



## Perception of residents in relation to arborization in the municipality of Ibateguara, Alagoas, Brazil

### Percepção dos moradores em relação a arborização do município Ibateguara, Alagoas, Brasil

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**ABSTRACT:** The improvement of quality of life in urban environments can occur through afforestation, which contributes to air purification, improvement of the city's climate by retaining soil and air moisture, by generating shadow, preventing solar rays from affecting directly on people. The aim of this research was to evaluate the positive and negative environmental impacts of urban arborization through the report of residents of the municipality of Ibateguara/AL, Brazil. Thus, a semi-structured questionnaire was applied with fifteen questions about Arborization, Totaling 50 completed questionnaires. Through the results obtained, it was possible to observe that the residents, have empirical knowledge on the subject, where arborization is associated only with trees and shade, yet do not possess adequate knowledge about all the benefits of afforestation For its maintenance. These data reinforce the need for planning the afforestation of the municipality, with the implementation of an environmental education project, seeking to raise awareness of the population of its importance.

**KEYWORDS:** Quality of life. Environment. Environmental understanding.

**RESUMO:** A melhoria da qualidade de vida em ambientes urbanos pode ocorrer através do florestamento, o que contribui para a purificação do ar, a melhoria do clima da cidade, retendo a umidade do solo e do ar, gerando sombra, impedindo que os raios solares afetem diretamente as pessoas. O objetivo desta pesquisa foi avaliar os impactos ambientais positivos e negativos da arborização urbana por meio de relato de moradores do município de Ibateguara/AL, Brasil. Assim, foi aplicado um questionário semiestruturado com quinze questões sobre Arborização, totalizando 50 questionários preenchidos. Através dos resultados obtidos, foi possível observar que os moradores possuem conhecimento empírico sobre o assunto, onde a arborização está associada apenas a árvores e sombra, mas ainda não possuem conhecimento adequado sobre todos os benefícios do reflorestamento para sua manutenção. Esses dados reforçam a necessidade de planejar o reflorestamento do município, com a implantação de um projeto de educação ambiental, buscando conscientizar a população sobre sua importância.

**PALAVRAS-CHAVE:** Qualidade de vida. Meio Ambiente. Compreensão ambiental.

## INTRODUÇÃO

Since the beginning of its existence, man has been provoking drastic changes in the environment, both negative and positive (MALAVASI, 1994). The same author points out that, from the moment the urban clusters began to emerge, the human being intensified this process in such a way that today has escaped control, and so most regions are environmentally modified. Thus, man has no access to all the benefits brought by afforestation, and with this his quality of life is compromised (SANCHOTENE, 2000). Based on this assumption, it is evident that urban afforestation deserves more attention due to the benefits and even the problems they present due to the presence of the tree in the context of the city (PANDANOV; FREITAS, 2013).

The trees, due to their natural characteristics, provide many advantages to the man who lives in the city, in several respects: psychological well-being to man; Best aesthetic effect; Shadow for pedestrians and vehicles; Protect and direct the wind; Damping sound, softening noise pollution; Reduce the impact of rainwater and its superficial runoff help to decrease the temperature, as they absorb the sun's rays and refresh the environment by the large amount of water transpired by the leaves, as well as improve the air quality and preserve the Wildlife (PIVETTA; SILVA FILHO, 2002).

For Graziano et al. (1988) Urban vegetation plays important roles in cities, improves the urban environment through the ability to produce shade, filters noises, optimizes air quality, eases temperature, promoting welfare to those who Can take advantage of these locations. The same author affirms, that from the aesthetic point of view also contributes with colors, shapes and textures and the psychological aspect, that man feels satisfaction when he is in contact with the vegetation and the environment that it creates.

Thus, if it is not idealized and planned correctly, with the necessary care, urban afforestation can become a problem rather than solve it, being done wrongly can occur serious problems for both the population and the Spaces where they were deployed (MILANO and DALCIN, 2000). In this sense, if the trees are planted in inadequate places can disrupt the electrical networks, sewers, walls, sidewalks, gutters and lighting poles, besides the branches and fruits that may fall on the pedestrians, causing possible accidents (CEMIG, 2011).

In view of all points of withdrawal, this research aimed to evaluate the positive and negative environmental impacts of streets with and without arborization, through the report of residents of the municipality of Ibateguara-AL.

## **MATERIAL AND METHODS**

### **Characterization of the study area**

According to the census of IBGE (2010), the municipality of Ibateguara of the state of Alagoas has an estimated population, in 2018, of 15,606 inhabitants and is inserted in the mountainous microregion of the quilombos with an area of 265.312 km<sup>2</sup>, at an altitude of approximately 505 m<sup>2</sup> Above sea level, and is 103 km<sup>2</sup> from the capital of Alagoas. It has an area of 38.5% urban wooded.

