

Redes. Revista do Desenvolvimento Regional

ISSN: 1414-7106 ISSN: 1982-6745 revistaredes@unisc.br

Universidade de Santa Cruz do Sul

Brasil

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Cooperation and persistence: a study of the collective action of peasants in Western Pará, Amazonia
Redes. Revista do Desenvolvimento Regional, vol. 26, 2021, January-December
Universidade de Santa Cruz do Sul
Santa Cruz do Sul, Brasil

DOI: https://doi.org/10.17058/redes.v26i0.15016

Available in: https://www.redalyc.org/articulo.oa?id=552070455022



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# Cooperation and persistence: a study of the collective action of peasants in Western Pará, Amazonia

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#### **Abstract**

The article analyzes the persistence of collective action in the Transamazon Agricultural Cooperative (Coopetra), Western Pará State, and the strategies adopted by peasants to maintain the agroindustry and the cooperation that enable their way of life. The research methods were direct and participant observation, interviews using structured and semi-structured questionnaires, and documentary research. Observations were made at the general meetings and meetings of the cooperative's administrative council. Interviews were conducted in farmers' rural establishments between 2013 and 2014. The central category of this article is collective action. To understand the collective action of the actors that results in the persistence of cooperation we rely on the theory of sociology of organizations, focusing on the construction of self-management, forms of participation and power relations within the organization. We conclude that the participation of the actors – the associates – in the cooperative's decision spaces, the trust and the balanced power relationship facilitates the persistence of the enterprise.

Keywords: Collective action. Cooperation. Organization. Participation.

# Cooperação e persistência: um estudo da ação coletiva de agricultores familiares no Oeste do Pará, Amazônia

#### Resumo

O artigo analisa a persistência da ação coletiva na Cooperativa Agroleiteira da Transamazônica (Coopetra), no Oeste do Estado do Pará, e as estratégias adotadas pelos agricultores familiares para manter a agroindústria e a cooperação que viabilizam o seu modo de vida. Os métodos de pesquisa foram observação direta e participante, entrevistas com o uso de questionários estruturados e semi-estruturados e pesquisa documental. As observações foram feitas nas assembleias gerais e nas reuniões do Conselho de Administração da Cooperativa. As entrevistas foram realizadas nos estabelecimentos rurais dos agricultores, no período de 2013 a 2014. A categoria central deste artigo é a ação coletiva. Para compreender a ação coletiva dos atores, que resulta na persistência da cooperação, apoiamo-nos na teoria da sociologia das organizações, com foco na construção da autogestão, nas formas de participação e nas relações de poder no interior da organização.



Concluímos que a participação dos atores – os associados – nos espaços de decisão da cooperativa, a confiança e a relação de poder equilibrada facilitam a persistência do empreendimento.

Palavras-chave: Ação coletiva. Cooperação. Organização. Participação.

# Cooperación y persistencia: un estudio de la acción colectiva de los agricultores familiares en el oeste de Pará, Amazonia

#### Resumen

El artículo analiza la persistencia de la acción colectiva en la Cooperativa Agrícola de la Transamazônica (Coopetra), Estado de Pará Occidental y las estrategias adoptadas por los agricultores familiares para mantener la agroindustria y la cooperación que les permitan su forma de vida. Los métodos de investigación fueron la observación directa y participante, las entrevistas mediante cuestionarios estructurados y semiestructurados y la investigación documental. Se hicieron observaciones en las reuniones generales y las reuniones de la junta directiva de la cooperativa. Las entrevistas se realizaron en los establecimientos rurales de los agricultores entre 2013 y 2014. La categoría central de este artículo es la acción colectiva. Para comprender la acción colectiva de los actores que resulta en la persistencia de la cooperación, confiamos en la teoría de la sociología de las organizaciones, enfocándonos en la construcción de autogestión, formas de participación y relaciones de poder dentro de la organización. Concluimos que la participación de los actores – los asociados – en los espacios de decisión de la cooperativa, la confianza y la relación de poder equilibrada facilitan la persistencia de la organización.

Palabras clave: Acción colectiva. Cooperación. Organización. Participación

## 1 Introduction

The article seeks to understand why the Transamazonian Agrodairy cooperative (*Cooperativa Agroleiteira da Transamazônica* – Coopetra) resists the "tragedy of the commons" (HARDIN, 1968) and to investigate why it persists despite the number of negative associative experiences in Pará (MANESCHY; CONCEIÇÃO; MAIA, 2010; REIS, 2002).

Collective action initiatives involving family farmers date back to the beginning of the state directed colonization of the region, following the opening of the Transamazonian Highway (BR-230), and are the result of various influences, such as the "fraternity ideology", taught by the Catholic and Lutheran Churches¹. According to Tilly (1981, p. 17) collective association "[...] consists of all occasion on which sets of people commit pooled resources, including their own efforts, to common ends".

The opening of the highway is just one chapter in the saga of thousands of farmers who moved to the Amazon region in the 1970s and 1980s attracted by the government's promise of developing the region under the nationalist slogan "integrar para não entregar" (integrate, don't deliver).

The difficulties farmers faced in the early years of colonization, stemming mainly from having to cultivate in a totally different ecosystem, as compared to that of the Northeast or Southern regions of Brazil, were mitigated with simple forms of cooperation, such as "workday exchanges", or mutual work parties or "adjuntos"

<sup>&</sup>lt;sup>1</sup> A portion of cooperative members are migrants from the South of Brazil.



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(VEIGA; ALBALADEJO, 2002); collective marketing of products through resale were also important strategies. The learning of simple collective action mechanisms allowed farmers to later create more complex forms of cooperation, as observed by Lacerda and Malagodi (2007) among rural settlers in Paraíba, and by Rios and Carvalho (2007) among family farmers in Pernambuco.

In the 1980s, struggles to improve production and infrastructure conditions gave rise to the main social movement in the region, the Transamazonica Survival Movement (Movimento pela Sobrevivência na Transamazônica – MPST)². Over time, more complex forms of cooperation evolved, such as associations and cooperatives, which became the main mechanisms by which farmers guaranteed their survival – which depended on infrastructure, land tenure regulation, and access to technical assistance and rural credit programs.

Farmer associations encouraged, organized, and mobilized farmers around political struggles; while the cooperatives promoted the organization and transformation of rural production. In this context, Coopetra, like the other cooperatives, promoted a regional development strategy based on MPST's political agenda, with a focus on the regional economy and on the possibility of adding value to farmers' products. Both the cooperatives and the associations played a fundamental role in this strategy, as did acquiring credit for family farmers from the Constitutional Fund for Northern Financing (Fundo Constitucional de Financiamento do Norte – FNO). However, with each cycle, the cooperatives faced additional problems, particularly related to managing equipment for collective use.

