



# Consumo alimentar e uso de frutos do Cerrado em comunidades quilombolas de Goiás

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Os objetivos deste estudo foram explorar o consumo qualitativo de alimentos e investigar o uso de frutas nativas do Cerrado brasileiro por comunidades quilombolas de Goiás, Brasil. A coleta de dados foi realizada por meio de entrevistas com líderes de comunidades que participaram do I Encontro de Saúde e Qualidade de Vida das Comunidades Quilombola de Goiás. Nas entrevistas, foi identificado um consumo alimentar restrito aos itens básicos com presença recorrente de arroz, abóbora, batata, quiabo, banana, mandioca, milho, feijão, gergelim, amendoim e óleo de mamona na dieta usual. Identificou-se a presença dos frutos do Cerrado em doces, licores, enlatados e em algumas receitas salgadas, sendo os principais, pequi, mangaba, baru, jatobá e cagaita. Observouse uma redução no consumo de diversas frutas nativas, mas ao mesmo tempo, identificou-se que há um reconhecimento pelas comunidades em relação à importância do uso e preservação desses alimentos e das práticas alimentares quilombolas. Reforça-se a importância de ações de resgate e valorização da cultura alimentar quilombola, que dialoguem com a segurança alimentar e nutricional e com o desenvolvimento local das comunidades.

Palavras-chave: Biodiversidade; Cerrado; Grupos étnicos.

### Food consumption and use of Cerrado fruits in quilombola communities in Goiás

The aims of this study were to explore the qualitative food consumption and to investigate the use of native fruits of the Brazilian Cerrado biome by quilombola communities of Goiás, Brazil. Data collection was performed through interviews with leaders of communities who participated in the I Meeting of Health and Quality of Life of Quilombola Communities of Goiás. It was identified a food consumption restricted to basic items with recurrent presence of rice, pumpkin, potato, okra, banana, cassava, corn, beans, sesame, peanuts and castor oil in the usual diet. The presence of Cerrado fruits in sweets, liqueurs, canned and some salty recipes was identified, being the main, pequi, mangaba, baru, jatobá and cagaita. There was a reduction in the consumption of several native fruits, but at the same time, it was identified that there is a recognition by the communities regarding the importance of the use and preservation of these foods and quilombola eating practices. It reinforces the importance of actions to rescue and enhance the quilombola food culture, which dialogue with food and nutritional security and with the local development of the communities.

**Keywords:** Biodiversity; Cerrado; Ethnic groups.

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#### **INTRODUCTION**

The remaining communities of quilombo are legally defined as "ethnic-racial groups, according to self-attribution criteria, with their own historical trajectory, endowed with territorial relations, with the presumption of black ancestry related to the resistance to historical oppression suffered"[1]. These communities have been legally recognized since the enactment of the current Federal Constitution (1988), emphasizes in Articles 215 and 216, the importance of valuing Afro-Brazilian cultural manifestations and their contribution to the country's civilization process, placing these groups as an immaterial patrimony of the country, historical fragmented goods in four categories, these being the knowledge, the forms of expression, celebrations, and places[2-4].

Currently, Brazil has more than 3,386 communities certified by the Palmares Cultural Foundation (FCP), located mostly in the Northeast region<sup>[5]</sup>. Among these communities, just over 200 have the certificate of collective land ownership<sup>[6]</sup>. Land regularization is an assignment of the National Institute of Colonization and Agrarian Reform and also of public agencies of states and municipalities. In Goiás, a state in the Middle West of Brazil, there are 64 certified communities and only one entitled community<sup>[7]</sup>.

In general, the quilombola population still presents a high prevalence of health problems, humble living and housing conditions, high social and economic vulnerability, lack of infrastructure including basic sanitation and restricted access to education and health services<sup>[8–10]</sup>. However, there are already specific actions for this population in the scope of public policies, of which we can highlight the *Programa Brasil Quilombola* [Brazil Quilombola Program], in force since 2004, with actions focused on access to land, infrastructure, and quality of life, productive inclusion and local development, and to rights and citizenship. Nevertheless, the indicators assign the high priority of actions aimed at

improving the quality of life and guaranteeing basic rights for the quilombolas.

