

Bonding and Bridging Practices for Accessing Public Policies for the Local Sustainable Development of Traditional Communities in the Brazilian Amazon

Eugenio Avila Pedrozo^{1,2}, Mariluce Paes de Souza¹, Theophilo Alves de Souza Filho¹, and Tania Nunes da Silva²

1. Federal University of Rondonia, Brazil

2. Federal University of Rio Grande do Sul, Brazil

Abstract: The Amazonian context is marked by its biodiversity and socio-cultural diversity. The extraction of the Brazil Nut is a mobilizing product and generates work alternatives and represents one of the main sources of income generation for the Amazonian forest communities. In this context, besides the need for specific public policies, there are several organizations that work with the processing and transformation of the nut, adding value, producing a variety of products, for commercialization at local, regional, national and even international levels. Some of these organizations, such as those of the third sector, which include the extractive industry, public agencies, non-governmental organizations, among other partners, build strong ties of cooperation that can be seen as social capital, favoring local development, which leads to the following question: What are the bonding and bridging practices for accessing public policies for the local sustainable development of traditional communities in the Amazon? The general objective is to identify bonding and bridging practices for accessing public policies in favor of the development of traditional communities in 6 Amazonian communities, each one in a different Amazon state. This is a qualitative research of a descriptive nature. The subjects are the individuals, organizations and institutions articulated in the communities. The primary data come from interviews conducted by applying a semi-structured questionnaire. As a result, it is found that communities need support for implementing their actions, which requires transition activity from a vision of chains to a broader network, based on bonding and bridging social capital, while interfacing with public policies.

Key words: bonding social capital, bridgingsocial capital, local development, extractivist communities, Brazil nut

1. Introduction

The collection of the Brazil Nut is one of the main sources of work and income generation for many communities living in the Amazon forests, which organize themselves to extract the fruit. Several organizations work with the processing and transformation of the nut by adding value and producing a diversity of products to sale in differentiated markets. Some of them, like the Third Sector organizations, privilege a characteristic performance in the context of the Amazon Region,

drawing attention for its history of actions, as it includes the extractive industry, public agencies, non-governmental organizations and other partners, with strong ties of cooperation for the local development of their communities [1]. However, these activities can be done while continuing to meet the imperatives of sustainable development.

The chain also relies on Third Sector organizations, which include the extractive industry, public agencies and non-governmental organizations; and cultivate, within the communities, strong ties of cooperation and connection between their residents, corresponding to the concept of bonding social capital, but with limitations in the capacity to include new agents

(stakeholders) in their relations, a situation that corresponds to bridging social capital, which, when considered synergistically, can favor local sustainable development [2].

Local development is an endogenous process registered in small territorial units and human groupings, capable of promoting economic dynamism and improving the quality of life of the population in a given context. It represents a singular transformation in the economic bases and social organization at the local level, resulting from the mobilization of society's energies, exploiting its specific capacities and potentialities [3].

The current trend in thinking and planning development is to endow it with a more human character in the sense of considering the human being simultaneously as subject and beneficiary. Local development while respecting citizenship is possible through the strengthening of coordinated actions between society and the public power, through participative and democratic processes, aiming at the achievement of the social, economic, political and cultural well-being of a given place [4].

The true differential of local development is not in its objectives of well-being, quality of life, endogeneity and synergies, but in its attitude towards the community [5]. Only proximity can allow for the manifestation of sensitivity relative to the identification of problems and solutions, since these aspects may differ from one place to another, or from one region to another. Thus, development refers to a convergent strategy that seeks to catalyze efforts in order to promote interaction between the different local, regional and national powers, with the effective participation of society in its different sectors [4].

The notion of local economic development highlights the territorial values, identity, diversity and flexibility that existed in the past, in forms of production with general and local characteristics of certain territories [6], favoring the discussions on organizational strategies focused on the local context,

although this author focuses only on economic development.

