Original Research Article

EXTRACTIVISM OF THE UMBUZEIRO IN THE PERCEPTION OF THE FARMERS OF THE COMMUNITY RIACHO DA SERRA, IN SÃO JOSÉ DO SABUGI-PB

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ABSTRACT

The present work aims to diagnose the perception of the farmers of the community of Community Riacho da Serra, in São José do Sabugi-PB. Initially visits were made in the community with the intention of exposing the idea and performing. The research was conducted during the period from march/2016 to may/2016. We applied structured questionnaires, previously made with the objective of involving and extracting the maximum information from the whole community. With the data in hand, figures were produced that demonstrate the perception of the cooperative farmers about the extraction of umbu. Incomplete first grade (47%), followed by high school (40%). As regards the process of extraction of umbu by Community producers, a number of uses may be indicated, with the main destinations being the pulp industry (34%), household consumption (33%), food for animals (19%) and direct sales (14%). Regarding marketing, when the sale was made, the bag price of 3.0 kg ranged between R $ 2.00 and R $ 2.50, and 62% of the producers consulted stated that they sell for a price of R $ 2.00, while 31% sell at R$ 2.50 and 7% at R$ 2.50. Of the producers that produce one hectare, 100% have another activity to supplement the income, among which: rice (85%), livestock (85%), handicrafts (7.5%) and others (7.5%).

Key-words: Umbu. Cooperativa. Sustainability.

1. INTRODUCTION

The umbuzeiro (*Spondias tuberosa*, Arr. Câmara), belonging to the family Anarcadiacea, is an endemic species of the semi-arid region of the Brazilian Northeast with great socioeconomic and environmental importance. Its fruits are marketed by small farmers and extractivists, especially those considered most needy [5].

Currently, there has been intense extractive exploitation, which can generate losses of genetic material, since almost all high quality fruits originated from superior genotypes are collected, preventing natural reproduction from these genotypes. In addition, the expansion of agricultural frontiers with the constant deforestation of native vegetation also contributes to this loss of genetic diversity [3, 7]

Extractivism, when practiced in a sustainable manner, can generate income for many families and contribute to the conservation of the Caatinga, protecting the diversity of plants and animals, water courses and the cultural wealth of its peoples. With this income are purchased food, household goods, clothes for children and school supplies, once the harvest

period coincides with beginning of school term in rural schools. The valorization of the umbu can strengthen the traditions of the people and the permanence in the field from the generation of complementary income [3].

The fruits of the umbuzeiro are drupe glabrous or slightly hairy and rounded, weighing around 10 to 20 g. They have a smooth surface or exhibit 4 to 5 small lumps in the distal portion. The characterization of the fruits has evidenced the existence of a high phenotypic correlation, in descending order, for pulp, bark and core weight, total soluble solids and total acidity [9]. When ripe, the fruit has a juicy, slightly acidic and pleasant-tasting pulp containing 14.2 mg of ascorbic acid per 100 mL, fiber, reducing sugars and tannin.

The organized collective work can be a good strategy for the best use of the fruits and the improvement of the conditions of collection, storage, processing and commercialization of umbuzeiro. An example of a social and productive organization of umbu extractivism is the work of Cooperatives and Resident Associations.

In the Brazilian semi-arid region, this activity has promoted the emergence of entrepreneurs able to create economic bases for family agriculture in areas dependent on rainfall in the Brazilian Northeast. However, there is a decrease in fruit production, with a marked decrease in recent years [5].

This reduction may be related to the water deficit and to the death of centennial plants of umbuzeiro, worsening even more with the absence of descendants, because there are no young umbuzeiros in pasture areas of the Caatinga [5, 8].

The objective of this research was to diagnose the perception of farmers in the community of. In the state of. On the importance of extractivism of umbuzeiro.

2. MATERIAL AND METHODS

The municipality of São José do Sabugi is located in the Center-North region of the State of Paraíba, Mesorregião Borborema and Microregion Serido Ocidental Paraibano. It is bordered to the north by Ouro Branco (RN) and Santana do Serido (RN), east by Santana do Serido (RN) and Ecuador (RN), south by Ecuador (RN) and Santa Luzia (PB) with Santa Luzia and Ouro Branco (RN). It has the municipality of São José do Sabugi area of 215.4 km^2 and the municipal seat is located at an altitude of 333 meters [6].

The access from João Pessoa is made through the BR-230 (Figure 1), east-west direction, in a course of 299 km to the city of Santa Luzia, passing through Campina Grande, Soledade, Juazeirinho and Junco do Serido. From Santa Luzia it follows, to the northeast, in an 18 km stretch to the city of São José de Sabugi through Highway PB 221.

