



## Social organization and organic production in agroecological Land Reform territories in the state of Alagoas

### *Organização social e produção orgânica em territórios agroecológicos de reforma agrária no estado de Alagoas*

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**ABSTRACT:** The organization of families settled to constitute an Organic Quality Participatory Guarantee System (PGS) evidences the territorial character and the organizational diversity of this methodology aimed at assessing organic compliance. The current study was carried out in two Land Reform settlements from the state of Alagoas, which have settled families working in the Agroecology and organic production field and that, since 2019, have been part of a state-level articulation to formalize an Organic Compliance Participatory Assessment Body (OCPAB). In order to develop the paper, the action-research method was adopted, and information collection instruments were used, such as a semi-structured questionnaire and a field diary. The results evidenced that there are local participatory certification groups in the Land Reform context. They can consist exclusively of families from the same settlement or include other settlements in the proximities and they can also be comprised by families officially regularized or not in the settlement. In other words, the PGS allows the groups to create their own territorial organization logic. And, in these terms, the territory evidences the material and immaterial aspect of the peasants' connection with the land, represented by the symbology in the choice of names for the groups and also in welcoming families that still intend to gain legal possession of the land. Our study also evidenced the differential of the Federal Brazilian legislation that deals with organic agriculture, especially for having created three compliance assessment mechanisms that expand the possibilities to include family agriculture in this context and for adapting organic production to the different realities of the territories.

*Keywords:* participatory certification; agroecology; public policies.

**RESUMO:** A organização de famílias assentadas para constituir um Sistema Participativo de Garantia da Qualidade Orgânica (SPG) evidencia o caráter territorial e a diversidade organizacional dessa metodologia destinada

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à avaliação da conformidade orgânica. O presente estudo foi realizado em dois assentamentos da reforma agrária do estado de Alagoas, que possuem famílias assentadas com atuação no campo da Agroecologia e da produção orgânica e que, desde o ano de 2019, integram uma articulação em nível estadual para formalizar um Organismo Participativo de Avaliação da Conformidade Orgânica (OPAC). Para o desenvolvimento do trabalho, adotou-se o método da pesquisa-ação e foram utilizados instrumentos de coleta de informações como o questionário semiestruturado e o diário de campo. Os resultados evidenciaram que, no contexto da reforma agrária, os grupos locais de certificação participativa possuem diferentes conformações, podem ser formados exclusivamente por famílias do próprio assentamento, ou mesmo de assentamentos vizinhos, e podem constar de famílias que estão regularizadas oficialmente ou não no assentamento; ou seja, o SPG possibilita que os grupos criem sua própria lógica de organização territorial. E, nesses termos, o território evidencia os aspectos materiais e imateriais da ligação camponesa com a terra, representados pela simbologia na escolha dos nomes dos grupos, mas também no acolhimento das famílias que ainda vislumbram conquistar a posse legal da terra. Evidenciamos também no estudo o diferencial da legislação federal brasileira que trata da agricultura orgânica, sobretudo pelo fato de ter criado três mecanismos de avaliação da conformidade, que ampliam as possibilidades de inserção da agricultura familiar nesse contexto e pela possibilidade de adequar a produção orgânica às diferentes realidades dos territórios.

*Palavras-chave:* certificação participativa; agroecologia; políticas públicas.

## 1. Introduction

The arable area in the world with presence of organic production has reached growth rates close to 10% per year. In Brazil, although there is a federal public policy supporting Agroecology and organic production, growth in terms of area is only 2% per year (Brazil, 2012; Lima *et al.*, 2020).

A study by the Institute of Applied Economic Research (IPEA) indicated that the dynamics of Brazilian business agriculture, characterized by large-scale cultivation and, above all, by prioritization of commodity production, conforms to limiting factors for the growth of organic agriculture in the country (Lima *et al.*, 2020). However, there are territories conducive to the development of other agriculture styles, based on ecological principles, which prioritize food production and which can be certified as organic (Caporal, 2015). The Land Reform settlements are but an example, territories devoted to peasant family agriculture that imprint

different management and organization logics to each plot intended to production

Peasant production systems are based on productive diversification (Nicholls & Altieri, 2019); they have arrangements that incorporate elements of the local ecosystems (Toledo & Barrera-Bassols, 2015) and destination of the production is usually in the same territory as its origin, whether for domestic consumption of families, for the local market or for surrounding municipalities.

Settled families, who develop their work in productive plots embodied in Agroecology and organic production, establish cooperation and trust bonds with the community and the consumers (Pinho *et al.*, 2019). In this dynamic, to ensure that the production process meets the legislation that regulates organic production, they become Organic Quality Participatory Guarantee Systems (PGSs) or Social Control Organizations (SCOs), instead of hiring the audit certification modality.

PGSs are defined as follows by the Brazilian federal legislation:

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The set of activities developed in a given organizational structure, aiming to ensure that a product, process or service meets regulations or standards and that it has undergone a compliance assessment in a participatory way (Brazil, 2007, p. 2).

In turn, a Social Control Organization (SCO) is an organic quality assurance modality specific to the family farming population, in processes of direct sale of products to consumers. Both modalities are guided by principles such as trust, participation and transparency (Hirata et al., 2020a).

In this text, we sought to identify the strategies used by settled families to ensure the organic quality of production, not only through mechanisms defined in the Brazilian federal legislation, but also by local strategies for organizing the production groups of two Land Reform settlements in the state of Alagoas: Flor do Bosque and Dom Helder Câmara.

In addition to this Introduction and to the Final considerations, the text is organized into another four sections. In the second part, based on a literature review, the organic quality assurance participatory processes are addressed, with emphasis on PGSs, as they are an innovative strategy for the organization of families settled in the state of Alagoas. We address the limits for the constitution of a PGS in countries whose organic agriculture regulation does not recognize it as an official organic certification process; in the same sense, we highlight how agroecological movements have focused on the formulation of the Brazilian federal legislation on organic agriculture, making it more adapted, especially to the family farming context, although there are evident limitations. In the third part, we indicate the methodological procedures used. The fourth part deals with the scenario in

which organic production takes place within the Land Reform scope in the state of Alagoas and, finally, it highlights the characteristic of the creation of participatory certification groups in the Alagoas Land Reform context.

