousand families were served by funds from Calls for Proposals, from a total of 4.3





million family farmers existing in Brazil. This information demonstrated that even though ATER services funded by the government serve a great public (Brazil is probably the country that more offers ATER public service around the globe), it is still noticeable that a great part of its target audience is not benefited by the policy.

The ratio technician/farmers is also worth mentioning when we think about the policy effectiveness, since this is surely an impact factor in this category. Considering the researched territories, an average of 292 families were assisted by each interviewed extensionist, when the ideal number of actors involved in this policy should be one extensionist for a 100 families.

This issue was an important matter discussed in debates from local, state and national ATER conferences in 2016, as in the 2012's Conference. ATER entities and farmers have been questioning the goal of 100 families to be served by a technician as unfeasible and compromising the service quality, especially in regions where Family Farming establishments are distant from each other and travelling costs are high. Hence, it has been discussed that the number of families should be established according to local demands, and not determined in a national level for all Calls.

Based on the presented information, it is possible to assert that the policy would be more effective to serve its beneficiaries if funds were much superior to what is available nowadays.

Despite the limitations, this research demonstrated that in several aspects this policy can be considered effective, as the support to access institutional markets or the social organization of farmers. Research data reveals that ATER services have been promoting to farmers the access to institutional markets, as PAA and PNAE, resulting in improvements in their incomes, production systems and life quality. It was also observed the improvement of community organizations, as associations and cooperatives, providing the constitution of groups and communities that aim to construct more sustainable production systems.

Another point that had guaranteed the policy effectiveness in different territories is the adoption of a multi-institutional model, enabling the participation of public and private companies. Therefore, in regions where public entities were not present, private entities executed ATER services, and vice versa.

#### 6.3.4 Impact

Regarding the category Impact, the objective was to detect positive and/or negative effects in a long-term period as a result of direct and/or indirect interventions. Thus, we tried to





understand obtained results considering a better food sovereignty for beneficiaries, a better nutritional base and improvement of income for different groups that are served by rural extension. Also, in this category, we tried to observe possible negative impacts of this policy, even when unintentional, about the environment, women labor and increase of risks faced by family farmers.

PNATER's initial impact was the way to conceive and execute ATER policies, compared to previous experiences in the Brazilian history. First, because family farmers became exclusive beneficiaries of public ATER, and PNATER's conception was based on the diversity of this target audience, aiming its valorization and strengthening. Hence, for the first time in the Brazilian history, the family farming sector is recognized as an important protagonist from the national society, receiving the deserved respect from other social sectors.

Moreover, considering that between 2010 and 2014 about 550 thousand families were beneficiated by federal funds, and during the 1990s the ATER services were restricted to public companies (in the States where they existed), the policy impacts is undeniable.

Furthermore, it should be considered another important impact, the enlargement of dialogue channels between the Government and the civil society, thought CONDRAF and its ATER Committee, allowing notable participation and social management in governmental spaces. The pre-existent councils, that previously were less effective and with advisory nature, became responsible for elaborating and evaluating federal policies, as well as new councils were created in different social sectors.

However, in practical terms, the analysis of PNATER impact should take into account the set of public policies that have been beneficiating family farmers since 2002. The implementation of PNATER was articulated to a series of other actions, as the PRONAF, the Family Farming Support Price Program (PGPAF by its acronym in Portuguese), the PAA, the PNAE, the National Program for Education in Agrarian Reform (PRONERA by its acronym in Portuguese), National Program of Rural Housing (PNHR by its acronym in Portuguese), National Plan for Agroecology and Organic Production (Planapo by its acronym in Portuguese), and the Citizenship Territories Project (PTC by its acronym in Portuguese).

Besides these programs, were also established projects to strengthen family farming agro-industries; family farming labels; participative systems of guarantee and social control organizations in the quality control and origin of organic products; and incorporated the





products of socio-biodiversity in The Minimum Price Guarantee Policy (PGMP-Bio, by its acronym in Portuguese).

Doubtless, many of the positive impacts observed in this research are due to articulation of rural extension with other policies. It was recognized that it was through extensionist activities that farmers had access to these other described policies.

A great relevance positive impact observed was concerning the indicator “Food Sovereignty and Food Security”, the best evaluated in all studied territories. This indicator revealed that ATER services to encourage production diversification aimed at food security decisively collaborated to overcome extreme poverty condition that historically characterizes the territories.

When we identify the undeniable advance to overcome extreme poverty, we can also explore by a different angle the limitations of ATER policies. This is because the relatively superior performance of the indicators “Food Sovereignty and Food Security”, “Social and Community Organization” and “Income” did not result in a corresponding performance for the indicator “Life Quality”.

In the questions related to “Life Quality”, we asked the farmers about the ATER influence to improve their access to education, housing, sanitation, culture and leisure. And as we could observe, in four territories the evaluation of this indicator was about 20%, and in one territory, 33% of the hypothetical ideal.

Still concerning “Life Quality”, farmers reported in open questions from the questionnaire the frequent dissatisfaction related to Federal investments on infrastructure for mobility, as well as viabilization of a proper commercialization logistic.

We also recognize that the policy has little impact in valorization of women in the labor force, and creating conditions to avoid rural flight by young people.

Thus, despite many advances were achieved, field research revealed that PNATER’s impact still remains restrict regarding its objectives of material and social transformation of the Brazilian rural sector, once it is a recent policy and services have been suffering interruptions and discontinuities, and necessary funds for its universalization are still not available.

### 6.3.5 Sustainability

The analytical category Sustainability evaluates if policy’s benefits have a long-term continuity, indicating if there are risks that these benefits will not continue over the years. One





of the main points of this analysis is the authors' autonomy to keep benefits, once physical and financial resources are removed. Regarding environmental preservation, the possibility to maintain over the years the soil fertility and access to water.

Systemized analysis of the past allows us the identification of similar process in the present, thus, relate it to predictable outcomes. In the field of public policies studies, this is an important tool for public managers, social movements and other groups of the organized Civil Society to gather information, compare points of view and critically subsidize their decision processes.

In the Brazilian context, it is even more fundamental the use of such tool, since the Brazilian society has a relatively recent democratic experience, and also because a series of social rights and access to public services conquered by historically neglected groups are still under threat.

PNATER is a public policy, dependent on federal resources, and therefore, dependent on political decisions. This is a point that certainly can compromise the policy over the years, since changes in the government can create destabilization. Alterations in ATER policies already happened in the past due to change of governments, and can also occur in the future.

This possibility is supported by the low prestige that PNATER has by urban sectors of the society, unlike the public company for agricultural research (EMBRAPA - The Brazilian Agricultural Research Corporation), which is considered important by many different sectors of the Brazilian society, due to the contributions of its researches for technological development and national agriculture.

On the other hand, it is worth mentioning that PNATER have been helping in the construction of a national ATER system, in which participate different actors committed with the continuity of technical assistance and rural extension services in Brazil. The participative processes where the constructions, operationalization and evaluation of the policy are grounded, have been encouraged the policy appropriation by different social actors related to it. Doubtless, this is the main factor that guarantees PNATER sustainability for a long term period.

The innovative conception of PNATER permitted its appropriation by different interested social actors (farmers, technicians, universities, NGOs, public companies, social movements, etc.). Therefore, any threat to this policy generates social pressure that avoids backlash. In other words, to dismantle PNATER would not be an easy task, even with political interests.





It is also important to highlight that inside PNATER's structure there are actors that self-finance a significant part of their activities, as the public companies of ATER and private organizations that offer remunerated service.

In 2010 only 7.5% of the amount spent with ATER services in Brazil was funded by the federal government, while state funds corresponded to 79.2%.

Based on these data, we can state that the main role of PNATER in Brazil is not to fund ATER services, but instead, to organize this kind of service demanded by the Brazilian society, offering guidance and political support.

The recent creation of ANATER in 2013 can be considered a strategy from public power to guarantee the sustainability of this policy for a long term period, offering to public managers more autonomy to execute their activities. But as discussed before, this strategy has its own risks.

Regarding the sustainability of practices envisaged by PNATER, especially related to environmental dimension, it was verified that these join the sustainable perspective, and based on this perspective, there are few threats to the policy sustainability.

#### 6.4 Recommendations

As pointed out in this report, the PNATER is an innovation milestone that is essential for strengthen family farming in Brazilian rural areas since 2004. Its main distinction, determinant for the advances that it has been promoting, includes: 1) determination of a specific target audience, majority in Brazilian rural areas but historically neglected in the access of public policies; 2) prioritization of specific methodologies destined to promote citizenship in minorities that compose the plurality of the Brazilian family farming, as women, young and elderly people, black rural communities, indigenous peoples and other communities and traditional peoples; 3) prioritization of access to local markets as an strategy to family farming sustainability; 4) and the adoption of Agroecology principles aimed at environmental sustainability.

It is also important to emphasize that the PNATER was created in a moment that no other ATER federal policy was available, and during its construction in 2003, the participative process that grounded it was essential to guarantee, even nowadays, a profound dialogue with the diversity of demands from the Brazilian family farming. Thus, PNATER is a policy that





contemplates all main strategies capable to transform the Brazilian rural sector and overcome social inequalities, with a critical, profound and emancipator view.

