



Collective strategies of commercialization of açai and discursive ambiguity around sustainability in northeastern Pará

Estratégias coletivas de comercialização de açai e ambiguidade discursiva em torno da sustentabilidade no nordeste Paraense

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Article received on March 4, 2022, final version accepted on August 12, 2023, published on November 24, 2023.

ABSTRACT: In northeastern Pará, the reduction of biodiversity in the floodplain ecosystem, caused by intensive açai management practices, generates various socio-environmental consequences. Some social organizations involved in the açai commercialization circuit, which expressed the need to reverse this situation have developed practices and discourses with their associates that are presented as more sustainable. In view of the complexity of these constructions, the present study aimed to verify dissonance and consonance between discourses and practices related to socio-environmental sustainability, propagated by leaders of these social organizations and riverine farmers, involved in the commercialization of açai from Guajará de Baixo Island, in Cametá– PA. Thus, semi-structured interviews were conducted with three riverside farmers linked to local associations and sixteen non-associated farmers, as well as with two representatives of collective instruments active in the organization and commercialization of açai produced by agro-extractivist farmers. The interviews were recorded and transcribed, and the Iramuteq software was used to facilitate the analysis of the discourse of these interlocutors. The theoretical contributions of the Actor-Oriented Perspective and its cornerstones grounded the analyses. The results obtained reveal that, if on the one hand, the stimulus to the configuration of sustainability by collective devices leads to management practices of açai groves more concerned with the proper use of the biophysical environment by riverine farmers associated with such devices, on the other hand, market pressures for high production have triggered marketing strategies dissociated from the discourse of sustainability created by these social actors.

Keywords: social and environmental sustainability; Amazon; actor-oriented perspective; social organizations.

RESUMO: No Nordeste Paraense, a redução da biodiversidade em ecossistema de várzea, provocada pelas práticas de manejo intensivo do açaí, gera consequências socioambientais diversas. Algumas organizações sociais envolvidas no circuito de comercialização do açaí, alegando a importância de reverter essa situação, vêm construindo junto aos seus associados práticas e discursos apresentados como mais sustentáveis. Tendo em vista a complexidade dessas construções, o objetivo desse trabalho foi verificar dissonâncias e consonâncias entre discursos e práticas referentes à sustentabilidade socioambiental, propagadas por lideranças dessas organizações sociais e agricultores ribeirinhos, envolvidos na comercialização de açaí da Ilha Guajará de Baixo, em Cametá – PA. Para esse fim, entrevistas semiestruturadas foram direcionadas a três agricultores ribeirinhos vinculados a associações locais e dezesseis não-associados, bem como a dois representantes de dispositivos coletivos atuantes na organização e comercialização do açaí agroextrativista. As entrevistas foram gravadas e transcritas e o uso do *software Iramuteq* foi mobilizado com o intuito de facilitar a análise do discurso desses interlocutores. As contribuições teóricas da Perspectiva Orientada ao Ator e suas pedras angulares fundamentaram as análises. Os resultados obtidos relevam que, se por um lado, o estímulo à configuração da sustentabilidade por parte dos dispositivos coletivos leva a práticas de manejo dos açaiuais mais preocupadas com o uso devido do meio biofísico pelos agricultores ribeirinhos associados a tais dispositivos, por outro lado, as pressões dos mercados por altas produções vêm desencadeando estratégias de comercialização dissociadas do discurso de sustentabilidade criado por esses atores sociais.

Palavras-chave: sustentabilidade socioambiental; Amazônia; perspectiva orientada ao ator; organizações sociais.

1. Introduction

The Northeast of Pará is a region that comprises 49 municipalities, including Cametá and Tomé-Açu. The first stands out for the production of açaí grown in floodplain areas and the second for processing the fruit in agroindustries to produce pulp, mainly for export to Japan, the United States, Argentina and Germany (Corrêa, 2010; Konagano, 2014). In the state of Pará, the external demand for açaí, which grew in the 1990s, led to the intensification of management and the expansion of açaí groves in a floodplain ecosystem (Brondízio, 2008; Araujo & Navegantes-Alves, 2015). Hiraoka (1993, p.5) characterized this açaí as “açaização of the landscape” of the Amazon riverside estuaries, as stipes (palm stems) began to predominate over other forest species.

On Guajará de Baixo Island, in Cametá, açaí palm trees have become very frequent in the es-

tuary since the 2000s, when intermediaries began to operate in the local commercialization of açaí produced by agro-extractivist riverine farmers to supply agroindustries in Pará. In the Amazonian context, riverine farmers live on the banks of rivers and streams and maintain constant relations with capital, through access to formal and informal markets for the commercialization of surplus production (Pereira & Witkoski, 2012).

The management practices in the açaí groves, which used to be based on an extractive system, have become agro-extractivist management practices. For Homma *et al.* (2006) and Homma (2012), in açaí produced by extractive management, there is little or no interference from anthropic action in the management of the species. On the other hand, agro-extractive management reconciles the stages of planting seedlings, sowing, elimination of unwanted plant species, thinning of the açaí clumps and mowing. This change in management

practices reduced the native flora in some Family Production Units – UPF¹ with socio-environmental consequences in the floodplain ecosystem, such as a reduction in biodiversity.

In this regard, some social organizations began to seek strategies to minimize socio-environmental damage, especially in the UPF of their members. Among these organizations, there is a Cooperative (named here as Cooperative C, to preserve the confidentiality of the organization) that operates in Northeast Pará, founded in 1949, and which currently has 172 members from Japan, from various municipalities from Northeast Pará and regions of Brazil. According to the bylaws of Cooperative C, its mission is, namely: To provide economic development and quality of life for members, employees and customers, ensuring the creation of values and the sustainability of the Cooperative through quality. Since the 1970s, the introduction of the Agroforestry Systems of Tomé-Açu – AFSTA in the UPF of the cooperative members has collaborated with this mission.

