



THE DOM HELDER
CÂMARA II PROJECT AND
ITS ARTICULATION WITH
THE PRODUCTIVE
FUNDING PROGRAM



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The Dom Helder Câmara II Project and its articulation with the productive funding program

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PRESENTATION

The Dom Helder Câmara Project II (PDHC II) is developed by the Ministry of Agriculture, Livestock and Supply (MAPA), through the Secretariat of Family Agriculture and Cooperativism (SAF), and co-financed by the International Fund for Agricultural Development (IFAD). **PDHC II seeks to reduce the levels of poverty and inequality in the semi-arid region, qualifying producers to develop sustainable production and encouraging the replication of good practices; its central axis is Technical Assistance and Rural Extension (ATER)**¹.

From the set of beneficiaries of PDHC II, 30% were served by the Productive Funding Program (FPR)² with the transfer of non-reimbursable resources to family farmers and quilombolas in poverty and extreme poverty. This Program, led by the Ministry of Citizenship, combines rural and social development policies. To this end, it supports the productive structuring of the poorest rural families and the development of each one's productive project, so that they can expand or diversify their food production and income generating activities, thus reducing food insecurity indexes and contributing to overcoming poverty³.

The good results of the coordination between the ATER services, offered by PDHC II, and the FPR, executed by the Ministry of Citizenship, were convincing. The impact evaluation proved that there was a 90% reduction in extreme poverty for the 16,040 families assisted. From the perspective that poverty and extreme poverty are multidimensional phenomena, the combination of ATER and the FPR under PDHC II contributed to increasing capacities and opportunities, recognizing the productive potential and creativity of rural families in vulnerable situations.

This document records the results of the action coordinated between MAPA and the Ministry of Citizenship in the scope of PDHC II. After a brief contextualization of these actions in the Brazilian semi-arid region, the data from the impact evaluation will be described, showing the effects of this combination of ATER + FPR, complemented by the testimonies of two cases of families benefited by PDHC II and individuals from the ATER teams in the states of Alagoas, Ceará and Pernambuco. Finally, the main lessons of this intervention are highlighted and recommendations for future programs similar to this one are listed.

¹ Source: <https://www.gov.br/agricultura/pt-br/assuntos/agricultura-familiar/projeto-dom-helder-camara>.

² In the Rural Productive Activities Funding Program, farmers receive individualized and continuous monitoring by technicians, who share their knowledge about ways to increase production, product quality, and product value. The Program also makes available non-reimbursable resources to be invested in the structuring of their productive activities. It was transformed into Law 12,512 in October 2011 and regulated by Decree 9,221 in December 2017.

³ Source: <https://www.gov.br/cidadania/pt-br/aceso-a-informacao/carta-de-servicos/desenvolvimento-social/inclusao-social-e-productiva-rural/programa-de-fomento-as-atividades-productivas-rurais>.



CONTEXT

The Semi-Arid

Of the total 3,897,408 family farming establishments in Brazil, 47.2% are in the Northeast Region (IBGE, 2017). This number is enough to understand the economic, political, and social relevance of family farming for this region. However, when analyzing the data of rural poverty profile in Brazil, it is evident that 74% are family farmers, of which 65% are in the Northeast (FAVARETO, 2019).

Of the total area of the Brazilian Northeast, 64.8% corresponds to the Semi-arid Region, with a population of 26.2 million (AQUINO; ALVES; VIDAL, 2020). Of the nine states in the region⁴ half have more than 85% of their area in the semi-arid region, with Ceará having 98.7% of its territories characterized with this profile⁵.

Family farmers in the semi-arid region face many obstacles that significantly limit their productive and social insertion processes. These challenges include water scarcity, poorly permeable soils subject to erosion, the increasingly dramatic effects caused by climate change, and difficulty in accessing productive inputs and marketing channels (VILLAROSA, 2017). Added to this are historical social problems, such as inequality in land distribution. Of the total number of agricultural establishments in the Northeast (2,322,719), 79.2% correspond

⁴ Alagoas (AL), Bahia (BA), Ceará (CE), Maranhão (MA), Paraíba (PB), Piauí (PI), Pernambuco (PE), Rio Grande do Norte (RN) and Sergipe (SE).

⁵ Source: <https://www.asabrasil.org.br/semiario>.

to family farming (FA), but, despite its significant number, FA covers only 36.6% of the area of more than 70 million hectares occupied by agricultural establishments (AQUINO; ALVES; VIDAL, 2020).

Regarding the level of schooling, the data from the 2017 Census is also worrisome. In the Northeast, 42.2% of family leaders cannot read or write (Ibid.). Also, the 2017 Agricultural Census (Table 1) pointed out that poorer family farmers did not receive technical guidance. The data indicated that in the Semi-arid, the region where nearly 47.2% of Brazil's family farmers live, 92% of them did not receive technical assistance services (Table 1).

Table 1 | Farmers (family or not) and technical assistance in Brazil and the Semi-arid

	TOTAL FARMERS			FAMILY FARMING		
	TOTAL	RECEIVES	DOES NOT RECEIVE	TOTAL	RECEIVES	DOES NOT RECEIVE
Brazil	5.073.324	1.025.443 (20%)	4.047.881 (80%)	3.897.408	708.318 (18%)	3.189.090 (82%)
Semi-arid	1.835.535	164.473 (9%)	1.671.062 (91%)	1.446.842	119.083 (8%)	1.327.759 (92%)

Source: IBGE - Agricultural Census 2017

The II National Survey on Food Insecurity in the Context of the Covid-19 Pandemic, conducted by the PENSSAN Network (2022), found that inequality of access to food is greater in rural households, with severe food insecurity (severe AI) 18.6% above the national average, which is 15.5%. This inequality also manifests itself geographically, appearing most strongly in the North and Northeast regions (25.7% and 21% of severe AI, respectively). Family farming is strongly affected: hunger (serious AI) has reached 21.8% of family farmers' / rural producers' homes in the country (Ibid.).

The vulnerable conditions of the population of the Northeastern semi-arid region have led an important set of public policies to geographically and socially target the region's population in order to overcome the various obstacles they face. Among such policies are the Water for All Program and the Rural Productive Inclusion strategy, the latter of the Brazil Without Extreme Poverty Plan (PBSM), which will be detailed below. Despite the discouraging panorama of poverty and food insecurity in the Northeast Region, these public policies have allowed family producers to remain in the region, living with recent climatic phenomena such as the Great Drought (AQUINO; ALVES; VIDAL, 2020), which lasted five years (2012-2017). The severity of this period of drought did not mean the "emptying of rural areas, as occurred throughout much of the 20th century" (Ibid., p. 34).



THE INSTRUMENTS

The objective of PDHC II is to reduce rural poverty in the Brazilian semi-arid region. The main line of action of the Project is the provision of technical assistance services with direct and continuous service to rural families living in poverty and extreme poverty. To this end, it works in partnership with the National Agency for Technical Assistance and Rural Extension⁶ (ANATER), which has recruited 27 ATER organizations, 10 public and 17 private, through service provision contracts or partnership instruments, in the ten states of the Brazilian semi-arid region and in the state of Espírito Santo.