However, over the last two decades, an even after ATER's Law publication in 2010, the PNATER still cannot be considered a consolidated policy. Its fragility can be attributed to operation and administration reasons, but in fact, is mainly determined by political reasons. This is because PNATER, executed by the Ministry of Agrarian Development during the research study, still has no political and institutional power necessary to its recognition and valorization by other Federal institutions.

Among the difficulties faced by managers and organizations that offer ATER services, we can cite the constant audits by the Federal Court of Accounts (TCU by its acronym in Portuguese) that delays or suspends their services, especially due to the public-private model of institutions; delays from the federal government to transfer payments; and staff and infrastructure shortage in the MDA. The following recommendations will not mention these aspects, but it is important to stress that only overcoming the mentioned difficulties, the following recommendations make sense.

Thus, regarding the PNATER operationalization and management, the recommendations resulting from this research are:

1. Federal investments to hire ATER services should be expanded, so the service could be, in fact, universal;
2. Participative processes should be prioritized and kept as managers definers of PNATER, but its effectuation should be expanded strengthening local/territorial management councils;
3. Topics for Calls for Proposals should be elaborated according to the territory, and therefore, local governments should stimulate and strengthen Local and State Councils for Rural Development, especially concerning the participation of farmer representatives from rural communities;
4. The number of families to be served by a rural technician should be defined according to the local demand, in partnership with the territory managing council;





5. ATER Calls for Proposals should be elaborated to contemplate more flexibility and diversity of activities proposed by the entities, allowing adequacy to local demands;
6. The bureaucracy requested to attest extensionist activities should be simplified;
7. Criteria of ATER Calls for Proposals should attribute more weight to local entities;
8. To small private entities should be guaranteed the payment in advance necessary to start activities from the approved projects;
9. Services should continue to be exclusive for family farmers;
10. The multi-institutional model for public or private ATER companies should be maintained, prioritizing the selection of local entities to execute services;
11. Extensionist actions to support organizations in the rural communities aimed at production commercialization should be a priority aspect of ATER Calls for Proposals;
12. Rural extensionist training based on PNATER principles should be expanded, continuous, and mandatory, in all public and private entities that offer ATER services;
13. Managers from public ATER entities should, mandatorily, join training based on PNATER in institution were projects are executed with federal funds;
14. Extensionists training should focus in three main aspects: participative methodologies, Agroecology, and issues related to gender, generation and ethnicity;
15. Farmers' organizations should have more participation in elaboration of ATER services proposals to be presented to the federal government, as well as right to evaluate the offered service;





16. Funds for agroecological transition should be a shared responsibility from ATER organizations, farmers' organizations, educational institutions, and local and state governments. Hence, territorial policies should be elaborated in partnership between these entities;
17. The rural extensionist career should be valued and recognized in public institutions, with better salaries, and encouragement to execute services according to PNATER principles;
18. Number of employees in public ATER entities should be raised, including the hiring of professionals from different fields, as agronomists, veterinaries, zootechnicians, and forest engineers. Moreover, more positions for social workers, nutritionists, educators, economists, and social scientists should be created;
19. In Brazil, ATER services aimed at Family Farming based on PNATER principles should prioritize food and nutritional security for families, encouraging self-consumption production, and keep fighting extreme poverty in the Brazilian rural sector;
20. Dialogue channels between extensionists and local public power should be enlarged, so extensionists can also become important interlocutors, supporting local farmers' organizations, and reporting rural communities' demands for infrastructure related to transport, education, housing, and other basic services.





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## 8. APPENDIX 1 - Farmers' questionnaire

(ORIGINAL – IN PORTUGUESE)

### Evaluation of Extension Reforms in Brazil CADERNO DE QUESTÕES AGRICULTORES (AS)

Nome do entrevistador(a): \_\_\_\_\_

Território:

\_\_\_\_\_

Início da entrevista: \_\_\_\_\_ (horas)

Final da

entrevista: \_\_\_\_\_ (horas)

**BRASIL**

**Agosto / 2014**



## AGRICULTORES(AS)

### IDENTIFICAÇÃO

0.1 Nome do entrevistado(a):

---

0.2 Município e Estado:

---

0.3 Nome do Bairro Rural/Comunidade/Assentamento:

---

0.4 Tipo de agricultor(a) (marcar a que melhor identifica):

- |   |                                     |
|---|-------------------------------------|
| <input type="checkbox"/> Agricultor(a) familiar | <input type="checkbox"/> Indígena   |
| <input type="checkbox"/> Assentado(a)           | <input type="checkbox"/> Quilombola |
|   | <input type="checkbox"/> Outro      |
- 

0.5 Qual é a organização responsável pelos serviços de assistência técnica e extensão rural (ATER) aqui na comunidade?

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- |   |                                   |  |
|---|-----------------------------------|--|
| <input type="checkbox"/> Não recebe serviço de ATER | <input type="checkbox"/> Não sabe | <input type="checkbox"/> Não respondeu |
|---|-----------------------------------|--|

0.6 De quanto em quanto tempo o técnico vem visitar a sua comunidade?

- |  |  |
|--|--|
| <input type="checkbox"/> Todos os dias 10                      | <input type="checkbox"/> a cada dois meses 5               |
| <input type="checkbox"/> duas vezes por semana 10              | <input type="checkbox"/> a cada três meses 3               |
| <input type="checkbox"/> uma vez por semana 10                 | <input type="checkbox"/> não se aplica (não recebe ATER) 0 |
| <input type="checkbox"/> duas vezes por mês (a cada 15 dias) 8 | <input type="checkbox"/> não sabe 0                        |
| <input type="checkbox"/> uma vez por mês 6                     | <input type="checkbox"/> não respondeu 0                   |





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## 0.7 Quadro familiar (os que moram na propriedade)

	Nome	Relação com o titular da propriedade (*)	Idade (anos)	Sexo	Escolaridade		Ocupação Principal
					Estuda? Em qual série está?	Se não estuda, até qual série estudou?	
1	Pai			M			
2	Mãe			F			
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							



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## ORGANIZAÇÃO SOCIAL E COMUNITÁRIA

2.1 Os técnicos que prestam serviço de assistência técnica e extensão rural aqui na comunidade incentivam que vocês se organizem em grupos, associações, cooperativas, etc?

- |  |   |
|--|---|
| <input type="checkbox"/> Não, nunca 0    | <input type="checkbox"/> Regularmente 7,5                         |
| <input type="checkbox"/> Quase nunca 2,5 | <input type="checkbox"/> Sim, sempre ele trabalha esse assunto 10 |
| <input type="checkbox"/> Às vezes 5      | <input type="checkbox"/> Não se aplica (não tem ATER) 0           |
|  | <input type="checkbox"/> Não sabe ou não soube responder 0        |

2.2 Como você avalia a qualidade deste trabalho de organização social e comunitária?

- |  |  |
|--|--|
| <input type="checkbox"/> Excelente 10  | <input type="checkbox"/> Ruim 2,5                          |
| <input type="checkbox"/> Muito bom 7,5 | <input type="checkbox"/> Péssimo 0                         |
| <input type="checkbox"/> Bom 5         | <input type="checkbox"/> Não se aplica ( não tem ATER) 0   |
|  | <input type="checkbox"/> Não sabe ou não soube responder 0 |

2.3 Você acha que o trabalho do técnico tem sido importante para ajudar vocês a se organizarem?

- |  |  |
|--|--|
| <input type="checkbox"/> Sim, muito importante 10          | <input type="checkbox"/> Ajuda muito pouco 2,5             |
| <input type="checkbox"/> Sim, importante 7,5               | <input type="checkbox"/> Não ajuda em nada 0               |
| <input type="checkbox"/> Ajuda, mas não é tão importante 5 | <input type="checkbox"/> Não se aplica (não tem ATER) 0    |
|  | <input type="checkbox"/> Não sabe ou não soube responder 0 |

2.4 O(a) senhor(a) ou alguém da sua família participa de alguma associação, cooperativa, sindicato ou conselho?

- |  |  |
|--|--|
| <input type="checkbox"/> Sim, ativamente 10            | <input type="checkbox"/> Não 0                             |
| <input type="checkbox"/> Sim, mas não de forma ativa 5 | <input type="checkbox"/> não sabe ou não soube responder 0 |

2.5 O(a) senhor(a) ou alguém da sua família participa de alguma organização informal, como grupo de mulheres, jovens, artesanato, etc

- |  |  |
|--|--|
| <input type="checkbox"/> Sim, ativamente 10            | <input type="checkbox"/> Não 0                             |
| <input type="checkbox"/> Sim, mas não de forma ativa 5 | <input type="checkbox"/> Não sabe ou não soube responder 0 |

2.6 Como é a participação de vocês nessas organizações (formais e/ou informais)?

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## RENDA



3.1 Você acredita que no último ano as ações do técnico de assistência técnica e extensão rural ajudaram na melhoria da renda da família?