Only after the publication of *The logic of collective action* by Olson (1971 [1965]), and the article "The tragedy of the commons", by Hardin (1968), did the dilemmas of cooperative actions to achieve common goals became an academic problem. According to Olson's hypothesis, as per Schmitz, Mota, and Sousa (2017, p. 202), "[...] even if they could find themselves in a better situation after their goals are achieved", stakeholders would not engage in the same way as they would in a project that they could accomplish on their own.

Indeed, projects that need a larger number of people to come to fruition, suffer because stakeholders can benefit from group efforts without participating in collective actions. The behavior of the "free rider", as Olson (1971 [1965]) calls these hitchhiker subjects, affects the cooperative efforts needed to successfully manage common goods. Maneschy, Conceição, and Maia (2010) found that in Pará, cooperatives and associations were often affected by participants' passivity, which is aligned with negative experiences in collective enterprise management.

Other authors (FEENY et al., 2001; OSTROM, 1990) relativize such dilemmas and report on successful experiences with the potential to inform and maintain collective action initiatives. However, to stimulate cooperation, relationships generating solidarity and reciprocity are necessary, as shown by Axelrod (1984), Caillé (2002), Godbout (1998), Ostrom (2010), Sabourin (2009), and Temple (2003).

<sup>&</sup>lt;sup>2</sup> In late 1998, MPST changed its name to Movement for the Development of the Transamazônica and Xingu (Movimento pelo Desenvolvimento da Transamazônica e Xingu – MDTX) in order to express its commitment to the region's development. However, MPST and MDTX were just fancy names, the corporate name since 1992 has been, The Living, Producing and Preserving Foundation (Fundação Viver, Produzir e Preservar – FVPP).



Reciprocity underlies and justifies the maintenance of exchange between farmers, especially in rural areas in Brazil (SCHMITZ; MOTA; SOUSA, 2017).

The French school of the Sociology of Organizations, created by Crozier and Friedberg (1993), provides a theoretical framework to analyze organizations lacking formalized structures, as is the case of cooperatives. Friedberg (1995, p. 406) proposes "[...] that the distinction between a formal organization and more diffuse collective action structures is not one of nature, but of degree". According to Crozier and Friedberg (1993), power should be considered as the structuring force necessary to achieve cooperation between members of an organization whose interests are not always convergent. Similarly, balanced and shared self-management between the coordination and its participant groups can promote cooperation, rather desertion (SCHMITZ; MOTA; PRADO, 2007).

Responding to this research problem, our article seeks to analyze the social relations that characterize actors' actions in decision making spaces and identify the factors that facilitate the persistence of the cooperative under study.

# 2 Methodology

This article deals with the persistence of cooperative actions in Coopetra, a cooperative of family farmers located in the municipality of Rurópolis, in Western Pará state. Rurópolis has approximately 51,500 inhabitants and is located at the intersection of BR-230 (Transamazonian highway) and BR-163 (Santarém-Cuiabá highway). Actors proposed forming the cooperative in 1990 when no initiatives related to dairy production existed in the region, with the exception of an artisan cheese factory. At this time, an opportunity for funding from the Lutheran Church of Denmark appeared, and was mediated by the Lutheran Church's central office in Porto Alegre, Brazil, and mobilized locally by pastors Lauri and Nilo, coordinators of Rurópolis Lutheran Church in coordination with the president of the Lutheran parish, Cooperative member 13. The Church of Denmark, however, rejected the funding afraid of promoting deforestation in the Amazon. Once farmers further clarified their idea, other financial institutions – the Lutheran World Foundation and Banco da Amazônia S. A. (Basa) – provided the funds to build the first dairy factor in the region and provide necessary infrastructure (the equivalent of 255 US\$ at the time).

In March of 1993, the project was approved and judged as in compliance with the requirements of the Federal Inspection System (SIF). Later, the following activities were elaborated under cooperative management: organization of the production and processing processes and sale of the final product. On January 23, 1996, cheese production began under the responsibility of the first cheese maker in the region, Mr. Danilo. One hundred- and eighty-five-liters milk were supplied by affiliated family farmers from Rurópolis for this purpose. Mozzarella cheese was the main product at this time; yet, butter and other derivatives were also produced. In 2002, with the pastors' departure from Coopetra's Consultative Council, the initiative was released from the tutelage of the Lutheran Church, and by 2003, the cooperative was "standing on its own two feet".

<sup>&</sup>lt;sup>3</sup> To preserve the anonymity of the interviewees, we replaced the names with "Cooperative member" followed by a number.



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To understand why Coopetra members continue to cooperate, this article combines qualitative and quantitative research approaches and includes primary and secondary data. Quantitative data were gathered from the Federal Revenue Service, Xingu Region (Secretaria da Receita Federal) and the Technical Assistance and Rural Extension Company (Empresa de Assistência Técnica e Extensão Rural – Emater/PA). Qualitative data were obtained from interviews and observations, carried out directly on rural establishments, at the Cooperative's headquarters, and during the Cooperative's regular meetings. We obtained prior informed consent from participating farmers. We agreed with the group not to interfere or influence decision making to ensure researchers' exemption from the researched object (CRUZ NETO, 1994).

This research is based on a case study, a method that allows for an in-depth study of particularities, whether that of institutions or individuals, their interactions, their behaviors and their values (ANDRÉ, 2005). This method is ideal for deepening our understanding and increasing knowledge on the persistence of a farmers' organization (cooperative), an entity that encompasses multiple social interactions: groups, members' association, and organizations for production and marketing.

We used three data collection techniques: observation of farmers' behaviors and statements in collective decision-making spaces (meetings, assemblies, and gatherings), interviews, and document analysis. Using different methods increases the study's credibility and offers different perspectives on the phenomena studied.

By conducting observations, we sought to record the specific moments and motivations that guide the groups decision making. Observation "[...] takes place through the researcher's direct contact with the observed phenomenon to obtain information on the social actors' reality in their own contexts" (CRUZ NETO, 1994, p. 59). In addition to direct observation, we engaged in participant observation – characterized by the researchers' participation in events –, with a prior discussion (between the parties) regarding the objectives of the observer's participation.

According to Cruz Neto (1994, p. 57), "the interview is the most common procedure in fieldwork. During interviews, the researcher obtains information from what social actors say" (CRUZ NETO, 1994, p. 57). Twenty (20), of a total of seventy-two (72), cooperative members were interviewed. To retrace the organization's history, we chose to interview founding members and directors. We directly applied a semi-structured questionnaire to farmers at their rural establishments. Eight (8) of the ten (10) hired cooperative employees were also interviewed. Interviews were indirect, with questionnaires delivered at the workplace and retrieved the next day. To contextualize the cooperative's history and relationship with regional issues and the MPST's political agenda, four (4) regional leaders were interviewed through direct interviews using a semi-structured questionnaire.