To achieve this performance, PDHC II counted on the financing and support of the International Fund for Agricultural Development (IFAD), an international financial institution and specialized agency of the United Nations (UN), which, together with state and federal governments, makes loan and donation agreements to support rural development and acts in cooperation projects for the promotion of rural development and the overcoming of poverty in the semi-arid region of the Brazilian Northeast.

Another very important partner of the PDHC II was the Ministry of Citizenship (MC), responsible for the Rural Productive Funding Policy (Fomento Produtivo Rural - FPR). The partnership with the MC was fundamental for PDHC II to reach the rural populations most vulnerable to poverty and food insecurity in the Brazilian semi-arid region. The targeting of PDHC II is largely due to the use of the Unified Registry⁷ as an effective tool for selecting a significant portion of the beneficiaries.

⁶ Regarding the provision of ATER services, they were carried out through a management contract signed between SEAD (today incorporated to MAPA) and ANATER, responsible for managing the contracting of services through Specific Contracting Instruments with Public Technical Assistance Companies, after submission and approval of the Work Plan and/or by entering into Contracts, after launching the Public Call Notices.

⁷ The Unified Registry (Cadastro Único - CadÚnico) is a registry that allows the government to know who the low-income families in Brazil are and how they live. Families can enroll in the Unified Registry if they: have a monthly income per person of up to half the minimum wage; have incomes above this level, but are linked to or are seeking some program or benefit that uses the Unified Registry in its grants. Source: <https://www.gov.br/pt-br/servicos/inscrever-se-no-cadastro-unico-para-programas-sociais-do-governo-federal>.

The articulation between the Ministry of Citizenship and the Dom Hélder Câmara Project was at the origin of the constructions of the ANATER public calls, in the year 2018. The Rural Productive Activities Funding Program⁸ (FPR) is a strategy of the Brazilian government in the Brazil Without Extreme Poverty Plan, which, added to the technical assistance offered to family farmers in the Brazilian semi-arid region, aims at rural productive inclusion, in the quest to overcome poverty and hunger. In the Rural Productive Activities Funding Program, farmers receive individualized and continuous monitoring by agricultural technicians, who share their knowledge about ways to increase production, the quality and value of the products. The Program also makes available non-reimbursable resources, in the amount of R\$2,400 or R\$3,000, to be invested in the structuring of their productive activities. It was transformed into Law 12,512 in October 2011 and regulated by Decree 9,221 in December 2017.

The criteria for eligibility for the FPR are families who were in poverty or extreme poverty. The productive projects were designed as food security and surplus production strategies for commercialization and income generation, especially in the construction of productive infrastructures, such as henhouses and pigsties, and the acquisition of sheep, goats, and even cattle.

The complementarity between these policy instruments leads to positive results, which is how Mello (2018) and Favareto (2019) highlight the increase in the income of beneficiaries who accessed the IPR axis programs, which had a 134% increase in family incomes. This information is in line with the results obtained by the Impact Assessment⁹ of PDHC II, which indicates that the total agricultural and livestock income of the families benefited with ATER and FPR was **30.23% higher** in relation to the control group, that is, which did not receive the Project interventions (MONITORA, 2022).

Along with this evidence, Mello (2018) draws attention to the success of this IPR axis in its targeting strategy. The author shows that the Northeast Region was the region with the highest percentage of assistance from the set of programs that comprised the IPR axis of the PBSM.

Similarly, the Impact Assessment of PDHC II found that the program was successful in its targeting strategy, in serving poor or extremely poor families in the Brazilian semi-arid region, providing technical assistance and rural extension and, for a fraction of this public, offering productive incentives (MONITORA, 2022). The strategy of targeting the subgroups of women, young people, traditional peoples and communities (PCTs) is also considered appropriate.

⁸ In the Rural Productive Activities Funding Program, farmers receive individualized and continuous monitoring by agricultural technicians, who share their knowledge about ways to increase production, the quality, and the value of the products. The Program also makes available non-reimbursable resources to be invested in the structuring of their productive activities. It was transformed into Law 12,512 in October 2011 and regulated by Decree 9,221 in December 2017.

⁹ To assess the impact of PDHC, a sample of 4,374 families was conducted and a proven method was used to evaluate 28 indicators: the Propensity Score Matching (PSM). The size of the sample allowed measurements both for beneficiaries in general and for those who also received the productive funding, always comparing the performance of farmers who received neither the PDHC nor the FPR, with a margin of error of up to 2.5%, up or down (MONITORA, 2022).

The average area of the establishments of the farmers benefited by PDHC II is 2 hectares; 40% do not have title or definitive possession of the land and only 75% have incomplete primary education or even no education at all. These families have between two and four members (average of 3.4 persons per family), heads and spouses with an average age of 46 and 44 years, respectively.

The concomitant implementation of a set of instruments to reduce the poverty and extreme poverty of families in the Brazilian semi-arid region is strategic. Other studies, such as the one conducted by Milhomens (2022), identify that, among the public policies that contribute to improving production and income in the Semi-Arid (n=177), the Cisterns Program (63.84%) and technical assistance/assistance (68.36%) were the answers most often mentioned by farmers. In the semi-structured interviews conducted by Milhomens (2022), farmers also emphasize the important role of these policies in the productive transition to agroecology and in building the resilience of rural communities to drought.

The strategies for living with the persistence and aggravation of drought constitute a mix of agroecological practices that include crop diversification, small animal husbandry, and techniques for capturing, storing, using and reusing grey water. Productive diversification has been especially favored by cisterns, which have reached many farming communities. These water infrastructures complement traditional rainfed agricultural crops (corn, beans, and cassava) and strengthen seed banks, capable of sustaining polycultures, vegetable gardens, backyards, and agroforestry systems. As will be discussed later, one of the cases visited in the state of Ceará shows how the continued provision of ATER services, together with productive funding and other public policies, such as the construction of cisterns, can make a lot of difference in the living conditions of a quilombola family.

Finally, Milhomens (2022) reinforces that discontinuity and dismantling of policies appear as facts. This critical view shows that discontinuous cycles of agroecological extension support undermine the evolution and consolidation of productive transition processes. Moreover, they also undermine the full development of capacities and leadership formation that would ensure stability to local organizational arrangements, as well as hinder the continuity and updating of issues related to climate change adaptation (Ibid.).

This set of evidence, resulting from studies that likewise seek sustainable solutions, helps to think about strategies that promote productive inclusion processes, such as the transition to economic activities adapted to the conditions of the semi-arid region and the diversity of family farming.

Specifically with the resources coming from PDHC II, 54,048 families were assisted with specialized technical assistance, of which 16,040 received resources for productive development. Initially, the goal was to serve, within the scope of PDHC, 17,777 families, with the participation of public companies and private ATER organizations in all units of the Federation that make up the Brazilian semi-arid region. Figure 2 illustrates the distribution of the development projects in the beneficiary states. The state of Bahia was partially suppressed from the study because the execution of PDHC in that state was interrupted at the beginning of the project.

