

REDUCED INEQUALITIES

CONTRIBUTIONS OF EMBRAPA

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Chapter 6

Challenges of Embrapa's research agenda in reduced inequalities

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Introduction

Reduced inequalities is a continuous challenges, especially for a country with continental dimensions such as Brazil. For this, there is a need for the search agenda to co-evolve with interregional, state and even municipal differences. Misconceptions of public policies reflect in the rural environment, as the increase of inequalities, annulling the achievements obtained.

In the Brazilian case, many of the achievements of the Millenium Development Goals (MDGs) were affected by the macroeconomic effects of public policies and the global recession, reflected in the Sustainable Development Goals (SDG). The continuous generation of new economic and technological alternatives is indispensable to reduce these regional, state and municipal differences.

Achieving development through reduced inequalities is a major challenge for Brazilian society. In a complex federation like Brazil, with different biomes, cultural patterns and diverse historical roots, it is necessary to make efforts to make public management more efficient and effective and able to accelerate the execution of public investments, to maintain social policies, to carry out diversification of the local economy, as well as improving the business environment and the quality of public spending.

The main challenges

The imbalances and impacts resulting from the process of globalization of the economy and the modern technological revolution impose the need to seek new alternatives to rural development, particularly for small production, as the situation of poverty persists, as well as social exclusion, degradation of natural resources and economic disparities. These themes appear increasingly frequent and evident in the Brazilian countryside (Fucks, 2001).

Analyses of the Brazilian rural space of the 1970s and 1990s indicated that the transformations in the field led to the hegemony of agribusiness from the content of the technique, selectively and exclusively (Neumann et al., 2017). On the other hand, this space has been strongly market by struggles of family farmers organizations, with the aim of finding and maintaining their space in the midst of the diffusion of the capitalist mode of production in the countryside.

In recent years, as a result of the clamor of the popular movements and also of a series of international commitments assumed by Brazil, a set of public policies was created and implemented by specific plans, seeking to guarantee rural development with economic, social and environmental sustainability. We can mention, among them: Family Farming, Programa Nacional de Fortalecimento da Agricultura Familiar (National Family Farming Development Program – Pronaf), Política Nacional de Segurança Alimentar e Nutricional (National Policy on Food and Nutrition Security – PNSAN), Política Nacional de Desenvolvimento Sustentável dos Povos e Comunidades Tradicionais (National Policy for the Sustainable Development of Traditional Peoples and Communities – PNPCT), Política Nacional de Agroecologia e Produção Orgânica (National Policy on Agroecology and Organic Production – Pnapo), among others.

Most of the implementation plans for these policies contain specific actions under the responsibility of Brazilian Agricultural Research Corporation (Embrapa). These actions expanded Embrapa's research, development, technology and innovation (RDT&I) activities, as well as opened up a new set of activities to serve the most deprived part of rural areas, small-scale producers and specific social groups (indigenous peoples and traditional communities). This set of commitments assumed institutionally has allowed, in the last decade, a gradual institutional realignment of Embrapa, in particular regarding the generation of social technologies, moving from the context of developing technology "to" adopting a logic of developing "with", increasing social participation.

In this new context of the 21st century, a set of projects has been developed in an inclusive way, seeking to increase producers' income through dialogue and exchange of knowledge, contributing to the strengthening of networks and local productive arrangements. As an example, we mention Programa de Apoio a Inovação Social e ao Desenvolvimento Territorial Sustentável (Support Program for Social Innovation and Sustainable Territorial Development – Inovasocial), Building and Exchanging Knowledge for the Sustainable Development of Traditional Peoples and Communities Arrangement (ConPCT), and the continuity

of Bem Diverso Project, aimed at the income generation of extractive products from the Cerrado, the Amazon and the Caatinga.

In accordance with target 10.1 of increasing the income of the poorest 40% of the population, implementation of the Inovasocial program will contribute to reducing regional inequalities through the productive inclusion of low-income populations. It aims to promote the social and productive insertion of small producers, through the strengthening of Sistemas Agroalimentares Localizados (Localized Agrifood Systems – Sial), through interventions guided by the principles of social innovation. Its objectives are: a) strengthen and support network of production, processing and marketing of products derived from goats and sheep, with territorial identity associated with family farming; b) strengthen and support collective strategies for the conservation and use of agrobiodiversity as differentials for the valorization of territories and for access to agroecological seed markets.

Inovasocial will support projects where Embrapa's history of action has already established a network and will create processes for building knowledge, from the local context, committed to the social appropriation of innovations. Networks from the Inhamuns/Cratéus Territories in Ceará state will be supported; Cariri Paraibano/Agreste and Sertões do Motoxó and Pajeú Pernambucano, in Paraíba and Pernambuco states; and Alto Camaquã, in Rio Grande do Sul state. Also groups that perform in Goiás, Rio Grande do Sul states and some territories of the Brazilian Semiarid region. Each group will work to promote organizational and technological innovation aimed at the social and productive inclusion of farmers. It is planned to share knowledge and experiences among the different actors present in similar networks, allowing the obtainment of benefits and knowledge that can leverage local production, generating income and reduced inequalities in the territories and regions listed.