In the scientific field, this study with an interdisciplinary focus aims at contributing to knowledge production and to the dialogue between Agroecology, public policies – focusing on the national organic policy – and aspects of peasant organization in Land Reform areas, which are territories modified in the aspect of land use and possession, a fact that induces changes in the socio-environmental characteristics of the agroecosystems, relevant to be discussed and analyzed, especially with regard to the limits and challenges of public policies to support more sustainable initiatives for the production and use of natural resources.

## ***2. The organic agriculture regulation process***

The Brazilian organic agriculture law was written in a “lean” way, leaving the details about relevant items to the decree and normative instructions (Dias & Laurino, 2020). This fact contributed more flexibility to updating the norms and for the incidence of civil society in the proposal of the necessary adjustments to the regulations. In its text, the law asserts that organic products should be certified by officially recognized bodies in Brazil, failing to specify which type or methodology would be adopted (Brazil, 2003). This allowed agroecological movements to organize themselves to include in the regulations the participatory processes already existing in the family farming practice, including

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non-mandatory certification when commercialization by this category of farmers is carried out in direct sales processes (Dias & Laurino, 2020; Fonseca *et al.*, 2020).

The law was regulated by publishing Decree No. 6,323 of 2007, which stipulated important aspects of organic production in the country. It established the Brazilian Conformity Assessment System<sup>1</sup>, the National Register of Organic Producers<sup>2</sup> (Cadastro Nacional de Produtores Orgânicos, CNPO) and the identification of products through the organic seal, covering the entire national territory, in addition to establishing the necessary period for organic conversion (Brazil, 2007).

The Decree also instituted the strategies to be adopted in Brazil to ensure organic conformity, by creating three systems:

(1) Social Control Organizations (SCOs), intended to the family agriculture population, but exclusive for direct sales marketing processes;

(2) Organic Quality Participatory Guarantee Systems (PGSs), based on processes that require the farmers' active participation, with a management structure centered on social control and the creation of a network of farmers;

(3) Audit or third-party certification, carried out by certifying entities not linked to the production units, hired to perform an *in loco* analysis in the areas of the producers who intend to obtain the organic product seal (Muñoz *et al.*, 2016).

The PGSs and the audit certification body are part of the Brazilian Organic Conformity Assessment System (Sistema Brasileiro de Avaliação da Conformidade Orgânica, SISORG)<sup>3</sup>. Both are acknowledged as official instruments to certify organic production. The products or farmers that went through these organic conformity assessment processes are identified by means of the *Orgânico Brasil* (Organic Brazil) stamp.

Even if unique for the entire national territory, the Organic stamp allows differentiating the certification process (Figure 1); in other words, whether it was performed by means of an audit or through participatory processes (Dias & Laurino, 2020). In the case of farmers that have an SCO, they are identified through the producer registry declaration (Brazil, 2009).

Niederle (2020) indicates three reasons why Brazil has included participatory processes in organic certification in its legislation, unlike countries where audit certification is the only modality officially accepted:

(1) The political field reconfiguration in 2003, which allowed agroecological movements not only to create resistance actions against the certification process, but to participate in the elaboration of the regulatory framework;

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<sup>1</sup> The Brazilian Conformity Assessment System consists of bodies and entities belonging to the federal public administration and by the MAPA-accredited CABs (Brazil, 2007).

<sup>2</sup> Record of all the organic producers in Brazil, in all three modalities regulated by the legislation: (SCO, PGS and Third-party Certification).

<sup>3</sup> SISORG comprises the conformity assessment bodies, which are legally constituted organizations, either public or private, responsible for verifying conformity of the productive processes evaluated, in relation to the technical regulations of organic production, both in the Audit Certification and in the Participatory Guarantee Systems (Brazil, 2009).



FIGURE 1 – Organic product stamps with indication of the conformity assessment system, either by means of a participatory system or through an audit.

SOURCE: MAPA (2021).

(2) The existence of the National Agroecology Articulation (Articulação Nacional de Agroecologia, ANA), an organization that gathers the different agroecological movements and that eased dialogue between the demands of social movements and the government;

(3) The construction of shared understanding with several subjects of the certification process, which involved the State and private companies, with narratives that sought to aggregate the different certification modalities as a strategy to reach different markets and strengthen organic agriculture in the country.

Although PGSs are admittedly a strategy that is more adapted to the reality of family-based agriculture, there are still few studies on them, both in Brazil and in the world (Binder & Vogl, 2018), mainly related to the profile of the farmers that make up the PGSs and the different strategies adopted to proceed with participatory certification (Hirata *et al.*, 2020b). This fact hinders understanding about this methodology for rural community contexts.

### 2.1. Participatory Guarantee System (PGS):

#### *Different realities throughout the world*

Studies on participatory certification indicate some common characteristics of PGSs, such as the following: low cost when compared to third-party certification (Hirata *et al.*, 2019; Lemeilleur & Sermage, 2020; Niederle *et al.*, 2021); incorporation of other objectives in the organization between farmers and consumers, in addition to the certification itself, such as the improvement of production practices through knowledge exchanges (Hirata *et al.*, 2020b; Lemeilleur & Sermage, 2020); the opportunity for communities to continue to develop production systems based on Agroecology, without giving in to the production homogenization process (Meirelles, 2020); generation of trust among the participants (Martínez, 2013); and the new alliances between consumers and producers (Oliveira, 2012).

It is also a fact that the families' greater participation and the rescue of collective processes in the territories are essential factors to create a PGS (Hirata *et al.*, 2020b) and to increase environmental awareness among the members (Hirata *et al.*, 2019). The need for greater participation among those involved is a strategy that makes it possible to reduce

certification costs, as the entire process is organized and operated by the farmers themselves. Regarding the consumers' inclusion in the system, it is not a determining factor to obtain participatory certifications; however, it is a highly recommendable item to expand social trust in the process.

In the Brazilian reality, especially in the family farming context, the limiting factors for participation in organic certification processes are related to the excessive documentation required to prove that a PGS has mechanisms for assessing conformity, associated with the farmers' difficulty keeping production records (Kaufmann & Vogl, 2018), as well as having access to land and credit to produce (Binder & Vogl, 2018).

In realities where PGSs are not regulated as an official conformity assessment mechanism, such as in the countries that make up the European Union (Niederle, 2020), the weakness is related to access to markets intended for organic products<sup>4</sup> or even to use of the term by the PGS members, both prohibited by the regulations. In this situation, the PGS has a social organization nature to promote consumers' access to local food products (Montefrio & Johnson, 2019).