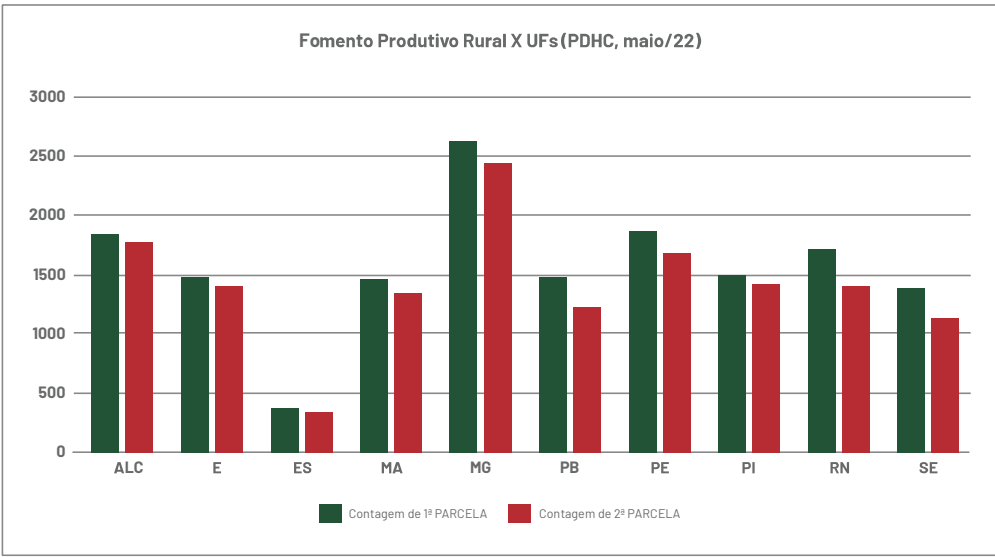


Figure 2 | Distribution of the FPR by State and beneficiaries of PDHC II

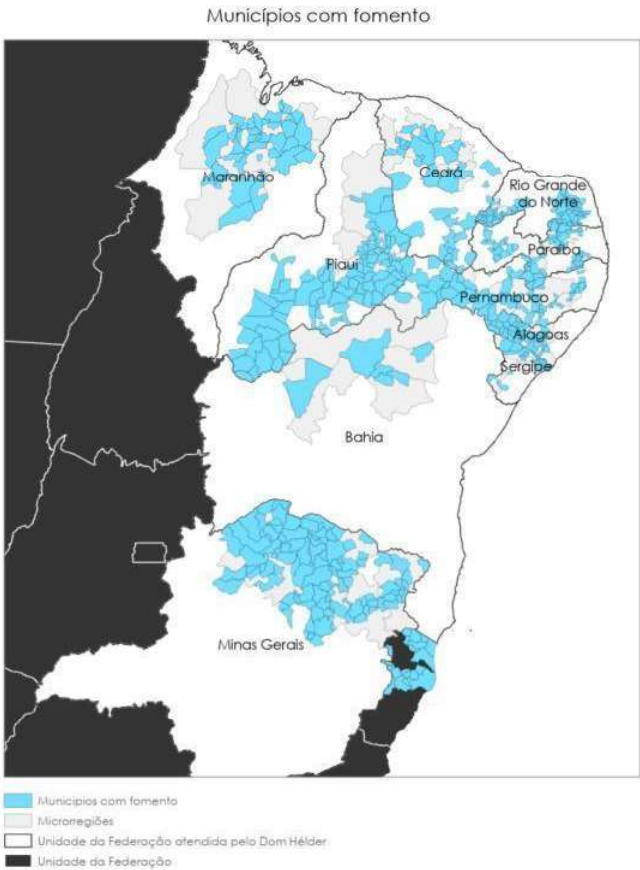


Figure 3 shows the municipalities that were assisted with funding under PDHC II. In this detail, all cities that accessed the benefit are represented, whether through public ATER or not.

Figure 3 | Municipalities served with FPR in the scope of PDHC



Photo: Heloisa Müller

RESULTS OF PDHC AND ITS ARTICULATION WITH THE FPR

PDHC generated, in the group of beneficiaries, higher incomes and favored agricultural production, food diversity, access to public policies, more inclusion in associations, besides the productive insertion of women and young people, **results that show even more promising within the group of beneficiaries with funding** in comparison with the beneficiaries without funding - and, even more, in comparison with the control group, the one that received neither ATER nor FPR services.

As shown in Chart 1, the results of 16 of the 28 indicators considered in the impact evaluation of PDHC II are very encouraging. For one of the managers interviewed, "the articulation between PDHC II and the FPR is very positive, giving more substance to the action"¹⁰.

¹⁰ Interview with PDHC II manager on 02/06/2021.

Chart 1 | Indicators from the impact assessment comparing results between beneficiaries with funding and control

INDICATOR	BENEFICIARY WITH FUNDING (AVERAGE)	CONTROL* (AVERAGE)	%
Total Agricultural and Livestock Income	R\$ 5.122	R\$ 3.933	30.2% higher than control
Agricultural and Livestock Income Sales	R\$ 2.195	R\$ 1.480	48.3% higher than control
Agricultural Income from Self Consumption	R\$ 2.924	R\$ 2.213	32.2% higher than control
Sales Income from Livestock Production	R\$ 1.196	R\$ 741	61.5% higher than the control
Sales Income from Vegetable Production	R\$ 380	R\$ 201	89.5% higher than the control
Total Annual Income	R\$ 19.620	R\$ 17.631	11.3% higher than control
Annual Per Capita Income	R\$ 6.439	R\$ 5.669	13.6% higher than control
Pig Farming	2,08 cabeças	1,35 cabeças	54.8% higher than control
Poultry Farming	21,9 cabeças	12,8 cabeças	70.6% higher than control
Food Diversity	6,1 pontos	5,5 pontos	11.3% higher than control
Access to Public Policies Index	598 pontos	501 pontos	19.5% higher than the control
Access to Agrarian Policies Index	587 pontos	437 pontos	34.2% higher than control
Associativity Index	228 pontos	167 pontos	36.4% higher than control
Women's Participation Index	353 pontos	264 pontos	33.8% higher than control
Women and Youth Participation Index	216 pontos	165 pontos	30.7% higher than control
Multidimensional Poverty Index	353 pontos	339 pontos	4.2% lower than the control

* Not benefited by PDHC II, nor by the FPR.

Source: PDHC Impact Assessment (MONITORA, 2022)

In addition to the indicators registered in Chart 1, the studies carried out by the University of Brasília, in the impact evaluation of the Dom Helder Câmara II Project, reveal some important dynamics associated with the ATER service and productive fomentation. Innovation and productive diversification also suffered a positive effect. Of the families benefited by PDHC, 46% of them started the production of a new product. Of this total, 22% said that this new activity generated financial income. There was an increase in animal production activities that guarantee income, such as the farming of pigs and poultry. Poultry farming is among the most important activities among the beneficiaries of the rural production incentive. The data on total agricultural and livestock income are related to the new activities introduced in the productive yards and in the productive structures of the families, and, in the end, are responsible for the increase in this income.