- Não ajudaram em nada 0                       Ajudaram 7,5  
 Ajudaram muito pouco 2,5                       Ajudaram bastante 10  
 Ajudaram pouco 5                       Não se aplica (não tem ATER) 0  
 Não sabe ou não soube responder 0

3.2 De que forma estas ações ajudaram na melhoria da renda da família?

---



---



---

De toda a renda da família que proporção vem: (Cada linha deve ter uma coluna selecionada)

	Nada	Menos da Metade	Metade	Mais da Metade	Toda	Não sabe/ Não respondeu
3.3 Atividades agrícolas?	0	7	10	10	7	0
3.4 Atividades de agroindustrialização?	0	7	10	10	7	0
3.5 Artesanato e Turismo?	0	7	10	10	7	0
3.6 Assalariamento fora?	10	7	5	5	0	0

3.7 Qual a renda bruta mensal da família

- menos que 1 salário mínimo 0                       de 3 a 4 salários mínimos 7,5  
 de 1 a 2 salários mínimos 2,5                       maior que quatro salários mínimos 10  
 de 2 a 3 salários mínimos 5                       Não sabe ou não respondeu 0

3.8 Em sua opinião, como os técnicos de assistência técnica e extensão rural poderiam trabalhar para aumentar a renda das famílias de sua comunidade?

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**QUALIDADE DE VIDA**

Você considera que o trabalho do técnico de assistência técnica e extensão rural tem ajudado na melhoria de suas condições de ... (Cada linha deve ter uma coluna selecionada)

	Sim, tem ajudado bastante 10	Sim, tem ajudado 7,5	Ajuda, mas não é tão importante 5	Ajuda muito pouco 2,5	Não ajuda em nada 0	Não se aplica 0	Não sabe/não respondeu 0
4.1 Moradia?  (acesso a água, energia elétrica, saneamento, etc.)							
4.2 Saúde							
4.3 Educação							
4.4 Transporte							
4.5 Cultura e Lazer							

4.6 Em sua opinião, como os serviços dos técnicos de assistência técnica e extensão rural poderiam colaborar na melhoria das condições de vida das famílias dessa comunidade?

## SOBERANIA E SEGURANÇA ALIMENTAR

### 5.1 EBIA

**ALERTA: Tem criança e/ou jovem menores de 18 anos que moram na propriedade/lote?**

sim  não

**5.1.1 Nos últimos 3 meses, o Sr.(a) teve a preocupação de que a comida na sua casa acabasse antes que a Sr.(a) tivesse condição de comprar (ou produzir) mais comida?**

Sim  Não  Não sabe ou recusa responder

**5.1.2 Nos últimos 3 meses, a comida acabou antes que Sr.(a) tivesse dinheiro para comprar mais (ou pudesse produzi-la)?**

Sim  Não  Não sabe ou recusa responder

**5.1.3 Nos últimos 3 meses, o Sr.(a) ficou sem dinheiro (ou sem produção) para ter uma alimentação saudável e variada?**

Sim  Não  Não sabe ou recusa responder

**Os quesitos 5.1.4 a 5.1.6 devem ser respondidos apenas em domicílios com moradores menores de 18 anos.**

**5.1.4 Nos últimos 3 meses, o Sr.(a) teve que se arranjar com apenas alguns alimentos para alimentar alguma criança ou adolescente, porque o dinheiro acabou (ou não produziu)?**

Sim  Não  Não sabe ou recusa responder

**Se em todos os quesitos 5.1.1, 5.1.2, 5.1.3 e 5.1.4 o entrevistado tiver respondido NÃO ou NÃO SABE, ENCERRE O MÓDULO. Caso contrário, siga para o quesito 5.2.**

**Os quesitos 5.5.5 à 5.5.15 devem ser respondidos apenas por pessoas que tenham respondido “sim”, pelo menos a um dos quesitos 5.1.1, 5.1.2, 5.1.3 OU 5.1.4**

**5.1.5 Nos últimos 3 meses, o Sr.(a) não pode oferecer a alguma criança ou adolescente uma alimentação saudável e variada, porque não tinha dinheiro (ou produção)?**

Sim  Não  Não sabe ou recusa responder



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**5.1.6 Nos últimos 3 meses alguma criança ou adolescente não comeu em quantidade suficiente, porque não havia dinheiro para comprar a comida (ou não produziu)?**

Sim  Não  Não sabe ou recusa responder

**5.1.7 Nos últimos 3 meses, o Sr.(a) ou algum adulto em sua casa diminuiu, alguma vez, a quantidade de alimentos nas refeições ou pulou refeições, porque não havia dinheiro suficiente para comprar a comida (ou não pode produzi-la)?**

Sim  Não  Não sabe ou recusa responder

**5.1.8 Nos últimos 3 meses, o Sr.(a) alguma vez comeu menos do que achou que devia porque não havia dinheiro o suficiente para comprar comida (ou não pode produzi-la)?**

Sim  Não  Não sabe ou recusa responder

**5.1.9 Nos últimos 3 meses, o Sr.(a) alguma vez sentiu fome mas não comeu porque não podia comprar comida suficiente (ou produzir)?**

Sim  Não  Não sabe ou recusa responder

**5.1.10 Nos últimos 3 meses, o Sr.(a) perdeu peso porque não tinha dinheiro suficiente para comprar comida (ou não pode produzi-la)?**

Sim  Não  Não sabe ou recusa responder

**5.1.11. Nos últimos 3 meses, o Sr.(a) ou qualquer outro adulto em sua casa ficou, alguma vez, um dia inteiro sem comer, ou teve apenas uma refeição no dia, porque não tinha dinheiro para comprar a comida (ou não pode produzi-la)?**

Sim  Não  Não sabe ou recusa responder

**Os quesitos 5.1.12 à 5.1.15 devem ser respondidos apenas em domicílios com moradores menores de 18 anos**

**5.1.12 Nos últimos 3 meses, o Sr.(a) alguma vez, diminuiu a quantidade de alimentos das refeições de alguma criança ou adolescente, porque não havia dinheiro suficiente para comprar a comida (ou não pode produzi-la)?**

Sim  Não  Não sabe ou recusa responder

**5.1.13 Nos últimos 3 meses, alguma vez alguma criança ou adolescente deixou de fazer alguma refeição, porque não havia dinheiro para comprar a comida (ou não pode produzi-la)?**

Sim  Não  Não sabe ou recusa responder

**5.1.14 Nos últimos 3 meses, alguma criança ou adolescente teve fome, mas [o Sr. / a Sra.] simplesmente não podia comprar mais comida (ou não pode produzi-la)?**





Sim  Não  Não sabe ou recusa responder



**5.1.15 Nos últimos 3 meses, alguma criança ou adolescente ficou sem comer por um dia inteiro, porque não havia dinheiro para comprar a comida (ou não pode produzi-la)?**

Sim  Não  Não sabe ou recusa responder

5.2 Os técnicos que prestam serviço de assistência técnica e extensão rural aqui na comunidade incentivam que vocês produzam alimentos para o consumo da família?

- Não, nunca 0  Regularmente 7,5  
 Quase nunca 2,5  Sim, sempre ele trabalha esse assunto 10  
 Às vezes 5  Não se aplica (não tem ATER) 0  
 Não sabe ou não soube responder 0

5.3 De todos os alimentos consumidos por sua família, que proporção é produzida dentro da unidade produtiva?

- Nada 0  Mais da metade 7,5  
 Menos da metade 2,5  Tudo 10  
 Metade 5  Não se aplica (não tem ATER) 0  
 Não sabe ou não soube responder 0

5.4 Os técnicos que prestam serviço de assistência técnica e extensão rural aqui na comunidade incentivam que vocês produzam a própria semente ou o resgate de sementes crioulas?

- Não, nunca 0  Regularmente 7,5  
 Quase nunca 2,5  Sim, sempre ele trabalha esse assunto 10  
 Às vezes 5  Não se aplica (não tem ATER) 0  
 Não sabe ou não soube responder 0

## QUESTÃO AMBIENTAL

Você considera que o trabalho do técnico de assistência técnica e extensão rural tem ... (Cada linha deve ter uma coluna selecionada)

	Sim, tem	Sim, tem	Ajuda, mas não é tão	Ajuda muito	Não ajuda	Não se	Não sabe/não
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	ajudado bastante 10	ajudado 7,5	importante 5	pouco 2,5	em nada 0	aplica 0	respondeu 0
6.1 ajudado na melhoria da qualidade do solo?							
6.2 ajudado na melhoria da qualidade da água?							
6.3 contribuído para o aumento de animais e plantas silvestres na sua comunidade?							
6.4 incentivado sistemas de produção mais sustentáveis?							
6.5 incentivado a Agroecologia?							
6.6 contribuído para que vocês cumpram a legislação ambiental?							

6.15 Em sua opinião, como os serviços dos técnicos de assistência técnica e extensão rural poderiam colaborar na melhoria das condições ambientais da comunidade?





## GENÊRO, GERAÇÃO E ETNIA

7.1 Os técnicos que prestam serviço de assistência técnica e extensão rural aqui na comunidade realizam trabalhos específicos voltados aos jovens e/ou idosos?

- |  |  |
|--|--|
| <input type="checkbox"/> Não, nunca 0    | <input type="checkbox"/> Regularmente 7,5                  |
| <input type="checkbox"/> Quase nunca 2,5 | <input type="checkbox"/> Sim, sempre 10                    |
| <input type="checkbox"/> Às vezes 5      | <input type="checkbox"/> Não se aplica (não tem ATER) 0    |
|  | <input type="checkbox"/> Não sabe ou não soube responder 0 |

7.2 Os técnicos que prestam serviço de assistência técnica e extensão rural aqui na comunidade, realizam trabalhos específicos para mulheres?