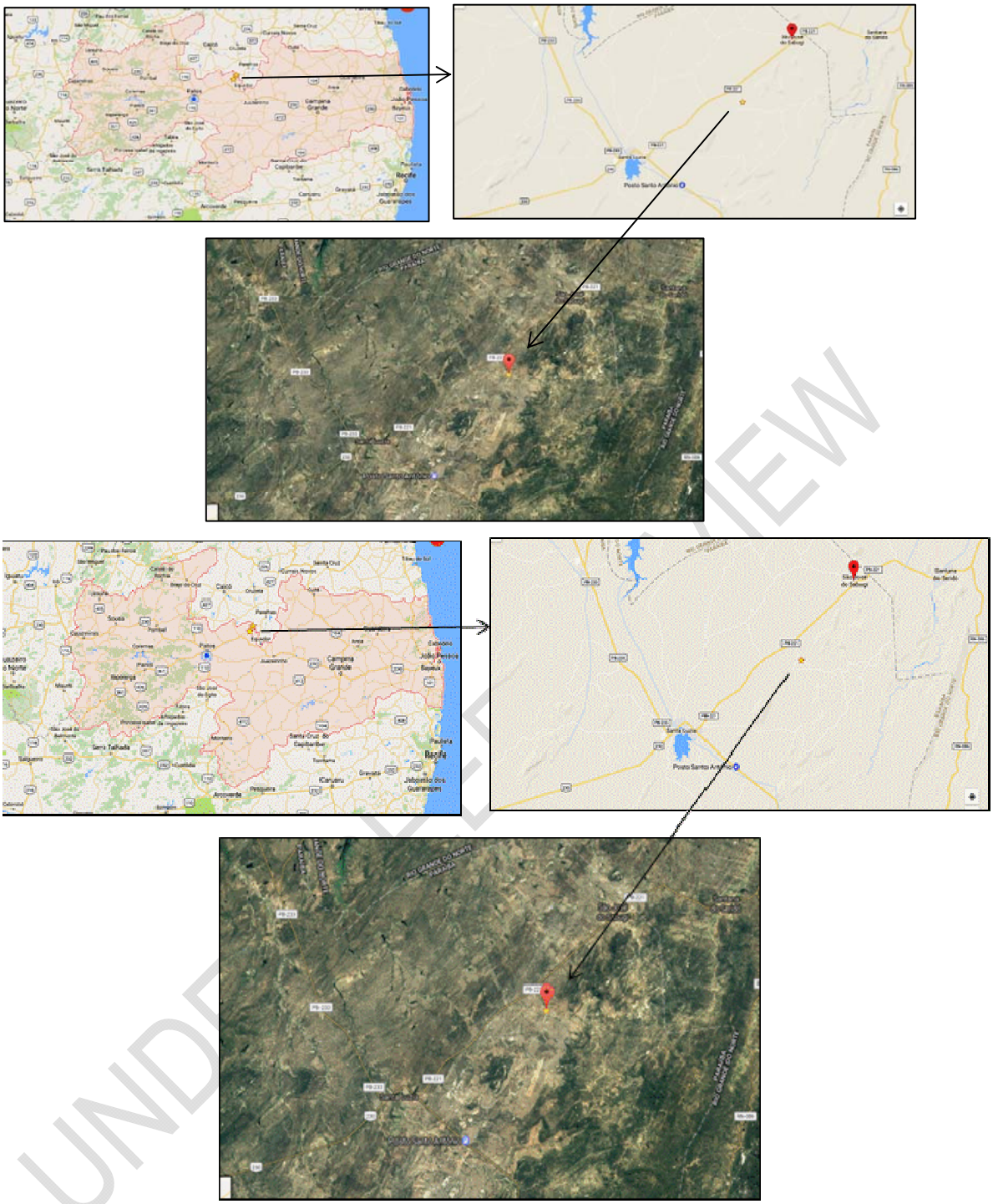


Figure 1. Map of location of São José do Sabugi in the State of Paraiba (Adapted from Google maps, 2017).

Initially visits were made to the community with the intention of exposing the idea to the producers (Figure 2). The research was carried out during the period from March 2016 to May 2016. For the study was used as an anthropological research tool a structured questionnaire, in which the topics are defined previously by the researcher [10].

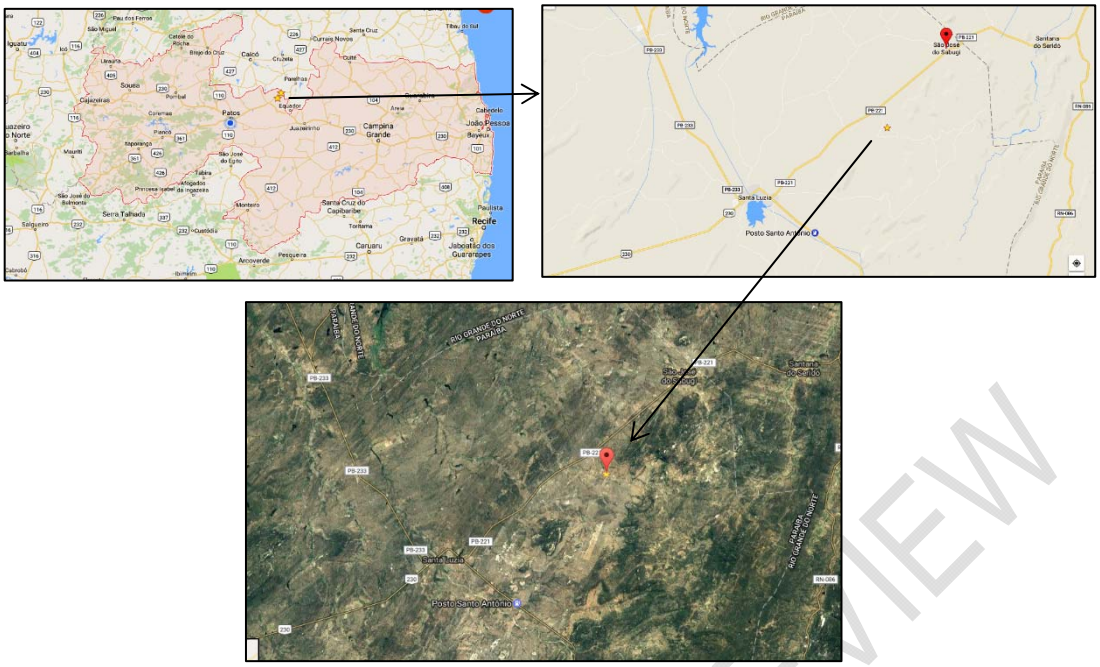


Figure 2. Visit to the producers of the Riacho da Serra community, in São José do Sabugi, State of Paraiba.