Figure 4 synthetically illustrates these proven effects in the impact assessment study conducted by UnB.

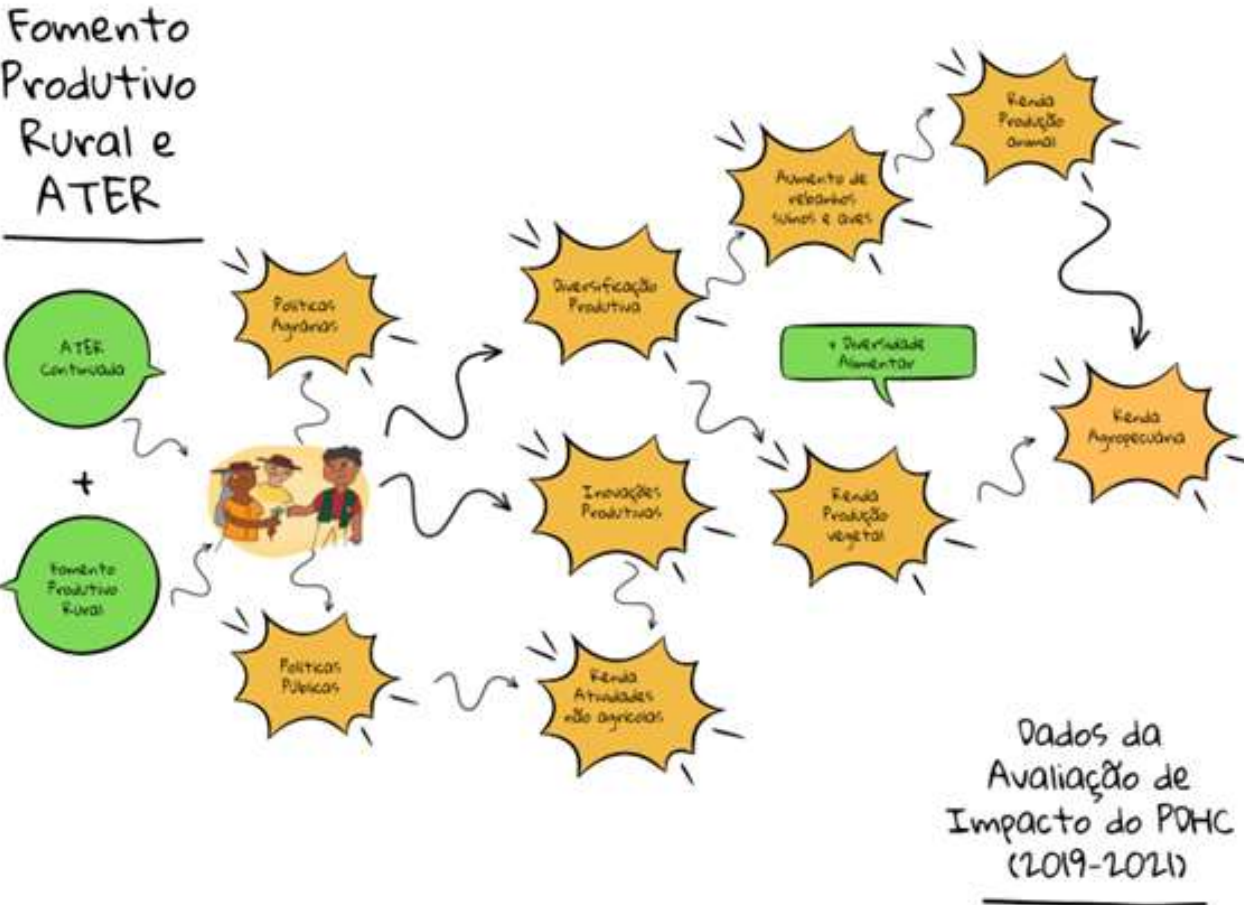


Figure 4 | Effects of continuous ATER associated with funding in the families assisted by PDHC

Furthermore, it is observed that the beneficiaries of the funding were more active in adopting new practices, as shown in the data from the monitoring done by the University of Brasília (ÁVILA; MIRANDA FILHO, 2021).

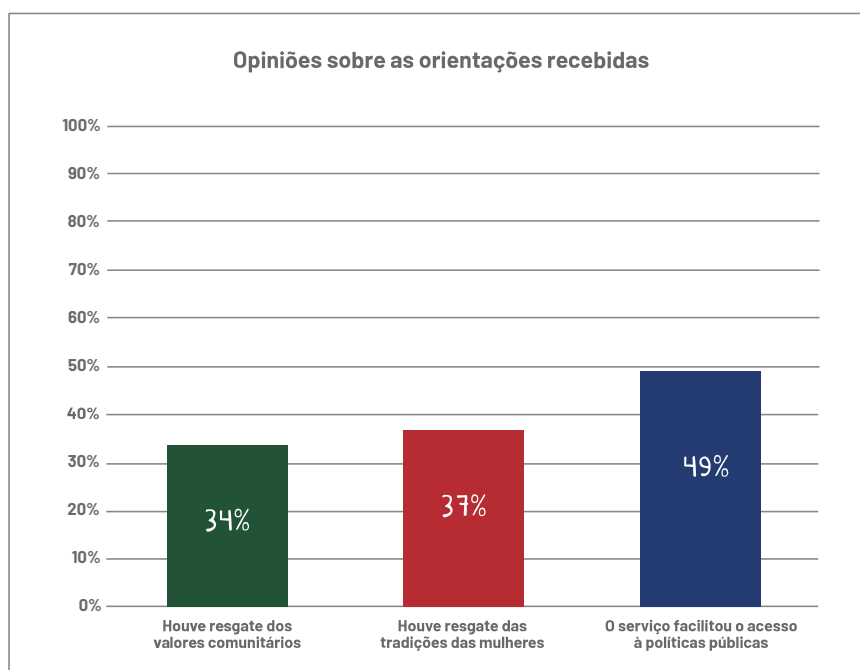


Figura 5 | Opinions of PDHC II beneficiaries regarding the ATER services received
Source: MONITORA Project, 2022

Table 2 | Introduction of new products among PDHC beneficiaries with and without funding

EFEITO NA PRODUÇÃO	FOMENTO	
	SIM	NÃO
Iniciou produção novo produto	86% **	77%
1 novo produto	44%	37%
2 novos produtos	25%	23%
3 ou mais novos produtos	17%	18%
Não alterou seus produtos	14%	23%
Total	100%	100%

* indica diferença estatística significativa ao nível de 1%.

Source: Projeto MONITORA, 2022.

