Rural Tourism and Food Security: Possibilities for Sustainable Development in Parintins, Amazon, Brazil

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Abstract

The traditional food association with Tourism is represented in this paper. Based on interviews and application of questionnaires in seven rural communities in the municipality of Parintins in the state of Amazon, Brazil, where it has found changes on local food. The obtained data was treated by the statistic program SPSS. The results point at the food security and it is related to the reproduction of the cabocla culture of riverside dwellers of consuming ecological food with low impact for the nature. However, there are food changeovers with the reduction of fish consumption. The state of Amazon reduced from 46 kg to 26 kg the consumption per capita/year. The increase of industrial food consumption appears as the other side of this reality. The Tourist activity in rural areas has as characteristic to value the ruralism involving natural and cultural sceneries. On this way, the Flood plain area and ashore rural communities of Parintins with rich food culture based on fish consumption have potential for the community tourism. Sustainability is linked to the river, the forest and the culture forming a food system rich in cooking traditions still so little studied at this part of Amazon. The changeover of food habits may commit the tourist supply because rurality involves the food tradition of people, as well. Therefore, the organization of rural tourism would salvage the environmental value contributing for the virtuous cycle of culture-tourism-nature.

Keywords: Ecological food, Amazon, Rural communities, Tourism
Introduction

Comprehending the rural tourism requires knowledge of a list of leisure and tourism activities linked to the rural environment. So far there’s consensus among the writers (Graça, 2001; Rodrigues; Riedletal, 2002) that it is easier to treat tourism in rural areas than the rural tourism for itself.

For Graça (2001), tourism in rural areas (TRA) has as trademark the conservation of cultural and natural heritage; small infrastructures of support to the tourist activities based on possible humane and environmental local activities. For the author, the term originated the fashionable denominations: ecological tourism, soft tourism, discreet tourism, green tourism, ecotourism, nature tourism, etc.

According to Coriolano & Sampaio (2012) the community tourism is a tourism that counteracts the tourism in large scale of the capital territory. For the author there are experiences of tourism which are survival strategies based on the creativity and hope, according to humane work more than in the capital however with market laws influence. This type of tourism emerges in sympathetic territories [communities] and it counteracts the capital territories [large enterprises].

The Ministry of Tourism has published a concept very used to comprehend of what is the rural tourism. “It’s a set of activities developed in the rural environment, committed to the farming production, aggregating value to products and services, rescuing and promoting the natural heritage of the communities” (MTUR, 2004).

It’s a comprehensive set and it contributes a little for the classification of two types of tourism and leisure practiced in rural areas. In this paper it has approached the possibilities of development of the rural tourism of community type, in other words, practiced for them and in the communities involved.

It has clarified two possibilities, so until the present moment there are no effective actions neither by the people of the community nor by the rural tourism public authority in Parintins. Differently from what happens in other places of the world where this kind of tourism is in full development.

The European Union, for instance, has got its theoretical milestone related to several tourist activities in different rural sceneries and therefore they involve plural concepts depending on the country. In Spain and Greece the rural zone is privately associated with the agriculture. In German, Holland, Belgium, Luxembourg and France, from the tourist perspective, the rural areas distinguish themselves from the cities and mountains, for they have been deeply linked to not many occupied place.

In Spain, for instance, Castel (2011) demonstrates the necessity for an integrated policy on the stimulation of the rural tourism.

From the comparative perspective related to the economical, social, political and cultural characteristics of each country establishing several tourist policies that encourage a sustainable
development based on criteria of quality, competitiveness and protection of the rural resources. (CASTEL, 2011, P.50)

Despite the diversity of sceneries considered for the rural tourism in the European Union, this area is a constitutive part of its physical geography and the identity, therefore, it is the target of policies on sustainable development.

In Brazil, actions related to the rural tourism are still timid. However, the participation of the tourism in the brazilian economics has already represented 3,7% of the Gross Domestic Product (GDP) of the country with the increase in 32,4% between the years 2003 and 2009, whilst the brazilian economics has presented expansion of 24,6%, according to the National Plan for Tourism (NPT, 2013). Most of them collected from the traditional sun and beach tourism.

In the rural tourism case, the profusion of activities related to the tourism and leisure in rural areas makes difficult the classification and public policies on the sector. Nevertheless, the example of the municipality of Lages in Santa Catarina in 1986 is considered such as reference for the beginning of this activity in Brazil.

In this occasion, it was the first time officially, a farm, “Pedras Brancas” is offered to accommodate the visitors to stay a day in the country (Graça, 2001). The initiative has started in the south region and quickly it has spread through the others regions, southeast, center-west and now it has expanded beyond to the north and northeast.