The proposed strategy to diagnose farmers perceptions of the Riacho da Serra Community in São José do Sabugi was based on five main points of analysis: (a) evaluation of the most immediate reality of the community under study; (b) application of a structured questionnaire to local farmers' perceptions; (c) quantification of the umbuzeiro density in the study area; (d) incentives for farmers to grow umbu as a crop; (e) contribution to the growth of the population of umbuzeiros.

The research was qualitative, being conducted to the data collection during the visits in loco. After the researcher's familiarization with the environment, semi-structured questionnaires (appendix) were distributed to farmers. The data were tabulated in computerized worksheets and later analyzed through the relative frequencies of the answers.

The obtained results were submitted to analysis of variance by the test "*F*" and descriptive analyzes, for diagnoses of significant effects of each source of individual variation and of their respectives variables. For the processing of the datas, was used the software statistical AGROESTAT [1, 2].

3. RESULTS AND DISCUSSION

It can be seen in Figure 2, that part of the farmers consulted is literate; however, the incomplete elementary school predominates (47%), followed by the second grade (40%).

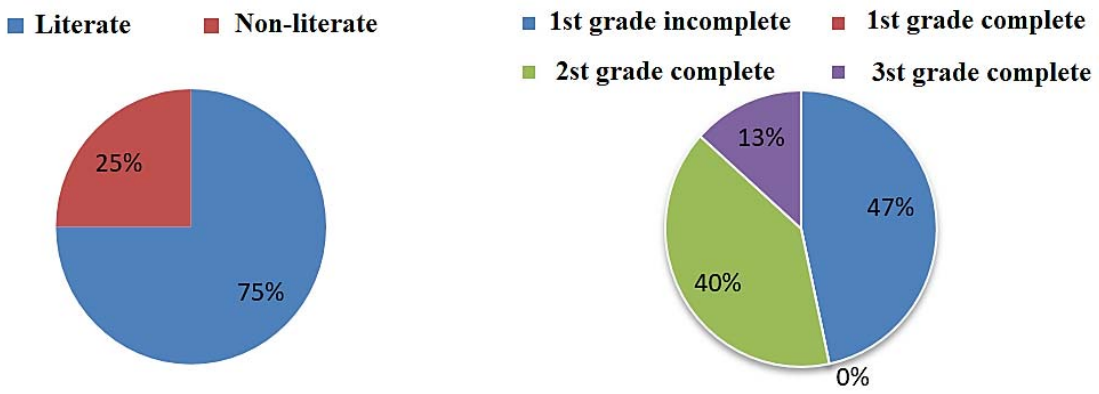


Figure 3. School situation of farmers interviewed in the Riacho da Serra Community, in São José do Sabugi (PB).

[7], developing a work in Campo Redondo (RN), in the community of Malhada Vermelha, found that the educational level of those who worked there was 31.11%, which is lower than that found in the Community where the present study.

It can be seen in Figure 3 that 25% of the community residents interviewed say that they would leave to seek better living conditions in another locality. The process of rural exodus has been mainly caused by the rural population who leave the countryside in search of better living conditions in the polo cities, or in the capitals of the States, attracted by the financial profit and the attractive factor that the cities exert in the low-income populations [4].

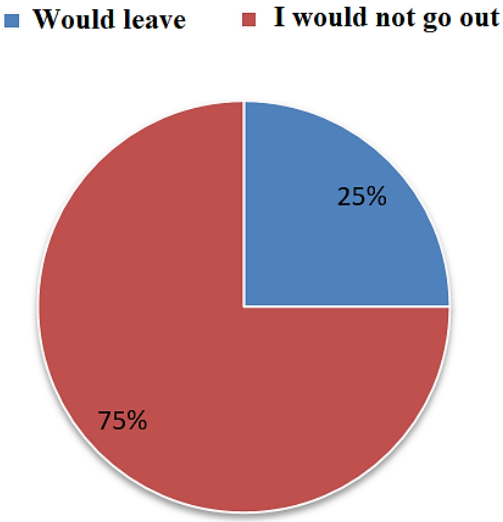


Figure 4. Perspective of the residents of the community of Riacho da Serra in regard to leave the activities of the field and move to another place.

It is known, however, that this process of rural exodus generates a number of social problems, with emphasis on unemployment and underemployment. In addition, in cities, activities such as street vendors, pickers of recyclable materials, flanelinhas, among others, are becoming more common every day [11].

For [12] another negative factor to mention is the swelling of cities, which in the absence of urban planning there is overpopulation of poor neighborhoods, housing in places without structure and the increase of favelas.

Concerning the source of income acquired by the interviewees in the Community (Figure 4), 61% of interview participants reported that they obtained from agricultural activities, followed by income from retirement and salaried service.

It can be seen that, in Figure 4, agricultural activities are still the main source of income for the respondents in the Riacho da Serra Community. This is evidenced by the data from [13], for the municipality of São José do Sabugi, in terms of the quantity of umbu fruit produced, which totaled 14 tons. This production provided an income of R $ 14.000.00.