The AFSTA comprises alternative forms of land use and management, in which one or more woody forest species (trees or shrubs) and palm trees are associated with agricultural crops and/or animals, in simultaneous combination or staggered in time and space (Viana *et al.*, 1996; Farrell & Altieri, 2012). As for the AFS of Tomé Açu, according to Cooperative C, it differs from the other AFS in that it cultivates agricultural, fruit and forestry crops in the same area, with the use of technological devices that allow environmental protection and profitability throughout the year. In the case

of members of Cooperative C, they cultivate short-cycle crops, such as rice (*Oryza sativa*), maize (*Zea mays*), beans (*Phaseolus vulgaris*), passion fruit (*Passiflora edulis*), papaya (*Carica papaya*) and banana (*Musa spp.*), medium cycle, such as black pepper (*Piper nigrum L.*), cocoa (*Theobroma cacao L.*), açaí (*Euterpe oleracea Mart.*) and palm oil (*Elaeis guineensis*), and long-term crops, such as andiroba (*Carapa guianensis Aubl.*) and mahogany (*Swietenia macrophylla King*). Furthermore, they are “developed with technologies and processes that provide a greater degree of environmental protection and profitability” (Pompeu, 2017, p. 26).

In the municipality of Cametá, an Association (named here as Association A, to ensure its confidentiality), headquartered in the region of the islands, has 35 members in 23 islands of the municipality. According to the bylaws of Association A, its mission is to organize the collective production of its members, through sustainable development, to support producers and non-producers in meeting the demand for the purchase of açaí.

Association A acts as a partner of Cooperative C, organizing the production of açaí for its members in order to facilitate intermediation for Cooperative C. Cooperative C, in turn, assists members of Association A with technical monitoring linked to sustainable management practices in the UPF. Focused on these actions of coordination and their impacts on the region, the present study aimed to verify the dissonance and consonance between discourses and practices related to socio-environmental sustainability, propagated by leaders of these social organizations and riverine farmers, involved in the

¹ Property owned by the peasant family, consisting of a set of productive systems, organized and managed by the family, with the purpose of producing inputs to primarily meet the demand for self-consumption by farming families (Schneider & Niederle, 2008).

commercialization of açaí on Guajará de Baixo Island, in Cametá – PA.

To achieve the proposed objective, the study was based on bibliographic and documentary research to compose the analytical framework and 21 interviews based on a semi-structured script (Michelat, 1987). The interviews were carried out between the months of August and December 2020, and biosecurity measures of the World Health Organization (WHO) regarding the Covid-19 pandemic were adopted. For the selection of interviewees, a first key informant was identified and then the “snowball” technique was used (Baldin & Munhoz, 2011), so that members on Guajará de Baixo Island involved with the processes of commercialization of açaí through intermediaries were indicated, through collective devices. Thus, three (03) riverine farmers linked to Association A were selected, who act as intermediaries (mentioned in the interview excerpts as intermediary members) in the sale of açaí to non-members; sixteen (16) non-associated riverine farmers, but who were also involved in coordination activities related to these processes; one (01) representative of Association A and one (01) representative of Cooperative C. Furthermore, in the excerpts from the interviews shown in the results of this study, the social actors will be mentioned as: intermediary member; not member: representative of cooperative C and; representative of Association A, followed by the month and year of the interview.

After systematization of the interviews, the qualitative contents were organized into an “empirical, experimental corpus”, interpreted by Discourse Analysis-AD, seeking to “understand the meanings expressed by the subjects through their discourses and clues” (Caregnato & Mutti, 2006, p. 5). The Iramuteq software, developed by Ratinaud & Mar-

chand (2012), was used to analyze the individual and collective textual corpus, comparing the perception of social actors on socio-environmental sustainability through the word cloud. The Actor-Oriented Perspective – AOP, of a theoretical-methodological nature, was mobilized both for the construction and for the analysis of these data.

2. Theoretical-methodological perspective oriented to the social actors involved in the investigation

As the rural world is multifaceted, that is, the individuals and communities that interact in it are heterogeneous, the use of a theoretical-methodological perspective centered on human agency is indicated in rural development studies (Carvalho & Garcez, 2007).

The Actor Oriented Perspective – AOP, which emerged at the Manchester School of Anthropology, in England, in the 1950s, and gained new aspects, in the 1980s, at the Wageningen School, Holland, places the centrality on social actors as the starting point in explaining the differential responses to rural development projects and shows that social actors are not passive recipients of intervention actions (Long, 2001; 2007; Arce & Charão-Marques, 2021). The AOP perceives social actors as those individuals, or collective of individuals, endowed with a collective agency, that is, who have the skills to solve their problems, learn to intervene in the flow of social events, observe the reaction of others and supervise their own actions. (Long & Ploeg, 1994).

Long (2001; 2007), Long & Liu (2009) and Long & Ploeg (1994) mobilize this perspective to understand how social actors, even under apparently

similar conditions or circumstances, act, react, interact and exercise their agency in different ways. In addition, the authors emphasize the impossibility of understanding the actions and reactions of social actors in a homogeneous way, as they have particular knowledge and perform different practices, despite being based on similar principles (Long, 2007). For Arce and Charão-Marques (2021), practices can emerge as influences from the process of globalization or local dynamics, but also because of the interaction between both.

Thus, studying the social actors in the rural environment also makes it possible to understand how external factors (institutional policy interventions, influence of the market and non-governmental sectors) impact their practices in the local context, in negotiations, alliances and territorial conflicts (Arce & Charão-Marques, 2021).

The AOP allows the analysis of social microprocesses without disassociating them from macroprocesses (González et al., 2014). Such an approach opens windows of opportunity for configuring new questions related to the conception of rural development, the structures and rules that are configured by markets that affect sustainability in its most diverse aspects (Ploeg, 2000; Schneider & Niederle, 2008).

One of the most expressive cornerstones of this perspective is the concept of group agency (Long, 2001; 2007). The definition of agency, therefore, is strategically important in the understanding of the meaning of social networks in guaranteeing information, forming opinions and legitimizing points of view (Deponti, 2008). The agency crucially depends on the creation and manipulation of a network of social relationships and the concentration of specific items, such as claims, orders, goods, artifacts and

information, at key points of intersection between different and often conflicting “life worlds”, projects and cultural repertoires (Long, 2001; Long, 2007).

Group agency is not only centered on the social actor's intention to do, but also on the ability to accomplish such things. From this perspective, actors are able to understand what they do, why they do it, when they do it (González *et al.*, 2014). Through their networks of relationships, the actors manifest their agency and also exercise some kind of power, which will give them the ability to intervene in the construction process of development (Ploeg, 2000; Schneider & Niederle, 2008).

In the context of this article, agency is then understood as the driving force behind the construction and consolidation of social relationships, discourses and skills to solve problems between social actors in the rural context. Markets, on the other hand, are like social arenas, subject to relationships and interactions between farmers and other influential social actors in farmer/market relationship networks, such as: intermediaries, associative networks, cooperatives, etc. (Schneider & Niederle, 2008).