The minutes of General Assemblies, Administrative Council, and the Fiscal Council meetings were consulted for the documental analysis. We attended two of the Cooperative's general regular meetings and one meeting of the Administrative Council.

Finally, data analysis and interpretation went through collected data triangulation.

# 3 Cooperation and exchange between farmers



We sought to understand the relationships that constitute cooperation among members. We discuss the actors' actions aimed at managing Coopetra, such as the rules that regulate behaviors, and the persistence of the organization.

# 3.1 Contextualization of Coopetra's actions

Cooperatives can be considered ideal constructions, institutionalized from an abstract legal body, yet understanding them is only possible from the perspective of a "concrete action system", which involves multiple individual and collective interests. Their sustainability depends on a balance of the actions, which are materialized in the games of interest and the negotiations both internal and external to the organization (CROZIER; FRIEDBERG, 1993).

For Williams (1988, p. 7) "two agents cooperate when they engage in a common venture for whose outcome the actions of each are necessary, and where the necessary action of at least one is not under the immediate control of the other".

The typology of associative organizations (RECH, 1995; SCHMITZ; MOTA; PRADO, 2007; SINGER, 2002b) allows us to identify a great variety of cooperative types in rural areas.

In Pará, there are 210 cooperatives registered in the OCB System<sup>4</sup>, distributed into eleven branches of economic activities: agriculture and livestock, consumption, credit, education, infrastructure, minerals, production, health, work, transportation, and tourism and leisure. The alternative transportation branch stand outs, with 83 cooperatives (40%), followed by agriculture, with 57 cooperatives (27%) (SISTEMA OCB/PA, 2020). The 2018 census indicates that cooperativism is an economically important sector in Pará, which has 93,547 cooperative members and 3,854 employees (SISTEMA OCB/PA, 2019).

In 2013, in the Transamazonica and Xingu regions, there were 109 cooperatives, of which twenty (20) or 18.3% were declared inactive by the Brazilian Internal Revenue Service because they had not provided any information for more than three years. In 2019, the number of inactive cooperatives rose to thirty-seven (37), or 26.1% of the 142 registered cooperatives. When we add the inactive cooperatives to the forty (40), which have been written off (eliminated), this number rises to seventy-seven (77) or 54.2%. This shows that in 2019, more than half of the cooperatives had no economic activity reported to the IRS (see Table 1).

<sup>&</sup>lt;sup>4</sup> The OCB System is an entity formed by the Organization of Brazilian Cooperatives (OCB), the National Cooperative Learning Service (Sescoop), and the National Confederation of Cooperatives (CNCoop). Since cooperatives are active in different sectors of the economy, they were divided into 13 branches. The national OCB, however, reduced this number in 2020 to seven, yet, Pará state did not make the same change (SISTEMA OCB, 2021; SISTEMA OCB/PA, 2021).



Table 1 – Situation of cooperatives in the Transamazonica and Xingu regions (2013-2019).

	ANO						
	2013			2019			
Municipality	Active	Inactive <sup>2</sup>	Tota	Activ e	Inactiv e	Eliminated 3	Tota
Altamira	34	13	47	23	11	23	57
Anapu	6	0	6	5	1	0	6
Brasil Novo	5	1	6	3	0	3	6
Medicilândia	14	1	15	7	6	3	16
Pacajá	11	4	15	6	5	7	18
Placas	2	0	2	1	3	0	4
Porto de Moz	3	0	3	3	4	0	7
Rurópolis	1	1	2	3	0	4	7
Senador José Porfírio	2	0	2	3	1	0	4
Uruará	7	0	7	5	4	0	9
Vitória do Xingu	4	0	4	6	2	0	8
Geral regional	89	20	109	65	37	40	142

Source: Internal Revenue Service (Receita Federal), Xingu, 2013/2019.

Although more cooperatives (142) were registered in 2019 than in 2013 (109), data show that in 2019, "active" cooperatives show a 27.0% reduction compared to 2013, i.e. they fell from 89 to 65.

# 3.2 Rules and factors that facilitate cooperation

Coopetra has developed several activities since its foundation in the early 90's: organization of its production process and the processing and marketing of final products. The regularity of production and its performance depends on the action of participant farmers who are responsible for supplying the milk that feeds the agroindustry.

According to Schmitz, Mota, and Prado (2007, p. 5), marketing cooperatives have the following objectives:

[...] to facilitate marketing by more regularly offering a larger volume of products, open alternative marketing channels, increase bargaining power, and often add value to products (verticalization). Cooperatives may provide infrastructure, including machinery, vehicles, warehouses, etc. (common goods). Often, the main function is to break a monopoly. The beneficiaries are members, in rural areas usually self-employed farmers. It is in their interest to both increase membership and thus have a larger movement, or, conversely, to decrease membership to reserve the advantages for a select few, with a larger production.



<sup>&</sup>lt;sup>1</sup> Cooperatives in operation and reported as accredited by Federal Revenue Service system. <sup>2</sup> Cooperatives not in operation and not accredited by the Federal Revenue Service. <sup>3</sup> Cooperatives not operating and written-off (eliminated) from the Federal Revenue Service. The category "Eliminated" was not available in 2013.

In general, cooperatives' actions are part of a strategy to survive in the competitive market, so it is common for them to also serve as a mediating body, particularly negotiating state development agencies that sometimes offer services.

Rech (1995, p. 44) states that "[...] nowadays most rural cooperatives are mixed", but highlights the importance of marketing, which in many cases works with the processing and industrialization sectors.

Our case study is no different: The Cooperative also functions as a mediating body, since it provides a guarantee to its members and is a political intermediary between farmers and the government and financial agents, raising funds and approving projects to attend to its members' main goals and activities. Projects, in general, are obtained to acquire new technologies – with a focus on bettering production – and renewing machinery and equipment.

The following statements reveal that cooperative members understand their responsibilities and recognize that the collective project's success depends on individual actions and collective actions of the group – as well others involved in the production process, such as the factory employees:

The employees have an impact on product quality. This is not to say they don't get along. The issue is the product which demands a quality. It is a question of the specialty of the product. For example, I have my tasks. Other partners have no way of taking over this task, because they already have their own activities to take care of on their properties. I have to milk, weed the pasture, and, if I don't do this, everything gets out of order, hence the idea of hiring people with professional experience to take care of a specific product. This is in the best interest of the cooperative, leaving the cooperative members to the task of producing quality milk (Cooperative member 2).

Just as members recognize the need for qualified people to make the agroindustry work, they understand that they need to maintain relationships with "intermediary" agents, such as the MPST, a movement that, besides aligning the group with the regional development project, has the political strength to negotiate resources from public and private sector development agencies.