The productive development associated with technical assistance was able to ensure almost complete fulfillment of the three components of the PDHC II. The assistance was responsible for increasing access to public policies (49%), dissemination of innovations and productive diversification. **In addition, the adoption of new practices by PDHC beneficiaries is more significant for the beneficiaries of the FPR** when it refers to the preparation of more balanced animal feed, which may indicate the use of inputs available on the property. There is also a significant production result in the productive backyards, possibly related to the increase in diversification. Likewise, in terms of improved animal management, the appropriation of new practices by beneficiaries with funding and ATER for the reproductive improvement and care of livestock is notorious.

Table 3 | New practices adopted by PDHC beneficiaries

NOVAS PRÁTICAS ADOTADAS	TOTAL	FOMENTO	
	%	SIM	NÃO
Ração balanceada para os animais	41%	51% **	32%
Consortiar o roçado	35%	35%	34%
Utilizar animais reprodutores de boa qualidade	21%	24% **	17%
Sementes e mudas de qualidade	21%	17%	24%
Produção nos quintais produtivos	18%	21% **	15%
Deixou de usar agrotóxicos	17%	15%	19% **
Técnicas de manejo das criações	20%	24% **	17%
Utilizar defensivos naturais	14%	14%	14%
Passou a utilizar esterco ou biofertilizantes	19%	20%	19%
Pintos de 1 dia de boa procedência e vacinados	13%	18% **	9%
Recuperar a mata nativa	11%	11%	10%
Técnicas de conservação do solo e da água	10%	10%	11%
Técnicas de convivência com o Semiárido	11%	10%	11%
Cultivo de leguminosas e bancos de proteína	7%	7%	7%
Adoção de tecnologia social	7%	6%	8%
Técnicass de produção de mudas	6%	4%	7% **
Técnicas de irrigação localizada	5%	4%	5%
Adotou técnicas da compostagem	4%	3%	5%
Deixou de usar ração transgênica	3%	3%	3%
Técnicas de artesanato aprimorada	2%	2%	2%
Corte e costura	1%	1%	2%
Congelar o pescado em freezers	1%	1%	2%
Outras práticas	8%	9%	8%

Nota 1: os beneficiários poderiam responder a mais de uma opção.

Nota 2: ** indica diferença estatisticamente significativa entre os grupos com e sem fomento, ao nível de 1%.

Fonte: MONITORA Project, 2022

Table 4 | Number of new practices adopted by PDHC beneficiaries with and without funding

PRÁTICAS	FOMENTO	
	SIM	NÃO
Adotaram novas práticas	93% **	85%
1 prática nova	24%	24%
2 práticas novas	26%	24%
3 ou mais práticas novas	43%	37%
Nenhuma novidade	7%	15%
Total	100%	100%

Nota: ** indica diferença estatisticamente significativa entre os grupos com e sem fomento, ao nível de 1%.

Fonte: MONITORA Project, 2022

SUCCESSFUL CASES

The testimonies of two of the families benefited by PDHC and the FPR provide qualitative evidence to better exemplify the results described above. In PDHC II, indigenous people and quilombolas are priority beneficiaries of FPR in order to compensate for the discontinuity of specific calls for these groups. To comply with this provision, among other actions directed to these communities, PDHC II promotes the adoption of new income-generating practices. According to the results of the Logical Framework (LFA) of PDHC II (data for December 2022), the targets proposed for the assistance of this type of beneficiary were achieved significantly. In the case of indigenous families, the target of 260 families adopting a new income-generating activity was reached by 77%, and in the case of quilombola families, it was reached by 57% (target of 280 quilombola families). It should be noted, however, that PDHC II is still in execution and that a new call for quilombola ATER in progress intends to benefit an additional 3,200 quilombola families. Therefore, the LFA goals for reaching PCTs can still be surpassed.

For Dona Meire, the FPR allowed her to build a chicken coop, generating additional income. In her words:



"THE FUNDING PROJECT IS AN ADDITIONAL INCOME. WITH THE CHICKENS, WE HAVE MORE INCOME. THE PROJECT CAME AND MADE MY DREAM COME TRUE! I BUILT A SMALL HOUSE AND TODAY WE HAVE 43 LAYING HENS. THE DOM HELDER PROJECT, ADEMIR (ATER TECHNICIAN) COMES HERE TO VISIT US. I GET TIRED OF BOTHERING HIM, EVERY TIME I HAVE A QUESTION I SEND HIM A MESSAGE AND HE HELPS ME."

Dona Meire is part of the Quilombo Sítio Veiga, located in the Serra de Santo Estevão, in the municipality of Quixadá (CE), in the Sertão Central Territory (Figure 3), in Ceará. The families of this Quilombo preserve traditions from their ancestors, such as orality and the dance of São Gonçalo, brought to the community over a hundred years ago and kept from generation to generation, as reported by Mr. Joaquim, a master of popular culture, Dona Meire's father.



The Central Sertão of Ceará is home to a population of more than 250,000 inhabitants (IBGE, 2010), and the municipalities of Quixadá and Quixeramobim together account for more than half of this population. In Quixadá, 70% of the establishments are family farms. However, only 59% own their land (IBGE, 2017). Of these, 31% have no schooling, 32% are elderly (over 65 years old), and 93% have never received technical assistance.

An important aspect to be highlighted is that Dona Meire has been a beneficiary since the first stage of PDHC, when she started to receive a series of benefits, such as the cistern, the vegetable beds for vegetable production and the reuse of greywater, in addition to continued technical assistance. With the FPR resource, she installed a small chicken coop, which holds 50 laying hens.

Dona Meire's case adds to the case of other women assisted by PDHC, who, according to the field researches, had a positive impact in their productive activities, commercialization, and income generation, as well as in the levels of participation in different dimensions, besides the economic one. The Women's Participation Index¹¹ of beneficiaries with fomentation was notably higher than the control (33.8%). The impact evaluation also showed that, since Dom Helder Câmara II, about one third of the women have greater power in decisions about productive activities and marketing within the family (MONITORA, 2022).

The case of Dona Djanira, a farmer from Monteirópolis, Alagoas, is a good illustration of this fact. The family received a project for pig raising facilities that became their main source of income. The advice of EMATER of the state was crucial for the facilities to meet all technical requirements, including the septic tank, making it possible to raise animals, proper food management, and the non-proliferation of undesirable odors to residents and neighbors.



¹¹ The Women's Participation Index (iMu), adapted from PROCASE (2021), indicates the empowerment of women in households through their participation in community actions and occupations in various activities. The higher the value of iMu, the better the indication of women's empowerment in the farm (MONITORA, 2022).

The community of Farias do Meio, in the municipality of Monteirópolis, Alagoas, is home to dozens of family farmers, who, for the first time in their lives, have obtained technical assistance from EMATER Alagoas, thanks to the Dom Helder Câmara Project.



The small municipality (Figure 7), with 6,935 inhabitants, of which 94% are family farmers, is among the 5% with the worst Municipal Human Development Index (IDHM) in Brazil. Of the family farmers, 57% have no schooling, and 77% are men.

Dona Djanira's productive unit is distributed in two small houses where eight people live, among daughters and sons, grandchildren, daughter-in-law and her husband, Mr. Cícero, 51 years old. They own "a task and a half"¹².