In general terms, in this study, the notion of agency contributes to the understanding of the social fields in which social actors are immersed (Long & Liu, 2009). According to Long (2001; 2007), the notion of social field instigates a picture of open spaces, without the prevalence of defined limits, composed of heterogeneous elements (resources, information, technological capacity, structures, etc.) from collective principles. As will be seen later in this text, on Guajará de Baixo Island, the sphere of the social field, related to the commercialization of açai, is marked by several disputes and the predominance of domains of certain social actors.

For Long (2001) and Krueel (2010), the domain is understood as a space where certain rules, norms and central values prevail, which imply a degree of social commitment, shaped through the experiences shared between the actors, and if they are useful for understanding how social boundaries are created. These domains are organized around a central core in which they represent values shared by the social actors involved (Medeiros, 2011), who transform these values through individual or collective intermediation of lived and shared experiences and struggles between the social actors who can exercise their power among other actors within the limits of their domain (Arce & Charão-Marques, 2021).

“Domains” are areas of social life that are organized by reference to a central core. They are spaces that have rules, norms and values that imply a degree of social commitment and represent values shared by social actors. The domains of the family, the market, the State, groups, production and consumption, are some examples (Medeiros, 2017).

In social arenas, actors mobilize their domains in order to achieve specific goals. In these processes, the power relationship between social actors can emerge (Long, 2007). Above all, when projects of different social actors intertwine, control, domination and subordination manifest themselves (Medeiros, 2011). In order to understand the arena, one starts from the assumption that the rural development projects, proposed by the actors, are carried out in specific arenas, where farmers, representatives of the State, agribusiness, the market, etc., with different interests, resources, powers, world views and cultural repertoires are involved (Krueel, 2010; González, *et al.*, 2014).

In this article, the AOP enhances the understanding of the microprocesses arising on Guajará

de Baixo Island, related to the commercialization of açaí, which involves different riverine farmers, intermediaries and representatives of agroindustries, who enhance social interactions in these commercialization processes through the discourses inherent to socioenvironmental sustainability.

3. The constitution of Cooperative C and its activities

The first steps towards the creation of Cooperative C were taken with the arrival of Japanese immigrants in Northeast Pará, in 1929, after a common agreement between the government of the state of Pará and the immigration company Kanegafuchi Bosseki Kabushiki Kaisha (KANEBO), adopted by the Japanese government as a strategy to encourage the migration of Japanese people who did not have land for cultivation and employment in their country of origin (Tafner Junior & Silva, 2011).

The history of Cooperative C states that 43 Japanese families, consisting of 189 people, arrived in the Northeast of Pará and founded the first agricultural colony, on the banks of the Acará and Tomé-Açu rivers, at an approximate distance of 220 kilometers from the capital of Pará, Belém. The preference of the Japanese for the land located on the banks of the Acará and Moju rivers had a strategic reason, as this location facilitates the displacement of their production by river, which at the time was the only means of access to Belém.

Initially, the immigrants intended to occupy the region, working in agriculture, especially the cultivation of rice and vegetables, crops traditionally grown in Japan, and the implantation and management of native cacao trees. Their goal was to produce food for their families and products for the

market. They, who at first aimed at a more restricted production of vegetables, organized themselves and founded a cooperative in 1931 for this purpose.

However, problems arising from the infrastructure needed for the flow of vegetable production and the lack of eating habits of consumption and preparation of vegetables by consumers limited sales. In addition to these limitations, the lack of knowledge of cocoa management techniques by the farmers and, consequently, the incidence of diseases in the plantations, resulting from the edaphoclimatic conditions of the new cultivated lands should be mentioned. In the meantime, poverty and tropical diseases, such as malaria, devastated Japanese families, which led the Japanese from the colonies to abandon the land and migrate to more developed municipalities in the state and to the southeast of the country, in search of work (Konagano, 2014).

For the Japanese who remained in the colonies, adverse problems and poverty were overcome with the introduction of black pepper monoculture, brought from Singapore in 1930 (Konagano, 2014). In the experimental phase, the black pepper was cultivated and obtained, year after year, better results (Junior Tafner & Silva, 2011). However, this culture reached its peak after the Second World War, due to the devastation of pepper trees in Malaysia, Indonesia and India, countries that were the largest producers of this Piperaceae at that time. In order to organize the production of black pepper for sale on the foreign market, in 1949, the Japanese reorganized the vegetable production cooperative and transformed it into Cooperative C, expanding its focus of action.

Through the productive organization facilitated by Cooperative C, the municipality that hosted the Cooperative became the national center for the production of black pepper in the 1950s, and Brazil became the world's largest exporter for the first time of this product, recognized as a “black diamond” for bringing prosperity and wealth to the development of the region and the country (Konagano, 2014). Many peasants from Pará municipalities were attracted to the Japanese Colonies by the ease of temporary work in the pepper plantations. However, according to the representative of Cooperative C:

In the 1960s, with the onset of Fusariosis² in pepper plantations of the Japanese colonies, the plantations were devastated and there was a decline in the production of black pepper, causing a financial crisis that led the Japanese to rethink their way of production (Representative of Cooperative C, Dec/2020).

However, the representative of Cooperative C said that with the greater incentive of social organization, from the 1970s onwards, monocultures were gradually being replaced by productive diversification and the productive systems were based on a component subsystem of the agroforestry system, called agroforestry backyards of the Amazon riverine dwellers (Castro *et al.*, 2007). The very dynamics of the Amazon forest began to guide new decisions by cooperative farmers.

In an increasingly significant way, Cooperative C's actions began to involve the implementation of AFSFTA in the UPF of its members and local family farmers, as well as in other states, such as Amazo-

² Disease caused by fungus *Fusarium* that devastates the roots and stems of black pepper, and in its most advanced stage causes a root collar rot of the vegetable, which reduces the useful life of a crop from 12 to 6 years, due to the capacity of the fungus to self-propagate among plants (Rocha *et al.*, 2016).

nas, Amapá and Maranhão, and countries such as Bolivia and Ghana (Konagano, 2014). According to the representative of Cooperative C, for the consolidation of AFSTA, Cooperative C makes available six technicians to visit the associates' UPF three times a year, to carry out property registrations, production estimates, soil collection for analysis and technical recommendations in crops.