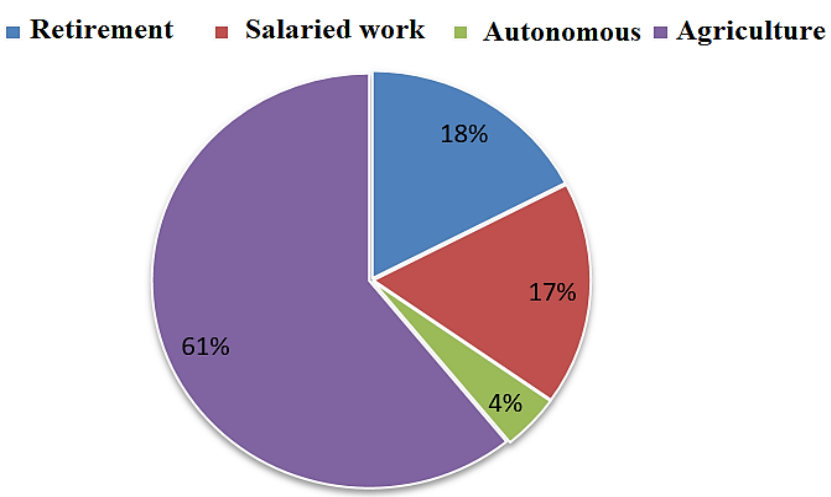


Figure 5. Sources of income obtained by the interviewees in the Riacho da Serra Community, in São José do Sabugi (PB).

The results of the research visualized in figure 5 indicate that in the homes of the interviewees in the Community Riacho da Serra all have electric power. However, in the middle of the 21st century, many homes still have no running water or sanitary facilities at home.

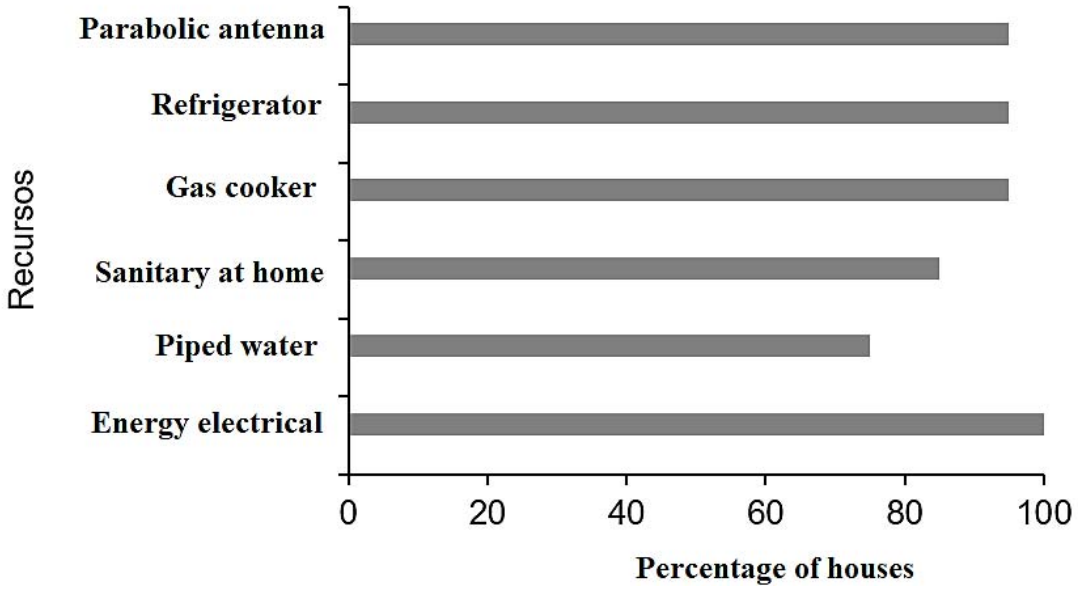
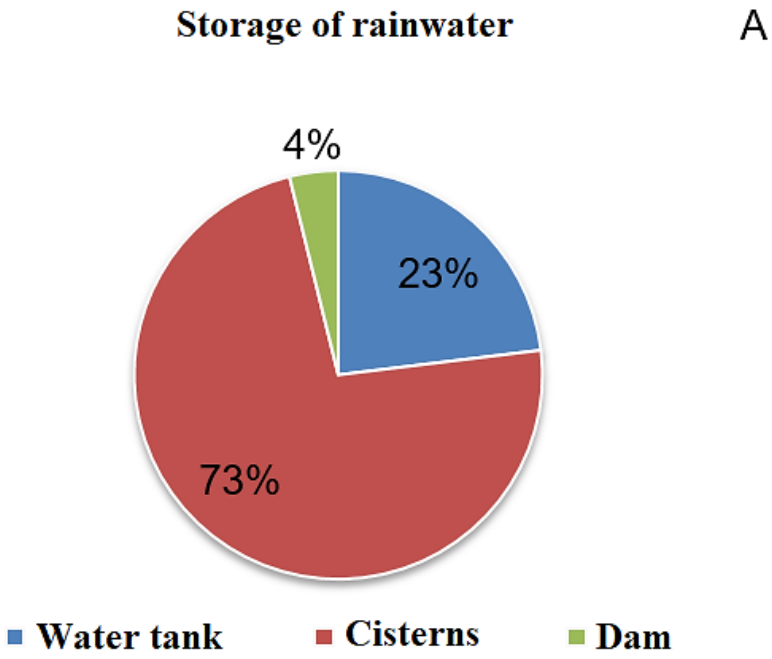
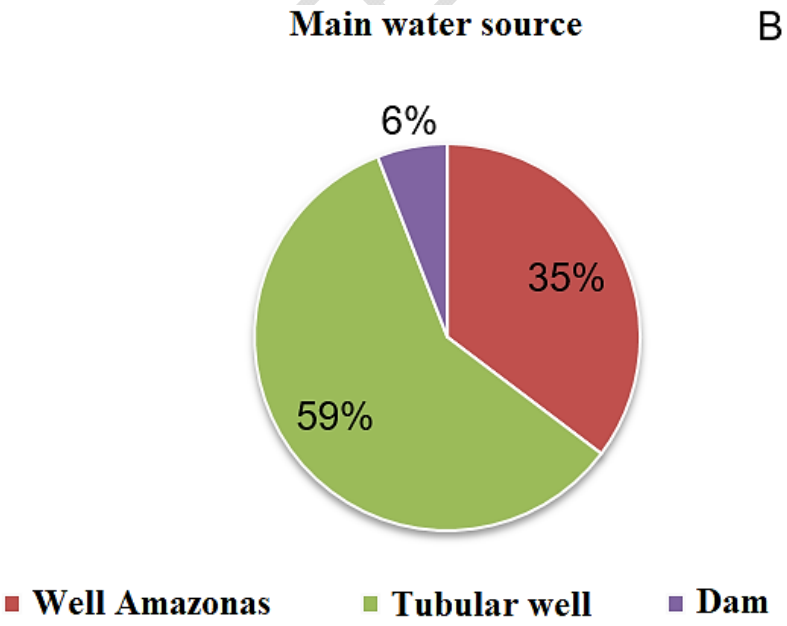