In the municipality, 50% of the family farmers assisted by EMATER, in the scope of PDHC, received the productive funding and were advised on all processes, from personal documentation, the Declaration of Aptitude to Pronaf (DAP), the organization of the UFPA, and the productive project itself. Some are able to sell to the Food Acquisition Program (PAA)¹³, 11 families were contemplated and provided food for the program, such as cakes, vegetables, and greens. According to Dacy, an EMATER-AL technician, thanks to the management of the ATER team, they managed to "increase the participation quota in the state PAA and expand the number of farmers involved," but they still cannot sell to the National School Feeding Program (PNAE). For Dacy, one of the biggest obstacles is the bureaucracy that must be fulfilled in order to sell to this program.

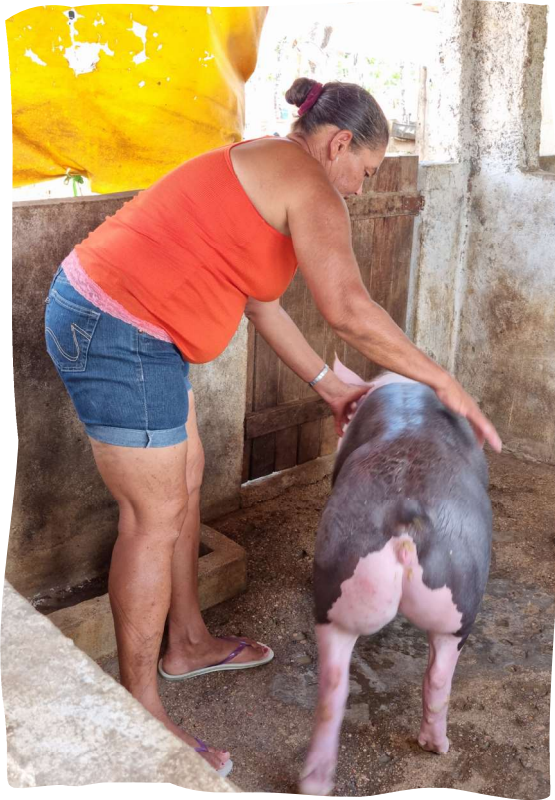
The objective of the productive project for raising pigs, elaborated by the technical assistance together with the farming couple, was to guarantee food security and increase the family's income.



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¹² According to Mr. Cícero, in Alagoas a task corresponds to 3,025 m², which is less than half a hectare.

¹³ The Food Purchase Program (PAA), created by Article 19 of Law No. 10.696 of July 2, 2003, has two basic purposes: to promote access to food and encourage family farming. To achieve these two goals, the program buys food produced by family farming, with exemption from bidding, and destines it to people in a situation of food and nutritional insecurity and to those served by the social assistance network, by the public equipment for food and nutritional security, and by the public and philanthropic educational network. Source: <http://mds.gov.br/assuntos/seguranca-alimentar/programa-de-aquisicao-de-alimentos-paa>.



They designed a 9 m² facility, but Mr. Cícero reported that he built a shed four times bigger - and continues to raise pigs and cattle for domestic consumption. **"If we have anything left over, we sell it elsewhere. With the money that came from the project we built the pigsty, we made six sties and a septic tank to keep everything clean... I already had the breeding stock here, I just needed the facilities"**

The farmer details the importance of technical assistance on the property. **"The money from the pigs helps us live. We have one boar and five reproductive females, and we sell the piglets right here in the community. With the pigs we can provide for the whole family. But everyone helps me, this girl (daughter) and this boy (grandson) always take care of the pigs together."**

The couple guarantees Food Security for the family and their children who live nearby thanks to the commercialization of animals, which ensures income to buy food in Monteirópolis.

For Mr. Cícero, the productive project and the funding allow the family to sustain the pigs and the few heads of cattle they own. **"We mix the forage palm with the cattle feed. But you can't give palm to the pigs"**. According to Dona Djanira's calculations, with this productive activity they can pay for **"water, energy, and there is also the health plan, a monthly bill. The Bolsa Família money goes all towards this. So, when the sows farrow, it helps a lot"**. Still in the words of Dona Djanira:

"BEFORE THE PROJECT, THE SITUATION WAS BAD, BUT THEN IT GOT MUCH BETTER. HE (THE TECHNICIAN) ALWAYS COMES HERE, WHEN I LEAST EXPECT IT."

Despite all the difficulties, Dona Djanira says that, with PDHC, things are better for them. "We even separated a pumpkin for you guys". The experience of the family of Dona Djanira and Mr. Cícero, assisted by EMATER Alagoas under the PDHC, shows that technical assistance and rural productive development were important in generating income associated with the marketing of pig farming products. The technical assistance was responsible for preparing the production project, organizing the farmer's documentation, and monitoring the implementation of the infrastructure planned for pig farming.

Among the aspects that still limit the productive activities of Dona Djanira's family is the availability of water.

"WE HAVE PIPED WATER AND IT COMES FROM THE RESERVOIR, SO WE USE THAT WATER FIRST AND THEN, IF IT'S NOT ENOUGH, WE GET IT FROM THE LITTLE DAM IN THE BACKYARD. WHENEVER IT RAINS, I THINK ABOUT COLLECTING THE WATER, I WISH WE HAD A CONCRETE CISTERN TO COLLECT IT. WE LOSE SO MUCH WATER WHEN IT RAINS, BUT THAT'S THE WAY IT IS, WE HAVE TO WAIT ON GOD! I HAVE HOPES OF BUILDING A CISTERN TO STORE WATER"

(DONA DJANIRA, FARMER FROM MONTEIRÓPOLIS, AL)

The lack of water storage structure is still an important element that restricts agricultural production, but the family believes that the improvement will come. Technical assistance was determinant in the process of inclusion of the family in the markets (even if informal) for meat and live animals, although the sustainability of the activity is questioned by the dependence on external inputs (feed) and the high demand for water.

ATER technicians from the states of Alagoas, Pernambuco and Ceará¹⁴ agree in identifying the beneficiary public of PDHC II as the most "vulnerable within the vulnerable", especially those benefited by the FPR Program. These are families that, in many cases, "had nothing to eat" and had never received technical assistance. "The advent of a technician in these locations represents, in many of the cases, the only physical presence of the State, and the opportunity to receive some kind of guidance and information on public policies."

For the technicians, one of the factors that hindered the continuity of these actions was the dismantling of public policies for family farming, severely affecting these families. Among these actions is the Water for All Program.

As seen in the initial sections of this document, productive inclusion goes beyond the productive dimension. Many are the dimensions and interactions that must be considered. In this sense, PDHC II advanced with strategies for coordination of public policies and strengthening of organizational bases.

¹⁴ Focus group held with eight technicians from Caatinga, EMATER Alagoas, Centro Sabiá, and EMATER Ceará on August 11, 2021.

The results, according to the impact assessment, are promising, but there are indications that point to the need for continued ATER services, combined with another set of policy instruments. For ATER teams, they "start everything from scratch, and to achieve transformation processes, more time and an interdisciplinary team is needed."