In order to promote economic and political social inclusion, regardless of age, gender, disability, race, ethnicity, origin, religion, economic condition or otherwise (target 10.2 of SDG 10), it is possible to highlight Embrapa's thematic organization with peoples and traditional communities through Building and Exchanging Knowledge for the Sustainable Development of Traditional Peoples and Communities, approved in 2017. It aims to promote innovation actions with traditional peoples and communities to identify, characterize and value traditional systems for the use, management and conservation of natural resources that contribute to food and nutritional security with a territorial focus, guaranteeing sustainable livelihoods. It also discusses target 10.1, since it intends to stimulate

in Embrapa projects with economic impact in the contexts of: increased income generated in agroextractivist systems for the generation of innovations; increased income generated by new technologies and techniques in agro-extractive management and exploitation; creation of market niches, new national and international markets, such as assai and Brazil nuts; development and monitoring of post-harvest processes and new markets.

In general, this and similar projects include actions to promote the local economy and the social construction of markets, from the identification and characterization of local production/distribution circuits and reciprocity relations in the commercialization and exchange experiences of traditional peoples and communities, and the creation and strengthening of spaces of interaction.

An example of such concerns is the implementation of Bem Diverso Project by the United Nations Development Programme (UNDP), which is coordinated by Embrapa. It operates in three biomes and six territories of citizenship, areas that go beyond the limit of municipalities. There are two territories per biome, reaching the Amazon, the Cerrado and the Caatinga. Driven by resources from the Global Environment Facility (GEF), the main objective of the project being implemented is the promotion and sustainable use of biodiversity, working with local communities to stimulate good practices in coexistence with diversity. To this end, 12 priority species, typical of the regions and with potential for promotion, exploitation and commercialization, are worked on. The goal is for these species to be a consolidated element of income generation for family farmers. The project works to empower communities, but also promotes the value chain for socio-biodiversity products, market access, and maps existing financial incentives to operationalize the marketing of these products. This project related to targets 10.1 and 10.2, promoting reduced national inequalities, the inclusion of the poorest 40%, and the conservation of Brazilian biodiversity through the promotion of sustainable development.

Actions like this are in line with the survey carried out by Characterization of the New Brazilian Rural Project 92-98, which indicated that the Brazilian rural area is no longer restricted to those activities related to agriculture and agroindustry. In the last decades, the rural environment has been gaining new functions – agricultural and non-agricultural – and offering new opportunities for work and income for families. It points to rural tourism, a booming activity in the areas of dams formed for the generation of electric energy and along the rivers, indicated as an important vector of development of new activities. With enormous potential to be exploited, low-impact tourism in areas of indigenous peoples and traditional

communities has the potential to contribute to increasing the income of these populations.

These activities and their impacts in the rural areas need to deepen research to subsidize related public policies. Modern agriculture and subsistence agriculture share space with a set of activities related to leisure, services and even industry, reducing, more and more, the boundaries between rural and urban in the country.

Embrapa

Concerned with the sustainable rural development and the facets of the diversity of agriculture, EMBRAPA established, under its Sistema de Inteligência Estratégica (Strategic Intelligence System – Agropensa), the observatories, among them Observatório da Agricultura Familiar (Observatory of Family Agriculture – OAF), aiming at subsidizing the formulation of research, development, exchange and construction of knowledge linked to cross-cutting issues that affect the performance of family farming. OAF will have the function of: a) identifying problems and challenges that are the targets of studies, research for and with family farming; b) monitoring the issues and challenges related to family farming in the different regions of the country; c) contributing to the definition of institutional guidelines and strategies and related themes. It also seeks the evaluation of good practices; forms of production and different styles of agriculture and social and economic reproduction; impacts of health legislation and tax issues; new material bases in the context of energy transition and climate change; product and process technologies; strategies of qualification of technicians for the availability of social technologies.

The public function of rural research and extension is emphasized in several contexts, especially with regard to the proposals and strengthening of public policies and the need to broaden the institutional performance of Embrapa and partners as co-responsible for sustainable and equitable development of agriculture in the face of confronting inequalities.

For its part and given its competence and mandate, Embrapa has adapted its research to the reality of family farming, innovating in diverse social and environmental contexts, supporting productive inclusion, income generation and improving the quality of life of rural workers, its cooperatives and associations. In all these efforts, the research expanded its activities in the context of promoting

agroecology and organic production, strengthening environmentally sustainable agricultural systems in several territories and biomes.

However, rural poverty and hunger are not equated solely by inclusion and productive insertion. It is not enough to reduce production costs and increase productivity to make the activities of less-capitalized producers viable. It will be necessary to look at the differences of biomes, territories and how to act locally and this is a huge challenge for the eyes and attitudes of research. There is a need for organizational and behavioral innovations to see beyond technological solutions.

For example, high agricultural production without observing logistics and access to markets is a problem and not a solution. In other words, agricultural research needs to incorporate other values, especially in order to meet sophisticated demands, such as that of traditional peoples and communities, which are significant populations in Brazil, to incorporate into its research, development, technology transfer and innovation processes. In addition, simple technologies can be added to production systems, without the need for time-consuming studies, as a way to quickly reach consumers, with typical products and high territorial adequacy. In general, there are ways to generate value and increase income through the differentiation of regional products, with origin identification.

It will be necessary to look at the differences of the biomes, the territories and especially the local culture of the farmers. This new look presents itself as a great challenge for agricultural research, as it demands organizational and behavioral innovations in addition to technological solutions. Simple technologies built through the dialogue of knowledge (scientific and traditional) can be generated locally, in participatory way, and boost productive systems, helping local socio-biodiversity products reach consumers quickly.

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