In this sense, the social capital is very important as a primary indicator of a community's capacity to engage in sustainable development [2]. They understand that social capital can have effects that can hinder and facilitate this process. The authors suggest that an individual or group should be allowed the freedom to increase access to other critical forms of capital to overcome obstacles and solve problems. They present the concept of bonding social capital constituted by strong network ties, being negative if there is excess, as it can lead to the application of social standards that impede innovative change. And the concept of bridging social capital, constituted by a network of weak bonds, is seen as a benefit, as it allows actors to make critical social changes.

The use of the acting capacity of the actors, who can be active or mobilizing, allows an individual or group to access other critical forms of capital to overcome barriers and solve problems. However, bonding social capital (affective/friendly/permanent bonding) can be negative when the strong bonds of networks are excessive because they reinforce the social standards that hinder innovative change. Bridging social capital consists of networks of weak bonds that can become a benefit that allows actors to confront diversity, and this can lead to critical social change. Communities constitute a combination of social bonding and bridging [2].

Due to Amazon's regional characteristics already mentioned, the general objective is: to identify bonding and bridging practices, of social capital, for accessing public policies in favor of the development of traditional communities dedicated to the Brazil Nut extraction. The specific objectives are (1) to identify the relationships practiced in the communities; (2) to establish comparisons of bonding and bridging practices among the traditional communities dedicated to the Brazil Nut extraction. The choice of 6 communities in 6 states of the Amazon, described in

materials and methods, is justified for participating in the research project on community organization, under execution by the authors, of the National Council for Scientific and Technological Development (CNPq), named “Change in the route of Brazil Nut: organizing sustainability the traditional communities based on Macromarketing”.

2. Material and Methods

This is a qualitative survey with field research and data collection based on interviews. With a descriptive objective, the analysis of phenomena identified in the extractivist communities is made, highlighting the organization and interaction among the agents involved in the communities.

The universe of the research is the Productive Chain of the Brazil Nut in the communities of six states of the North Region of Brazil, being: Porongaba (Brasiléia/Acre); Água Branca (Laranjal do Jari/Amapá); Ilha Verde (Lábrea/Amazonas); Andirobal (Óbidos/Pará); Cacoabe (Roraima); Ponta do Abunã (Porto Velho/Rondônia) (Table 1). The subjects are the social actors, considered as active agents, who relate in the arrangement, individuals and organizations. The data is primarily collected with semi-structured interviews, as well as in secondary databases, collected throughout the development of the research project.

The analysis focused on the relationships established between the actors of the extractivist communities and the agents aiming at local development. The marketing of the Brazil Nut was the

main annual seasonal economic activity of the communities surveyed.

The following were visited: 6 states, 6 municipalities and 14 enterprises, and 56 interviews were conducted, with some social actors being interviewed up to three times in order to confirm or review the preliminary results of the analyses of the first visits made.

3. Results and Discussion

3.1 General Characteristics of Extractivist Communities

The communities in the Amazon have as characteristic forms of organization that bring together diverse agents articulated in economic, political and social activities. The Brazil Nut Extraction Productive Chain constitutes one of the alternatives for work and income generation for the entire Amazon Region. Besides the extractivist who collect, break and store the nuts, this chain is composed of several organizations, industrial plants that process and transform the nut, adding value and producing a variety of products, for commercialization at local, regional, national and even international level.

In the face of all the phenomena that can be evidenced in the Amazon, research can relate theory to practice in traditional communities that are sustainably organized, and that are part of a little known scenario of science, politics, economy and Brazilian society.

The Brazil Nut Tree is a plant that is present throughout the Amazon Biome, and its extraction is done mainly in primary forests, with main incidence in the states of Acre, Amapá, Amazonas, Pará, Roraima and Rondônia, known as Arco Norte. It is exploited for commercialization in natura or industrialized. The largest Brazil Nut producing states are Amazonas, Acre and Pará [1].

The Brazil Nut Tree (*Bertholletia excelsa*, H.B.K), is also found in the Amazon areas of Bolivia, Colombia, Guiana, French Guiana, Peru, Suriname and Venezuela. Bolivia is the world’s largest

Table 1 Extractivist communities research focus.