### **Data collection**

The present qualitative research was carried out in the municipality of Ibateguara-AL in December 2018, in order to demonstrate more comprehensively the perception of the population on Arborization, where 50 questionnaires were filled out. This work brings in its approach the environment as a direct source of data, where the researcher maintains direct contact with the objective of the study in question existing a theoretical framework that directs the collection, analysis and interpretation of data (PANDANOV; FREITAS, 2013).

For data collection, a semi-structured questionnaire was used with 15 questions about the arborization, being 14 objective and one dissertative, which were applied randomly and without identification of the interviewees, with a range of 18 and 75 years. These were carried out in two phases: 25 in very wooded streets and 25 in streets without afforestation. Being answered according to the willingness, on the part of the residents, to participate in the research, and in it were addressed issues such as: advantages and disadvantages of having tree on the sidewalk; If you have already planted a tree; It attends parks and squares and if these sites are wooded. In addition to

questions about afforestation, demographic data were also collected, as in relation to gender, age and time of dwelling.

To obtain the results, we used the pattern of counting and application of percentage, and the results presented in the form of graphs analyzed through the Excel Program (2010).

## RESULTADOS E DISCUSSÕES

The effect of accelerated urbanization has caused great modifications on the landscape (GONÇALVES; PAIVA, 2004). Therefore, environmental perception has deserved much attention in recent years, as a technique that associates psychology with sociology and ecology, helping to understand the expectations, satisfactions and dissatisfactions of the population in relation to the environment in which they live and In recognizing the factors affecting quality of life or social welfare (RODRIGUES et al., 2010).

As observed in the following pictures, some streets are more wooded (photo 1), and others without arborization (Photo 2). In each street where the research was conducted, different satisfactions and Dissatisfactions were reported.



**Photo 1. Street with Arborization.**



**Photo 2. Street without afforestation.**

Based on the results obtained, in relation to the age group in the two phases, the percentage of respondents with a majority (76%) Aged between 25 and 55 (Figure 1),

72% were female. About residency, 95% is home with more than 10 years of housing (Figure 2).

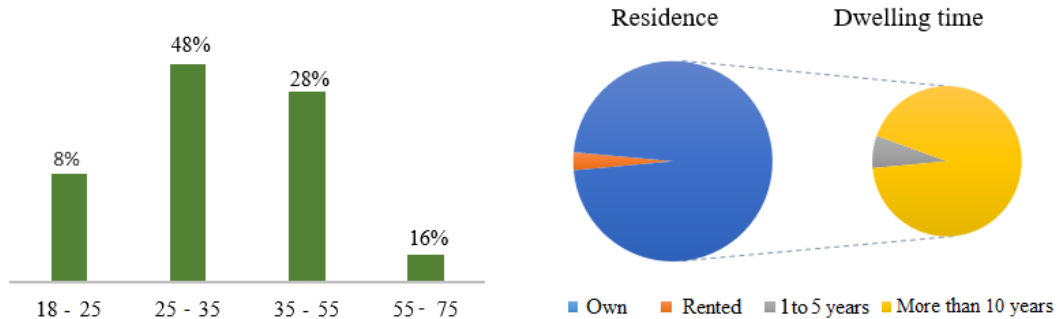


Figure 1. Age group.

Figure 2. Residence and time of dwelling.

When questioned about Arborization, most of them conveyed doubts about what it was, showing an empirical knowledge, however, they continued to respond after a brief explanation of what the research was about.

To those who contributed to the arborization, when asked about who was responsible for planting, but 50% answered that it was the current resident (Figure 3). They spoke of the benefits they made to themselves and the environment, when they decided to plant a tree on the sidewalk. It is important to report that urban afforestation brings many benefits to the population, highlighting, among them, the aesthetics (colors, textures and shapes, which break the monotony and soften architectural lines, constituting a landscape harmony, in Urban space), as well as climate and environmental improvements: enriches the microclimate, balancing the temperature, thanks to the shade and evapotranspiration, reduces the levels of air pollution and noise pollution (COTHER; MIRANDA, 2007).

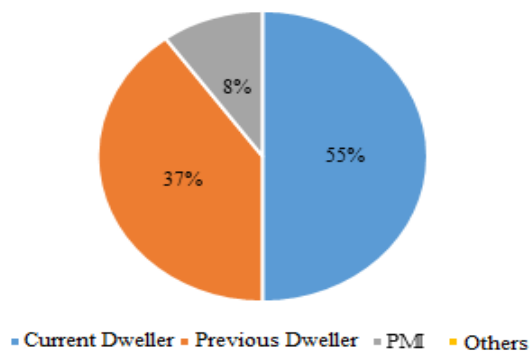


Figure 3. Who was responsible for planting the tree located on the sidewalk.