According to Niederle (2020), the organic agriculture regulation in France validated third-party certification as the only accepted instrument for conformity assessments. The products certified by the Nature et Progrès (NP) PGS are restricted to the consumers that are part of that organization's participatory system. Chains specializing in the trade of organic food products excluded NP products after the 2005 legislation, but they were later introduced with the condition that they came from areas close to each store (150 km radius); such products would come to be known as local rather than organic. In

the NP experience, the social organization sought to resist the effect of the hegemonic categorization process called “Conventionalization of Organic Agriculture” (Cuéllar-Padilla; Ganuza-Fernandez, 2018; Niederle, 2020).

The fact that the PGS is not legally recognized restricts farmers' access to organic markets and, consequently, reduces remuneration in marketing procedures. Therefore, it has hindered participation of more farmers in the PGS (Binder & Vogl, 2018; Kaufmann & Vogl, 2018).

Even so, even with the limitations imposed on PGSs that are not supported by the legislation, a survey carried out by the International Federation of Organic Agriculture Movements (IFOAM) indicates an increase in the number of PGSs over the years. In 2009, nearly 20 initiatives were documented in 20 countries, involving 10,000 members. In 2017 there were more than 240 PGS initiatives in more than 60 countries, with nearly 310,000 producers and processors. However, slightly more than 10 national regulations officially incorporated PGSs (IFOAM, 2018; Binder & Vogl, 2018).

## *2.2. The organic quality guarantee of production by means of participatory processes*

The inclusion of different possibilities to assess organic conformity, not only by means of the audit performed by a hired company, is relevant for the Brazilian reality at least from two perspectives. In the first place, the possibility of implementing systems that can be adapted to the family agriculture heterogeneities in the different territories (Niederle et al., 2021). Secondly, because unlike the reality

<sup>4</sup> The term “biological” is used in the European Union; however, to ease understanding of the text, we standardized to the term “organic”.

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of globalized organic certification, participatory processes were primarily designed to serve the local market and, in the case of SCOs, exclusively, as this strategy is intended for direct sales by farmers (Muñoz *et al.*, 2016).

For these and other reasons, PGSs and SCOs began to be disseminated and advocated by social organizations as a possibility of including the different categories that represent family farming in the organic production context, as indicated in the Ecological Center booklet:

Family farmers and traditional peoples, who would certainly be excluded from organic production due to the high costs of audit certification, become economically viable and are even the driving force, in many regions, of a true revolution in agriculture in many communities and municipalities throughout Brazil (Ecological Center, 2014, p. 80).

Hirata *et al.* (2020b) evidenced the presence of this diversity of family agriculture categories that are currently included in the PGSs in force in Brazil. Of the 7,787 registers of producers certified by PGSs in 2020, 6,617 are family farmers, 1,069 are Land Reform settlers, 78 are indigenous peoples and 26 are quilombolas. Although there is an effort to draw a profile of the population that is involved in participatory certification, the authors state that there is no precise detailing in the National Register of Organic Producers (CNPO) on the profile of these farmers.

The family farming characteristic of being linked to some community in the territories allows for greater cooperation between farmers and, consequently, for the creation of local groups for participatory certification.

The creation of farmer groups or hubs, generally organized by proximity, is the first strategy to generate trust in the PGS scope, as verified by Hirata *et al.* (2020b), who identified, through research, that six PGSs have hubs and groups in their structure, and that 19 PGSs are only comprised by groups, totaling 63 hubs and 760 active groups.

In addition to enabling the exchange of productive experiences, organization in local groups is also capable, through the dialogue established between farmers, of simplifying understandings about participatory organic certification processes. And in this sense, the legislation is translated among the participants themselves, with better understanding by the collective of those involved (Donatti & Amedi, 2020).

In the PGS scope, the aforementioned cooperation between the participants represents a constant knowledge and experience exchange process. With this intense interaction, it is possible to increase the autonomy of the certification process among the members involved since, instead of the farmers having to pay high fees to hire a private audit, the system members themselves, during peer visits and through methodologies established by the PGS in its procedures manual, carry out the necessary conformity verifications (Hirata *et al.*, 2019). Thus, each Conformity Assessment Participatory Body (CAPB) must: have a formal organization that is the institutional communication link between farmers and control bodies; have a manual of procedures; create a verification committee and a resources or ethics committee; and define itineraries for visits to the properties (Niederle *et al.*, 2021).

The aforementioned records serve to evidence that the PGS has established mechanisms to ensure organic quality of the production and traceability

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of the products (Komori et al., 2020). The organic conformity assessment process, as recommended by law, is carried out by consulting supporting documents and through in loco verification visits to the production units, with audits by hired companies in charge of professionals designated by them, through visits at the production unit of the farmer who hired the service (Niederle *et al.*, 2021), whereas, within the PGS scope, the term “in loco audit” is replaced by “verification visit”, which is operationalized by the CAPB through a constant evaluation committee of its organizational structure (Torquati *et al.*, 2021).

It is important to note a fundamental difference between organic certification audits performed by a third-party company and those in charge of a PGS. In the first, there is disassociation from the technical assistance process, that is, the focus is on the audit procedure itself, in which organic conformity will be analyzed and a technical opinion on the unit will be issued. In the second, there is a process of exchanging technical-productive and organizational knowledge among the participants (consumers, support organizations, collaborators and farmers) (Oliveira, 2012); it may also involve exchange of seeds (Tozzi *et al.*, 2020) and even joint efforts to improve production systems, or even to support families to remedy verified nonconformities (Donatti & Amedi, 2020). As an example, we can mention the experience described by Leite (2020) regarding the first indigenous PGS in Brazil: “The PGS methodology in the Xingu people is greatly influenced by the pan-Xingu culture, so that peer and verification visits are always accompanied by a significant exchange of knowledge and task forces” (Leite, 2020, p. 194).