Food and Nutritional Insecurity, a situation in which there are violations of the right of access to adequate food in quantity and quality, socially and environmentally sustainable, and that respects cultural traditions, is also latent in most communities[11]. A study conducted by Gubert et al. (2017) found that half of the households of certified quilombola territories in Brazil were in serious food insecurity in 2011. Families whose head of family had low schooling and did not have access to basic sanitation, proper treatment of water, and health care were more likely to be in moderate or severe food insecurity. On the other hand, the families with access to water supply programs and to the agricultural subsidy program were less likely to be in food insecurity<sup>[12]</sup>. The situation of vulnerable populations, like quilombolas, may get worse in cases of socioeconomic and health crisis, such as that caused by Covid-19 pandemic, that the whole world has facing since the end of 2019, specially in places that were already in a crisis situation, such Brazil<sup>[13]</sup>.

Despite changes over time, quilombola populations still preserve and reproduce some traditions and habits, including food. Food is a central element in the identity and food culture that can be defined as the set of inherited and/or learned representations, beliefs, and practices that are associated with food and are shared by individuals of a certain culture, or of a particular social group<sup>[14]</sup>.

Quilombola kitchen is a space of sociability, in agreement with a knowledge that specifies food as a social act. After searching for knowledge about the culture and consumption of quilombola communities, it is observed that the current food production differs from the one practiced by their ancestors, characterized by the decrease of the diversity and also by the self-consumption insufficiency<sup>[15]</sup>.

Kitchens are connected to yards, fields, parties, culture, and identity. Considering the absence and importance of knowing and preserving the knowledge and flavors of quilombola people, the objectives of the study were to explore the qualitative food consumption and to investigate the use of native fruits from Cerrado biome as food for the quilombola communities in the state of Goias, Brazil.

#### **METHODS**

This is an exploratory and descriptive study, part of an international project named Biodiversity for Food and Nutrition (BFN), which also includes Kenya, Sri Lanka, and Turkey, chosen by its biodiversity. The BFN project is funded by the Global Environment Facility (GEF), implemented by the Food and Agriculture Organization (FAO) and UN Environment, and run by Biodiversity International.

In Brazil, the implementation of the project considered the existing Biomes in the country, being the Federal University of Goiás (UFG) responsible for the biome Cerrado. In each biome, the priority native fruits to be studied were defined, based on the Iniciativa Plantas para o Futuro [Plants Initiative for the Future]. These species were evaluated in relation to aspects of nutritional composition and use by the local populations. In the Middle West region, some fruits were prioritized, as aracá (Psidium cattleianum), araticum (Annona crassiflora), baru (Dipteryx alata), buriti (Mauritia flexuosa), cagaita (Eugenia dysenterica), caju-do-cerrado (Anacardium humile), (Butia capitata), gabiroba coquinho (Campomanesia adamantium), jatobá (Hymenaea courbaril), jenipapo (Genipa americana), mangaba (Hancornia speciosa), maracujá-do-cerrado (Passiflora alata), murici (Byrsonima crassifolia), pequi (Caryocar brasiliense), and pêra-do-cerrado (Eugenia klotzschiana)[16].

The project was first divided into six axes. Axis 5 was represented by the knowledge and flavors of foods consumed by traditional communities. The interface with the quilombola communities happened by its geographic location and for being the group research objective which is

linked to the Center for Nutrition and School Nutrition (CECANE) of the Federal University of Goiás.

With an interdisciplinary and intersectoral proposal, the BFN Project dialogues with health and environment, aiming to strengthen the conservation and sustainable management of agrobiodiversity through transversal actions that encompass national and global programs and strategies focused on Food and Nutrition Security (FNS)<sup>[17]</sup>.

Thus, the present study presents information collected at a meeting of quilombola representatives, with a descriptive analysis of interviews conducted with community leaders who attended the I Encontro de Saúde e Qualidade de Vida de Comunidades Quilombolas de Goiás [First Meeting of Health and Quality of Life of Quilombola Communities of Goiás] realized by CECANE on May 22, 2015, in the city of Goiânia, Goiás, Brazil. The interviews were conducted by a previously trained team and supported by a semi-structured script, consisting of guiding questions regarding the production and consumption of Cerrado fruits and the food culture of these communities. Script was composed by questions about ways of obtaining the Cerrado fruits, place of production, uses of the fruits in the community, fruits consumed since childhood, fruits that are no longer consumed, and perception of the current consumption of Cerrado fruits by the community. The information recorded in a specific form by the interviewers and then fully tabulated using the Excel® program (2013). A descriptive analysis of the interviews was carried out, generating key topics presented in the results. The project was approved by the Ethics Committee of the Federal University of Goiás, protocol 977.809/2015. All participants signed the Free and Informed Consent Term (TCLE).