The need for such articulation was recognized by cooperative members in 1994 at the annual assembly when the acting president stated: "[...] likewise, we thank the contribution of the MPST, especially for facilitating the arrival of the UFPA team"<sup>5</sup>. Here, the Federal University of Pará (UFPA) partnership represents one of several that the cooperative has held over the past decades, which focused particularly on technology transfer, fundraising, and obtaining projects.

Cooperative governing bodies represent decision making spaces but are also places of control and include: General Assemblies, the Administrative Council, the Fiscal Council, and the Consultative Council. This cooperative's arrangement – control, transparency and self-management – facilitates trust among the members and results in credibility.

The Consultative Council acts a "safeguard", a type of guardian council of good morals and moral ethics, as stated in chapter VIII, articles 58 and 59, of the

<sup>&</sup>lt;sup>5</sup> Minutes of the General Assembly, Rurópolis, January 8, 1994.



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Social Statute (COOPETRA, 1993), which deals with the Evangelical Parish of Rurópolis' participation in the Cooperative and establishes what will be done in case of dissolution.

Establishing the Consultative Council was how the two Lutheran pastors, Lauri and Nilo, were included in the Cooperative's decision structure. While they are not cooperative members, they were key motivational figures. Cooperative member 3 discusses below the importance of the pastors:

Since the beginning, the cooperative experienced crises; when the Pastors Nilo and Lauri were around, they managed to impose [...] some guiding ideas. And they also [taught us] how to transform the cooperative [...] into an organization and not just a company (Cooperative member 3).

According to its bylaws, the General Assembly is the supreme body of the cooperative; this is the case in other organizations of the same nature. Business administration is conducted by Administrative Council, whose members are jointly liable for the losses resulting from their acts, if they act with error or malice.

The Administrative Council may hire a manager who, among other duties, advises the board on issues related the planning and organization of the cooperative's activities. The manager may also suggest changes as deemed appropriate to improve cooperative performance and help achieve its goals. In the absence of a manager, these functions are performed by the Executive Board of the Administrative Council, coordinated by the president.

Just once in the history of the cooperative, its administrative management was under the responsibility of a manager – Cooperative member 16. The manager position has no power, and, thus, in this case, the manager had difficulties executing the actions deliberated by the Administrative Council. Power is directly associated with who manages the organizations financial resources. As per the General Assembly, the president controls resource management and is thus the "manager".

Analyses indicate that in a management structure, in which a small group enjoys a relative balance of power among its decision-making bodies, the managerial function is out of place when it does not fit into the group's original planning. Deliberations are made by the general assembly, as an integral part of group management.

Within the cooperative, key activities are defined by the president and the Administrative Council. The cooperative does not regularly engage in strategic planning to set clear objectives and divide members' tasks. Despite the president's appeals for more participation from members, the cooperative's structure does not allow for a more equal power distribution:

Most of the time, members don't behave like cooperative owners. Everything is duly discussed and approved during the General Assembly,

<sup>&</sup>lt;sup>6</sup> Cooperative member 1 is a founding member. He was the first to preside over the group and remained in this position for nine consecutive years. He participated in the initial discussions regarding the founding of the cooperative, being part of the group formed by the Lutheran Church Parish in Rurópolis. After leaving the coordination, he was appointed manager, which can be considered a form of peer recognition for his personal investment in the cooperative.



but when tasks need to be executed, there are problems. This occurs even regarding difficulties of [obtaining] resources, which should be the responsibility of all project participants [...] (Cooperative member 4, cooperative president).

A similar situation was also observed by Olson (1971 [1965]) when studying North American unions: members ideally desired high levels of engagement, but individually lacked the motivation to actively participate. Olson reported that most union leaders identified member apathy as a major problem.

In terms of members' rights and obligations, two other situations deserve attention. Paragraph "a" of the bylaw item that deals with "members' duties and obligations", states that part of members' duties and obligations is "[...] to deliver their products to the cooperative and perform the other tasks that build toward its economic and social objectives [...]" (COOPETRA, 1993, p. 16).

Article 53 of the cooperative bylaws puts forth a curious situation, which expresses, in our view, the authoritarian nature of the organization's rules: members will be eliminated from the group if they "fail to deliver their production to the cooperative [...]" (COOPETRA, 1993, p. 16).

It is worth mentioning that cooperative bylaws followed the legislation of the time period. Therefore, bylaws were loaded with authoritarian content and expressions. According to one of the founding members, difficulties with collective work existed since the beginning:

It's a complicated thing due to regional issues. There's no getting around it, but, since the Lutheran Church, in its majority, is made up of European descendants, those from Southern Brazil. So, the Parish were those of European descent, or Southerners. And this group has an understanding; it's like other groups formed by people from Ceará or Maranhão, for example, they more easily close on a proposal; at the time we were part of this group and this group decided everything regarding the cooperative and how resources were allocated (Cooperative member 1, first cooperative president).

When asked about the importance of the Southerners as a facilitating factor for cooperation, members do not attribute the persistence of the cooperative to them, as observed below:

It seems that non-Southern people are supplying more milk than the Southern people, that is, who sustains [the cooperative] are the stronger suppliers, because milk is its basis. During cooperative foundation, yes, people from the South participated more, had a greater influence, but afterward, no (Cooperative member 5).

Most cooperative members agree that the Lutheran Church was important in founding the cooperative. The Church helped secure the resources to finance the construction of the factory (dairy) and helped prepare the group manage the cooperative. It invested in education based on religious principles and trained the group in the management of collective goods. The Catholic Church also influenced social organization in the region, particularly through Basic Ecclesial Communities (CEB):



The church acted as a watchdog and was committed to the cooperative; after all, the church was one of the greatest motivators behind the cooperative – in a way, this is justified by its own good functioning. There was a "moral" commitment to the outside world regarding the success of the project it had encouraged and financed (Cooperative member 3).

The pastors of the Lutheran Church actively participated in the Administrative Council meetings and one was even vice-president of the cooperative. They gradually withdrew from cooperative management and other members took over their tasks. According to cooperative members, the churches were important to farmers' learning process in the group's initial phase, particularly helping members organize collective actions, such as "Mutirões" (community work parties) and other activities.

Reciprocal collaboration among cooperative members facilitates the fulfillment of the group's objectives. The collective organization of production and product improvement to add value and increase market competitiveness are examples of such collective actions (COOPETRA, 1993). However, maintaining collaboration and the survival of the cooperative itself would come to depend on internal and external factors.

We observed that the cooperative benefited from funded projects, aiming to increase the quality of its main product, mozzarella cheese, and consequently improve the product's performance in the consumer market. According to the president some projects were not successful, due to insufficient labor availability to support new work stations in the farms, among other challenges.