Figure 6. Resources available in the homes of the interviewees in the Riacho da Serra Community, in São José do Sabugi (PB).

Tanks are still the main way to store water for human consumption (Figure 6A). Already, when argued about the main source of water search in the soil, they answered that the tubular and amazon wells give support to domestic activities (Figure 6B).





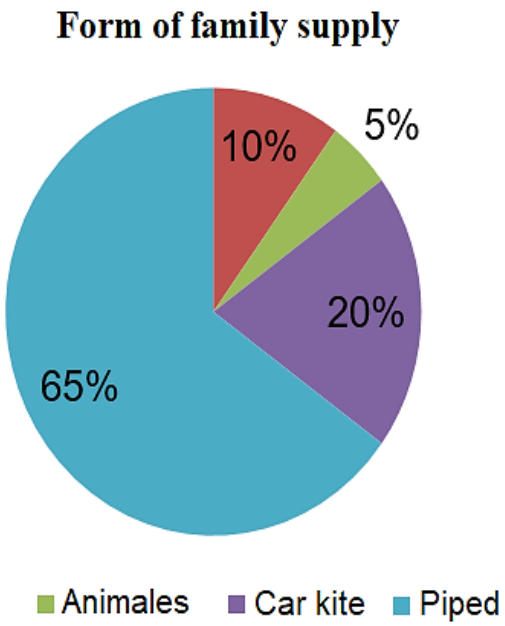


Figure 7. Situation of water supply in the residence of farmers interviewed in the Riacho da Serra Community, in São José do Sabugi, PB.

The construction of the cistern serves as an alternative for storing and supplying rainwater in rural areas, especially in the semi-arid region of Paraiba, where the available sources, such as wells and rivers, have a variable volume of water, under the effect of seasonality, and most often water with high levels of salts.

The quality of the water stored in the tanks depends fundamentally on a good system maintenance. This consists of the disposal of the first waters, inspection and cleaning of the roof, gutters, pipes and the tank itself [14].

As for the family supply (Figure 7C), it is noted that 65% of the water is channeled. However, 10% is still carried out by farmers using cans. [4] families spend up to 30 hours per month on water transportation. Cans, which contain up to 20 liters of water, are usually carried in the heads causing chronic negative effects, including spinal pain. This transportation, most of the times, is done by women, children and adolescents.

The Caatinga is still very much exploited for the purpose of removing the wood for domestic use (firewood) and making fences. However, it is noteworthy that there is also exploration for more noble purposes, such as the use of medicinal plants, the extraction of fruits for various purposes, such as umbu, and the diverse use of seeds (Figure 7).

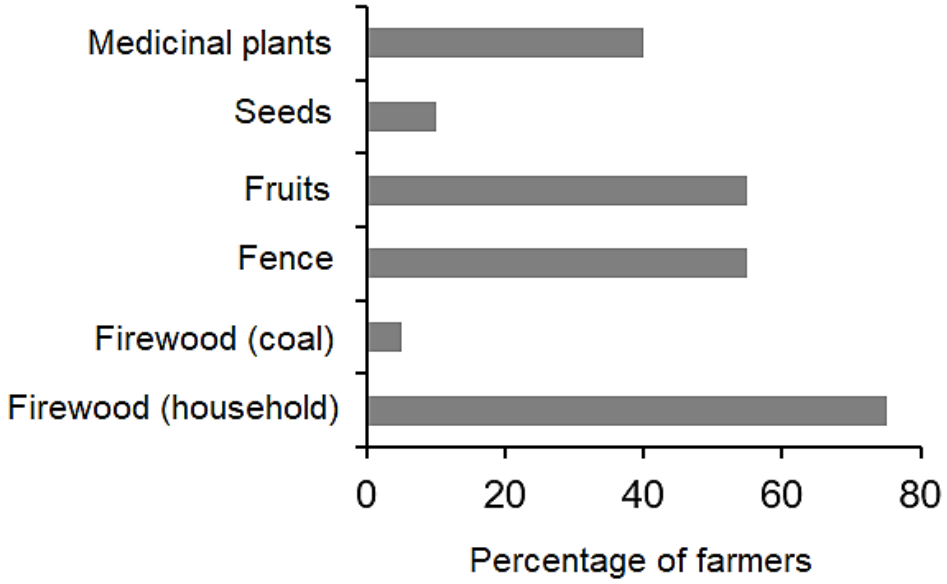


Figure 8. Utilization of the caatinga of the farmers interviewed in the Riacho da Serra Community, in São José do Sabugi, PB.