According to Davidson (1992 apud Graça, 2001), more recently it is common to relate the concept of the rural tourism to the strong presence of factors which qualify the tourist products as “responsible”. This way, the rural tourism has became a concept that includes all activities realized and managed locally based on its environmental and potential humane.

The rural space represents, this way, a profusion of activities and classifications that make difficult its study and organization. So, it’s common in Brazil to associate its concept along the lines of understanding in the European level. This fact brings many mistakes because the Brazilian reality has other relevant factors for its concepts on the contrary of the European reality (Rodrigues, 2001). Therefore, the objective of this article isn’t to treat the several ways of practicing tourism and leisure in rural areas, but to demonstrate the possibilities of sustainable development of this activity in rural communities in the municipality of Parintins, especially concerning its food culture.

Method

The methodology has founded on the thematic analysis of the food security literature, rural tourism and sustainable development.
The observation method contributes to assemble the experience of traditional farmers of the rural landscape from Parintins and to comprehend the possibilities for the development of the tourism guided by its food traditions.

It has observed the farmer food in the floodplain rural zone and ashore of Parintins. In each community observed only a house was chosen for us to stay during some days (from 4 to 7 days). The registers are provided in a copybook.

It has chosen a participating research, so we have lived with one another and we have eaten with the residents. It has registered the hospitality we have welcomed for all the participants of the research and in the whole community.

In specific case of this study it has applied a questionnaire containing 412 interviews amount of 20,671 permanent particular domiciles, according to Brazilian Institute of Geography and Statistics (BIGS, 2010), distributed in 14,333 in urban areas and 6,338 in rural areas and calculating the minimum sample using 5% of error estimative and confidence level of 95% was similar to 377 interviews so it has interviewed a number above the calculus of sample.

These questionnaires focused on various items which are part of the Parintins people diet. The quantitative interviews have randomly distributed in 282 domiciles in 10 residential areas in the city and 130 families in rural communities. The statistic program Statistical Package for the Social Sciences-SPSS has chosen to process the data gathering. This way, it is possible to cross the quantitative and the qualitative variables aiming at comprehending the reality observed.

**Study Area**

Parintins is located at the east end of the state of Amazon-Brazil. According to Instituto Brasileiro de Geografia e Estatística - IBGE (Brazilian Institute of Geography and Statistics - BIGS, 2010), it participates of the lower amazon. It presents geographical coordinates to 02º36'48" of south latitude and 56º44'09" of west longitude with linear distance of 369 km related to Manaus (the capital of the state) and 420 km in the waterway, according to the Secretaria de Planejamento do Estado do Amazonas – SEPLAN (Amazon State Secretary for Planning - ASSP, 2008).

According to the Instituto de Desenvolvimento Agropecuário e Florestal Sustentável do Estado do Amazonas - IDAM (Institute of Agriculture and Forestry Sustainable Development of State of Amazon – IAFSDSA, 2009) its geomorphologic territory is distributed in floodplain ecosystem (48%) of mainland (17%) and rivers, lakes, streams and channels (35%) have amounted 595,230 hectares most of its part, about 80%, a floodplain area.

The studied area was the floodplain and the mainland of the municipality (Figure 1). In the lowland the study was realized in Santa Rita do Boto, São

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1 The lower Amazon territory has an area of 107,029.60 km² with population of 230,847 inhabitants. It is consisted of municipalities of Parintins, Barrerinha, Boa Vista do Ramos, Maués, Nhamundá, São Sebastião do Uatumã and Urucará, according to the Ministry of Agricultural Development (MAD, 2011).
Sebastião do Boto and Limão communities. In the mainland the study was performed in Nossa Senhora de Fátima do Açai, São José do Laguinho, Santa Clara do Quebrinha and Nossa Senhora do Perpétuo Socorro do Laguinho communities, located in Vila Amazônia.

The total of Parintins population amount 102,033 people distributed in 69,890 in the urban area and 32,143 in the rural area with population density of 17,14 people per km$^2$ (IBGE-BIGS, 2010).

The Parintins climate is not different from the general climate of the broadleaf Amazon forest. It’s hot and humid along the year with rain of 2000-2250 mm. The months of August, September and October are drier and February and March are more rainy months. The relative humidity of the air reaches 85% on average, according to the Instituto Nacional de Metereologia - INMET (National Institute of Meteorology - NIM, 2007).