Cooperative members experienced many difficulties managing the project "Pasture Management and Genetic Improvement", revealing problems commonly observed in projects geared to family farming with a focus on new technology adoption. Out of the 15 cooperative members selected to participate in the project to establish "capineira" systems, better milk collection facilities, and to introduce artificial insemination, only three managed to put into practice the activities foreseen in the project.

Difficulties identified by members are related to family farmers' traditional practices, who generally make their decisions autonomously – in consideration of the availability of on-farm resources, in particular labor.

This type of difficulty may have contributed to the "failure" of various associations and cooperatives in Pará state and in the study region more specifically. Yet, Coopetra held on for two decades despite facing several crises. Crises were almost always related to the commercialization of products and to cooperative management. In several instances, the cooperative had its cheese seized because it did not have authorization to sell outside its own municipality. External factors, such as health surveillance requirements, are often a challenge for family farmers.

## 3.3 Values that facilitate cooperation

Trust and unity are recurrent themes in members' discussions regarding the cooperative. Achieving such relationships might be attributed to the size of the

<sup>&</sup>lt;sup>7</sup> Capineira is a cultivation system that consists of producing forage for dairy and beef cattle.



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group, just seventy-two families (72). When asked why they believe that the cooperative persists amidst so many failures and economic crises since its foundation, members highlight unity. For example, Cooperative member 6 responded that "the union of the people" explains persistence and stated: "[we have] a lot of union; when we had problems, we discussed the problems and people got together and solved them".

Union and trust were built over two decades of living with one another and having numerous direct experiences. In our opinion, a concrete relationship was built and direct cooperation between members was possible due to the size of the group. Members got to know who they were dealing with, their addresses, and their reputations.

Axelrod (1984) states that cooperation needs no words, as the work of cooperation speak for itself. Likewise, trust between is not always necessary: reciprocity may be enough to decide between desertion or cooperation: the "tit for tat" between members. And when the group is relatively small, continuous interaction among members is easier. According to this author it also "[...] makes it possible for cooperation based on reciprocity" (AXELROD, 1984, p. 125).

Face to face decisions made in the formal cooperative spaces facilitate the construction of relationships based on trust and respect among members. Cooperative and union meetings<sup>8</sup>, barbecues, and the religious festivities are privileged spaces that help build group fellowship.

According to Crúzio (1999), a common problem faced by cooperatives is the paradox of overlap of deliberative and executive powers. The author states: "Problems related to the cooperative structure begin with the paradoxes of the overlap of deliberative and executive powers, as related to the maximum power of the 'Members' General Assembly'" (CRÚZIO, 1999, p. 22).

Within Coopetra, this overlap exists, but it is balanced by rules in the Statute and customary rules developed in daily life. The Administrative Council's deliberative power even includes the use of the organization's available resources, as seen by its stated objective: "to schedule operations and services, establishing quality criteria and fixing quantities, values, deadlines, fees, taxes and other conditions necessary to transaction processing" (COOPETRA, 1993, p. 8).

Analyzing another paragraph, we observe the concentration of power in the organization's Administrative Council, which is authorized to "contract obligations, carry out transactions, acquire, dispose of, and encumber other movable property, assign rights, and appoint representatives" (COOPETRA, 1993, p. 9).

The "[...] Council ends up exceeding the limit of its deliberative function. Instead of executing what is decided by the 'Members' General Assembly', the Council winds up making decisions regarding the use of the cooperative's general resources" (CRÚZIO, 1999, p. 22). Although democracy in cooperatives is a strong point, the market interferes by forcing members to make daily decisions necessary to manage financial commitments. Therefore, meetings of the Administrative Council, composed of a smaller group of members, is the space where most decisions are made.

<sup>&</sup>lt;sup>8</sup> Most of Coopetra's members are also members of the Rural Workers Union (STTR) of Rurópolis.



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In describing the causes of crises in cooperative democracy, Schneider (2003, p. 182), points out that "with the expansion of cooperatives, there is a tendency for power to be transferred from the hands of the co-owners [members] to the hands of highly qualified executives [...]".

We did not observe this in the cooperative under study. Although Coopetra employees are well qualified for cheese production, all members also share some degree of kinship with other group of members, that is, they are co-owners – they are sons and daughters, nephews or husbands or wives – who take care of the factory. Therefore, they have a high degree of interest in maintaining the organization.

Members' participation can be characterized as indirect and delegated. The General Assembly is the largest forum for participation, yet this body is not always sovereign in its decisions. According to some authors, member participation in the General Assembly is a problem for cooperative democracy (CRÚZIO, 1999; SCHNEIDER, 2003). However, according to our research, this does not appear to be a problem for Coopetra. On the contrary, the political arrangement between decision and power structures helps to balance the economic limits of its associates.

The Administrative Council and the Executive Board are composed of the "president, the vice-president and the secretary" (COOPETRA, 1993, p. 6). The president has the most power in the decisions, mainly because he/she is assigned to several tasks, including politically negotiating benefits for cooperative members – even though this is not stated in the bylaws. A good negotiator legitimizes the power that is conferred to him/her.

Observations indicate that being the president of this type of organization is not easy – mainly because it is difficult to mobilize resources to cover expenses, which may explain there is not much motivation for running for the position. We conferred that members in general are not interested in being the cooperative president. Alleged reasons for this disinterest include: management tasks conflict with on-farm work, such that there is little time to take care of the cooperative. According to one member "it's not an easy life, you have to be a jack of all trades" (Cooperative member 2).

Being in charge is a big responsibility, as stated here by the president: "When an employee doesn't show up, like today when the truck driver was absent, we have to find a way to pick-up milk, because the suppliers (members and non-members) have their commitments, and the cooperative is an important part of these people's lives" (Cooperative member 4, cooperative president).

The president legitimizes his power by his achievements and by the solutions he comes up with to overcome problems within the organization. In complaining about the tasks undertaken, the president indicates that the position deems a sacrifice; yet, on the other hand, the successful execution of these tasks guarantees his survival as a leader.

Lazzaretti (2007, p. 78), when analyzing the inhibiting and facilitating factors of collective action in a rural settlement of the Landless Workers' Movement (MST), concluded that "the success of these ventures depends a lot on the presence of leaders, who are usually politically experienced and possess organizational skills". The presence of experienced leaders in the cooperative's management since its foundation seems to fit well with this thesis.



One of the founders of the cooperative, a member of the Lutheran Church who participated in the elaboration of the cooperative's proposal and its foundation, reveals how the president's achievements contribute to his recognition as a leader capable of maintaining necessary group cohesion:

In my opinion, after [Cooperative member 4] took over, the cooperative improved, but I actually believed it was going to get worse with his management. He has belonged to other associations and in those cases, things did not work out very well, so I was suspicious. But I think that because he made mistakes in other situations, he is also learning. He is a good president (Cooperative member 2).