No.	Community	Municipality and State
1	Água Branca do Cajari	Laranjal do Jari - Amapá
2	Andirobal	Óbidos – Pará
3	Caroebe	Roraima
4	Ilha verde do Rio Ituxi	Lábrea - Amazonas;
5	Ponta do Abunã	Porto Velho - Rondônia;
6	Seringal Porongaba	Brasiléia – Acre

processor and exporter, responsible for supplying 70% of the world market [7]. This country also shows considerable performance in the processing of almonds due to a cluster formed of modern industries in the cities of Cobija and Riberalta, processing the production coming from the Departments of Pando and Del Benin, both located in the Bolivian Amazon.

This article presents bonding and bridging practices in a dynamic context that relates and articulates with extractivist collectors, entrepreneurs, public agents, traders of productive inputs and processed products from the extractivism of the Brazil Nut, actors who seek to promote local development.

A common characteristic of the communities studied is that almost all of their residents have a plot of land in the Extractive Reserve under their care, to exploit under certain rules established by environmental control agencies. An exception is the indigenous community of Ilha Verde do Ituxi, located in the municipality of Lábrea - AM. Besides being able to develop small cassava farms for the production of flour, beans, corn, watermelon and other subsistence crops, they can breed animals and deforest up to 10% of the area. Therefore, small activities to be used in the subsistence of the family and generate some surplus.

In other communities, for example, in Caroebe - RR the Nut Tree areas are not in extractive reserve, they are within the property of farmers who obeyed the law and respected the legal limit for deforestation. However, the areas of the Wuai-Wuai indigenous people of Caroebe/RR are reserved for them as they are indigenous lands. There is a lot of *Bertholletia excelsa* in the whole area of the reserve, besides other species. In Andirobal, municipality of Óbidos - PA, there is a small area of just over 100 hectares considered "patrimony". Each senior resident and his/her family were entitled to a fraction of this land. However, most of them live in the small village where there is a school.

3.2 Relationships in the Communities

Recognizing the existing technological

backwardness, it is understood that the insertion of an alternative technological standard should consider the local tacit knowledge acquired by the extractivist community, as their processes include innovative practices on how to best preserve biodiversity. It seems that the great challenge for effective sustainable development in the Amazon is the level of the economic performance of the production of non-productive forest origin compared to conventional systems of exploitation.

In this context is the Brazil Nut, which constitutes an important opportunity for rational exploitation of resources in the states of the Amazon's Arco Norte. The exploitation, while targeting only the subsistence needs of local populations of relatively low population density, did not cause risks of depredation or genetic erosion. When specialized demands in organized markets began to increase, a process of species extinction or, at least, the disappearance of part of the genetic heritage of the most sought-after species began in some cases.

What seems to be able to restrain this practice is the existence of organizations with several organizational formats acting in a network, having as link a certain productive activity, once these organizational arrangements exist to give sustainability to the productive activity itself. Inserted in these arrangements, the so-called social organizations that form a very heterogeneous universe stand out, composed of organizations of different kinds, with their own organizational structures, such as: NGOs, cooperatives and associations. They are characterized as non-profit organizations, with no ties to the government (so they are called non-governmental). Their activities are aimed at meeting the needs of grassroots organizations, thus complementing the actions of the State [8].

It is visualized that the community organization has several purposes, as they congregate people interested in acting collectively, carrying out tasks with a purpose for a common activity. However, it is

essential to identify the principles and practices of social organizations, such as: cooperation, solidarity, collective and shared management, education for the exercise of citizenship, teamwork, entrepreneurship and coexistence with various forms of work organization.

Much of the organizational reality, both formal and informal structures, in addition to budgetary practices and decision-making, is based on myths and ceremonies [9]. This is a recurring type of relationship in communities, but it is necessary to understand why these structures and practices, which move over time, can be legitimized or how broader social environments manifest themselves and are practiced within these organizations. The same authors stress the primacy of institutions (values, concepts and culture) in their causal relationship with organizations, which is the main difficulty in the relationship of community actors with agents outside their daily lives.