- |  |  |
|--|--|
| <input type="checkbox"/> Não, nunca 0    | <input type="checkbox"/> Regularmente 7,5                  |
| <input type="checkbox"/> Quase nunca 2,5 | <input type="checkbox"/> Sim, sempre 10                    |
| <input type="checkbox"/> Às vezes 5      | <input type="checkbox"/> Não se aplica (não tem ATER) 0    |
|  | <input type="checkbox"/> Não sabe ou não soube responder 0 |

7.5 Em sua opinião, como os serviços dos técnicos de assistência técnica e extensão rural poderiam colaborar para uma maior participação das mulheres nas atividades da propriedade?

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7.6 Em sua opinião, como os serviços dos técnicos de assistência técnica e extensão rural poderiam colaborar para uma maior participação dos jovens e idosos nas atividades da propriedade?

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## CONCEPÇÃO PEDAGÓGICA

8.3 Você é convidado à participar das decisões sobre quais serão as ações e projetos que o técnico de assistência técnica e extensão rural vai desenvolver na comunidade?

- |  |  |
|--|--|
| <input type="checkbox"/> Não, nunca 0    | <input type="checkbox"/> Regularmente 7,5                  |
| <input type="checkbox"/> Quase nunca 2,5 | <input type="checkbox"/> Sim, sempre 10                    |
| <input type="checkbox"/> Às vezes 5      | <input type="checkbox"/> Não se aplica (não tem ATER) 0    |
|  | <input type="checkbox"/> Não sabe ou não soube responder 0 |

8.6 Os técnicos de assistência técnica e extensão rural utilizam-se de métodos e técnicas participativas em seus trabalhos na comunidade?

- |  |  |
|--|--|
| <input type="checkbox"/> Não, nunca 0    | <input type="checkbox"/> Regularmente 7,5                  |
| <input type="checkbox"/> Quase nunca 2,5 | <input type="checkbox"/> Sim, sempre 10                    |
| <input type="checkbox"/> Às vezes 5      | <input type="checkbox"/> Não se aplica (não tem ATER) 0    |
|  | <input type="checkbox"/> Não sabe ou não soube responder 0 |

8.7 Quais dessas atividades são realizadas pelos técnicos de assistência técnica e extensão rural? (Marcar quantas necessárias) a nota é o numero de lacunas assinaladas, até 10 (cada situação vale 1 ponto), exemplo: NOTA 3

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Orientação técnica individual | <input type="checkbox"/> Orientação técnica coletiva      |
| <input type="checkbox"/> Dia de campo                             | <input type="checkbox"/> Oficinas de capacitação          |
| <input type="checkbox"/> Banco de sementes                        | <input checked="" type="checkbox"/> Projetos para crédito |
| <input checked="" type="checkbox"/> Assembleias ou reuniões       | <input type="checkbox"/> Visitas técnicas                 |
| <input type="checkbox"/> Diagnostico participativo                | <input type="checkbox"/> Unidades demonstrativas          |
| <input type="checkbox"/> Outros                                   | <input type="checkbox"/> Não se aplica (não tem ATER)     |
| <hr/>   |   |
|   | <input type="checkbox"/> Não sabe ou não soube responder  |

8.10 Em sua opinião, o que poderia ser feito para melhorar a relação técnico-agricultor?

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## ACESSO A RECURSOS NATURAIS

9.1 Você considera que o trabalho do técnico de assistência técnica e extensão rural tem auxiliado para que você tenha sua terra regularizada?

- ( ) Não preciso desse trabalho não tem nota      ( ) Ajuda, mas não é tão importante 5
- ( ) Sim, tem ajudado bastante 10      ( ) Ajuda muito pouco 2,5
- ( ) Sim, tem ajudado 7,5      ( ) Não ajuda em nada 0
- ( ) Não se aplica (não tem ATER) 0
- ( ) Não sabe ou não soube responder 0

9.2 Você considera que o trabalho do técnico de assistência técnica e extensão rural tem contribuído para que você tenha acesso à água que você necessita?

- ( ) Não preciso desse trabalho não tem nota      ( ) Ajuda, mas não é tão importante 5
- ( ) Sim, tem ajudado bastante 10      ( ) Ajuda muito pouco 2,5
- ( ) Sim, tem ajudado 7,5      ( ) Não ajuda em nada 0
- ( ) Não se aplica (não tem ATER) 0
- ( ) Não sabe ou não soube responder 0

## RELAÇÃO DA ATER COM OUTRAS POLÍTICAS PÚBLICAS

10.1 Você considera que o trabalho do técnico de assistência técnica e extensão rural tem ajudado para que outras políticas públicas sejam acessadas? (PRONAF, PAA, PNAE, PPAIS, Seguro Agrícola, Minha Casa Minha vida, Luz para todos, Bolsa Família)

- ( ) Sim, tem ajudado bastante 10      ( ) Ajuda muito pouco 2,5
- ( ) Sim, tem ajudado 7,5      ( ) Não ajuda em nada 0
- ( ) Ajuda, mas não é tão importante 5      ( ) Não se aplica (não tem ATER) 0
- ( ) Não sabe ou não soube responder 0





Você tem acessado o... (Cada linha deve ter uma coluna selecionada)

	Não sei o que é 0	Nunca acessei 0	Já acessei, mas não acesso mais 2,5	Não posso acessar (inadimplência) 5	Acesso de vez em quando 7,5	Acesso todo ano 10	Não se aplica (não tem ATER) 0	Não sabe/ Não respondeu 0
<b>10.2 PRONAF</b>								
<b>10.3 PAA</b>								
<b>10.4 PNAE</b>								

## RECURSOS TECNOLÓGICOS E DE GESTÃO

11.1 Os técnicos que prestam serviço de assistência técnica e extensão rural aqui na comunidade incentivam que vocês realizem registros de gastos, ganhos e investimentos na propriedade?

- Sim, incentivam bastante 10                       Incentivam muito pouco 2,5  
 Sim, incentivam 7,5                                       Não incentivam em nada 0  
 Incentivam, mas não é tão importante 5                       Não se aplica (não tem ATER) 0  
 Não sabe ou não soube responder 0

11.2 Os técnicos que prestam serviço de assistência técnica e extensão rural aqui na comunidade incentivam vocês na elaboração e/ou implantação e/ou manutenção de projetos de agroindústria?

- Sim, incentivam bastante 10                       Incentivam muito pouco 2,5  
 Sim, incentivam 7,5                                       Não incentivam em nada 0  
 Incentivam, mas não é tão importante 5                       Não se aplica (não tem ATER) 0  
 Não sabe ou não soube responder 0





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## 11.3 De que

forma?



11.4 Os técnicos que prestam serviço de assistência técnica e extensão rural aqui na comunidade auxiliam vocês na busca de formas de comercialização da produção?

- Sim, incentivam bastante 10                       Incentivam muito pouco 2,5  
 Sim, incentivam 7,5                                       Não incentivam em nada 0  
 Incentivam, mas não é tão importante 5                       Não se aplica (não tem ATER) 0  
 Não sabe ou não soube responder 0

11.5 De que forma?

11.6 De um modo geral, como você avalia a qualidade dos serviços de assistência técnica e extensão rural aqui na comunidade?

- Excelente 10     Ruim 2,5  
 Muito bom 7,5     Péssimo 0  
 Bom 5     Não se aplica (não tem ATER) 0  
 Não sabe ou não soube responder 0

**OBSERVAÇÕES:**



## 9. APPENDIX 2 - Extensionists' questionnaire

(ORIGINAL – IN PORTUGUESE)

### Evaluation of Extension Reforms in Brazil

CADERNO DE QUESTÕES  
EXTENSIONISTAS

Início: \_\_\_\_\_ Final: \_\_\_\_\_

**BRASIL**

**Julho / 2014**

.4 Território:

Nome do entrevistado(a): \_\_\_\_\_





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1.1 Qual a empresa de ATER que o senhor(a) trabalha?

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1.5 Qual a sua idade?

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1.6 Quantos(as) agricultores(as) estão sob a sua responsabilidade?

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1.7 Em sua opinião, quantos(as) agricultores(as) você deveria atender com condições de prestar um serviço de qualidade?

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2.7 Você realiza trabalhos para auxiliar os(as) agricultores(as) a se organizarem em grupos formais e/ou informais?

(0) Não, nunca

(7,5) Regularmente

(2,5) Quase nunca

(10) Sempre, isso é uma prioridade

(5) Às vezes

2.8 De que forma você realiza trabalhos para auxiliar os(as) agricultores(as) a se organizarem em grupos formais e/ou informais?

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2.8 A instituição em que você trabalha incentiva que você realize trabalhos de organização social e comunitária?

(0) Não

(7,5) Sim, porém não é uma prioridade

(2,5) Muito Pouco

(10) Bastante, isso é uma prioridade

(5) Pouco

3.0 De que forma instituição em que você trabalha incentiva que você realize trabalhos de organização social e comunitária?






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3.8 Você realiza trabalhos de incentivo à agroindustrialização?

- ( 0 ) Não, nunca ( 7,5 ) Regularmente  
 ( 2,5 ) Quase nunca ( 10 ) Sempre, isso é uma prioridade  
 ( 5 ) Às vezes

3.9 De que forma você realiza trabalhos de incentivo à agroindustrialização?

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3.9 Você realiza trabalhos de incentivo à atividades de artesanato, turismo?