Even though the PGS is an evident participatory strategy in the organic production context, it is

possible that, throughout the process, disagreements arise regarding the final result of the verification procedure, that is, between the opinion issued by the CAPB and the group's assessment, or even by the farmer who received the visit. In order to settle controversies, a resources commission is established (Niederle et al., 2021). In addition to pronouncing a stance on the contradictions identified, this commission may also have other duties, as each PGS has its own management and attribution characteristics for each instance of the participatory system. This is why the assessment commission can have other names according to each PGS, also with the possibility of being called “Ethics Committee” or “Ethics Commission”. In this context, Oliveira (2012) identified that the Ethics Committee had the following duties in the Ecovárzea PGS:

- (1) Ensure the principles of organic production, Agroecology and interpersonal respect and others;
- (2) Inform the Executive Coordination about irregularities that occurred and were verified so that the necessary measures are applied in accordance with the Internal Regulations; and (3) Ensure compliance with the Internal Regulations (Oliveira, 2012, p. 51).

The aforementioned reality evidences that the organization around the PGS contemplates the minimum requirements established by the legislation in the duties of the organizational instances. However, it goes beyond the legal factors, as the family agriculture and peasantry dynamics has its centrality in aspects other than the legal ones, or even merely economic. The link with development of the community and well-being of the family confers this group its own dynamics and renders the process of social organization around organic



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production heterogeneous and more adapted to the different realities of the territories (Leite, 2020).

### 3. Methodological procedures

The study was conducted in the state of Alagoas, in two Land Reform settlements: Flor do Bosque and *Dom Helder Câmara*, respectively located in the municipalities of Messias and Murici. The Flor do Bosque settlement has an area of 350.8 ha, occupied by 35 families and with 7.0 ha as mean plot size. The *Dom Helder Câmara* settlement extends over an area of 303.53 ha, where 45 families live in 5.0 ha plots.

The research universe focused on groups made up of organic producers, consisting of eight families in the Flor do Bosque settlement and 14 families in *Dom Helder Câmara*. The study was conducted from January to April 2021. Both settlements have SCOs in force and, since 2019, the aforementioned groups are part of a number of activities to create a PGS in the state of Alagoas.

In this study, the action-research method was adopted, which aims at creating greater interaction between the researchers, the population involved in the research and the agroecologically-based production processes under development; in other words, the interaction was not only between people, but also by the process, which generated problems and solutions, action and reflection, in an integrated way (Thiollent, 1986). Instruments such as a field diary (Oliveira, 2014) and an open questionnaire that was applied to the coordinators of each group (Markoni & Lakatos, 2010) were also used in order to understand the creation process for local participatory certification groups.

### 4. Organic production strategies in Land Reform settlements

Along their paths, the peasant families that gained the land via the Land Reform experienced social organization processes to access this common asset. With conquest of the land and the experience underwent in some socially-based organization, the processes become more diverse, that is, each family seeks different strategies to rebuild the conquered territory, as well as to make its plot productive. It is a relationship between struggling for the land and struggling in the land.

New organizational strategies began to be constituted within the settlements created, which, logically, acquired particularities that were different from the experience in camps, during the process of struggling for the land. An example of this is the existence of associations in most of the settlements. If during the camp period the families were organized into social movements, which generally do not have a legal nature, from the creation of associations, the families constitute an institutionalized organizational process with its own legal rules, which requires certain knowledge about formal management of the entity.

It is worth noting that the creation of associations in the settlements did not exclude continuity of the families in the social movements. They are new strategies that peasants create to territorialize their ways of life and achieve some common good, which benefits their family unit and their community, based on the reciprocity and cooperation strategies inherent to peasantry and to family farming (Guzmán & Molina, 2013).

In addition to the associations, there can also be cooperatives, which are mainly aimed at orga-

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nizing the production developed in the productive plots, in search for markets to sell the products and generate income for the settled families. Some cooperatives arise from informal production groups developed in the settlements, based on self-management by the families, who experience initial production organization processes but which, when envisioning possibilities for greater inclusion in markets and public policies, seek institutionalization. In turn, there are also informal groups that do not aim at their formalization.

However, social movements struggling for the land, associations, cooperatives and informal groups of farmers alike are social and community organization strategies that are oftentimes found in the context of settlements. It is also possible for these four organization modalities to coexist in the same settlement, as well as for at least one of them to be present, as they are fundamental strategies to collectively organize peasants in the search for greater autonomy in their territories.

In the Agroecology and organic production context, in addition to the aforementioned organizational strategies, there is also the formation of Territorial Networks, either formal or informal, constituted with the objective of articulating the different experiences, organizations, farmers, consumers and even liberal professionals who have an affinity with the theme (Hirata *et al.*, 2019). Thus, in Agroecology Networks, SCOs and PGS represent social articulation spaces with horizontal management processes, where different topics are discussed and collective actions are devised.

Although the federal legislation on organic agriculture allows informal groups to constitute SCOs, in the context of Land Reform settlements in the state of Alagoas, such constitution took place

through associations created in the settlements, such as the *Dom Helder Câmara* Community Settlement Association (Associação Comunitária do Assentamento *Dom Helder Câmara*, ACDH) and the Flor do Bosque Community Settlement Association (Associação Comunitária do Assentamento Flor do Bosque, ACAFOB). Respectively, these associations have ten and four families registered in the National Registry of Organic Producers (CNPO) belonging to the Ministry of Agriculture, Livestock and Supply (Ministério da Agricultura, Pecuária e Abastecimento, MAPA).

These SCOs represent 13% of the total SCOs registered in Alagoas, which, in turn, organize 15% of the total families registered in SCOs and correspond to 48% of the settled families that are registered in SCOs within the Land Reform scope in the state.

Since 2019, these families have participated in a new organizational process involving the creation of an Organic Quality Participatory Guarantee System (PGS). The action was initiated by Agroecology Mutum Network, with support from the Banco do Brasil Foundation through the Ecoforte Redes public notice, which is being implemented in partnership with the Association of Alternative Farmers (Associação de Agricultores Alternativos, AAGRA). In addition to the SCOs herein studied, other five SCOs comprise the PGS creation process, namely: Associação dos Mini Produtores do Vale da Pelada, Associação dos Pequenos Produtores em Agroecologia do Município de Pão de Açúcar (APA), Associação dos Produtores Agroecológicos da Zona da Mata de Alagoas (APOAGRO), Cooperativa dos Produtores Agroecológicos de Alagoas (Terragreste) and Grupo Orgânico Xucuru Cariri. In addition to them, other four institutions

already registered as SCO in the MAPA and with registration analysis pending by the CNPO are also part of the PGS creation process: Cooperativa de Agricultores Familiares de Santana do Mundaú (ECODUVALE), Associação Comunitária do Sítio Baixa do Galo, Cooperativa de Produção e Comercialização da Agricultura Familiar (COOPCAF) and Horta do Fazendeiro (HF).