According to the classification of Koppen, the city climate fits in the climate group A (rainy tropical) type A, it is known for having a dry station of short duration (Couto, 2005). The altitude is 50 m in relation to the sea level. Plano Territorial de Desenvolvimento Rural Sustentável-PTDRS (Territorial Plan for the Rural Sustainable Development- TPRSD, 2011).

Figure 1: Study Area
However isn’t a rainfall that directs life in Amazon (Parintins), but the river seasonality which a flood a year, which conditions a space organization and consequently of the whole society. Therefore, treating the rural tourism in Parintins is to understand the great amazon geography and the food culture of the riverside people. The fish consumption is essential part of the Amazon and Parintins food culture.

Results

The river commands life (Tocantins, 2000) isn’t a sentence, however a truth in the Amazon Region. In Parintins, the river hydrological regime organizes the physical space and the sceneries, altering the economical and social relations at this period. Becoming common the seasonal migration periods (of human and animals) searching for dry land (Figure 2).

From the river comes the daily support for the natives. The river is part of their day-by-day activities (health, transportation, housing, leisure and others). It’s the cause and source for the stories (tales). It’s a static unlimited place, this way its waters every year goes over borders.

The local people practice ecology with no reading the academy manual. It doesn’t constitute a romantic vision of this relation, but give the people’s way of life credit for their secular traditions of relation with the nature.

Figure 2: Animal Transportation from Floodplain to Ashore due to River Flood

Therefore, food also depends on the river. Fish is quite varied. From the last centuries several naturalists have notice that there are more species in the Amazon River than in all the European rivers. It’s a fact and it contributes to the fish diversity and culinary.

Fishing is practiced all year long, however, with more intensity in the ebb of the river, in the decreasing water level. The variety culinary is expressed in
boiled, roasted and fried dishes. The roasted form is more appreciated and very requested for tourists in commercial establishments, especially, restaurants.

A curiosity about Amazon and Parintins culinary is the fish scale preference and not leather, which this last is exported to the other parts of Brazil. This is due to the food taboo in the region, where many local people relate this kind of fish to certain skin diseases.

The state of Amazon is reference in great fish consumption in Brazil with the incredible mark of 46 kg per capita/year. Nevertheless, this consumption fell last census to 26 kg per capita/year (Brazilian Institute of Geography and Statistics, 2010), it demonstrates alterations in the food culture. Even so, the data gathering from the questionnaires (Figure 3) demonstrates a high consumption in the municipality, especially in the rural zone.

**Figure 3. Weekly Consumption of Fish per Domicile and the Urban Rural Total**

<table>
<thead>
<tr>
<th>Consumo domiciliar semanal e total (kg)</th>
<th>Rural (3.832 domicílios)</th>
<th>Urbano (8.736 domicílios)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pescado</td>
<td>15.6</td>
<td>8.9</td>
</tr>
<tr>
<td></td>
<td>59.779</td>
<td>77.750</td>
</tr>
</tbody>
</table>

Source: Questionnaires and the data treatment using SPSS.

Considering the total consumption of rural domiciles (59.779 kg) and urban (77.750 kg) it’s has perceived bigger in the urban zone, nonetheless, it is in the rural zone the bigger consumption per capita, almost double, even considering that the total of inhabitant (8,3 people) per domiciles in the rural zone is little bigger than the urban zone (8 people). Despite the food passes by a reduction of fish consumption due to various factors (price, product shortage, fishing difficulties, etc.), the municipality is still a great consumer. Its food culture is marked for fish and manioc flour, the last is essential side dish for the Amazon people.

Compared to the consumption of beef in accordance with Santos et al. (2013) the urban ecological footprint of Parintins, in 2012, corresponding to the consumption of beef 19.3 kg per capita/year was 0.168 GHA (Global Hectare Area). The authors identified the ecological accounting that the area of beef consumption (0.35 hectares) was much higher than the 0.005 hectares available for every urban dweller.

Fish is quite consumed with yellow manioc flour derived from cassava (Figure 4). The process is still handmade and it involves all family. Starts in the pasture land with the extraction of the cassava and finishes with the manioc flour oven with the grain roasting (Figures 4 and 5). It’s a local typical food.
Beyond the manioc flour there is other food as result of cassava: cakes, oatmeal, drinks, biscuits, among other commons and constitutes part of the local food system. According to Conteras & Arnaiz (2005), a food system with is a set of habits and proper qualities of a social group.

This way, food consists of real and symbolic aspects forming a *habitus* (Bourdier, 2007), giving a new meaning for the dialectic movement of the encounter between human and nature.

Parintins is a municipality which has a service sector (76%) quite a lot strong, part of this due to the folklore festival which has taken place in the urban zone. This event has impact on the public finances, cause is aimed at the mass tourism, whatever regional, nationwide or worldwide.