- ( 0 ) Não, nunca ( 7,5 ) Regularmente  
 ( 2,5 ) Quase nunca ( 10 ) Sempre, isso é uma prioridade  
 ( 5 ) Às vezes

4.0 De que forma você realiza trabalhos de incentivo às atividades de artesanato, turismo?

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4.7 Você realiza trabalhos que auxiliam na melhoria das condições de moradia dos(as) agricultores(as) assistidos? (acesso a água, energia elétrica, saneamento e água encanada)

- ( 0 ) Não, nunca ( 7,5 ) Regularmente  
 ( 2,5 ) Quase nunca ( 10 ) Sempre, isso é uma prioridade  
 ( 5 ) Às vezes

4.8 De que forma você realiza trabalhos que auxiliam na melhoria das condições de moradia dos(as) agricultores(as) assistidos?

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4.8 Você realiza trabalhos que auxiliam na melhoria das condições de saúde dos(as) agricultores(as) assistidos?

- |                     |                                      |
|---------------------|--------------------------------------|
| ( 0 ) Não, nunca    | ( 7,5 ) Regularmente                 |
| ( 2,5 ) Quase nunca | ( 10 ) Sempre, isso é uma prioridade |
| ( 5 ) Às vezes      |                                      |

4.9 De que forma você realiza trabalhos que auxiliam na melhoria das condições de saúde dos(as) agricultores(as) assistidos?

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4.9 Você realiza trabalhos que auxiliam na melhoria das condições de educação dos(as) agricultores(as) assistidos?

- |                     |                                      |
|---------------------|--------------------------------------|
| ( 0 ) Não, nunca    | ( 7,5 ) Regularmente                 |
| ( 2,5 ) Quase nunca | ( 10 ) Sempre, isso é uma prioridade |
| ( 5 ) Às vezes      |                                      |

4.9 De que forma você realiza trabalhos que auxiliam na melhoria das condições de educação dos(as) agricultores(as) assistidos?

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4.10 Você realiza trabalhos que auxiliam na melhoria das condições de cultura e lazer dos(as) agricultores(as) assistidos?

- |                     |                                      |
|---------------------|--------------------------------------|
| ( 0 ) Não, nunca    | ( 7,5 ) Regularmente                 |
| ( 2,5 ) Quase nunca | ( 10 ) Sempre, isso é uma prioridade |
| ( 5 ) Às vezes      |                                      |

4.11 De que forma você realiza trabalhos que auxiliam na melhoria das condições de cultura e lazer dos(as) agricultores(as) assistidos?







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4.11 Você realiza trabalhos que auxiliam na melhoria das condições de transporte dos(as) agricultores(as) assistidos?

- |                     |                                      |
|---------------------|--------------------------------------|
| ( 0 ) Não, nunca    | ( 7,5 ) Regularmente                 |
| ( 2,5 ) Quase nunca | ( 10 ) Sempre, isso é uma prioridade |
| ( 5 ) Às vezes      |                                      |

4.12 De que forma você realiza trabalhos que auxiliam na melhoria das condições de transporte dos(as) agricultores(as) assistidos?

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4.13 De que forma a Instituição em que você trabalha incentiva para que você realize trabalhos que auxiliam na melhoria das condições de transporte dos(as) agricultores(as) assistidos?

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5.5 Você realiza trabalhos que incentivam a produção de alimentos para o próprio consumo dos(as) agricultores(as)?

- |                     |                                      |
|---------------------|--------------------------------------|
| ( 0 ) Não, nunca    | ( 7,5 ) Regularmente                 |
| ( 2,5 ) Quase nunca | ( 10 ) Sempre, isso é uma prioridade |
| ( 5 ) Às vezes      |                                      |

5.6 De que forma você realiza trabalhos que incentivam a produção de alimentos para o próprio consumo dos(as) agricultores(as) assistidos?

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5.6 De que forma a Instituição em que você trabalha dá condições para que você realize trabalhos que incentivam a produção de alimentos para o próprio consumo dos(as) agricultores(as) assistidos?

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5.6 Você realiza trabalhos que incentivam os(as) agricultores(as) a produzirem suas próprias sementes ou o resgate de sementes crioulas?

- |                     |                                      |
|---------------------|--------------------------------------|
| ( 0 ) Não, nunca    | ( 7,5 ) Regularmente                 |
| ( 2,5 ) Quase nunca | ( 10 ) Sempre, isso é uma prioridade |
| ( 5 ) Às vezes      |                                      |

5.7 De que forma você realiza trabalhos que incentivam os(as) agricultores(as) a produzirem suas próprias sementes ou o resgate de sementes crioulas?

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5.8 De que forma a Instituição em que você trabalha dá condições para que você realize trabalhos que incentivem os(as) agricultores(as) a produzirem suas próprias sementes ou o resgate de sementes crioulas?

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6.7 Você realiza trabalhos para auxiliar os(as) agricultores(as) na melhoria da qualidade do solo?

- |                     |                                      |
|---------------------|--------------------------------------|
| ( 0 ) Não, nunca    | ( 7,5 ) Regularmente                 |
| ( 2,5 ) Quase nunca | ( 10 ) Sempre, isso é uma prioridade |
| ( 5 ) Às vezes      |                                      |





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6.7 De que forma você realiza trabalhos para auxiliar os(as) agricultores(as) na melhoria da qualidade do solo?

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6.8 Você realiza trabalhos para auxiliar os(as) agricultores(as) na melhoria da qualidade da água?

- ( 0 ) Não, nunca ( 7,5 ) Regularmente  
 ( 2,5 ) Quase nunca ( 10 ) Sempre, isso é uma prioridade  
 ( 5 ) Às vezes

6.9 De que forma você realiza trabalhos para auxiliar os(as) agricultores(as) na melhoria da qualidade da água?

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6.9 Você realiza trabalhos que buscam contribuir para o aumento da biodiversidade das comunidades atendidas?

- ( 0 ) Não, nunca ( 7,5 ) Regularmente  
 ( 2,5 ) Quase nunca ( 10 ) Sempre, isso é uma prioridade  
 ( 5 ) Às vezes

7.0 De que forma você realiza trabalhos que buscam contribuir para o aumento da biodiversidade das comunidades atendidas?

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6.10 Você realiza trabalhos para auxiliar os(as) agricultores(as) a adotarem sistemas de produção mais sustentáveis?

- ( 0 ) Não, isso não é foco do meu trabalho ( 7,5 ) Regularmente  
 ( 2,5 ) Quase nunca ( 10 ) Sempre, isso é uma prioridade





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( 5 ) Às vezes



6.11 De que forma você realiza trabalhos para auxiliar os(as) agricultores a adotarem sistemas de produção mais sustentáveis?

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6.11.1 De que forma a instituição que você trabalha incentiva que você realize trabalhos para auxiliar os(as) agricultores(as) a adotarem sistemas de produção mais sustentáveis?

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6.11 Você realiza trabalhos que incentivam a Agroecologia?

- |  |                                      |
|--|--------------------------------------|
| ( 0 ) Não sei o que é Agroecologia         | ( 5 ) Às vezes                       |
| ( 0 ) Não, isso não é foco do meu trabalho | ( 7,5 ) Regularmente                 |
| ( 2,5 ) Quase nunca                        | ( 10 ) Sempre, isso é uma prioridade |

6.11 De que forma você realiza trabalhos que incentivam a Agroecologia?

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6.11.1 De que forma a instituição que você trabalha incentiva que você realize trabalhos que voltados à Agroecologia?

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6.12 Você realiza trabalhos para auxiliar os(as) agricultores(as) a cumprir a legislação ambiental?

- |  |                      |
|--|----------------------|
| ( 0 ) Não, isso não é foco do meu trabalho | ( 7,5 ) Regularmente |
|--|----------------------|





( 2,5 ) Quase nunca

( 5 ) Às vezes

( 10 ) Sempre, isso é uma prioridade



6.13 De que forma você realiza trabalhos para auxiliar os(as) agricultores(as) a cumprir a legislação ambiental?

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6.14 De que forma a instituição que você trabalha incentiva que você realize trabalhos para auxiliar os(as) agricultores(as) a cumprir a legislação ambiental?

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7.7 Você realiza trabalhos específicos voltados aos jovens e/ou idosos?

( 0 ) Não, isso não é foco do meu trabalho ( 7,5 ) Regularmente

( 2,5 ) Quase nunca ( 10 ) Sempre, isso é uma prioridade

( 5 ) Às vezes

7.8 De que forma você realiza trabalhos específicos voltados aos jovens e/ou idosos?

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7.8 Você realiza trabalhos específicos voltados às mulheres?

( 0 ) Não, nunca ( 7,5 ) Regularmente

( 2,5 ) Raramente ( 10 ) Sempre, isso é uma prioridade

( 5 ) Às vezes

7.9 De que forma você realiza trabalhos específicos voltados às mulheres?





8.0 De que forma a Instituição que você trabalha incentiva que você realize trabalhos específicos voltados às mulheres?

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8.1 Quem define quais serão as ações e projetos que os técnicos de assistência técnica e extensão rural irão trabalhar?