For the technicians, serving people in extreme poverty is challenging. The first challenge for these teams is to find the families indicated on the lists made available by the Ministry of Citizenship¹⁵. The targeting by family, whether through the lists or the active search, generates another challenge. In a community like the Quilombo Sítio Veiga (CE), only one family can be targeted, generating conflicts within the community. It also generates expectations that other families, at some point, may be beneficiaries of the FPR. However, if this does not occur, there may be a blockage, causing these families to mistrust ATER teams and public programs.

In the perception of a MAPA manager¹⁶, when defining the beneficiaries through these lists, it can happen that, "by a small difference in income among beneficiaries, many are left out. This cut-off line is calculated by the system."

Once the families have been identified, in many cases, the provision of the service begins by ensuring that these beneficiaries have access to basic documentation, such as identity and the Declaration of Aptitude to Pronaf (DAP). In this process, a considerable amount of time is invested in the schedule established by the companies providing the ATER service.

Another requirement, the production project that must be developed by the technicians in agreement with the family, is not always consistent with the characteristics of the Semiarid, as identified by the farmers who were interviewed in the contractual benchmarking study conducted by UnB in 2021. Forty-one percent of these farmers consider that the productive projects are not adapted to the conditions of the Semiarid, another 43% say that yes, the projects are adapted, and 16% had no productive projects at that time (ÁVILA; MIRANDA FILHO, 2021).

According to one of the MAPA managers¹⁷, "there is no doubt that the link between the production project planned by the ATER team and the funding resource is essential. But one must pay attention to both the availability of the resource and the quality of ATER, and the latter "must consider the knowledge of the producer in order to work with him in a coordinated manner, taking advantage of his experience."

Another challenge is the organizational base of these families. Organizations such as CETRA, Sabiá and Caatinga, partners of PDHC II as providers of ATER services, approach the Rural

¹⁵ According to Mello (2018, p. 95) "the nominal lists [used by the Brazil Without Extreme Poverty Program] served as the initial orientation of the action. To deal with the differences between the information contained in the Unified Registry and the reality found in the field, a margin of inclusion of new beneficiaries through active search was always foreseen." Although the program was deactivated, the nominal lists continued to guide the targeting of FPR beneficiaries.

¹⁶ Interview conducted on June 7, 2021

¹⁷ Interview conducted on June 7, 2021

Workers' Unions to, with them, identify the possible beneficiary families of the project. This articulation favors, to a great extent, the future possibility of these families being invited to join the Union. But their conditions of vulnerability are so profound that "the first thing we (technicians) should do is guarantee food for these families", before thinking about organizational processes.

What is clear from the statements of the technicians is that there are, within this group of families, differences in terms of availability of productive assets, collective actions, market opportunities, knowledge, experience, which must be taken into account to structure ATER activities and its articulation with other policies. There are, as explained by ANATER technicians PDHC beneficiaries who rely on the 1st and 2nd water, for example, and others, the most disadvantaged, who have never accessed a public policy. Both groups, no doubt, need assistance, but it must be differentiated, starting with the identification strategies and the definition of the actions to be implemented.

According to a study conducted by Villarosa (2017), EMATER Ceará took into account the nominal lists sent by the Ministry of Citizenship [at the time Ministry of Social Development - MDS]. However, it established other focus objective criteria, choosing the needy communities, known to the technicians, and, within them, grouped families, which, according to this study, "provided the optimization of successive ATER work" (p. 3). However, the targeting criteria used, on one hand favored the provision of the service by groups of families, but, as reported in the same study, it turned out that "isolated families, even extremely poor ones, in most cases were ruled out in principle from participating in the selection process, since groups of approximately 20 families in close proximity to each other were prioritized" (Ibid., p. 15).

To avoid this type of discarding, the MDS proposed what they called hyper-focusing (MELLO, 2018), going beyond the municipality or territory and focusing on the family in a situation of vulnerability. As already mentioned, PDHC II reached the most impoverished family farmers, but the challenge of its dispersion, for attention by ATER teams, remains. It is at this point that strategies must be devised to ensure the continued assistance of these families, who, due to their high degree of exclusion and vulnerability, have never received any type of benefit. There are at least two types of beneficiaries: the most vulnerable among the vulnerable, with scarce productive resources, and those who have territorial assets, which suggests that they should have another type of assistance.

¹⁸ Entrevista realizada no dia 4 de junho de 2021.

LESSONS AND LEARNINGS

1. PDHC II was formulated to meet the challenges of poor and extremely poor rural populations from a multidimensional approach, which is clearly specified in the project components, objectives and goals. The impact assessment of Dom Helder verifies that most of these objectives and goals were achieved, as indicated in the index results, such as increased incomes, food diversity, and access to public policies, among others.
2. The articulation between policy instruments, such as the ATER services financed by PDHC II, and the resources for Productive Funding from the Ministry of Citizenship favor the processes of productive inclusion. The PDHC gave visibility to more than 16,000 families by benefiting them with the ATER + Funding services. These results are enhanced when communities are prioritized on the basis of the realities of their territorial contexts, technical advisory tools and shared knowledge are adapted to these contexts, other public policies are added to meet the demands of these communities, and both productive activities and markets are diversified.
3. When the benefit combines ATER services with funding, the changes in the properties of farming families are striking, as shown in the cases of Ceará and Alagoas. This first change must be coupled with other concomitant actions for the initial effects to be long-lasting and to offer other opportunities for families for social and productive insertion.
4. Each contribution, however small, generates change, as reported by one of the ATER technicians - and this change should be recognized. Not only because of the opportunity that ATER services represent for these families, but also because of the experience and capacity of the beneficiaries, who, with a small incentive, initiate transformative processes.
5. The design of productive projects should receive more attention regarding their sustainability. Although they have characteristics of installations adapted to the territorial contexts, a significant portion of them are oriented to the production of pigs and poultry with high dependence on external inputs for their feed (corn and soy) - in the search for higher productivity animals, they end up choosing those that are also more demanding in relation to sanitary and feeding management.
6. The difference in productive, cultural and social assets between groups of beneficiaries must be taken into account when planning ATER services, as must the knowledge and

experience of the teams that assisted these families. Families that had never received the benefit of a public policy before, in most cases, need to start by obtaining their identity card and other necessary documents that certify them as citizens. For access to social policies, the teams must be trained to guarantee respect and agility in the processes. These teams must be different from those that advise on production, social organization, and markets.

7. The active participation of rural workers' unions in identifying beneficiaries has proven to be a very relevant practice for targeting the public to be assisted with funding. This articulation with local organizations strengthens the structuring of support networks both for targeting and for implementing and monitoring ATER actions and other public policies.

8. The case of CETRA, the Center for Work Studies and Advice for Workers, responsible for advising eight municipalities in the Sertão of Ceará, as well as the experiences of Caatinga and the Centro Sabiá in Pernambuco, promote advisory arrangements for family farmers with a set of actions articulated in networks of experiences and projects that have, in agroecology, their bases for action and reflection. These networks make it possible to go beyond the times established by federal programs and projects, and help to circumvent the possible impacts caused by changes in the programs conducted from the federal level.