The size of the group – seventy-two families (72) – may explain why trust and solidarity are values that form the basis of cooperation. According to one of the interviewees, approximately "90% of the members have some kind of relationship one another. Friendship is the most common, which helped people get to know one another and establish trust and distrust" (Cooperative member 7).

For Sabourin (2009), liaisons between pairs of farmers is marked, over time or at a given moment, by several types of relations; this heteroclite, and to some extent contingent combination, seems to us best to explain and characterize the nature of "closeness bonds".

This link may explain the apparent absence of conflicts at General Meetings and Administrative Council and Fiscal Council meetings. Conflicts may be disguised or diluted in the divergent opinions on certain topics. For example, regarding the criteria that regulate who benefits from financed cooperative projects. "We had situations where tempers were flaring in my first term as president, but now, starting my third term, things are quite different" (Cooperative member 4, cooperative president).

The cooperative president explained there was no consensus regarding his first run for presidency in 2006. Yet, approval occurred when the Workers' Party (PT) took control of the State government; members believed that the president's affiliation with the party could help solve problems they faced at that time, including their registration in the State Inspection System (SIE).

Cooperative life is sustained through a constant process of negotiations with various actors, including the state development agencies, financial agents, among others. According to Ramírez and Berdegué (2003), collective actions in rural areas currently take place within a new scenario that demands the ability to negotiate with other multiple actors in the community and larger territory for development gains.

Since its foundation on January 17, 1993, the cooperative has sought to develop and adjust the organization to market rules and demands, trying to sell its products. The group is limited, however, by its production process that is carried out autonomously by its farmers.

Farmers' autonomy is relevant to the success or failure of collective action. The dairy factory depends solely and exclusively on the performance of the farmers' production, who change their strategies to meet household reproduction needs. In this process, the collective process is always in second place, as exemplified by one of the best milk producers and founding member of the cooperative. This farmer quit his farm activities after his two sons decided to leave the property and he found himself alone.



Afterward, the president decided to dedicate himself to the success of the collective project. He abandoned his property and moved to the cooperative's facilities to focus on his task as president. As he states, "The organization has to bring in income to maintain itself and make a difference for its members. Many initiatives do not move forward because, instead of making money, they are always asking for help from the members" (Cooperative member 4, Cooperative president).

Financial and service benefits, resulting from the group's cooperative actions, are the main motivation for sustaining the organization. Financial results are obtained from the sale of agricultural products, and many services and financial projects are acquired as result of negotiations between the president and state agencies.

Cooperative member 8, a founding member, reveals her satisfaction with the organization's economic results, while also recognizing its limitations: "[...] the cooperative stands out for its members' effort and because of the income generated through milk sales. We are making an effort. If the cooperative ends, it will mean the end of the little bit of money these families have [...]" (Cooperative member 8).

Benefit distribution, especially money paid for milk, is highlighted by the members as one of the most important factors to explain the organization's persistence. At the end of every month, the cooperative pays its members according to what each person has earned.

This "little bit of money" cited above in practice is part of the resources generated though the dairy production chain, which when transformed into cheese is sold regionally and in Pará state, and then is returned to the group. Group cooperation begins with the decision to participate in the collective project; it then carries over through the organization to production on rural establishments and concludes with the factory production of the final product.

Family-based agroindustries have always faced difficulties with raw material suppliers. The rigid rules of health surveillance represent one common difficulty, as rules are not adapted to the dynamics of family farming. Difficulties in adopting new technologies represent another challenge.

Santos et al. (2010, p. 13) identified farmers' resistance to adopt new technologies, which in turn has negative impacts on the economic performance of farm activities: "[...] low levels of technological adoption winds up having negative impacts on the development of dairy farming in Pará state, with direct consequences on the competitiveness of milk and its derivatives that are produced in the region [...]".

Studies by Guimarães and Silveira (2007) on rural family agroindustries highlight the heterogeneity of situations involving processes of production, sale, and value adding. The authors question public policies geared toward family farmers, which have their own specificities, and state that the rural family agroindustries cannot be subject to the same rules as large industries:

The lack of distinction between the different technical-economic and sociocultural situations involving food processing, of vegetable or animal origin, inadvertently grouped under the terminology rural family agroindustries, has negatively influenced public policies that seek to promote adding value to family farming products in their conception and implementation. Such policies, influenced by the lack of conceptual clarity, as to which public they intend to reach, result in actions and services that treat a heterogeneous



universe as a homogeneous one, with social and economic effects different from those intended (GUIMARÃES; SILVEIRA, 2007, p. 1).

The state development agencies, such as the National Rural Learning Service (Serviço Nacional de Aprendizagem Rural – Senar), the Support Service to Micro and Small Enterprises (Serviço de Apoio às Micro e Pequenas Empresas – Sebrae), and the State Secretariat for Agricultural and Fishing Development (Secretaria de Estado de Desenvolvimento Agropecuário e da Pesca – Sedap) of Pará, have always supported collective production initiatives, in particular those of farmers' associations and cooperatives. Through these organizations, groups can access initiatives that contribute to cooperative organization, with training in management, courses on strategic planning, financial accounting, and other topics.

Over the years, Coopetra, aligned with other organizations, has trained its leadership in political negotiation. This training has guaranteed the organization's participation in business roundtables with different agencies. Members recognize efforts made by their partners, but they also know that much depends on their own decisions:

The government helped the cooperative a lot. [Cooperative member 4] went after it. Sebrae and Sagri. Everyone helped the cooperative, each a little bit, and no opportunity was lost. Those who took advantage, knows it all helped a lot. I myself benefited a lot from this help. I participated in many courses which helped a lot: electric fencing, artificial insemination, pasture management, pasture cleaning, and others [...]. There are always those who don't take advantage of these opportunities, they think it is nonsense and don't put into practice what they learn (Cooperative member 8).

The current cooperative president has political leadership and negotiation skills that extend beyond the organization. Members choose him in 2006, understanding the management challenges, and that a new moment had arrived for the group, particularly with the rise of the leftist government within the Pará state government. He was (and is) a leader capable of bringing together different actors, negotiating with them, and staying focused on the collective objectives of the organization.

Power should be considered a structuring force necessary to achieve the cooperation of organizational members who have interests, which are not always convergent (CROZIER; FRIEDBERG, 1993). In an appendix to the 1971 edition, Olson (1971 [1965], p. 175) also highlights the importance of "[...] the role of the entrepreneur or leader who helps to organize efforts to provide collective good [...]".

# 4 Final considerations

This article analyzes the persistence of collective action in the context of the Cooperativa Agroleiteira da Transamazônica (Coopetra), in Rurópolis, Pará State, and the strategies adopted by family farmers to maintain the agroindustry and the cooperation that make their livelihoods viable.