- |                                     |  |
|-------------------------------------|--|
| ( 8 ) Orientação técnica individual | ( 10 ) Os extensionistas seguindo as diretrizes da empresa de ATER |
| ( 6 ) Orientação técnica coletiva   | ( 5 ) São impostos pela empresa de ATER                            |
| ( 10 ) Os extensionistas            | ( 3 ) São impostos pelo INCRA                                      |
|                                     | ( 0 ) Não sabe   |

8.4 Você costuma utilizar métodos e técnicas participativas?

- |                     |                                      |
|---------------------|--------------------------------------|
| ( 0 ) Não           | ( 7,5 ) Regularmente                 |
| ( 2,5 ) Quase nunca | ( 10 ) Sempre, isso é uma prioridade |
| ( 5 ) Às vezes      |                                      |

8.5 De que forma você costuma utilizar métodos e técnicas participativas?

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8.8 Quais dessas atividades você desenvolve nas comunidades atendidas por você?  
(marcar quantas necessárias)





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- Orientação técnica individual
- Dia de campo
- Banco de sementes
- Assembleias ou reuniões
- Diagnostico participativo
- Outros

- Orientação técnica coletiva
- Oficinas de capacitação
- Projetos para crédito
- Visitas técnicas
- Unidades demonstrativas
- Não se aplica (não tem ATER)

Entre >10 e 7 (inclusive) = nota 10

Entre 7 e 5 (inclusive) = nota 7,5

Entre 5 e 3 (inclusive) = nota 5

Entre 3 e 1 (inclusive) = nota 2,5

8.9 Em sua opinião, o que poderia ser feito para que você utilizasse mais técnicas participativas em suas atividades de ATER?

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8.11 Em sua opinião, o que poderia ser feito para melhorar a relação técnico-agricultor?

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9.3 Você dedica seu tempo para auxiliar os(as) agricultores(as) na regularização fundiária?

- Não, isso não é foco do meu trabalho
- ( 7,5 ) Regularmente
- ( 2,5 ) Quase nunca
- ( 10 ) Sempre, isso é uma prioridade
- ( 5 ) Às vezes

9.3 De que forma você dedica seu tempo para auxiliar os(as) agricultores(as) na regularização fundiária?

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9.4 Você dedica seu tempo para auxiliar os(as) agricultores(as) a acessarem a água que necessitam para produção e consumo?

- ( 0 ) Não, isso não é foco do meu trabalho ( 7,5 ) Regularmente  
 ( 2,5 ) Quase nunca ( 10 ) Sempre, isso é uma prioridade  
 ( 5 ) Às vezes

9.5 De que forma você dedica seu tempo para auxiliar os(as) agricultores(as) a acessarem a água que necessitam para produção e consumo?

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10.5 Como você avalia seu grau de envolvimento na divulgação e acesso dos(as) agricultores(as) às Políticas Públicas? (PRONAF, PAA, PNAE, PPAIS, Seguro Agrícola, Minha Casa Minha vida, Luz para todos, Bolsa Família)

- ( 0 ) Eu não dedico meu tempo a ajudar os agricultores a acessarem Políticas Públicas ( 7,5 ) Regularmente eu dedico meu tempo a ajudar os agricultores a acessarem Políticas Públicas  
 ( 2,5 ) Raramente eu dedico meu tempo a ajudar os agricultores a acessarem Políticas Públicas ( 10 ) Sempre eu dedico meu tempo a ajudar os agricultores a acessarem Políticas Públicas  
 ( 5 ) Às vezes eu dedico meu tempo a ajudar os agricultores a acessarem Políticas Públicas ( 0 ) Não sabe/ não soube responder

10.6 Como você considera o acesso ao PRONAF nas comunidades que você atende?

- ( 0 ) Nenhum agricultor acessa o PRONAF ( 7,5 ) A maioria dos agricultores acessam o PRONAF  
 ( 2,5 ) Poucos agricultores acessam o PRONAF ( 10 ) Todos os agricultores que precisam e/ou desejam acessam o PRONAF  
 ( 5 ) Pelo menos metade dos agricultores acessam o PRONAF ( 0 ) Não sabe/ não soube responder





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10.7 Como você considera o acesso ao PAA nas comunidades que você atende?

- ( 0 ) Nenhum agricultor acessa o PAA ( 7,5 ) A maioria dos agricultores acessam o PAA
- ( 2,5 ) Poucos agricultores acessam o PAA ( 10 ) Todos os agricultores que precisam e/ou desejam acessam o PAA
- ( 5 ) Pelo menos metade dos agricultores acessam o PAA ( 0 ) Não sabe/ não soube responder

10.8 Como você considera o acesso ao PNAE nas comunidades que você atende?

- ( 0 ) Nenhum agricultor acessa o PNAE ( 7,5 ) A maioria dos agricultores acessam o PNAE
- ( 2,5 ) Poucos agricultores acessam o PNAE ( 10 ) Todos os agricultores que precisam e/ou desejam acessam o PNAE
- ( 5 ) Pelo menos metade dos agricultores acessam o PNAE ( 0 ) Não sabe/ não soube responder

11.5 Você realiza trabalhos para auxiliar os agricultores no controle financeiro de suas atividades?

- ( 0 ) Não, isso não é foco do meu trabalho ( 7,5 ) Regularmente
- ( 2,5 ) Quase nunca ( 10 ) Sempre, isso é uma prioridade
- ( 5 ) Às vezes

11.6 Você realiza trabalhos dirigidos para aprimorar os processos de comercialização dos(as) agricultores(as) atendidos?

- ( 0 ) Não, isso não é foco do meu trabalho ( 7,5 ) Regularmente
- ( 2,5 ) Quase nunca ( 10 ) Sempre, isso é uma prioridade
- ( 5 ) Às vezes ( 0 ) Não sabe/ não soube responder

11.7 Você realiza trabalhos dirigidos para o beneficiamento ou agregação de valor da produção nas comunidades atendidas?

- ( 0 ) Não, isso não é foco do meu trabalho ( 7,5 ) Regularmente
- ( 2,5 ) Quase nunca ( 10 ) Sempre, isso é uma prioridade





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( 5 ) Às vezes



( 0 ) Não sabe/ não soube responder

11.8 Você incentiva trabalhos dirigidos para a elaboração e/ou implantação e/ou manutenção de projetos de agroindústria?

( 10 ) Sim, incentivo bastante

( 2,5 ) Incentivo muito pouco

( 7,5 ) Sim, incentivo

( 0 ) Não incentivo em nada

( 5 ) Incentivo, mas não é tão importante

( 0 ) Não se aplica (não tem ATER)

( 0 ) Não sabe ou não soube responder

12.1 Há quantos anos o senhor(a) atua como profissional de ATER?

( 2 ) Menos de 3 anos

( 9 ) Entre 10 e 15 anos

( 5 ) Entre 3 e 6 anos

( 10 ) Acima de 15 anos

( 8 ) Entre 6 e 10 anos

12.2 Há quantos anos os senhor(a) trabalha para esta empresa de ATER?

( 2 ) Menos de 3 anos

( 9 ) Entre 10 e 15 anos

( 5 ) Entre 3 e 6 anos

( 10 ) Acima de 15 anos

( 8 ) Entre 6 e 10 anos

12.3 Você considera que a sua instituição valoriza o seu trabalho?

( 0 ) Não

( 7,5 ) Sim, mas poderia ser melhor

( 2,5 ) Pouco

( 10 ) Sim, o meu trabalho é bastante valorizado

( 5 ) Razoavelmente

11.4 De que forma você considera que a sua instituição valoriza o seu trabalho?

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12.4 Você considera que a sua instituição oferece condições adequadas para que você realize um trabalho de qualidade?

( 0 ) Não

( 7,5 ) Sim, as condições são adequadas





( 2,5 ) Sim, mas poderia ser muito melhor ( 10 ) Sim, as condições são as ideais

( 5 ) Sim, mas poderia ser melhor

12.5 De que forma você considera que a sua instituição oferece condições adequadas para que você realize um trabalho de qualidade?

12.5 A sua instituição oferece um Plano de Carreira, Cargos e Salários?

( 0 ) Não ( 7,5 ) Sim, o Plano de Carreira, Cargos e Salários é bom

( 2,5 ) Sim, mas poderia ser muito melhor ( 10 ) Sim, o Plano de Carreira, Cargos e Salários é muito bom.

( 5 ) Sim, mas poderia ser melhor

12.6 Você considera que o seu salário é adequado ao trabalho que você realiza?

( 0 ) Não ( 7,5 ) Sim, o salário é adequado.

( 2,5 ) Sim, mas poderia ser muito melhor ( 10 ) Sim, estou plenamente satisfeito com o meu salário

( 5 ) Sim, mas poderia ser melhor

12.7 Qual o seu nível salarial?

- ( 0 ) Menos de R\$ 1.000,00
- ( 2,5 ) R\$ 1.000,00 a R\$ 2.000,00
- ( 5 ) R\$ 2.000,00 a 3.000,00
- ( 7,5 ) R\$ 3.000,00 a R\$4.000,00
- ( 10 ) Mais de R\$4.000,00

12.7 A sua instituição oferece oportunidades de formação e capacitação?





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( 0 ) Não

( 2,5 ) Sim, mas são muito poucas

( 5 ) Sim, mas são poucas

12.8 Na sua opinião, o que a Instituição poderia fazer para melhorar?

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( 7,5 ) Sim, estou satisfeito com as oportunidades oferecidas, mas poderia haver mais investimentos nessa área.

( 10 ) Sim, estou plenamente satisfeito com as oportunidades oferecidas.