#### **RESULTS AND DISCUSSION**

The leaders of 32 quilombola communities certified by the *Fundação Cultural Palmares* at the time were invited and 20 of them were represented in the event. Interviews were conducted with 26 quilombolas representatives, with some

communities having more than one participant in the event. The results showed that there is a food consumption restricted to basic items, with particular reference to rice, rice with pequi (Caryocar Brasiliense), beans, meats, some types of vegetables, cassava, corn and corn products, cakes, liqueurs, and rapadura (the candy made of the juice of the sugar cane). Sugarcane, maize, and cassava are foods that have been present in the food culture of the country since the beginning of its history, with the arrival of the Bandeirantes, as well as rice, rice with pequi and beans[18]. Rice with pequi is recognized as a cultural symbol originated in times of state crises between the 17th and 19th centuries, when it was regularly consumed mostly by slaves and low-level population, possibly due to the basic nature of the cereal, which was cultivated for self-consumption, and the characteristic taste of the pequi, in order to cover up the lack of salt. In this way, a significant mixture between the quilombola and the local food culture can be observed[19].

A study carried out by Sá (2010) brought a detailed approach regarding the feeding of the families of a quilombola community, exploring the concept of Food and Nutrition Security under consumption, access, production and availability practices. The study described the knowledge and feeding practices in a quilombola community in Ceará, Brazil. As in the present study, the results show that the families' food patterns comprise a wide variety of foods that do not belong to the quilombola culture and a singularity regarding the ways of obtaining them, usually in local business and not around their houses, with consumption of domestic and neighborhood food. The central element that remains as a quilombola habit is the consumption of cassava, but with characteristics of the transition from the quilombola culture to the local culture, besides the transition from hunting to commerce, with the high consumption of rice, sugar, pasta, and flour<sup>[20]</sup>.

Regarding the fruits of the Cerrado, their obtaining is exclusively by the practice of extractivism in the territories of the communities. Among the several fruits of the Cerrado mentioned by the interviewers as existing in the communities, including some that were not part of the selection of the BFN project, the most remembered were pequi, mangaba, baru, jatobá, cajuzinho, and cagaita.

Although they know many species, its use is very restricted. The fruits can be used in sweet and savory dishes such as chocolate and jatobá meringue, rice with pequi, pequi with chicken, canned pequi, pequi liqueur, mango juice with mint, baru peanut candy, baru cake, cajuzinho jam.

Among the fruits listed as an object of study of the BFN Project, only the cerrado's pear was not known by any of the leaders present in the meeting. In addition to the culinary use, many of the species are also used for medicinal purposes, such as the jatobá and the mangaba. One of the best known and consumed native fruits in the Cerrado region, pequi, is also very present in the diet of the communities participating in this study. A recent ethnoecological study conducted in Pontinha, a quilombola community located in the central region of the State of Minas Gerais, in order to support initiatives to generate income for this community, showed that pequi was frequently used for family feeding. This fruit was also used for the production of soap (67%), oil production (37%), medical treatments (17%) and trade (3%)[21].

The interviews showed a perception of a decrease in the consumption, mainly by the younger members of the quilombola communities, of fruits of the Cerrado and typical foods of the quilombola culture, reported by their leaders. The reasons listed by the participants for this change in habits were: reduced fruit availability, increased contact with preparations from other cultures, lack of land for cultivation, lack of awareness on the part of the residents, lack of ability to use the fruit, and the devastation of the biome Cerrado. The importance of the fruits was pointed out by all the leaders. They consider that the consumption of available food and food that is part of the quilombola food culture is important to avoid hunger, to increase health, to the improvement of the quality of life, increase of income, reduction of consumption of pesticides, appreciation culture environmental of and preservation.

Although not explored in depth in the interviews, the issue of access to land appeared in the speeches of the leaders and is a great obstacle to the social, environmental and cultural production and reproduction of the quilombola communities. None of the communities represented in this study

has the collective land tenure, which, in addition to interfering with the possibilities of production for subsistence and income generation, also reduces the active participation of these communities in the preservation of natural resources. Even though this work does not allow to do a deep analysis about degradation of the Cerrado and advancement of agribusiness the region of quilombola in communities included in this study, in general, studies have shown that areas of native vegetation are deforested for the planting of monocultures, almost always with massive use of agrochemicals, and intensive livestock farming, and also large areas for beef production<sup>[22]</sup>.