With the installation, in 1987, of a tropical fruit pulp processing agroindustry, Cooperative C annually processes approximately 6 thousand tons of fruit pulp, with 15 100% natural flavors from the Amazon, in addition to cocoa beans, butter made from cupuaçu almonds, black pepper, and excellent vegetable oils of andiroba and passion fruit, from UPFs of the 2,800 registered producers. Only 20% of processed products come from non-cooperative farmers.

For the representative of Cooperative C, the physical-chemical quality of these products is guaranteed by the analyzes in the laboratory of Cooperative C and by organic certification, mainly of the açaí, issued by the certifier of the Instituto de Mercado Ecológico – IMO Control do Brasil. IMO is a Conformity Assessment Body that carries out inspection and audit services for certification in the areas of organic food production and processing, socio-environmental, private organic standards and certification of storage units. It performs national and international certifications by audit (individual or by group of producers), associated with the IMO International Group based in Switzerland. Today, IMO do Brasil is a 100% Brazilian company and has international partners such as CERES Certification – Certification of Environmental Standards based in Happurg, Germany.

Prior to the certification process, technicians from Cooperative C inspect the UPF and monitor them for a period of 1 year. Only after completing these steps, the UPF are certified as organic. All stages, from the technicians going to the field to certification by IMO Control do Brasil in the UPF of the cooperative members, are funded by Cooperative C. According to the representative of Cooperative C, certification allows Cooperative C to add value to the product and reach national and international markets.

This is seen in the following excerpt from the interview:

In 2015, when Cooperative C started selling certified products, the average revenue was BRL 81.9 million, 20% more than in the previous year. It should also be mentioned that Cooperative C employs, directly and indirectly, more than 10,000 people in the municipality where the Cooperative is located (Representative of Cooperative C, Dec/2020).

Also due to advances in the implementation of the AFS of Tomé Açu by the cooperative members, Cooperative C's actions have recently been publicized by the media, as in the report on Globo Rural program, broadcast on April 25, 2021. On that day, the article “the agroforestry systems in Tomé-Açu, in Northeast Pará, which allow producers to have fruit all year round and still preserve nature” (Rede Globo, 2021) gained evidence. The report emphasized Cooperative C's partnerships with different institutions, such as: the Japan International Cooperation Agency – JICA, the Brazilian Agricultural Research Corporation – EMBRAPA, the Federal Rural University of the Amazon – UFRA, the University of Campinas – UNICAMP, the Plan's Executive Commission from Lavoura Cacaueira–

CEPLAC³, Tokyo Agricultural University and Technology – TUAT and Tokyo Agricultural University – TUA. These institutions carry out scientific studies and exchanges, collaborating in adding value to the AFS of Tomé Açu products, through certifications linked to Carbon Credit projects, Environmental Services and Geographical Indication.

In the municipality of Cametá, the partnership between Cooperative C and Association A stimulated the production and commercialization of açai pulp produced by agro-extractivist farmers in the riverine communities of that municipality and significantly influenced the transformation of the landscape, as will be seen later in the analysis.

4. The formation of Association A and its activities

On August 5, 2007, a group of approximately 20 riverine farmers founded Association A. It was headquartered on Cacoal Island and most of the associates belonged to the island. According to Baia (2019), after a period in which the association was managed by two men, the associates elected a woman to that position. This woman managed Association A at the time she was interviewed for this research. The intermediary Member said: *Although most members were men, the first female president of Association A was chosen to manage the Association due to her proactive ability to resolve the current demands of that body* (Intermediary Member, Aug/2020).

In the first years of consolidation of Association A, the demand for açai by local agroindustries doubled, making it necessary to expand the Association also in terms of the number of members. Motivated by this, one of the members of Association A traveled to other islands in the municipality of Cametá, in order to present the Association's proposal to different riverine farmers interested in organizing their production and gaining access to markets.

The effort of this resident of Cametá led to the adhesion of more associates, and the inclusion of new members from different islands influenced the decision to transfer the headquarters of Association A from Cacoal Island to another island, in Cametá, which is its current headquarters. In the excerpt from an interview with a representative of Association A, the reasons for choosing the current island for the location of the headquarters are mentioned:

The headquarters of Association A was located on the current island because the community there has always been as supportive of Cooperative C as it is of Association A. They lend the community shed for meetings and provide people to prepare lunch, when necessary. In addition, the island is located in the center of the archipelago of islands of Cametá, facilitating the movement of members from other islands to the headquarters of Association A (Representative of Association A, Dec/2020).

From the selection of the first manager of the Association until the 2020 management, submission

³ The creation of CEPLAC was a government plan for the economic-rural recovery of cocoa farming, established by Decree 40,987, of 02/20/1957, for the execution of a government policy, supported by the then Minister of Finance, José Maria Alkimin, with emergency measures to help producers face a series of difficulties arising from the sharp drop in Brazilian cocoa production and productivity. The activities of the Executive Committee of this plan were regulated by Decree 41,243, of 04/03/57, and thus CEPLAC was created, in a moment of crisis, to support the producers (CEPLAC, 2021).

of personal documents and land documents was mandatory for the registration of the members. Land documents were necessary to prove that the citizen was a riverine farmer, belonged to the floodplain ecosystem (island) and was an açai agro-extractivist producer. In 2020, Association A had 35 members from Cametá, 85% men and 15% women, from different rural communities.

The high percentage of male members of the Association in contrast to that of women can be explained by the fact that men are considered by their relatives to be the “heads of the family”, who are responsible for negotiations and discussions related to Association A, even though the entire families get involved in the production of açai (Baia, 2019). Thus, during the interviews, 100% of the main informants were male “heads of household”, as recommended by the family nucleus, which also had the opportunity to add any information that had not been provided by the main informant.

From the founding of Association A until 2009, the main buyers of agro-extractive açai from its members were the following agroindustries: Açai Santa Helena, Xingu Fruit and Petruz in Castanhal-PA, Açai VITANAT and Sabor Açai in Igarapé-Miri-PA.

5. Coordination between Association A and Cooperative C for the commercialization of organic Açai produced under agroextractive management by farmers from Baixo Tocantins

According to the representative of Association A, in 2008, the then manager of this Association, responsible for accessing new markets for the members, noted the presence of representatives of

cooperative C in Cametá. These representatives were looking for formal social organizations, suppliers of açai produced under agro-extractive management. Thus, the partnership between both social organizations was consolidated that year. However, according to the representative of Association A:

The members of Association A were evaluated for about 3 years by the manager of Cooperative C. The purpose of the evaluation was to verify the observance of the principles required by cooperative C for members to be able to provide açai produced under agro-extractive management for cooperative C (Representative of Association A, Dec/2020).