Organizations are increasingly subject to conflicting demands imposed by their institutional environments [10]. The authors defend the idea that organizations should develop strategies as responses to such situations, once communities answer to the influences of contradictory views of stakeholders in the search for an appropriate course of action.

The analysis of the results shows that communities respond to institutional pressure, most of the time, with acquiescence, avoidance and by being manipulated by external agents [11]. However, they rarely make commitments and accept challenges, a factor that corroborates the assumption, which is confirmed when a cross-analysis was made with the nature of the demands (means or objectives) and the internal representation of the demands (absence, simple or multiple), since it is verified that, depending on the nature of the demand, the responses of community actors occur with stronger or weaker bonding and bridging practices as demonstrated in the following subitem.

3.3 Bonding and Bridging Practices in Traditional Communities

In the comparative analysis of bonding and bridging practices, the social capital can have effects that can hinder and facilitate this process [2].

The bonding social capital is constituted by strong network ties, being negative if it's excessive, as it can lead to the application of social standards that impede innovative change [2]. When this consideration is taken into account, as can be seen in Table 2, only two communities — Água Branca do Cajari and Seringal Porongaba — present bonding practices, without presenting excesses of strong bonds, taking advantage of the opportunities for relations with agents to implement public policies in the community.

Bridging practices, which consist of a social capital made up of a network of weak bonds, are seen as a benefit, because it allows the agents to make critical social changes. It can be noted that four of the six communities, although they do not have strong relationships, do not take advantage of the fragility of the relationships to unite in order to demand public policies to minimize the critical needs of the community, such as school, education, organization of production, among others.

4. Conclusion

It is noticeable that for communities to establish relationships with external agents — the stakeholders — in order to obtain the benefits of public policies, they need to know their capabilities so they can achieve the best acting performance, which can occur through a dynamic mix of bonding and bridging.

It then follows that social capital as a primary indicator of the community's ability to engage in sustainable development can work with facilitating or hindering effects.

Thus, the use of the actors' capacity allows an individual or group to access other critical forms of capital in order to overcome barriers and solve problems. However, bonding social capital,

Table 2 Bonding and bridging practices in communities.

Communities \ Practices	Bonding	Bridging
Água Branca do Cajari	Affective, friendly and permanent bond, without excess. Strong bonds, mature and professional relationships in living with the external organizational environment in relation to public policies.	No demands for critical social change.
Andirobal	No affective or friendly bond.	There is a great demand for social change. However, in addition to weak ties, there is inertia regarding the relationship with agents to demand public policies, opportunistic behavior.
Caroebe	Intermediate affective bonds, dependent on some leaders.	There is a great demand for social change. However, in addition to weak ties, there is inertia regarding the relationship with agents to demand public policies.
Ilha Verde do Rio Ituxi	Intermediate affective bonds, depending on the boss's position.	There is a great demand for social change. However, in addition to weak ties, there is inertia regarding the relationship with agents to demand public policies.
Ponta do Abunã	No affective or friendly bond.	There is a great demand for social change. However, in addition to weak ties, there is inertia regarding the relationship with agents to demand public policies.
Seringal Porongaba	Affective, friendly and permanent bond, without excess. Strong bonds, mature and professional relationships in living with the external organizational environment in relation to public policies.	No demands for critical social change.

representing the strong bonds of networks, which involves an affective, friendly and permanent bond, cannot exist in excess, so as not to generate negative effects, ultimately reinforcing social norms that hinder innovative change.

On the other hand, bridging social capital, represented by the bridging effect, which consists of networks of weak bonds, can become a benefit that allows the actors to make critical social changes possible. Finally, the research confirms the premise that communities constitute a combination of social bonding and bridging. However, it is recommended that more in-depth research be carried out so that they can identify the capacities of communities, in the amazonic megabiome context, where it cohabits forest, water, humans and animals, which can result in a local sustainable development specific for this region [12].

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