Creation of the PGS encompasses Zona da Mata, Agreste and Sertão from Alagoas and involves different family farming categories, such as indigenous peoples, rural communities and Land Reform settlements, as well as producers not categorized as family farmers. Each of these collectives has the autonomy to create its own organization strategies in the form of a group, which comprise the hub that, in turn, together configure the PGS general organization (Figure 2).

The cooperation network between the PGS members is initiated in the local scope. The smaller circles within each circumference indicated by the name of the groups (Vale da Pelada, Ecoduvale,

Apoagro, Embaúba, Terra Verde, Juçara and Primavera) represent the cooperation exercised by the families in their territories, with the green circles representing those organized by settled families and the others being organized by groups of family and non-family farmers in rural communities and on farms.

The network comprised by all the hubs also interacts with the Agroecology Mutum Network and with other networks and civil society organizations, showing that, in addition to articulating to ensure organic quality guarantee, organizational strategies also interact with other demands related to the territories and to Agroecology.

According to Fonseca et al. (2020), constitution of a PGS in the territory favors the entire population and not only the farmers involved in the process, as the spaces created between producers, consumers, organizations and technicians in defense of the production of healthy food generates, in addition to access to a diversity of local food products, the creation of fair trade networks.

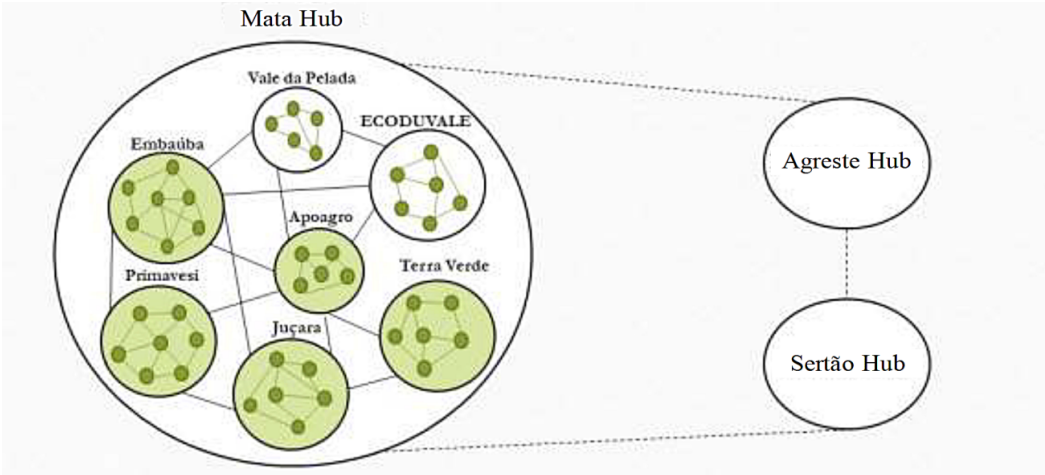


FIGURE 2 – Illustrative scheme of the cooperation network between farmers, groups and hubs in the PGS scope.  
SOURCE: the authors (2021).

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According to Holt-Gimenez (2008), agroecological experiences are generally dispersed and sometimes isolated, reason why it is necessary to create an exchange process with farmers themselves and their organizational processes as protagonists. Thus, constitution of the PGS proves to be a useful tool to favor such exchange of experiences with an agroecological basis and to get the territories closer in the network strategy.

#### *4.1. Creation of participatory organic certification groups in Land Reform settlements*

The creation of groups to organize organic production and to institute a participatory certification process in Land Reform settlements is adapted to each settlement's particularities. It can be made up exclusively of members from the same settlement or include families from nearby settlements; it can be a mixed group, comprised by settled and non-settled families, as well as by families who are still in the process of struggling for the land in camps or in the settlements themselves.

It should be noted that the process of creating the settlements under study was marked by territorial conflicts that required certain organization degree of the families since occupation of the land, through the formation of camps, until turning these areas into Land Reform settlements. In general, the families involved in the struggle for the land in these two settlements are characterized by having a life path with precarious access to formal education and finding in the social organizations from the countryside support to overcome the weaknesses imposed. This “low schooling level” noticed in the settlements is

not an isolated fact but the reality of most family farmers in Brazil (Neves et al., 2020, p. 204). The thing is that the schooling level and “[...] lack of habit in recording the everyday operations linked to production” are limiting factors inherent to the participatory certification procedure.

Given this reality, the groups constituted in the state of Alagoas were structured with the figures of a coordinator and a secretary in their composition. This latter is assigned the role of supporting the families with more difficulties writing and filling-in the documents, a fact that reinforces the PGS possibility to be adapted to the local characteristics (Leite, 2020).

#### *4.2. The Juçara Group*

The Juçara Group consists of 14 families, all members of the *Dom Helder Câmara* settlement, which is the group's headquarters. It was created in December 2019 and gathered families who had an affinity with the theme of Agroecology and organic production, with different knowledge levels about the agroecological transition stages.

When observing the arrangement of the plots belonging to the families that comprise the PGS creation process in the settlement (Figure 3), the presence of two agroecological corridors is noticed. This fact can favor compliance with the technical regulations of organic production, especially by reducing the risk of contamination by pesticides between confronting plots, in addition to serving as a physical barrier and shelter for natural enemies, promoting greater ecological and productive balance in family production systems (Altieri, 2012).

The settlement is located in the buffer zone of the Murici Ecological Station (Murici ECST), a federal conservation unit that preserves a relevant fragment of the Atlantic Forest in the Alagoas Zona da Mata (Figure 4). Reports by the older residents indicate abundance of Juçara palm trees in the region nearly a century ago (Informant - J1). This is why the group's name refers to the Juçara palm tree (*Euterpe edulis*), also known as Palmiteiro or Açaí Juçara. However, currently, it is only possible to find matrices of this palm tree within the Murici ECST.