Meanwhile, the coordination between Association A and Cooperative C was formalized through a cooperation and certification agreement of the members of Association A as organic producers. Through this partnership, the sale of açai produced by members of Association A to Cooperative C was guaranteed.

In 2010, Association A began to organize the production of açai of 40% of certified members as organic producers with IMO Control do Brasil, through institutional level certification, which facilitated the delivery of production to cooperative C, while that the production of the other 60% of conventional producers was sold to agroindustries that process the fruit pulp. This partnership between the two social organizations allowed that in 2020, of the 35 members of Association A, 31 (90%) became organic producers. This process was going on until 2020. A representative of Association A said: *Some producers follow the guidelines, others do not always do what is correct, which is why not all members are registered as organic producers (representative of Association A, Dec/2020).*

This high certification rate was due to Cooperative C's efforts to ensure that all agro-extractive açai production provided by the UPF of Association A members was organic. Açai pulp processed and exported by Cooperative C includes the organic seal on the package and, therefore, certification standards must be strictly followed. In addition to açai, the members of Association A began to supply other products, although conventional, to Cooperative C. In 2020, the following products were supplied: andiroba almonds, ucuúba (*Virola surinamensis* (Rol.) Warb.), murumuru (*Astrocaryum murumuru* Mart.) and cocoa.

In these processes of organization and commercialization of agro-extractive products of the riverine farmers of the Northeast of Pará, Association A and Cooperative C have a decisive influence in the construction of sustainability perspectives in this territory. In activities such as field days, technical visits, workshops, lectures and seminars, among others, Cooperative C technicians guide the dynamics of its members' production systems and, consequently, also of the members of Association A.

In this context, the agencies of social actors are strongly materialized with discourses and practices around socio-environmental sustainability that gain evidence with the greater involvement of these actors with Association A and Cooperative C. The representative of Cooperative C said the following about the consolidation of the partnership between the organizations in the municipality of Cametá: *Cooperative C has promoted awareness of the importance of AFS in the UPF of the members of Association A, with regard to the Brazilian Forest Code* (Representative of Cooperative C, Dec/2020).

For the representative of Cooperative C, the idea of incorporating AFS of Tomé-Açu into the

UPF of the cooperative members involves adaptations for each ecosystem reality (upland and floodplain), a context that marks the distinctive feature of AFS. Cooperative C provides cocoa seedlings to be planted in consortium with açai palms, in a floodplain ecosystem, for the members of Association A. The representative of Association A adds:

Due to the appreciation of açai, farmers left aside other products, such as cocoa, which was undervalued by producers. Thanks to the seedlings donated by Cooperative C and to technical support, we are encouraging members to produce cocoa in consortium with açai (Representative of Association A, Dec/2020).

According to an intermediary member of Association A, the existing cacao trees in its UPF were removed in the 2000s for the expansion of açai groves, and Cooperative C has encouraged the recomposition of this diversity, which also provides varied sources of income. The following excerpt from an interview shows how Cooperative C also began to encourage members of Association A in cocoa production:

I cut down the cacao trees in my forest to make room for the açai grove. At the time, I was not yet a member of the Association A. Today, after the lectures and guidance from Cooperative C technicians, I recognize that I made a mistake in removing the cocoa trees and other trees. To reverse this loss, I am replanting the cocoa seedlings given to me by Cooperative C (Intermediary member, Aug/2020).

Association A, in partnership with Cooperative C, by mobilizing communities through discourses on sustainability and the materialization of certain related principles, has been stimulating critical reflection on the limiting factors of growing monocul-

tures or processes of interference in the biophysical environment that do not guarantee the maintenance of the agricultural activity in the same location over the long term.

According to the representative of Association A and the representative of Cooperative C, events that bring together different farmers, including associated riverine farmers from Guajar de Baixo Island, are held annually. These events are open to the public, i.e. members and non-members can participate, although most participants are members that live on the island where Association A is headquartered, which is where the events are held.

Regarding the management of a groves, during the lectures, experts of Cooperative C report to the participants about ideal practices, what should and should not be done in the management. This is highlighted in the following excerpt from the interview with the representative of Association A: *The experts advise that management should not remove all trees from the middle of the a grove, but rather try to diversify. During the fruit harvest period, around 20% of the production should be left for animals* (Representative of Association A, Dec/2020).

Regarding the members, Cooperative C, with the mobilization of a collective agency, through its experts/technicians, has influence on the change of opinions of the members of Association A on how to manage a groves.

Gonzlez *et al.* (2014) state that collective agency is perceived in the heterogeneity of the networks of social actors regarding the understanding of the reasons for making such decisions. If this reflection is transposed to the analyzed context, it can be seen that the consolidation of the collective agency of members of Association A facilitated

their perception of the importance of incorporating sustainable practices in ecosystem management. This perception is materialized in the adoption of the AFSTA as an instrument for the recovery of areas previously affected by intensive management in a groves. While for some non-members the most important thing is to invest exclusively in the production of a to generate profit from the sale, for these members the socio-environmental issue guides their decision-making on agricultural issues.

It should be mentioned that the members of Association A who adopted the AFSTA proposal stopped producing exclusively a, diversifying their productions, which generate income all year round. From January to July, they sell andiroba, murumuru, ucuba and cocoa, and from August to December, they sell a. Therefore, in addition to their income, they guarantee security and food sovereignty for themselves and their families.

Every year, Cooperative C sends a tax auditor to analyze the documentation and receipts of Association A, and check members as to whether or not they comply with the legal requirements established by the social organizations. Strict supervision guarantees the origin of UPF organic a from riverine farmers who are members of Association A. The excerpt from the interview with the representative of Association A highlights the report of a punishment for a member who failed to comply with the organic production rules that must be observed for certified a:

In 2014, on the eve of the a harvest, during a technical visit, the inspector of Cooperative C caught an organic producer with an accumulation of garbage on the land, failing to comply with one of the requirements of Cooperative C, [based on Normative Instruction No 64, of December 18, 2008, followed

by IMO Control do Brasil], which resulted in the suspension of the supply of açaí from produced by that member to Association A, during the 2014 harvest (Representative of Association A, Dec/2020).