In the process of extraction of umbu by Community producers, a number of uses can be indicated, with direct sales (14%), feed (19%), family consumption (33%) and pulp (34%) (Figure 8). Variability in the use of umbu by growers is observed, with several alternatives for final destination of the product.

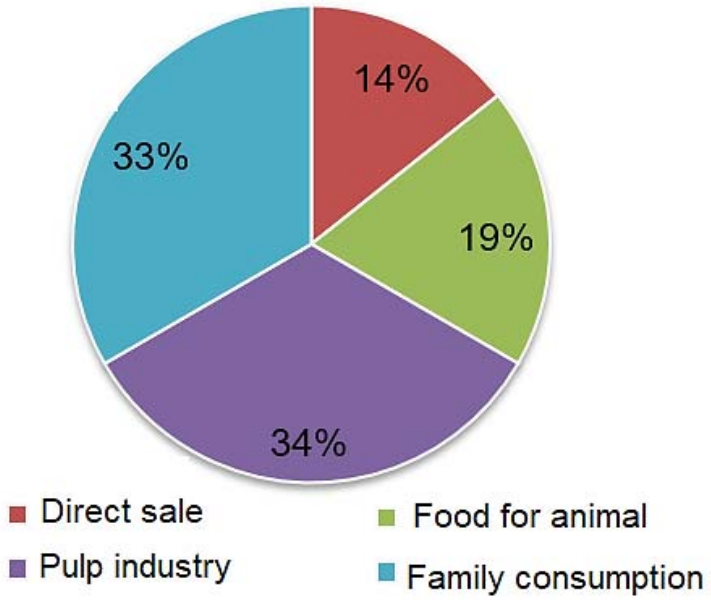


Figure 9. Main uses of umbu by farmers interviewed in the Riacho da Serra Community, in São José do Sabugi, PB.

The number of people in the family who participate in the holding of umbu in the community is two to four people. Meanwhile, the distance from the residence in relation to the umbu tasting site is up to two leagues.

The vast majority (94%) of farmers have always had one. In order to verify the reduction of the population of umbuzeiro used by the community, it was asked if the farmer had already collected in some umbuzeiro that finished and the result was that 15% of the farmers already saw the umbuzeiros of the place finished (Figure 9).

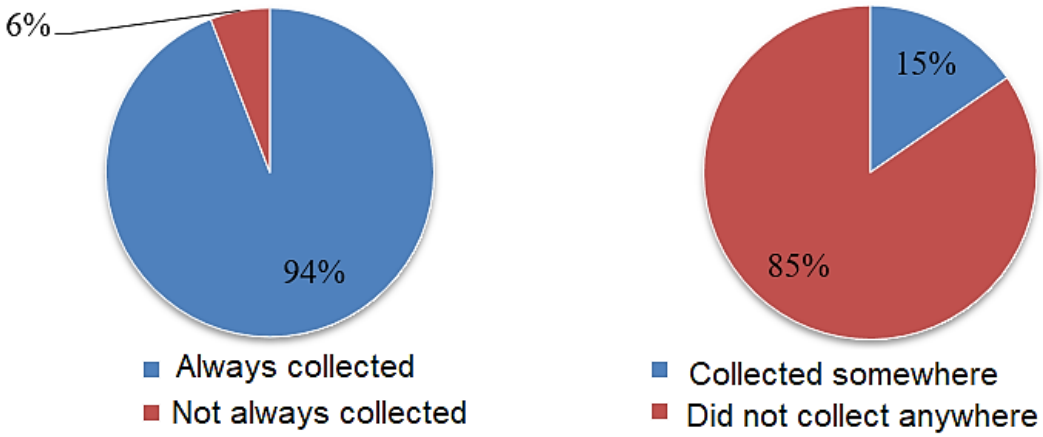


Figure 10. Percentage of farmers who have always collected and collected in a place that ended up in the community of Riacho da Serra, in São José do Sabugi, PB.

This result may indicate the risk of extinction of this species, as well as the reduction of areas of exploitation of the activity. [15] in a study in the Soledade-PB region, observed that the farmers were already worried about the risk of extinction.

Evaluating the time farmers practice extractivism, it is observed that farmers have some experience in the activity, with 57% of them hiring more than 20 years, indicating that the farmers who harvest umbu have a family tradition. However, the other age groups present considerable values around 15% (Figure 10).