Souza and Chaveiro (2019) showed in their recent study conducted with a quilombola community of Tocantins that territorial and environmental problems cannot be dissociated when it comes to quilombola communities. The expansion of agricultural crops progressively traps uncertified quilombola communities and promotes changes in climate, water, fauna and flora, in society and economic and cultural changes. These factor forces communities to modify their way of life, thus compromising sociobiodiversity with mutual benefits and the autonomy of these peoples who seek to guarantee their own space and existence<sup>[23]</sup>.

Land regularization, an action that is part of the first axis of Brazil Quilombola Program, is still a great and urgent challenge for quilombola populations, facing a lot of resistance, especially by those involved with agribusiness. Effective access to land and territory, which forms the basis for the consolidation of the other actions of the program, is still the axis with the least implementation of public policies. In addition to the bureaucratic process, fraught with conflicts of interest, there is the low level of education and precarious access of communities to legal assistance, which makes it even more difficult to carry out regularization[24]. The study by Souza and Brandão (2018) shows the numerous failures in the implementation of PBQ in Minas Gerais communities, including productive inclusion, regarding the access to land and subsidies and technical assistance for production<sup>[25]</sup>.

Low access to local development policies and productive inclusion is also evidenced in the results of studies based on the Food and Nutrition Security Situation Assessment Survey of Registered Quilombola Communities, conducted in 2011. The *Programa de Fortalecimento da Agricultura Familiar* [Family Agriculture Strengthening Program], for example, is accessed only by 5.8% of the families evaluated in the study, which indicates a very small use of the productive potential of the communities<sup>[10]</sup>.

One of the ways to guarantee the regular and permanent supply of food linked to the cultural identity of quilombola students is to stimulate the purchase of local family agriculture for the Programa Nacional de Alimentação Escolar [National School Feeding Program]. This program is capable of promoting, in the school feeding, an interface with the needs of quilombola communities. In this case, the education sector, in articulation with other sectors such as agriculture, can rescue traditional cultivation methods, guarantee quality food and contribute to local development<sup>[20]</sup>. Thinking about the knowledge of the communities and the existence of several fruits of the Cerrado in the territories, the possibility of thinking together strategies to include preparations with these foods in the local school feeding, such as, for example, implementing and strengthening the dialogue between the PNAE managers and community dwellers and farmers.

The strengthening of family agriculture, as Lucena and contributors (2016) point out, can be an important means to fight the rural poverty and to contribute to the permanence of families in the countryside<sup>[26]</sup>. Although the fruits of the Cerrado are currently obtained by extractivism, the existence of demand could encourage the production by the residents. In addition, fruit processing to produce other products such as juices, sweets, and flours, adds value and can become a new market niche, which would not be restricted to school meals, and could integrate local commerce, generating income for the communities.

Diegues (2000) reinforces the importance of traditional knowledge and practices for the preservation of biological diversity, at the same time that preserving biodiversity is fundamental for the existence of these peoples, being a relationship of coexistence developed over time that has been intensely degraded. According to the author, the

traditional forms of production of these communities contribute to the conservation of natural resources<sup>[27]</sup>.

Thereby, initiatives that has the objective of providing communities with technical knowledge for the production, use, and commercialization of traditional foods are extremely welcomed and have great potential in changing reality. Educational institutions, such as universities and research institutes play a key role in this scenario, both in dissemination and in the production of knowledge, with and for communities, and to subsidize public policies aimed at this public. Finally, it is crucial that managers at all levels are committed to the cause.

#### **CONCLUSION**

There are some important changes regarding the quilombolas knowledge and flavors, such as changes in the food culture of these people, for reasons from the devastation of the Cerrado biome to the access to other types of foods. Quilombola culture and food practices have been greatly influenced by contact with other groups, and all these changes are closely related to food security and sustainable development.

In addition to providing the rescue of food memory by the quilombolas, the event also made possible to bring the communities closer to each other and to the executing team of the project. The interview with the leaders expanded the original information on the use and consumption of the fruits of the Cerrado, in the investigation of the Middle West region by the communities, and generated pleasant memories in relation to the food past. Another important point was to observe the concern of representatives with the maintenance of biodiversity still present and the recognition of the importance of traditional foods.

The actions that aim at the recovery of traditional knowledge and flavors and the conservation and sustainable management of biodiversity are urgent and have a great potential to contribute to the improvement of the quality of life of the communities and the preservation of their identity.

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