Despite the strict supervision exposed by the respondent, in the field, dissent can also be found in the process of organic guarantee of the entire production of açaí marketed as such by Association A, as will be further explained below.

6. What are the types of sustainability resulting from these processes?

The members of Association A have varied knowledge about sustainable modes of production, which is reinforced by participation in the interaction spaces promoted by the organizations. Below are excerpts from interviews with intermediary members about their understanding of sustainability:

For me, sustainability is preserving, maintaining my forest with diversified crops, avoiding cutting down all the trees, always leaving vegetation available on the banks of the river and the stream [riparian forest], all the forest is useful for us, for the animals, even to the plant itself. These leaves that fall from trees can be used as manure [organic matter], and the açaí grove needs these nutrients. Therefore, sustainability involves taking care of nature so that we also benefit from it (Intermediary member, Aug/2020).

Cooperative C and Association A teach us that sustainability means preserving. Do not cut down the trees on the banks of the river and the stream, on our land we should not use the chainsaw or the ax and destroy what is there, it is not right to do that, because this will harm both us and the birds, animals, the trees [...] (Intermediary member, Aug/2020).

I understand that sustainability means preserving nature's resources through the management taught to us by Cooperative C. When I was not a member of Association A, I did not know that all components of nature are important to maintain sustainability [...] Preservation is necessary because it's not just us who need to live, the animals, the birds also need this vegetation to live (Intermediary member, Aug/2020).

Through the interviews, with the aid of Iramuteq software, categorization of the most frequently used words in the discourse made by the interlocutors was analyzed, as shown in Figure 1. When social actors: intermediary members (Figure 1, Panel A), non-members (Figure 1, Panel B), representative of Cooperative C (Figure 1, Panel C), and representative of Association A (Figure 1, Panel D) were asked regarding their perceptions about sustainability, specificities were perceived, but also contradictions.

In the discourse made by intermediary members, the most frequent word is “preserve”. These riverine farmers who are members of Association A and attached to Cooperative C realize the importance of each component of the ecosystem and externalize this perception in their discourses and practices. For them, the preservation of species gains importance because it is related to sustainability, since it provides them with income and promotes sovereignty and food security. Excerpts from interviews with intermediary members corroborate this analysis: *If we go into the forest and cut down the trees, the birds will disappear, the stream will dry up, fish and shrimp stocks will be depleted, so the right thing to do is to preserve and maintain the vegetation [...] diversification is a way for us to guarantee food and income [...] Intermediary member, Aug/2020). If we cut these sticks what is*

happening happens, the climate is very inclement, changing every year, that is why we must diversify and maintain the vegetation, because it gives us food, it gives us income (Intermediary member, Aug/ 2020).

It can be seen that the organizations Association A and Cooperative C, through the mobilization of collective agency, materialize their sustainability discourse in devices such as AFSTA, in the dialogues between members and technicians, in courses and in technical support in the UPF of associated riverine farmers. However, the inconsistencies

between the sustainable discourses of these organizations and the praxis concern the materialization of the processes surrounding the commercialization of açai.

Association A's guidelines for its members on the administration and recording of harvested quantities, handling, harvesting and packaging of special (organic) açai fruits, which are supported by Cooperative C and the certifying entity, end up being restricted to a product that is mixed with another product that does not follow the same guidelines.

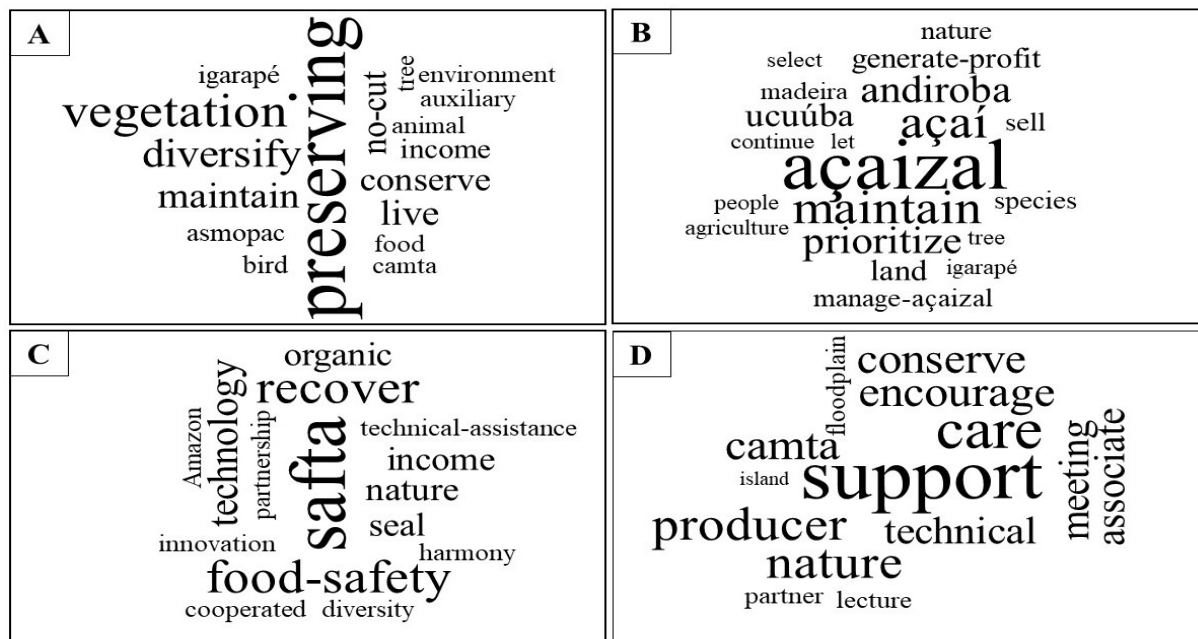


FIGURE 1 - Word cloud that shows the perception of sustainability by social actors working in the production and sale of açai in the municipality of Cametá, Pará, Brazil. Panel: A- intermediary members; B- non-members; C- representative of Cooperative C; D- representative of Association A. Words extracted from interviews carried out in the field, in 2020.

SOURCE: elaborated by the authors using Iramuteq software, with data from field research, 2020.