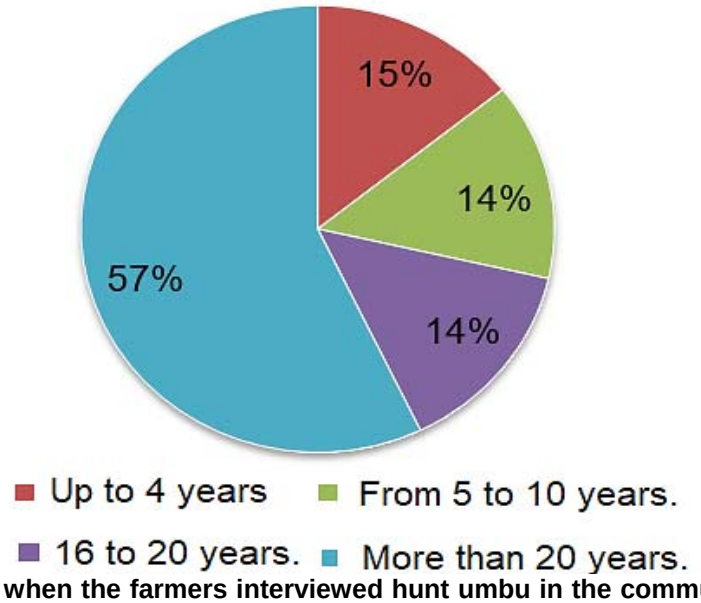


Figure 11. Time when the farmers interviewed hunt umbu in the community of Riacho da Serra, in São José do Sabugi, PB.

In addition to the extraction of umbu, the producers remove other products such as firewood (75%) and cutting (55%) from the caatinga (Figure 11). The extraction of umbu is a periodic activity and is not able to provide monthly income to the farmers and thus becomes a complementary activity, only at the time of umbuzeiro production. Therefore, it is necessary for the farmer to seek another way to acquire more resources, being the removal of firewood and cuttings the easiest way to extract products from the Caatinga. However, this activity should be used sustainably.

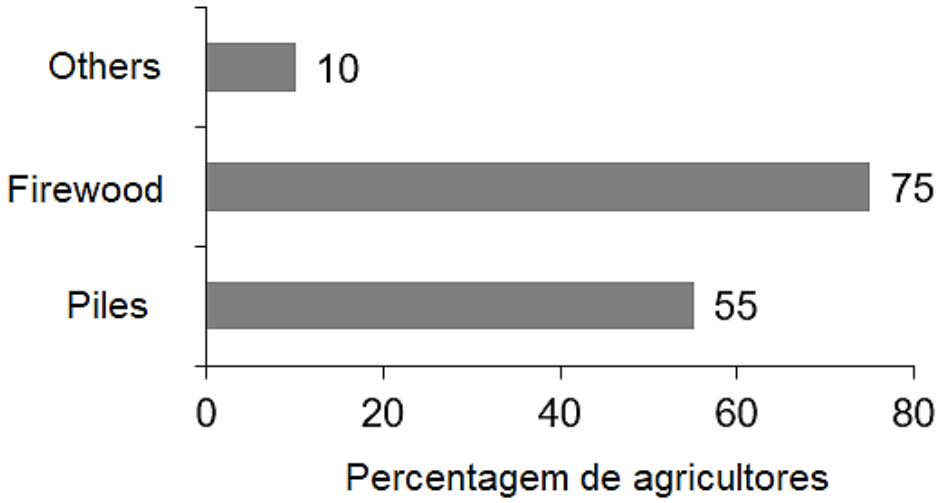


Figure 12. Percentage of farmers who make other uses of the Caatinga in the community of Riacho da Serra, in São José do Sabugi, PB.

The farmers who are currently hunting, 83% were influenced by their parents who already practiced this activity, and 17% of the producers consulted have no descendants of umbu pickers.

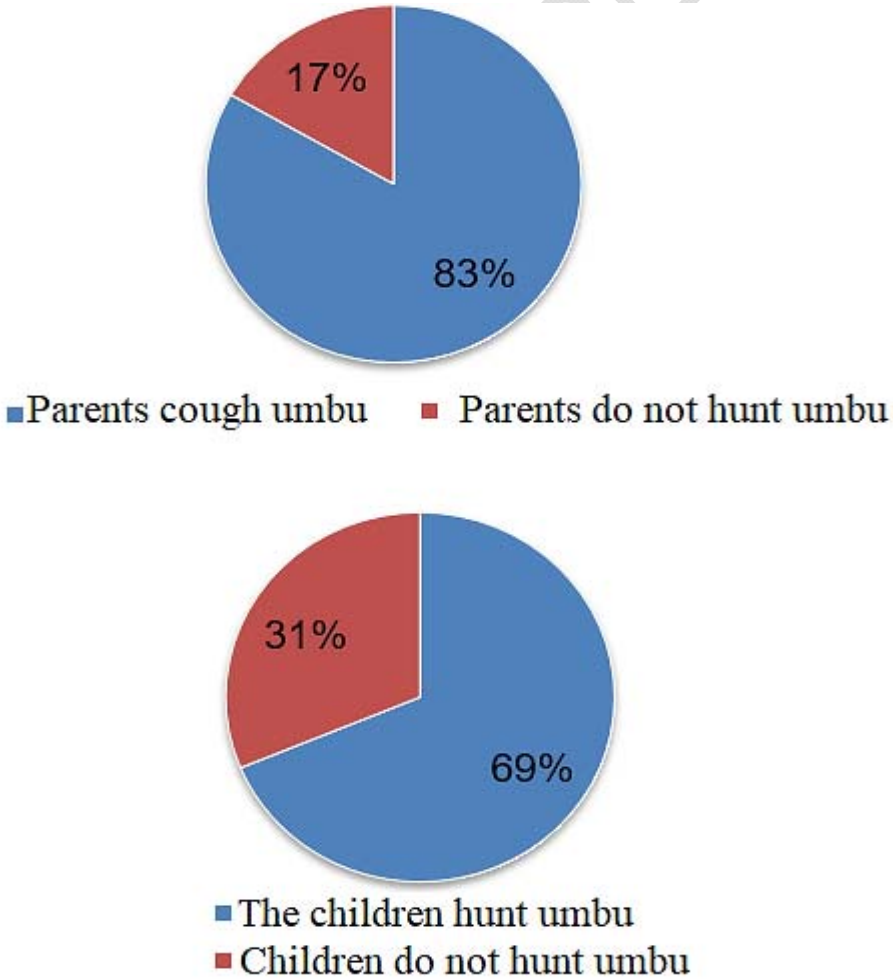


Figure 13. Descendancy and ancestry of the farmers in the activity of umbu culling in the Riacho da Serra Community, in São José do Sabugi, PB.