## 10. APPENDIX 3 – Public managers’ semi-structured script for interview

### (ORIGINAL – IN PORTUGUESE)

#### Relevância

- 1) Como você avalia a relação entre os investimentos federais e os estaduais nas políticas públicas de ATER? Como isso se viabiliza?
- 2) Você concorda com os objetivos e diretrizes preconizados pela PNATER? Ou considera que eles são por demais utópicos? Ou aquém do que poderia ser uma política de ATER?
- 3) Como você avalia o conhecimento dos técnicos de ATER sobre os objetivos e diretrizes da PNATER?
- 4) Em sua opinião, em seu exercício profissional eles buscam seguir esses objetivos e diretrizes?

#### Efetividade

- 5) Em sua opinião, a PNATER tem alcançado os seus objetivos? Em que nível?
- 6) Quais são os principais fatores que permitem que a PNATER alcance ou falhe em atingir seus objetivos?

#### Eficiência

- 7) Em sua opinião, o dinheiro público investido em ATER tem sido aplicado de forma eficiente pelos gestores?
- 8) O que poderia ser feito para melhorar a eficiência do gasto público com ATER?

#### Sustentabilidade



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9) Parece que existe uma série de ameaças à continuidade a longo prazo de uma política nacional de ATER.

10) A PNATER apesar de ser reconhecida como importante para o setor, não conseguiu alcançar a mesma visibilidade de outras políticas voltadas para a agricultura familiar, tais como as de comercialização (PAA, PNAE) ou de crédito (PRONAF). Isso não poderia ser uma ameaça a sua continuidade a longo prazo. Como poderia ser modificado esse quadro?

11) Você considera que a continuidade da PNATER pode ser ameaçada por cortes de orçamento. Em que situação isso poderia ocorrer?

12) Atualmente, com a implantação da ANATER, você considera que há algum risco para a continuidade da operacionalização da PNATER?

13) Algumas pesquisas têm apontado que os técnicos de ATER muitas vezes não têm a formação necessária para exercer suas atividades dentro das diretrizes preconizadas pela PNATER, tais como utilizar metodologias participativas ou fomentar sistemas agroecológicos, ou trabalhar a questão de gênero. Como essa situação poderia ser superada?

14) A falta de uma formação adequada dos técnicos pode comprometer o futuro da PNATER?

15) Apesar dos muitos avanços verificados nos últimos anos, parece que o serviço de ATER ainda está muito centrado na dependência estatal, pouco fomentando o fortalecimento das organizações locais de agricultores no sentido do seu empoderamento que, por sua vez, poderiam buscar uma maior autonomia nesse processo. Assim a ATER aos agricultores familiares fica exclusivamente dependente da ação estatal, que em caso de revés na política, ficaria desassistida. Qual a sua opinião sobre essa situação?

16) Apesar de tentativas, ainda não foi possível estabelecer um sistema de avaliação continuada da PNATER, o que poderia justificar a sua importância e melhorar sua efetividade e eficiência? Como você avalia essa situação?







## Impacto

17) Em sua opinião, quais foram as principais mudanças ocorridas nas instituições de ATER após a implementação da PNATER?

18) Em sua opinião, quais foram os principais impactos da PNATER na agricultura familiar?





## 11. APPENDIX 4 – The National Policy for Technical Assistance and Rural Extension (PNATER)

(ORIGINAL – IN PORTUGUESE)

### POLÍTICA NACIONAL DE ASSISTÊNCIA TÉCNICA E EXTENSÃO RURAL PARA A AGRICULTURA FAMILIAR E REFORMA AGRÁRIA - PNATER



**Presidência da República**

**Casa Civil**

**Subchefia para Assuntos Jurídicos**

**LEI Nº 12.188, DE 11 DE JANEIRO DE 2010.**

**Institui a Política Nacional de Assistência Técnica e Extensão Rural para a Agricultura Familiar e Reforma Agrária - PNATER e o Programa Nacional de Assistência Técnica e Extensão Rural na Agricultura Familiar e na Reforma Agrária - PRONATER, altera a Lei nº 8.666, de 21 de junho de 1993, e dá outras providências.**

Vigência

**O PRESIDENTE DA REPÚBLICA** Faço saber que o Congresso Nacional decreta e eu sanciono a seguinte Lei:

#### CAPÍTULO I

DA POLÍTICA NACIONAL DE ASSISTÊNCIA TÉCNICA  
E EXTENSÃO RURAL PARA A AGRICULTURA FAMILIAR  
E REFORMA AGRÁRIA - PNATER





Art. 1º Fica instituída a Política Nacional de Assistência Técnica e Extensão Rural para a Agricultura Familiar e Reforma Agrária - PNATER, cuja formulação e supervisão são de competência do Ministério do Desenvolvimento Agrário - MDA.

Parágrafo único. Na destinação dos recursos financeiros da Pnater, será priorizado o apoio às entidades e aos órgãos públicos e oficiais de Assistência Técnica e Extensão Rural - ATER.

Art. 2º Para os fins desta Lei, entende-se por:

I - Assistência Técnica e Extensão Rural - ATER: serviço de educação não formal, de caráter continuado, no meio rural, que promove processos de gestão, produção, beneficiamento e comercialização das atividades e dos serviços agropecuários e não agropecuários, inclusive das atividades agroextrativistas, florestais e artesanais;

II - Declaração de Aptidão ao Programa Nacional de Fortalecimento da Agricultura Familiar - DAP: documento que identifica os beneficiários do Programa Nacional de Fortalecimento da Agricultura Familiar - PRONAF; e

III - Relação de Beneficiários - RB: relação de beneficiários do Programa de Reforma Agrária, conforme definido pelo Instituto Nacional de Colonização e Reforma Agrária - INCRA.

Parágrafo único. Nas referências aos Estados, entende-se considerado o Distrito Federal.

Art. 3º São princípios da Pnater:

I - desenvolvimento rural sustentável, compatível com a utilização adequada dos recursos naturais e com a preservação do meio ambiente;

II - gratuidade, qualidade e acessibilidade aos serviços de assistência técnica e extensão rural;

III - adoção de metodologia participativa, com enfoque multidisciplinar, interdisciplinar e intercultural, buscando a construção da cidadania e a democratização da gestão da política pública;

IV - adoção dos princípios da agricultura de base ecológica como enfoque preferencial para o desenvolvimento de sistemas de produção sustentáveis;

V - equidade nas relações de gênero, geração, raça e etnia; e

VI - contribuição para a segurança e soberania alimentar e nutricional.

Art. 4º São objetivos da Pnater:

I - promover o desenvolvimento rural sustentável;





II - apoiar iniciativas econômicas que promovam as potencialidades e vocações regionais e locais;

III - aumentar a produção, a qualidade e a produtividade das atividades e serviços agropecuários e não agropecuários, inclusive agroextrativistas, florestais e artesanais;

IV - promover a melhoria da qualidade de vida de seus beneficiários;

V - assessorar as diversas fases das atividades econômicas, a gestão de negócios, sua organização, a produção, inserção no mercado e abastecimento, observando as peculiaridades das diferentes cadeias produtivas;

VI - desenvolver ações voltadas ao uso, manejo, proteção, conservação e recuperação dos recursos naturais, dos agroecossistemas e da biodiversidade;

VII - construir sistemas de produção sustentáveis a partir do conhecimento científico, empírico e tradicional;

VIII - aumentar a renda do público beneficiário e agregar valor a sua produção;

IX - apoiar o associativismo e o cooperativismo, bem como a formação de agentes de assistência técnica e extensão rural;

X - promover o desenvolvimento e a apropriação de inovações tecnológicas e organizativas adequadas ao público beneficiário e a integração deste ao mercado produtivo nacional;

XI - promover a integração da Ater com a pesquisa, aproximando a produção agrícola e o meio rural do conhecimento científico; e

XII - contribuir para a expansão do aprendizado e da qualificação profissional e diversificada, apropriada e contextualizada à realidade do meio rural brasileiro.

Art. 5º São beneficiários da Pnater:

I - os assentados da reforma agrária, os povos indígenas, os remanescentes de quilombos e os demais povos e comunidades tradicionais; e

II - nos termos da Lei nº 11.326, de 24 de julho de 2006, os agricultores familiares ou empreendimentos familiares rurais, os silvicultores, aqüicultores, extrativistas e pescadores, bem como os beneficiários de programas de colonização e irrigação enquadrados nos limites daquela Lei.

Parágrafo único. Para comprovação da qualidade de beneficiário da Pnater, exigir-se-á ser detentor da Declaração de Aptidão ao Programa Nacional de Fortalecimento da Agricultura





Familiar - DAP ou constar na Relação de Beneficiário - RB, homologada no Sistema de Informação do Programa de Reforma Agrária - SIPRA.

**CAPÍTULO II**  
**DO PROGRAMA NACIONAL DE ASSISTÊNCIA TÉCNICA**  
**E EXTENSÃO RURAL NA AGRICULTURA FAMILIAR**  
**E NA REFORMA AGRÁRIA - PRONATER**

Art. 6º Fica instituído, como principal instrumento de implementação da Pnater, o Programa Nacional de Assistência Técnica e Extensão Rural na Agricultura Familiar e na Reforma Agrária - PRONATER.

Art. 7º O Pronater terá como objetivos a organização e a execução dos serviços de Ater ao público beneficiário previsto no art. 5º desta Lei, respeitadas suas disponibilidades orçamentária e financeira.