Since some members act as intermediaries, that is, they acquire açai production from UPFs not correlated to Cooperative C or Association A, part of the açai passed on as organic to Cooperative C comes from conventional producers. This is stressed in the following excerpt from an interview with an intermediary member:

I buy most of the açai that I take to Association A at the “beiradão” of Guajará de Baixo, Guajará de Cima, Costa do Guajará, Itapupana and Bituba Islands. Then I deliver this açai together with a smaller part taken from my açai grove. However, if I remove 10, 20, 30 cans⁴ from my bush, I have to record this, and then at the end of the harvest, I count the total number of cans and submit them to Association A to be included in the audit (Intermediary member, Aug/ 2020).

When three members of Association A who adopted this practice were interviewed, it was possible to understand that this strategy aims to increase the amount of products destined for Cooperative C. The intermediary members resort to açai production from non-associated conventional producers because the demand required exceeds the quantity produced in their UPF.

The management practices used to expand açai groves, in an attempt to increase production in the UPF of riverine farmers, have reduced biodiversity, failing to comply with Article 3, of Normative Instruction No 64, of December 18, 2008, which establishes that organic production systems should seek:

I– the maintenance of permanent preservation areas;

II– the mitigation of anthropogenic pressure on natural and modified ecosystems; and

III– the protection, conservation and rational use of natural resources.

According to an intermediary member of Association A, any other member can act as an intermediary, as long as they have their own vessel to collect cans of açai from “port to port”⁵ from non-member riverine farmers, because Association A does not have a means of transport for the production of the members. In this practice, intermediary members are motivated by the profit margin that is around BRL 2.00 to BRL 5.00 per can/14kg purchased from a non-member riverine farmer, after the sale to agro-industries.

The collective agency of intermediary members has been driving significant changes in the context of Guajará de Baixo Island. The networks of relationships promoted by Cooperative C to intermediary members of Association A reflect on a field of domains in the social arenas that are configured in access to markets for the production of açai by riverine farmers that are not members. In these spaces, new social actors emerge, such as intermediaries. These have no connection with Association A, but pass by the homes of riverine farmers daily to purchase their production.

These social actors, mobilizing specific discourses, appear in the social arenas of açai commer-

⁴ Utensil in the shape of a basket, handcrafted by riverine dwellers with raw material from arumã fiber (*Ischnosiphon ovatus*) and jacitara (*Desmoncus orthacanthus* Mart.), a plant species present in the Amazon floodplains. This utensil used by intermediary members in the purchase of açai has a holding capacity of 14 kg of fruit, a standard measurement of 1 can.

⁵ It is located in front of the residences, on the river bank, usually the port consists of a bridge and a staircase, which facilitates the movement of riverine farmers and cargo between vessel/residence.

cialization in order to influence açai management practices of non-associated riverine farmers, which, in turn, changes the local reality as a whole. Corroborating the analyzes by Kiyota *et al.* (2012), it is clear in this context that social actors use strategies, linked to their agencies, in the construction of social relationships with other social actors in the local context of work and life projects.

Although competition between intermediaries and intermediary members is constant in the purchase of açai from riverine dwellers that are not members, in many cases, including those analyzed by Schneider & Niederle (2008), peasants are influenced in their choice of sale by several factors, such as best offer, the friendly relationship with the intermediary, market demands, among others. In Guajará de Baixo Island, riverine residents usually decide which intermediaries they will sell açai to depending on their friendship, as the price offered per can does not vary between them. Preference is given to intermediary members, as they reside on Guajará Island and have a greater bond of friendship with riverine residents, unlike intermediaries who come from other islands. The production purchased by intermediaries and intermediary members is taken to a ramp on the right bank of the Tocantins River, known locally as “Porto da Balsa”, located in the village of Carapajó, where the intermediaries and intermediary members unload the açai production.

There, the production purchased by intermediaries is passed on to representatives of the agro-industries and the açai purchased by intermediary members and the production of other members of Association A are organized in the warehouse of Association A to be passed on to Cooperative C. On the same day, the Cooperative C truck with the

loaded cargo heads to the agribusiness headquarters to process pulp to be exported.

For the representative of Association A, the advantage of this partnership between social organizations is, above all, the access to markets made possible by Cooperative C, which exclusively purchases açai from members of Association A in the municipality of Cametá. In this context, it is the collective agency of associated actors that allows such interaction and connection with the markets. Bonds of trust are essential for the partnership between Cooperative C and Association A. However, the tricks used by intermediary members to purchase non-organic açai may result in a breach of this trust. Moreover, the impossibility of non-members to trade directly with the social organization contributes to the maintenance of the power exercised by intermediary members over non-members in the commercialization of açai from Guajará de Baixo Island.

The possibilities for access to markets by social actors are directly linked to biodiversity management practices. . It should be stressed that non-members manage açai groves differently from the type of management used by members, although the final destination of the product is the same: Cooperative C. Then, the discourses of the associates are mobilized to also include dissent about the sustainability of the commercialization of açai, within the scope of praxis.

In the analysis of the perception of non-members riverine dwellers regarding the term sustainability, it is clear that there is greater discomfort in providing an answer to the question raised. When asked about the meaning of the term, some riverine dwellers did not respond, claiming they did not know what it was about. Following are statements

made by some of the respondents who answered the question: Maintain the productivity of the açai grove to generate profit for us and select some trees, mainly timber trees that are profitable for us, such as ucuúba, andiroba, so that we can have a profitable crop (Non-member, Nov/2020). Manage the açai grove to produce açai in winter and summer, and generate profit from sales (Non-member, Dec/2020). Expand my açai grove, leaving some trees to obtain future sales, because we need the money (Non-member, Sep/2020).

According to the perception of these non-members, sustainability is materialized in the continued expansion of açai groves for the sale of açai and in the selection of wood species, such as ucuúbeira and andirobeira, to be sold in logs, in local sawmills, in order to generate profit. The discourses materialized in the management practices of açai groves of greater intensity show that economic sustainability is getting more important. The non-participation of non-members in the spaces of knowledge construction promoted by Association A and Cooperative C reflect on the practice of intensive management of açai groves, contradicting the discourse that the açai pulp produced by Cooperative C comes from UPF that prioritize the AFSTA.

Thus, non-associated riverine dwellers claim that the difficulty in combining economic gains and environmental conservation is precisely the lack of technical monitoring and training in more sustainable management of açai groves. Of the non-members, 87% have never participated in training and lectures, and, therefore, management is based on their own experiments and knowledge. The headquarters of Association A, where technicians of Cooperative C give lectures open to the public, is approximately two hours away from Guajará de Baixo, by river.