Trading daily work, engaging in mutual work, and the resale of collective products allowed members to learn about collective action and participate in such



acts. Reselling was the first form of marketing production and allowed farmers to learn the rules of the market and its dynamics.

Coopetra persists because the group is the result of concrete actions structured on the basis of a network of individual and collective interests negotiated between different actors. But it is also an organization of people who seek, on a democratic basis, to meet the economic needs of its members (PINHO, 1982).

Collective action was possible and maintained because the agents cooperated, engaging in the common enterprise, knowing that the result was based on the contribution of each person's action; participation occurred despite the inflexible, albeit democratic and participative rules.

Leaders are militants trained in the ideology of solidarity and fraternity, willing to "take on risks" and give up personal ventures. Cooperative member 1 helped found the entity and worked for nine (9) years as president. Cooperative member 4 chose to move to the cooperative's lands and dedicate himself more closely to the agroindustry's activities. He abandoned his own personal project to work toward the collective's goals.

Since its foundation, Coopetra has always had a president, and all have had political experience, have been good negotiators, and are organized. This skill set helped the group build powerful relationships with other organizations, and also guaranteed benefits from public and private sectors. Access to rural credit and the successful capture of development resources contributed to Coopetra's persistence in the region. Since its foundation, the cooperative has received external incentives, some with no strings attached, such as the initial resources to build the dairy factory.

While Axelrod (1984) demonstrated in his study that reciprocity can generate cooperation without the need for trust, in our case study we observe otherwise. On the contrary, interviewees highlight the importance of trust in maintaining cooperation. Mutual trust does not hinder the normative functioning of the cooperative, which each year renews two thirds of its Fiscal Council's membership, the group that maintains control over the cooperative.

The cooperative runs a system of self-management and promotes democracy. Although the hired workers are not members – which, according to Singer (2002a), means that the organization should not be classified as one based on solidarity economy – all Coopetra employees are related to members in some way: they are their children, spouses, sons-in-law, among others. Workers have a contract with the organization, but they are motivated and interested in the success of the common project. During moments of crises, they are willing to make personal sacrifices to keep the cooperation going.

While employees do not participate in decisions, they are consulted about issues dealing with the dairy factory. Employees report to trust cooperative management and gave positive evaluations regarding the organization is managed. The factory is run in an integrated way; each employee knows his or her tasks well and is aware of the hierarchy and discipline needed to run the dairy. Employees understand that maintaining the enterprise depends on their personal efforts and performing well their assigned tasks.

Cooperation results from the direct participation of members, directors, and employees. Autonomous production, processing, and management of the agroindustry depend on each actor involved in the production chain. All employees



and cooperative members depend on the production chain and the regularity of its functioning, which guarantees the distribution of benefits and the maintenance of the group as an organization.

Coopetra, like other associative organizations that aim to make money, was founded to solve farmers' concrete problems, including the sale of products and income generation. Coopetra succeeded in organizing milk production and transforming milk into cheese, which represent the main achievements of the group.

Participation, an old and enduring problem for self-managed cooperatives (SCHNEIDER, 2003), can be characterized as active in Coopetra's case. Members define participation as "strong", because they believe in the cooperative's decision-making instances – the General Assembly, Administrative Council and Fiscal Council – as common spaces, where they make decisions in a democratic fashion regarding the organization's present and future.

Observations suggest that the group understands the power relations between members, directors, and employees within the cooperative. Further, members distinguish between individual and collective interests, and make an effort to keep their distance from partisan political disputes. Topics related to political interests are filtered by the directors and do not enter the organization's formal agenda. They are, however, discussed in informal spaces, including: informal conversations during lunch hours, and when "chatting" before the meetings move to the formal agenda. Conflicts between members and directors are not open, although they do exist.

The Administrative Council is responsible for the administrative management of the cooperative's contracts, which specifically coordinates purchasing, marketing, and making payments. Here, leadership's participation is indispensable to making necessary adjustments to ensuring management balance.

In sum, the factors that directly influence the persistence of the cooperative include: the distribution of benefits, especially money paid from milk sales; trust built within the group; the different forms of mutual help maintained by members; the balanced power relations resulting from members' direct and active participation in decision-making bodies; leaders' political experience in negotiating and filtering out pressures, both internal and external to the organization and thus guaranteeing direct and indirect gains. We conclude that the combination of these factors inhibited the appearance and actions of "free riders", or in other words, opportunism inside the cooperative.

#### **REFERENCES**

ANDRÉ, M. E. D. A. **Estudo de caso em pesquisa e avaliação educacional.** Brasília: Liber Livro Editora, 2005.

AXELROD, R. The evolution of cooperation. New York: Basic Books, 1984.

CAILLÉ, A. **Antropologia do dom:** o terceiro paradigma. Petrópolis: Vozes, 2002.



COOPETRA. **Estatuto social**. Rurópolis: Cooperativa Agroleiteira da Transamazônica, 1993.

CROZIER, M.; FRIEDBERG, E. **Die Zwänge kollektiven Handelns**: Über Macht und Organisation. Translation E. Friedberg; S. Stelzer. Frankfurt a.M.: Beltz Athenäum, 1993. First published: 1977.

CRUZ NETO, O. O trabalho de campo como descoberta e criação. In: MINAYO, M. C. de S.; DESLANDES, S. F.; CRUZ NETO, O.; GOMES, R. (Org.). **Pesquisa social**: teoria, métodos e criatividade. Petrópolis: Vozes, 1994. p. 51-66.

CRÚZIO, H. de O. Por que as cooperativas agropecuárias e agroindustriais brasileiras estão falindo? **RAE**: Revista de Administração de Empresas, São Paulo, v. 39, n. 2, p. 18-26, abr./jun. 1999.

FEENY, D.; BERKES, F.; McCAY, B. J.; ACHESON, J. M. A tragédia dos comuns: vinte e dois anos depois. Translation A. de C. C. Moreira. In: DIEGUES, A. C.; MOREIRA, A. de C. C. (Org.). **Espaços e recursos naturais de uso comum**. São Paulo: Nupaub; Lastrop-USP, 2001. p. 17-42. First published: 1990.

FRIEDBERG, E. Organização. In: BOUDON, R. (Dir.). **Tratado de sociologia**. Translation T. Curvelo. Rio de Janeiro: Jorge Zahar, 1995. p. 375-412.

GODBOUT, J. T. Introdução à dádiva. **Revista Brasileira de Ciências Sociais**, São Paulo, v. 13, n. 38, p. 39-51, out. 1998.