Art. 8º A proposta contendo as diretrizes do Pronater, a ser encaminhada pelo MDA para compor o Plano Plurianual, será elaborada tendo por base as deliberações de Conferência Nacional, a ser realizada sob a coordenação do Conselho Nacional de Desenvolvimento Rural Sustentável - CONDRAF.

Parágrafo único. O regulamento desta Lei definirá as normas de realização e de participação na Conferência, assegurada a participação paritária de representantes da sociedade civil.

Art. 9º O Condraf opinará sobre a definição das prioridades do Pronater, bem como sobre a elaboração de sua proposta orçamentária anual, recomendando a adoção de critérios e parâmetros para a regionalização de suas ações.

Art. 10. O Pronater será implementado em parceria com os Conselhos Estaduais de Desenvolvimento Sustentável e da Agricultura Familiar ou órgãos similares.

Art. 11. As Entidades Executoras do Pronater compreendem as instituições ou organizações públicas ou privadas, com ou sem fins lucrativos, previamente credenciadas na forma desta Lei, e que preencham os requisitos previstos no art. 15 desta Lei.

Art. 12. Os Estados cujos Conselhos referidos no art. 10 desta Lei firmarem Termo de Adesão ao Pronater poderão dele participar, mediante:

I - o credenciamento das Entidades Executoras, na forma do disposto no art. 13 desta Lei;

II - a formulação de sugestões relativas à programação das ações do Pronater;





III - a cooperação nas atividades de acompanhamento, controle, fiscalização e avaliação dos resultados obtidos com a execução do Pronater;

IV - a execução de serviços de Ater por suas empresas públicas ou órgãos, devidamente credenciados e selecionados em chamada pública.

### CAPÍTULO III

#### DO CREDENCIAMENTO DAS ENTIDADES EXECUTORAS

Art. 13. O credenciamento de Entidades Executoras do Pronater será realizado pelos Conselhos a que se refere o art. 10 desta Lei.

Art. 14. Caberá ao MDA realizar diretamente o credenciamento de Entidades Executoras, nas seguintes hipóteses:

I - não adesão do Conselho ao Pronater no Estado onde pretenda a Entidade Executora ser credenciada;

II - provimento de recurso de que trata o inciso I do art. 16 desta Lei.

Art. 15. São requisitos para obter o credenciamento como Entidade Executora do Pronater:

I - contemplar em seu objeto social a execução de serviços de assistência técnica e extensão rural;

II - estar legalmente constituída há mais de 5 (cinco) anos;

III - possuir base geográfica de atuação no Estado em que solicitar o credenciamento;

IV - contar com corpo técnico multidisciplinar, abrangendo as áreas de especialidade exigidas para a atividade;

V - dispor de profissionais registrados em suas respectivas entidades profissionais competentes, quando for o caso;

VI - atender a outras exigências estipuladas em regulamento.

Parágrafo único. O prazo previsto no inciso II não se aplica às entidades públicas.

Art. 16. Do indeferimento de pedido de credenciamento, bem como do ato de descredenciamento de Entidade Executora do Pronater, caberá recurso, no prazo de 15 (quinze) dias contados da data em que o interessado tomar ciência do ato contestado:

I - ao gestor do Pronater no MDA, na hipótese de indeferimento ou descredenciamento por Conselho Estadual;

II - ao Ministro do Desenvolvimento Agrário, nas demais hipóteses de indeferimento ou descredenciamento.





Art. 17. A critério do órgão responsável pelo credenciamento ou pela contratação, será descredenciada a Entidade Executora que:

I - deixe de atender a qualquer dos requisitos de credenciamento estabelecidos no art. 15 desta Lei;

II - descumpra qualquer das cláusulas ou condições estabelecidas em contrato.

Parágrafo único. A Entidade Executora descredenciada nos termos do inciso II deste artigo somente poderá ser novamente credenciada decorridos 5 (cinco) anos, contados da data de publicação do ato que aplicar a sanção.

#### CAPÍTULO IV

##### DA CONTRATAÇÃO DAS ENTIDADES EXECUTORAS

Art. 18. A contratação das Entidades Executoras será efetivada pelo MDA ou pelo Incra, observadas as disposições desta Lei, bem como as da Lei nº 8.666, de 21 de junho de 1993.

Art. 19. A contratação de serviços de Ater será realizada por meio de chamada pública, que conterà, pelo menos:

I - o objeto a ser contratado, descrito de forma clara, precisa e sucinta;

II - a qualificação e a quantificação do público beneficiário;

III - a área geográfica da prestação dos serviços;

IV - o prazo de execução dos serviços;

V - os valores para contratação dos serviços;

VI - a qualificação técnica exigida dos profissionais, dentro das áreas de especialidade em que serão prestados os serviços;

VII - a exigência de especificação pela entidade que atender à chamada pública do número de profissionais que executarão os serviços, com suas respectivas qualificações técnico-profissionais;

VIII - os critérios objetivos para a seleção da Entidade Executora.

Parágrafo único. Será dada publicidade à chamada pública, pelo prazo mínimo de 30 (trinta) dias, por meio de divulgação na página inicial do órgão contratante na internet e no Diário Oficial da União, bem como, quando julgado necessário, por outros meios.

#### CAPÍTULO V

##### DO ACOMPANHAMENTO, CONTROLE, FISCALIZAÇÃO E DA AVALIAÇÃO DOS RESULTADOS DA EXECUÇÃO DO PRONATER





Art. 20. A execução dos contratos será acompanhada e fiscalizada nos termos do art. 67 da Lei nº 8.666, de 21 de junho de 1993.

Art. 21. Os contratos e todas as demais ações do Pronater serão objeto de controle e acompanhamento por sistema eletrônico, sem prejuízo do lançamento dos dados e informações relativos ao Programa nos demais sistemas eletrônicos do Governo Federal.

Parágrafo único. Os dados e informações contidos no sistema eletrônico deverão ser plenamente acessíveis a qualquer cidadão por meio da internet.

Art. 22. Para fins de acompanhamento da execução dos contratos firmados no âmbito do Pronater, as Entidades Executoras lançarão, periodicamente, em sistema eletrônico, as informações sobre as atividades executadas, conforme dispuser regulamento.

Art. 23. Para fins de liquidação de despesa, as Entidades Executoras lançarão Relatório de Execução dos Serviços Contratados em sistema eletrônico, contendo:

- I - identificação de cada beneficiário assistido, contendo nome, qualificação e endereço;
- II - descrição das atividades realizadas;
- III - horas trabalhadas para realização das atividades;
- IV - período dedicado à execução do serviço contratado;
- V - dificuldades e obstáculos encontrados, se for o caso;
- VI - resultados obtidos com a execução do serviço;
- VII - o ateste do beneficiário assistido, preenchido por este, de próprio punho;
- VIII - outros dados e informações exigidos em regulamento.

§ 1º A Entidade Executora manterá em arquivo, em sua sede, toda a documentação original referente ao contrato firmado, incluindo o Relatório a que se refere o **caput** deste artigo, para fins de fiscalização, pelo prazo de 5 (cinco) anos, a contar da aprovação das contas anuais do órgão contratante pelo Tribunal de Contas da União.

§ 2º O órgão contratante bem como os órgãos responsáveis pelo controle externo e interno poderão, a qualquer tempo, requisitar vista, na sede da Entidade Executora, da documentação original a que se refere o § 1º deste artigo, ou cópia de seu inteiro teor, a qual deverá ser providenciada e postada pela Entidade Executora no prazo de 5 (cinco) dias contados a partir da data de recebimento da requisição.

Art. 24. A metodologia e os mecanismos de acompanhamento, controle, fiscalização e avaliação dos resultados obtidos com a execução de cada serviço contratado serão objeto de regulamento.





Art. 25. Os relatórios de execução do Pronater, incluindo nome, CNPJ e endereço das Entidades Executoras, bem como o valor dos respectivos contratos e a descrição sucinta das atividades desenvolvidas, serão disponibilizados nas páginas do MDA e do Inkra na internet.

Art. 26. O MDA encaminhará ao Condraf, para apreciação, relatório anual consolidado de execução do Pronater, abrangendo tanto as ações de sua responsabilidade como as do Inkra.

## CAPÍTULO VI DISPOSIÇÕES FINAIS

Art. 27. O art. 24 da Lei nº 8.666, de 21 de junho de 1993, passa a vigorar acrescido do seguinte inciso XXX:

“[Art. 24.](#) .....

.....”

[XXX](#) - na contratação de instituição ou organização, pública ou privada, com ou sem fins lucrativos, para a prestação de serviços de assistência técnica e extensão rural no âmbito do Programa Nacional de Assistência Técnica e Extensão Rural na Agricultura Familiar e na Reforma Agrária, instituído por lei federal.

.....” (NR)

Art. 28. A instituição do Pronater não exclui a responsabilidade dos Estados na prestação de serviços de Ater.

Art. 29. Esta Lei entra em vigor 30 (trinta) dias após a data de sua publicação oficial, observado o disposto no [inciso I do art. 167 da Constituição Federal](#).

Brasília, 11 de janeiro de 2010; 189º da Independência e 122º da República.

LUIZ	INÁCIO	LULA	DA	SILVA
<i>Nelson</i>				<i>Machado</i>
<i>João</i>	<i>Bernardo</i>	<i>de</i>	<i>Azevedo</i>	<i>Bringel</i>
<i>Guilherme Cassel</i>				

Este texto não substitui o publicado no DOU de 12.1.2010