Nevertheless, the income concentration and public policies in the urban zone, weakens the primary sector which is responsible for only 16% of municipal income following by the industry (8%). (SEPLAN -ASSP, 2011)

This way, the rural tourism by a municipal or a state public plan, would have a fundamental part whatever the strengthening of the primary and secondary sector of the region. Organizing the infrastructure and increasing the social indicator

The universities treat about the theme by academic encounters aimed at the community. Recently, it took place the First Encounter of Tourism in Parintins with measures to reorganize and implement tourist policies for the Lower Amazon. The development of the community potentialities at the rural zone depends on how much clarifications there are about the theme.

Undoubtedly, the tourism if responsible or explored ecologically friendly, would help the income generation and the improvement of social indicators, contributing to the argument for the sustainable development.

In the food sector, Parintins has rich food crops, so there are attractions for it, especially linked to the food culture. A natural food extracted from the nature and then its preparation to make meals. It represents this way, a characteristic non industrial and with low ecological impact, and that’s why it’s denominated in this paper, ecological food.

This concept of ecological food includes several ways of productive food, hunting, fishing, collection activity among other ways of livelihood considering the limits of the nature support. It’s different from the concept used by Brandenburg et al (2008), who considers only the ecological food that
originated from several ecological agriculture currents (bioproductive organics, among others)

The concept of ecological food is necessary to the comprehension and separation of food, if necessary or not for the tourism with no damage to the nature. Despite the great abundance of food, at present, the Amazon region and Parintins live with strong impacts on fauna and flora. The Community-based rural tourism could become an income complementary activity, diversity of activities and countryside way of life, as it has been to others regions in Brazil.

Moreover, the label of “responsible” pleases and stimulates the tourism in areas with scenic beauties and singular culture aimed at the waters that characterizes the scenery and the local man. It would involve the reduction of strong impacts of flora and fauna, so they are the products to be conserved and preserved for the tourist activity.

Despite the grandiosity of Amazon region, sometimes mixed it up with the belief of the limited nature, currently its fauna and flora suffer with the shortage and the extinction of species, before abundant. One example is the tartaruga (turtle) case.

The amazon tartaruga (amazon turtle) represented a numerous population registered in various testimony during several centuries. Abundance and the meat taste served the amazon table during the all year. It constituted a typical and appreciated food by the indigenous culture and wild animals. However, none of them reduced so much the population of these amphibians as the depredation started by the Portuguese colonizers, when they got to the Amazon. A report of father Daniel (2004) of XVIII century, demonstrated the abundance and the waste.

Now, we say that something from the Amazon turtle, called by the natives of Juruá; and some europeans, apart from the usual name of turtle, they call them amazon chicken [...] There are two castes most well-known. The greatest and the smallest: the former specie grows such size that each one can carry a donkey (Daniel, 2004, p. 130).

In another later section, he detaches the use and the abuse of the food consumption of the turtle meat protein.

To fish they use several ways. Sometimes they use net, as with fish, sometimes they use arrow, harpoon at the “viração”. The “viração” occurs when the fish come out to spawn, which whereabouts and time the local people have already known. That’s why hidden they wait in great silence for don’t be sensed by the turtles [...] the hunters who don’t do anything else more than kick them and turn them upside down, and they do this as many as they can, at times kicking, at times holding [...] This way, they tied and upside down, are boarded safe and boats are loaded every year which provisions and business [...] Others local people having them safe this way, kill them for just to take advantage of their bandas (sides), from which they make perfect and tasty butter, as
the one made from dairy products, letting meat for pasture of wild animals and poultry (Daniel, 2004, p. 132-133).

At that time, the referred author explained that the turtle grew so that it was possible to feed all a community. The seven dishes prepared have listed by him: sarapatel, sarrabulho, assado mama, fricassé, soup and rice. They are the most usual dishes, but they also appear in turtle meat stew, accompanied by its eggs, it can be prepared to feed a lot of people. According to Bates (1979), the meat is tasty and nutritive, however sickly, but it was part of the local culinary all year long. Nevertheless, at present, this food culture has faded due to the shortage of this animal in the lakes of the region.

The turtle population was so reduced that at present, is prohibit its capture all year long. Only it can be traded the ones bred in captivity, it demands costs and licenses that are out of the table and the possibilities of a rural zone inhabitant.

Turtle, bred in captivity, may return to Parintins food culture and stimulate the tourist activity. This way, there are numerous possibilities for the tourism. Even so, there are no suitable public policies yet for the tourism development in rural areas in a environmentally friendly way.