The name Juçara has two-fold importance or relevance for the territory, both of a material and immaterial nature (Rosset & Torres, 2016; Fernandes, 2008). The material relevance is verified, on the one hand, by the reintroduction of a species in the settlement that underwent a high devastation process but, when it was implanted again in the plots, it made up another component

to the settlement's production systems, contributing to productive diversification. On the other hand, it corroborates the idea of similarity that is normally found between the peasant production systems and the local ecosystems (Toledo, 2015).

The immaterial aspects that are symbolically implicit in choosing the name Juçara go back to ancestral practices through a rescue of experiences by the families, as indicated by the testimony of one of the interviewees:

It's about rescuing the identity of our ancestors. Because there used to be a forest here. It's a symbology of resistance and rescue with renaissance. It's renaissance because it's being born again now with Agroecology and with the agroforestry system, bringing back certain historical value from more than one hundred years ago (Informant - J1).

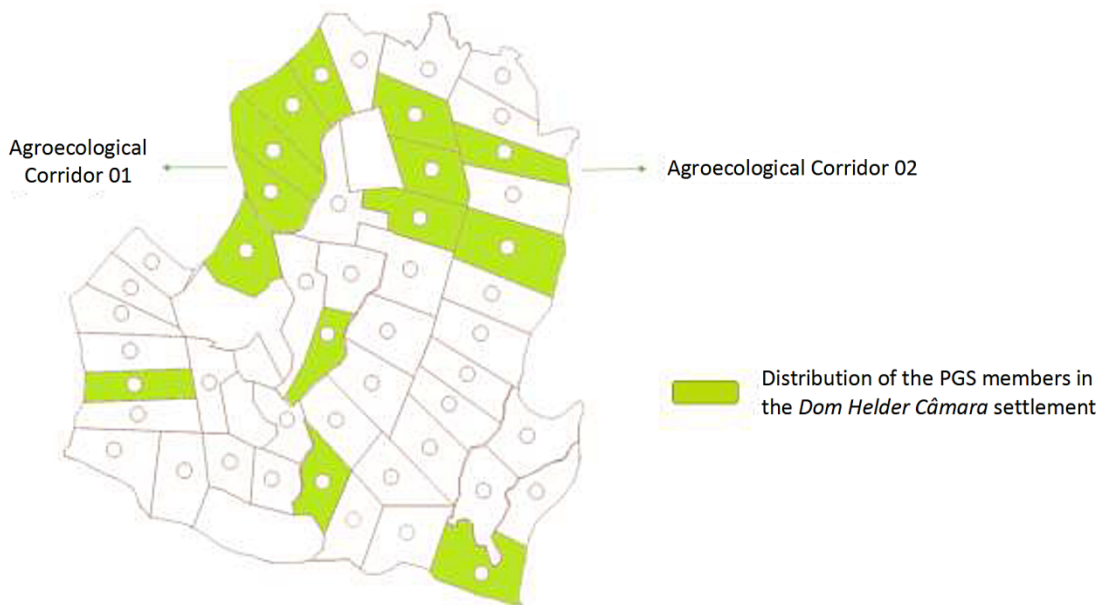


FIGURE 3 – Distribution of the families included in the PGS constitution in the scope of the *Dom Helder Câmara* settlement.  
SOURCE: the authors (2021).

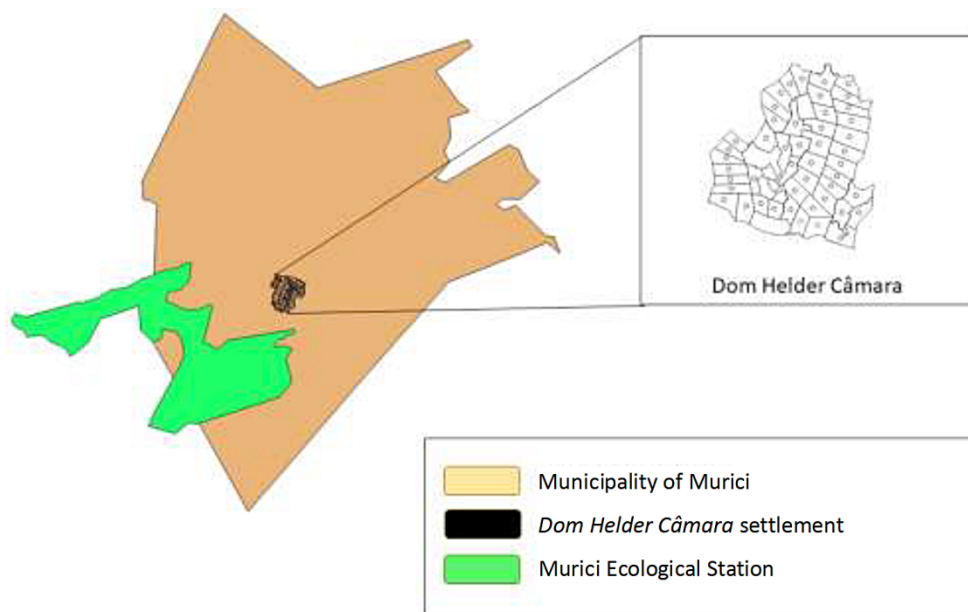


FIGURE 4 – Proximity between the *Dom Helder Câmara* settlement in the municipality of Murici and the Ecological Station (Murici ECST).  
SOURCE: the authors (2021).

Juçara palm trees have been replanted in the *Dom Helder Câmara* settlement area by means of Agroforestry Systems (AFSs). The Agroecology Mutum Network and AAGRA donate their seeds to the group members to produce seedlings, which are distributed among the families that are members of the PGS organization. In addition, the exchange of seeds and seedlings adopted during the peer visits is also a practice that has contributed to the species returning to its natural habitat.

The AFSs are developed by the settled families but have the support of professors from the Federal University of Alagoas (Universidade Federal de Alagoas, UFAL), of the Federal Institute of Alagoas (Instituto Federal de Alagoas, IFAL) and of AAGRA. These institutions are part of the Juçara Group support network not only in necessary stra-

tegies to create the PGS but also in the conformation of organic production systems. Nevertheless, two aspects that are related to the AFS option in the settlement must be highlighted: the first one concerns the role of the group in adoption of the AFS, as its implementation was prior to the performance of the aforementioned institutions in the settlement. Secondly, but no less important, there is the fact that these established partnerships fit the local reality and boost organization of the families in different strategies, from production systems to social organization.