An interesting aspect to consider is that intermediary members, in their interactions with non-member açai suppliers, replicate the knowledge and practices acquired in the lectures, as shown below: *What I learn about preservation I also pass on to other people, from whom I buy açai* (Intermediary member, Aug/2020). *When I go out to buy açai, we talk and I always speak about the importance of preservation* (Intermediary member, Aug/2020).

According to the representative of Cooperative C, with regard to the perceptions of sustainability by organizations' leaders, the Cooperative materializes sustainability with the propagation of AFSTA in the UPF of cooperative members and peasants throughout the Amazon. This is achieved thanks to constant inspection, monitoring by the UPF of organic products and technical assistance, as shown in the following excerpt from the interview:

For Cooperative C, sustainability means transforming the properties of cooperative members into productive establishments, in harmony with the logic of nature. To make this happen, Cooperative C uses AFSTA technology in these properties, provides technical assistance and constantly monitors the establishments. The result of this is production, food security, year-round income, and sustainability of nature [...] (Representative of Cooperative C, Dec/2020).

The discourse of the representative of Cooperative C reflects on the actions of Cooperative C employed in the UPF of cooperative members and members of Association A. For Kruehl (2010), collective agency has the ability to intervene in the practices of social actors, and can model and remodel the structures of the domains.

Cooperative C has a positive influence on several aspects of sustainability in the UPF of

Association A members, including the economic aspect, which is achieved when Cooperative C provides income to members through the purchase of its products. The scope of the environmental dimension is perceived in the presentation and in the consolidation of AFSTA. The social dimension is seen in the offer of AFSTA products for family food security and with the implementation of sustainable projects in the UPF of Association A members and at the headquarters of Association A, which are also useful for non-members. However, in 62% of non-member UPFs there is low productive diversification, and income is basically generated from August to December, during the açai harvest, which does not match the objectives of the AFSTA and the speech of the representative of Cooperative C. As previously mentioned, it is in these spaces of praxis that the limitations of the concept of sustainability constructed in the organizations' discourses are perceived.

For the representative of Association A, the sustainability is understood as: *Supporting producers and encouraging them to preserve and care for nature, in accordance with the recommendations that are passed on to members by technicians from Cooperative C* (Representative of Association A, Dec/2020).

The responsibility for supporting the materialization of sustainability among the members of Association A is attributed to Cooperative C and not necessarily in a partnership between the two organizations, as indicated in the discourse. For the representative of Association A, sustainable principles are disseminated by Association A to members, with the support of Cooperative C, which provides technicians to hold lectures, meetings and encourage the conservation of the floodplain ecosys-

tem. However, in practice, what we see on Guajará de Baixo Island, a location where riverine farmers work daily on açai harvest with the intermediary members of Association A to sell the production, is a predominantly homogeneous plant landscape, formed mainly by açai palms.

Thus, the richness of the floodplain ecosystem, such as fruit trees, fish, shrimp, birds, wild animals, a diversity that was once abundant, has been greatly reduced. The reasons for this include the clearing of vegetation to expand açai groves, associated with the production of fruits to supply the market.

Amid advances and setbacks on the path to sustainability, other projects are implemented through partnerships between social organizations. In terms of protection against contamination by Covid-19, thanks to the coordination made, in 2020, an alcohol gel totem was installed in the community shed on the island's headquarters of Association A, where meetings and lectures are held, and face masks and alcohol gel are distributed to the members. Before the açai harvest, when social organizations bring together members and non-members in the community shed to provide guidance on good practices for harvesting the fruit, basic food baskets were distributed to member families.

In July, on the eve of the açai harvest, açai harvesting kits (basket, tarpaulin and gloves) were also distributed by Cooperative C to members of Association A, to improve the quality of the harvest of biodiversity fruits.

No less important, the "ecological bathroom" project, which began in 2020, with the installation of 2 bathrooms in the homes of Association A members, aims to reach all members. The bathrooms were built with resources from the partnership between Cooperative C and the government of Ja-

pan. Furthermore, the “treated water” project was implemented on the main island of Association A, to meet the demand of members and non-members of the community and surrounding islands, as the riverine communities of Cametá do not have a drinking water supply system.

Thus, sustainability conceived by organizations occurs in different ways in the analyzed context, albeit with limitations and certain inconsistencies in the discourses. However, it is clear that riverine residents directly linked to social organizations benefit most from the organizations' sustainable actions, while non-members benefit partially from some projects.

7. Final considerations

Cooperative C disseminates sustainable practices with the implementation of the AFSTA device in its members' UPF. Therefore, Association A, in partnership with Cooperative C, plays a key role in guiding sustainable practices in the Northeast region of Pará, specifically, in the floodplain ecosystem, in the municipality of Cametá – PA. The perception about socio-environmental sustainability is most evident in the discourses of intermediary members of Association A who participate in meetings and lectures given by representatives of Cooperative C. This reinforces the understanding of the role of consolidating discourses in training arenas encouraged by organizations. Sustainable principles are accessed by riverine farmers when these are actively included in social organizations, as they are guided by the conservation of natural resources included in the development projects of these organizations. Through social organization and the diversification

of agroextractive productions, these farmers achieve food security and sovereignty, as well as economic growth, due to easier access to markets for the commercialization of their products.

However, the materialization of the discourse of the representatives of the organizations shows distortions, as it is clear that not everyone involved in the production of açaí sold to Cooperative C is included in the sustainability concept of these organizations. This is reflected in the UPF management practices of non-associated riverine farmers and in the dependence on a single product of interest to the organizations linked to income generation, the açaí. These inconsistencies are more visible when one realizes that non-members are not included in meeting spaces and in the possibility of selling açaí production directly to Cooperative C. Therefore, the materialization of discourses and practices coordinated with social organizations does not reach the UPF of non-members on Guajará de Baixo Island, which can be perceived in the lack of knowledge of most of these farmers about the activities of social organizations and about the word sustainability. The fact that açaí intended for a specific market accessed by Cooperative C must bear the organic seal on the package is yet another obstacle to be overcome by non-member riverine farmers in Guajará de Baixo.

In general, this article paves the way for new research more linked to non-associated social actors, to understand what leads them to move away from social organizations. AOP and discourse analysis are theoretical-methodological instruments that enhance the analyses carried out, as well as future analyses. For example, in other arenas in Baixo Tocantins, one can approach the discourses of social actors involved in social fishing organizations to verify whether in fact the discourses of the

organizations' representatives and the sustainability devices are consistent with the practice of sustainable fishing in the communities where such social organization operates.

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