Discussion

The rural tourism in Brazil has prominence in Amazon region and in the state of Amazon by the ecotourism. For its scenery beauties spread as national standard of Ecotourism reference. This reference supported the region that was in the vanguard of the thinking and actions related to the ecosystem services and avoided deforestations (Ribeiro, 2013).

In this perspective, sustainable development is defined as "one that meets the needs of present without compromising the ability of future generations to meet their own needs" (Nascimento; Vianna, 2007, p. 7). Implicit in the concept of ecotourism is the concern of a global awareness due to economic, social and environmental crisis. According to Castrogiovanni “It’s consensus among scholars that the practice of ecotourism only should occur considering the paradigm of the sustainability.” (Castrogiovani, 2004, p. 108).

The discussion is more pronounced in recognition of a great contribution to the Programa de Investimento Público de Desenvolvimento do Ecoturismo para a Amazônia Legal - PROECOTUR (Program of Public Investment in Ecotourism Development for the Legal Amazon (PPIEDLA, 2009), which objective was proposed to the implementation of public policies for the ecotourism, admitting as one of the priorities jointly, the training of the human resources.

The Plano Nacional de Turismo - PNT (National Planning for Tourism (NPT, 2013), which intends as vision of future, to place Brazil in one of the three tourist economies of the world until 2022 may raise the necessary infrastructure for the development of the rural tourism in Amazon.
At present, this country follows United States, China, Japão, France and Spain. It has quite Cultural and natural attractions, especially the Amazon Region, nonetheless, despite the public policies, there’s still nothing in effective in the development of the rural tourism in Parintins.

Therefore, in medium and long term, a suitable planning for tourism, or rather, the ecotourism may bring great social and economical benefits to the development of the rural communities, so they are still highly dependent on the earnings from the public policy supports.

The tourist public policies aimed at the Amazon region should reinforce the ways of livelihood and the relations of reciprocity among the communities, legitimating the maintenance of this population life quality, contributing to the maintenance of its social and cultural identity.

The tourist activity should prioritize the community planning and participating management, respecting the social, cultural and environmental values of different involved people, which the community is the main beneficiary (Faria, 2005, p.13).

Therefore, it has defended in this paper, a tourism of low ecological impacts for the municipality of Parintins. A rural tourism and/or ecotourism capable of being constructed with the community linked to the local interests and strongly constituted of a counterproposal to the mass tourism aimed at the folklore festival.

Conclusions

The Parintins population food in its essence isn’t industrialized yet. It presents a relation of meeting between man and nature which the natural cycles by legends, beliefs and traditions are respected.

This Cultural and food resource needs to be recognized as source for the rural tourism. According to Petrini (2009), it’s necessary to catalog certain traditions, way of life and food production incompatible to the current industrial food rhythm.

It denominated again the paradigm of sustainable food which provides happiness and return of the human being to its origins. The concept of ecological food is proposed brings this understanding, so when is eating the man return to the origins and get proud of his culture.

The rurality associated to rich food traditions, especially aimed at the fish consumption, for instance, it’s a reference to the tourist supply in Parintins. The traditional food established in indigenous cultures is ecological because its ingredients come from renewed sources, depending on the cycles of nature.

However, to make emerge a rural tourism income-job-generator in a municipality with an incipient primary sector is necessary several organization and training measures. This leads us to the public policies sector. Moreover, the role of the universities concerns the researches and necessary information about the rural man activity.
However, economics shouldn’t only utilitarian used as way of wealth generator with focus on “having” and not “being” (Bursztyn, 1995). But they should be concerned with the value of the country and the country man.

The food culture isn’t static, changes are necessary, but at present, the Amazon and Parintins people food passes by the expressive reduction of fish consumption. Even so, it’s still high the consumption per capita, especially in the Parintins rural zone.

This is not good neither for the people nor for the touristic activity, so the water food is an attraction and is part of the amazon people identity. They possess recipes and knowledge about obtaining and preparing ecological food. The ecological food cause low environmental effects and it has the characteristic of strengthening the food culture.

In Parintins, the rural properties typically familiar have potential for tourist activity organization. The physical scenery has the characteristic of the rainfall; it is a part of a show. It is has already explored in a timid way, with neither much organization nor institutional support by the flood plain community Espírito Santo de Cima. At this community some people have regional tourists to stay and even national tourists who seek a different itinerary of the tourist packages for the region.

Therefore, the rural tourism in Parintins still needs community organization, institutional and public policies capable of giving the development of this activity at the water territory a boost.

References