It also portrays the multidimensionality in the experiences developed by the group, as the implementations of ecological production systems in the settlement is associated with aspects inherent to the social organization of the families and the group's

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ability to establish partnerships with support institutions. Multidimensionality is indicated by Guzmán (2015) as an analysis category of Agroecology experiences, as well as by Halvorsen *et al.* (2021) when analyzing the social dynamics in the territories. In other words, although the norms that regulate organic production primarily define the technical-productive aspects to be observed in the production units, the peasant practice imprints territorial dynamics beyond the minimum requirements established in the legislation.

All 14 members of the Juçara Group created their own organization dynamics with the objective of establishing a cooperation network among the families. Farmers who have difficulties reading and writing, necessary requirements for filling-in the documents required to achieve the regulation of participatory certification under the PGS, are assisted by the group coordination and secretariat offices, comprised by settled farmers who have greater mastery filling-in the documents.

Recording the activities in minutes, as it has already been part of the families' dynamics since creation of the settlement, is the most used alternative to evidence the group's referrals and the collective activities developed by the families, such as the AFS planting area, the courses held in the settlement, and the ordinary and extraordinary meetings.

It is important to point out another characteristic of the PGS in the Land Reform scope. For settled families to participate in organic production, in PGS groups it is not necessary to verify legal possession of their lands. Thus, families that do not have plot registration in their respective names can also be part of the process. However, it is possible – in the reality of Land Reform settlements – that

those families participating in organic production meet part of the necessary requirements to achieve legal possession of the land through the official regularization process, especially with regard to Article 18, item 4, of Normative Instruction No. 99 of the National Institute of Land Colonization and Reform (*Instituto Nacional de Colonização e Reforma Agrária*, INCRA), which, among other factors, deals with the verification by INCRA of occupations considered irregular in Land Reform settlements.

Thus, the Juçara Group includes families duly registered as Land Reform settlers, who are registered in the Land Reform Information System (*Sistema de Informações da Reforma Agrária*, SIPRA), but also families living in the settlement, who are responsible for production plots but have not been duly registered at SIPRA. These families are still in the process of struggling for the land, as the SPRA non-registration situation means that they will undergo an evaluation process by the federal government to know if they meet the Land Reform eligibility criteria. Failure to meet these criteria may come to imply reacquisition of the plot by the State and, consequently, deterritorialization of the peasant family.

Therefore, participation in organic production by families living in rural settlements depends on at least two public policies, which may, either directly or indirectly, restrict access to organic production, namely:

(1) the Land Reform public policy (Brazil, 2019), which regulates which families have the right to remain in the rural settlements;

(2) the National Family Agriculture Registry (*Cadastro Nacional da Agricultura Familiar*, CAF),

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the instrument that qualifies the population benefited by the National Family Agriculture Policy (Brazil, 2006; 2021).

The public policy for organic products does not ban participation of families that had not been officially regularized in Land Reform areas. Until a conclusive opinion is issued on the regularization process, INCRA also does not prohibit participation of these families in organic production, as it verifies that there are production levels in the plot, a mandatory item for analysis of the regularization process. However, the families do not have the right to access the CAF. In other words, for formalization in an SCO, CAF presentation is mandatory; on the other hand, it is not mandatory to access participatory certification. These nuances of the public policies have repercussions in the local organization of organic production by the family agriculture and peasantry groups in Land Reform areas.

In order to assemble the Juçara Group, families registered in the National Register of Organic Producers (CNPO) were included, through SCOs, but also families who showed interest in better understanding the fundamentals of Agroecology and organic production. Therefore, there is an incentive from the group for new families in the settlement to adhere to the principles of Agroecology and organic production.

The characteristic of the Juçara Group, exclusively consisting of families who live or develop their productive activities in the *Dom Helder Câmara* settlement, can favor organization of the group and participation of the families in activities aimed at guaranteeing organic quality, mainly due to the proximity factor. However, assembling a group exclusively comprised by settled families is

not a determining characteristic, as we shall see in the subsequent section.

### 4.3. The Embaúba Group

The Embaúba Group, with eight members, is headquartered in the Flor do Bosque settlement, municipality of Messias, where there is an SCO established through the local association, comprised by four members of the settlement. In addition to these, another four families were included in the organization, and the set of these families assembled the group.

The Embaúba Group also added families from other locations (Figure 5): two from the Prazeres settlement in the municipality of Flexeiras; one from the São Frutuoso settlement in the municipality of São Luís do Quitunde; one from the Rio Bonito settlement in the municipality of Murici; one from the Bella Flor Ecosite in the municipality of Pilar; and one from the Aldeia Verde Private Natural Heritage Reserve (*Reserva Particular de Patrimônio Natural*, RPPN) in the municipality of Maceió. These latter two do not fit in the “family farmers” category.

The composition of the Embaúba Group evidences how the organization of families within the PGS scope can be adapted to the different realities of the territories, as it added families from other settlements, which were isolated or even without any local articulation that would allow assembling a new group. The representatives from Bella Flor Ecosite and Aldeia Verde fall into categories of farmers who have different dynamics from family farming, but who are connected with the Agroecology network (Mutum Network) and with organic production.



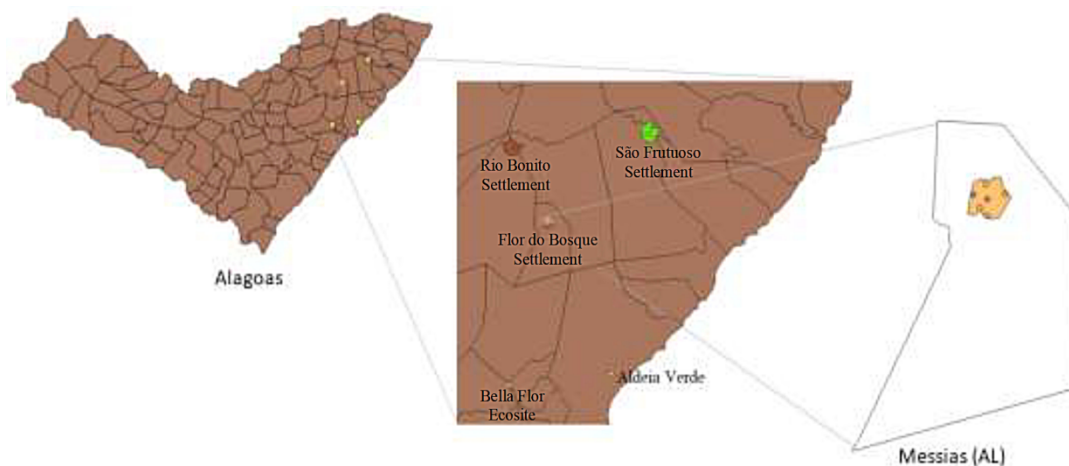


FIGURE 5 – Location of the *Flor do Bosque* settlement in the municipality of Messias.