One question to be raised is that more than 90% of the total respondent, attribute the maintenance of the afforestation to the residents themselves, and who do not know any type of service offered by the world that collects branches, wood artifacts in general and debris, is Collected with the normal litter of the residences. According to Silva (2008), a large part of the municipalities do not have projects or planting trees or maintenance, often planting and maintenance itself, such as pruning, are carried out by residents.

Regarding the questioning about the advantages and disadvantages of afforestation, they reported that the greatest benefits provided by the same is the shade and the reduction of temperature (Figure 4), as the disadvantages one of the reasons emphasized by all, were the Cracks in the sidewalks and roots that damage the houses (Figure 5).

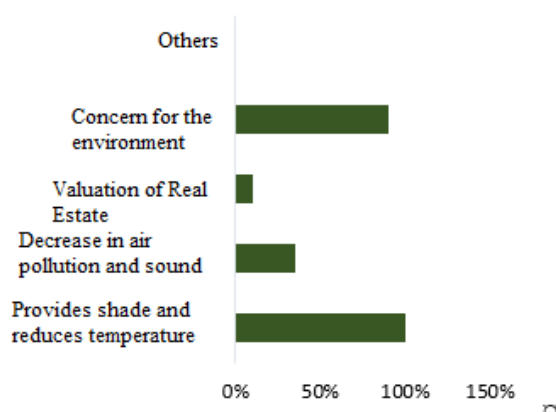


Figure 4. Afforestation advantages.

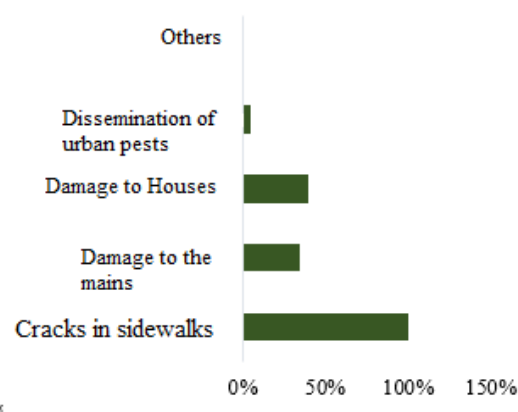
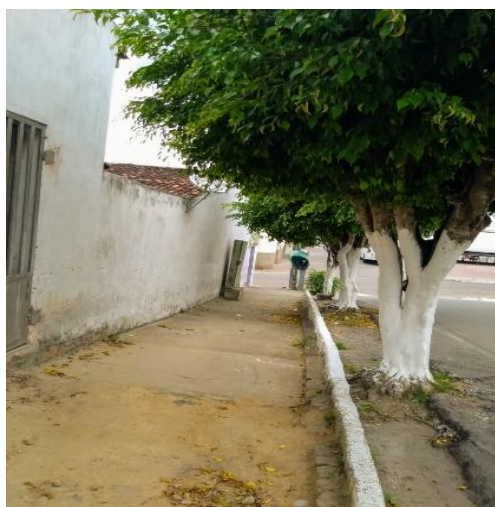


Figura 5. Desvantagens de arborização.

Medeiros (2007) states that countless problems caused by afforestation in a city emerge from the planting of inadequate species and emphasizes that the high percentage of residences, sidewalks and walls harmed by the afforestation followed by the damage to Roof, probably indicates that the physical space destined for growth and development of these trees is incompatible with their size, diameter and extension of the roots and canopy.

Those who reside in the streets without afforestation, one of the cited points of not having tree on the sidewalk is justified by the fact that the street is narrow, which increases the risk of cracks caused both in the sidewalks and in the residences, as can be observed in photos 3 and 4 (Arbor Street The same).



**Photo 3.** Cracks in the sidewalks and asphalt, caused by the roots of the trees. **Photo 4.** Cracks in the sidewalks and asphalt, caused by the roots of the trees.

Most often, irreversible errors occur due to the wrong choice of the species, generally aggravated by the disregard of the minimum needs of the trees, such as: soil characteristics, quantity of water, need for light incidence And the space needed for its development (VELASCO et al., 2006). The lack of planning in the implantation and maintenance of urban arborization is evidenced in several Brazilian cities and even in other countries, causing problems such as example, reduced diversity of native species (SILVA et al, 2007; MELO et al., 2007), due to the excessive use of exotic species (BRITO and CASTRO, 2007) and deficient maintenance (RACHID; COUTO, 1999). Therefore, in order to not occur problems with trees planted on public roads, it is necessary to know the characteristics and behaviors that are distinct from them, among other care (CPFL, 2008).

## CONCLUSION

Because of what has been mentioned, environmental education must be done in urban centers and in their interiors, seeking to raise awareness of the population, so that in the future we can have a sustainable city. Urban afforestation is a necessity of cities, not only by aesthetic issues, along with this benefit, it is necessary to think about the

well-being and quality of the air offered to human life, consequently reflecting on the quality of life.

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