RECOMMENDATIONS

Technical Assistance

The results of PDHC II, regarding productive diversification and increase of agricultural incomes, are positive, especially in the production of poultry and pigs. In an attempt to advance further, it is suggested that farming families be advised to diversify into other productive arrangements, agricultural and non-agricultural, always under the principles of sustainability, rational use of scarce resources (such as water), transition to sustainable food systems, use of renewable energy, among others.

In this sense, the productive funding actions should be accompanied by continuous technical assistance and rural extension services. It is not enough to advise on the elaboration of the productive project to be financed with the resources of the Funding. This action may trigger other productive activities on the property, whether for the market of fresh or minimally processed products, to improve the family's food security, or to undertake another type of economic activity, not necessarily agricultural.

ATER services should be contextualized, and productive projects should reveal the characteristics and potentialities of rural territories. These projects can be designed in terms of scale, by groups of beneficiary families, in articulation with the characteristics, challenges and potentialities of the territories and beneficiary families. It is expected that the productive projects, according to regions, territories, families, and types of beneficiaries, will be differentiated. An important point is to strengthen the organizational capacities of beneficiaries by offering group ATER, which, in turn, can also strengthen social capital within the community.

In the case of productive projects, it is necessary to have greater adaptation of production systems to climatic, economic and technical conditions. In this sense, the exchange of previous experiences of technical assistance with banks of social technologies, networks of agroecological experiences and innovations tested with experimental farmers should be a condition, or at least a recommendation, to ensure the longevity of the projects with less external dependence.

Multidisciplinary teams are needed to address the challenges involved in the processes of productive inclusion of poor and extremely poor families. In addition to technical specialists in the agricultural and livestock areas, professionals in the area of social services, such as in collective health, are indispensable. These teams can think of transformative projects that integrate several dimensions and overcome the productivist vision. For example, thinking about food systems goes beyond the production of food, and its distribution can be a way out to approach a portion of the consumers in the cities who are interested in healthier, less

processed products and with a territorial identity. The assistance should address dimensions such as nutrition, food preparation with the rescue of ancestral knowledge, recovery of native seeds and non-conventional food plants, communication, marketing, digitalization; all this can contribute to diversify productive activities and ensure a more attentive look at the demands of consumers.

Local knowledge and the extensive experience that farmers have in living with the challenges posed by the semi-arid region should be valued. Implementing advisory actions that go beyond individual visits, with the exchange of knowledge among producers, favors the appropriation of new practices and knowledge.

Capacity Building

The ATER and Funding Program goes beyond the provision of technical assistance and the delivery of resources for productive structuring. Since its origins, this Program is part of a broader strategy of productive inclusion, which, by principle, is defined as multidimensional. The objectives, besides generating income, are to ensure food and nutritional security and access to other public policies.

It is suggested to design and implement a continuing plan of training and updating of the technical teams of ATER that has the systemic approach as a guiding principle for diagnosing problems, identifying challenges and planning interventions in a way that corresponds to each context and different types of family farming. Likewise, it is necessary to update them on public policy guidelines, such as specific themes related to agroecology, public health, nutrition, productive alternatives, business plans, digitalization, marketing, forms of collective action, conflict resolution, gender.

According to Law 12,188 of 2010 (National Policy of ATER for family farming and agrarian reform), ATER is the "non-formal education service, on a continuous basis, in rural areas, which promotes management processes, production, processing and marketing of agricultural and nonagricultural activities and services, including agro extractive, forestry and handicraft activities" (BRASIL, 2010). To undertake non-formal and continuing education actions, it is necessary to know pedagogical, didactic, and communication principles that help to innovate in the methods to be used, taking into account the types of beneficiaries, the available resources, the topics to be addressed, the territorial characteristics, the demands of producers and consumers, and, above all, the valorization of the experience and knowledge of rural families. The diffusionist and productivist vision of ATER services is widely questioned. Today, the challenges are greater, and, considering ATER services as one of the fundamental instruments for rural development, the teams must be prepared to share, in a participatory manner with local communities, both hard knowledge (production and transformation) and soft knowledge (farmer organization, management of participatory processes, business implementation, market analysis, use of social networks, inter-institutional articulation).

Innovations in the governance systems of ATER projects

ATER public policy, complementary to the Productive Funding, should be guided by sufficiently flexible and clear guidelines that allow ATER managers in the Rural Territories to implement them according to the context and needs of needy families in these territories. Originally, these guidelines guided the Funding Program aiming at productive inclusion, but they have been losing strength throughout its implementation. To take it up again implies designing instruments that enable the articulation of initiatives at the territorial level, aggregate the group of families to be assisted with the development and ATER resources in order to create scale and favor the diversification of productive activities and markets.

Incentives to encourage these articulations can be activated. Decentralized management instruments can also be designed to accompany the actions of ATER and articulate with regional and/or territorial plans and projects. Coordination of the various territorial scales is necessary for the implementation of ATER projects.

Decentralized implementation would help to reduce the long paths that must be taken for a message at community level to reach the federal level. The unclear content of the rules for program implementation, the lack of follow-up on the implemented actions, and the lack of speed in defining alternatives to circumvent specific problems in each context make the implementation of the actions much more time consuming and painful. For example, it is known that the guiding lists to identify possible beneficiaries of the development program had this purpose: to provide guidance. But there were cases, according to reports from the technicians interviewed, in which these lists were applied as a mandate, although they were not in accordance with the reality of the territories. That is, lists that prioritized one family per community, when the difference between families in that community could be minimal in terms of income, leading to discrimination among the families in need.

The certification of companies providing ATER services can also be a decentralized action, managed by regional bodies made up of ATER beneficiaries, groups of specialists (universities, researchers from research companies) and public agents, establishing lists of entities or organizations able to provide the service. This certification system can be supported by periodic monitoring and evaluation reports, as well as other criteria that are objective, widely disseminated and defined jointly with beneficiaries of the service and regional networks of ATER.



CONCLUSION

This document presents the results of the articulation between the technical assistance and rural extension service offered by MAPA's PDHC II, operated with resources and support from IFAD, and the Rural Productive Funding Program of the Ministry of Citizenship. The evidence shows that the concomitance of two policy instruments and the articulation between two government agencies enhances the results in terms of poverty alleviation and improvement of the productive practices developed by these families. Furthermore, thanks to an instrument such as the CadÚnico, it was possible to qualify the targeting processes of the beneficiaries, reaching those who need it most.

In most of the indicators assessed, the results of PDHC II beneficiaries who received FPR were much more promising. This information will undoubtedly guide possible new interventions, and it is hoped that the data, the testimonies of beneficiaries and technicians, as well as the lessons and recommendations can be of use. Rural productive inclusion processes must be approached in a multidimensional manner and, according to the diverse contexts of rural territories, bring proposals that aim to articulate public action to overcome the many shortcomings that still affect a large contingent of rural families.

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