SOURCE: the authors (2021).

For example, the Bella Flor farm, Aldeia Verde and the Rio Bonito settlement family, in addition to organic production, are responsible for the main ecological delivery experiences in the capital city of Alagoas, Maceió. This commercialization modality gained greater importance in during the COVID-19 pandemic caused by the SARS-CoV-2 coronavirus, which suspended open markets for certain periods of time, reduced the number of consumers going to supermarket chains and expanded purchases through digital platforms.

The Embaúba Group is a reference in terms of the organization and verticalization of organic production, as its dynamics permeates the axis of organic production, commercialization in open markets, delivery and institutional programs, such as the Food Acquisition Program (Programa da Aquisição de Alimentos, PAA) and the National School Feeding Program (Programa Nacional de Alimentação Escolar, PNAE), in addition to the aforementioned organization to establish a local organic certification process through the PGS.

Choice of the name Embaúba brings up material elements of the land conquest, associated with immaterial elements of the symbology of the community organization process, as indicated by an interviewee from the group.

Generally, names of people who died in battle are chosen, but we forget Mother Nature, who's also faithful to us. Why not choosing the name Embaúba? Unlike humans, when you cut it down, it rises from the ashes. It has the symbology of persistence. When you cut down a forest and see nothing else, the embaúba rises there, all imposing, straight, without bending. It is there to pave the way for other trees to grow. It's like the struggle of the landless, when everyone thinks that it's no longer possible to form a community, to create life in a settlement, groups like Embaúba, like Juçara and others, emerge, who want to make a difference, who don't only want to see the question of price, but of value, of the value that life has (Informant - E1, 2021).

The dialectic between the material and the immaterial (Fernandes, 2008) is part of the dynami-

cs of Land Reform settlements and, consequently, of the PGS groups that are mostly organized by settled families. Individuals materialize their conceptions and intentions in their territories or articulate themselves to define their performance spaces, be them in concrete or in abstract. However, there is no material territory without an immaterial one. Access to the land, management of the territories from the perspective of the Agroecology principles, which generate food products that can be certified as organic, configure, on the one hand, the materiality of farmers' dynamics in the PGS; and, on the other hand, the principles guiding these groups, associated with the social organization processes, configure the immaterial territories.

In terms of land possession, the Embaúba Group has a similar characteristic to the Juçara Group, as both are made up of families that won legal possession of the territories, but also of families that are still in the process of struggling for the land, even within a settlement. However, the fact that one of the members who was in the situation of “irregular occupant” in the settlement had its regularization process carried out in 2017 created an expectation that other families in the same situation will also be able to gain legal possession. Thus, participation in the PGS can emerge as one of the strategies for these families to remain in the territories.

#### *4.4. Differential aspects of the Brazilian legislation that favor peasant organization in organic production*

The different possibilities defined by the Brazilian legislation enable farmers to access the

organic certification process that best suits their reality (Brazil, 2009). Organization in SCOs, for example, establishes reduced amounts of documentary records and does not require registration of a formally constituted entity, that is, informal groups can be registered. It is mainly based on trust and self-control among the participants of the constituted groups (Niederle *et al.*, 2021), although it has the limitation of marketing the products in direct sales processes to maintain use of the term “organic”.

Both the Embaúba Group and the Juçara Group, which already have families registered as organic producers, in addition to being structured to increase the number of farmers registered in both settlements, will move to a new organic production stage, as their food products will be able to be commercialized by other groups in the PGS network, such as deliveries, without losing the right to use the term “organic” since, as already discussed, it is possible to acquire the organic product seal through participatory certification, just like food products certified by means of the audit process. Currently, the deliveries that acquire food products from these groups sell them using alternative terms, such as ecological, because, in the context of the SCO, even if the production system has followed all the technical-productive criteria, the food product loses its organic character when passed on by third parties.

In addition to the possibility of creating and expanding strategies for creating alternative food networks (Niederle, 2020), involving organized farmers and consumers, constitution of the PGS has motivated the adherence of peasants who participate in fairs in the capital city of Alagoas, but also of those who are no longer available to travel to the commercialization locations and choose to pass on

their products so that the other network members can market them.

In terms of public policy, the possibility of certifying organic products through participatory certification has shown its advantages for the Brazilian reality, especially due to the flexibility in the organization of territorial processes to ensure organic quality of the production, highlighting, above all, the fact that that Brazil constituted a legal framework for organic production that allows including civil society in its normative changes and incorporating the family agriculture population and its organizations in this context.

## 5. Final considerations

At a first moment, the creation of territorial groups to devise participatory certification processes within the PGS scope and in the Land Reform context permeates the existence of settled families who have some experience in the fundamentals of Agroecology or organic production. In this sense, reference is not made here exclusively to concreteness of the productive systems in the material territories as an experience or criterion for initiating the creation of a group with this purpose, as the families' interest in being included in the creation processes in Agroecology can, for itself, be enough reason to wake them up to the creation of groups, even without concrete experiences in production.

That said, it becomes evident that the technical-productive aspect should not be the central core for creating an PGS group, as the difficulties implementing an agroecologically-based production system or even certifying production as organic can be overcome with support from the cooperation

network constituted within the scope of the group, or even in support of the PGS as a whole.

Cooperation with other categories of farmers and networking can also contribute to greater autonomy in the settlements' productive organization, as they have local dynamics related to production, commercialization and also the organic quality guarantee by the farmers themselves.

Finally, it is worth noting that PGSs have been showing themselves as a relevant methodology for the productive management of Land Reform territories, consubstantiated in Agroecology and in organic production. Thus, when dealing with the Brazilian reality, unlike countries where PGSs are not officially recognized, the experiences of the Juçara and Embaúba groups can be leveraged with their formalization in a CAPB at MAPA, conferring them greater autonomy for socio-environmental organization in the territory.

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