GUIMARÃES, G. M.; SILVEIRA, P. R. C. Por trás da falsa homogeneidade do termo agroindústria familiar rural: indefinição conceitual e incoerência das políticas públicas. In: CONGRESSO DA SOCIEDADE BRASILEIRA DE SISTEMAS DE PRODUÇÃO, 7., 2007, Fortaleza. **Proceedings** [...]. Fortaleza, 2007.

HARDIN, G. The tragedy of the commons. **Science**, [s.l.], v. 162, n. 3859, p. 1243-1248, Dec. 1968.

LACERDA, A. G. de; MALAGODI, E. Formas de cooperação e reforma agrária. **Raízes**, Campina Grande, v. 26, n. 1 e 2, p. 93-112, jan./dez. 2007.

LAZZARETTI, M. Â. Fatores inibidores e facilitadores na produção de ações coletivas em assentamentos de Reforma Agrária do MST. **Revista Tempo da Ciência**, Curitiba, v. 14, n. 27, p. 73-88, 1. sem. 2007.

MANESCHY, M. C.; CONCEIÇÃO, M. de F. C.; MAIA, M. L. S. Estudos sobre as dinâmicas das Associações Rurais no Nordeste amazônico. In: GOMES, A. C.; MANESCHY, M. C.; MAGALHÃES, S. B.; FERREIRA, J. M. C. (Org.). **Organização social do trabalho e associativismo no contexto da mundialização:** estudos em Portugal, África e Amazônia. Belém: NUMA, UFPA, 2010. p. 143-168.



OLSON, M. **The logic of collective action**: public goods and the theory of groups. Cambridge, MA: Harvard University Press, 1971. First published 1965.

OSTROM, E. Analyzing collective action. **Agricultural Economics**, [s.l.], v. 41, p. 155-166, Nov. 2010.

OSTROM, E. **Governing the commons:** the evolution of institutions for collective action. Cambridge: Cambridge University Press, 1990.

PINHO, D. B. **A doutrina cooperativista nos regimes capitalista e socialista**. 2. ed. São Paulo: Pioneira, 1982.

RAMÍREZ, E.; BERDEGUÉ, J. A. **Ação coletiva e melhoras nas condições de vida da população rural**. 2003. Available at: https://idl-bnc-

idrc.dspacedirect.org/bitstream/handle/10625/31366/119165\_p.pdf?sequence=8. Accessed: 13 September 2021.

RECH, D. **Cooperativas**: uma alternativa de organização popular. Rio de Janeiro: FASE, 1995.

REIS, M. N. F. **Dinâmica do cooperativismo alternativo na Bragantina, Estado do Pará:** agricultores familiares no caminho da participação e da gestão. 2002. 231 f. Dissertação (Mestrado em Agriculturas Familiares e Desenvolvimento Sustentável) – Universidade Federal do Pará, Belém, 2002.

RIOS, G. S. L.; CARVALHO, D. M. de. Associações de agricultores familiares como estruturas de ensaio pré-cooperativas. **ESAC**: Economia Solidária e Ação Cooperativa, São Leopoldo, v. 2, n. 2, p. 129-136, jul./dez. 2007.

SABOURIN, E. **Camponeses do Brasil**: entre a troca mercantil e a reciprocidade. Translation L. Milani. Rio de Janeiro: Garamond, 2009.

SANTOS, J. C.; ROSSETO, A. G.; RODRIGUES FILHO, J. A.; SENA, A. L. S.; QUINZEIRO NETO, T.; SANTOS, M. A. S.; MATOS, G. B.; HOMMA, A. K. O. **Diagnóstico e caracterização da cadeia produtiva leiteira na Região Oeste do Pará.** Belém: Embrapa Amazônia Oriental, 2010.

SCHMITZ, H.; MOTA, D. M. da; PRADO, E. S. de A. C. Ação coletiva com fins econômicos: reflexões teóricas a partir de dois estudos de caso no espaço rural. In: SOCIEDADE BRASILEIRA DE SISTEMAS DE PRODUÇÃO, 7., 2007, Fortaleza. **Proceedings [...]**. Fortaleza: SBSP, 2007. CD.

SCHMITZ, H.; MOTA, D. M. da; SOUSA, G. M. Reciprocidade e ação coletiva entre agricultores familiares no Pará. **Boletim do Museu Paraense Emílio Goeldi, Ciências Humanas**, Belém, v. 12, n. 1, p. 201-220, jan./abr. 2017.

SCHNEIDER, J. O. **Democracia, participação e autonomia cooperativa**. 2. ed. São Leopoldo: Unisinos, 2003. First published: 1991.



SINGER, P. A recente ressurreição da economia solidária no Brasil. In: SANTOS, B. de S. (Org.). **Produzir para viver**: os caminhos da produção não capitalista. Rio de Janeiro: Civilização Brasileira, 2002a. p. 81-129.

SINGER, P. Introdução à economia solidária. São Paulo: Fundação Perseu Abramo, 2002b.

SISTEMA OCB. **Ramos do Cooperativismo**. Brasília: OCB, 2021. Available at: https://www.ocb.org.br/ramos. Accessed: 8 August 2021.

SISTEMA OCB/PA. **Buscar Cooperativa por Ramo**. Belém: OCB/PA, 2020. Available at: http://paracooperativo.coop.br/sistema-ocb-pa/cooperativas?start=10. Accessed: 25 March 2020.

SISTEMA OCB/PA. **Diagcoop 2018**: diagnóstico e censo do Cooperativismo Paraense. Belém: OCB/PA, 2019.

SISTEMA OCB/PA. Ramos do Cooperativismo. Belém: OCB/PA, 2021. Available at: http://paracooperativo.coop.br/sistema-ocb-pa/cooperativas?start=10. Accessed: 8 August 2021.

TEMPLE, D. **Teoría de la reciprocidad**. La Paz: PADEP-GTZ, 2003. TILLY, C. Introduction. In: TILLY, L. A.; TILLY, C. (Ed.). **Class conflict and collective action**. London: Sage Publishers, 1981. p. 13-25.

VEIGA, I.; ALBALADEJO, C. A formação do território a nível local e a emergência da ação coletiva: análises das trocas simbólicas em duas coletividades locais da região de Marabá, Amazônia Oriental. **Agricultura Familiar: Pesquisa, Formação e Desenvolvimento**, Belém, v. 1., n. 3, p. 41-77, 2002.

WILLIAMS, B. Formal structures and social reality. In: GAMBETTA, D. (Ed.). **Trust**: making and breaking cooperative relations. Cambridge, MA: Basil Blackwell, 1988. p. 3-13.

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Received: 14/04/2020 Accepted: 03/09/2021



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Recursos (Resources): Não se aplica.

Software: Não se aplica.

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Fontes de financiamento: Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq); Liberação do segundo autor pela Emater/PA para realizar a pesquisa.