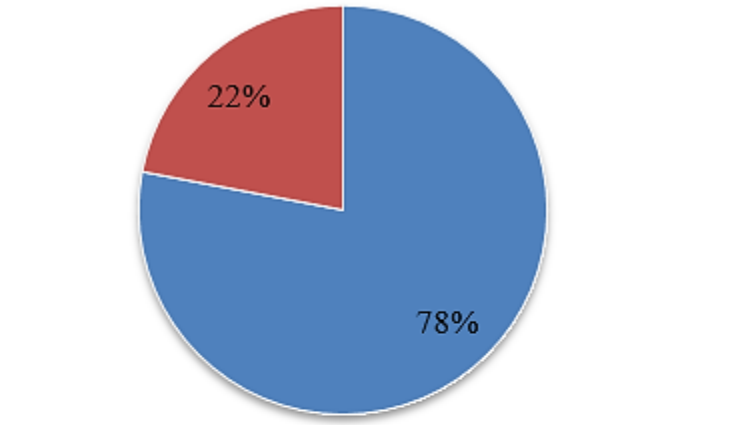
The producers of the Riacho da Serra Community have indicated that they work on collecting umbu in areas of less than ten hectares, which contain a maximum of 15 feet of umbuzeiro for extraction. As for the number of umbu feet needed to fill a 60 kg bag, farmers have reported that up to two umbuzeiros are required.

In the umbuzeiro harvest, producers pick up to eight sacks of umbu per day, depending on the production of each umbuzeiro and the productivity of each producer, that is, although some farmers pick eight sacks in a day, others can taste much less.

The commercialization of umbu in the community of Riacho da Serra is very incipient, being that the majority of the producers tastes only for the consumption of the family and they sell in small quantities. In 2014, the consulted producers reported that they sold less than 200 umbu bags, that is, when there was a sale, as most declared that they did not sell.

Still on the sale, when the sale was made, the price of the 3kg bag varied between R$ 2.00 and more than R$ 2.50, and 62% of the producers consulted stated that they sell for the price of R$ 2, 00, while 31% sell at R $ 2.50 and 7% at R$ 2.50 (question IX.05, appendix I). Of the producers that produce a crop, 100% have another activity to supplement the income, among which are cited: rice (85%), livestock (85%), handicrafts (7.5%) and others (7.5%).

In addition to the activities described by the producers, 78% receive a grant, retirement or government assistance. Therefore, the monthly income of the family of 68% of the producers is less than a minimum wage, while 32% of the producers have income between one and two wages (Figure 13).



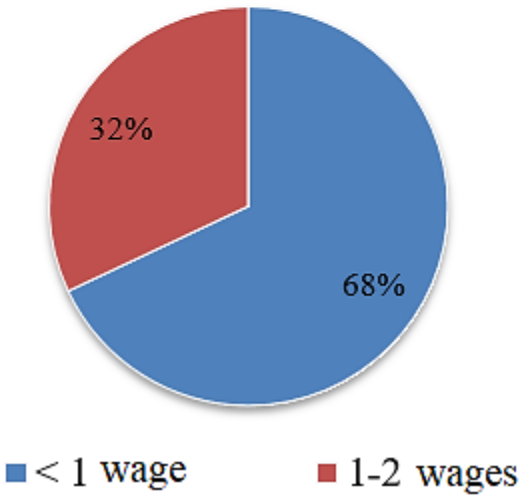


Figure 14. Situation of the income distribution of farmers interviewed in the Riacho da Serra Community, in São José do Sabugi, PB.

The community farmers reported that they participated in two entities, being affiliated with the association of rural producers of the community and the union of rural producers of the municipality. When asked how they have access to the doctor and dentist, they have reported that they are served through the PSF (Family Health Program) accessible to community producers.

As for the children's education, farmers were asked if they are satisfied with their child's school and all respondents said they are satisfied. Among the main needs of the community were mentioned lack of employment and lack of water as major difficulties of the community. Farmers also reported that they did not participate in any social / environmental movement.

4. CONCLUSION

Environmental perception was characterized as a relevant instrument to stimulate popular participation;

So that the exploration of the umbuzeiro is configured as an activity of generating employment and income, it must be conceived and accepted by everyone in the Riacho da Serra Community. The community should become more involved in the activities, expose their expectations, wishes, visions and opinions.

The relevant contribution of the research was stimulated by encouraging the participation of the local community within a process with sustainable bases, considering that it, besides knowing the peculiarities of the environment in which it lives, must accept the exploration of umbu as a sustainable activity, so that negative impacts are minimized and potential positive aspects.

COMPETING INTERESTS

Authors have stated that there are no competitors.

INTERESTS EXIST

Authors have declared that no competing interests exist.

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