



Green IPTU: Reducing consumption of natural resources and sustainable development

IPTU verde: A redução do consumo de recursos naturais e o desenvolvimento sustentável

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1 INTRODUCTION

The Federal Constitution of 1988, in its article 225, gives everyone the right to a balanced environment, of common use and essential to the quality of life, while at the same time it is the duty of all to preserve it, including for future generations. Thus, the responsibility to protect the environment is not only of the public power, but of all who inhabit the national territory.

The United Nations (UN) established Sustainable Development Goals (SDGs) in 2015 to achieve a balanced and sustainable environment.

Based on these objectives, countries began to work to achieve them, and one socio-environmental option for Brazil was to institute a discount on the Urban Property Tax (IPTU), for those who contribute to the protection of the environment when building their urban property.

The IPTU is provided for in the Magna Carta of 1988 in its art. 156, item I. Its competence is private to the municipalities and the Federal District. In the National Tax Code (CTN), the IPTU is provided for between articles 32 and 34, where the taxable event, which consists of the ownership, possession or useful domain of urban property, and the incidence of said tax were defined.

By understanding that natural resources are finite, while, on the other hand, human needs are infinite, it can be evidenced that the green IPTU proves to be an effective alternative to the SDGs, which deal with the creation of public policies necessary for humanity until the year 2030, including the protection of the environment.



The green IPTU has become a tax incentive to stimulate sustainable environmental action in the country. Such stimuli have become essential after the globalization process faced by the planet and the environmental impacts caused by this phenomenon, which has generated increased production, communication, technology and various flows.

Civil construction is one of the areas that contribute greatly to the generation of waste and, consequently, causes a lot of damage to the environment, thus, the adoption of sustainable practices in this branch is indispensable.

This research brought as a problem the analysis of how the green IPTU has contributed to environmental sustainability. In addition, the adherence of this sustainable practice is advantageous for the taxpayer not only by the reduction in tax, but also by the reduction in construction costs and property valuation.

2 OBJECTIVES

When conducting the research, objectives were established to elucidate the problem. Thus, it was designated as general objective: Identify the socio-environmental changes that occurred in some cities that joined the green IPTU program. With regard to the specific objectives were established: understand the financial advantages to the taxpayers of the green IPTU, as well as, analyze the environmental advantages to the municipalities participating in the program.

3 METHODS

For the preparation of this research, the methods of documentary review were used, which according to Fonseca (2002) consists of resorting to the most diverse sources without analytical bias, these sources can be newspapers, magazines, reports, official documents, letters, films, photographs, paintings. The documents used as a basis for the documentary review can be old or new and still without scientific analysis.

Another method used was bibliographic research, which consists of identifying and filing the most relevant information on the subject. According to Alyrio (2009), bibliographic research is the first step in the research process, and that after choosing a subject it is necessary to make a bibliographic review of the chosen theme.

Through these methods were analyzed articles, materials, research on the subject. The main technique used in the research was *Snowballing*, which according to the



definition given by Greenhalgh and Peacock (2005), consists of the use of new authors by reference of authors already found.

The research was carried out based on the works published from the year 2015, the year in which the Sustainable Development Goals (SDGs) were established by the UN. To carry out the research, searches were made on the subject on academic sites, namely google academic and Scielo, as well as the online collection of Faculdade Anhanguera.

4 RESULTS AND DISCUSSION

Although the green IPTU is considered a current program, since its implementation in Brazil occurred with the proposed amendment to the Constitution (PEC) 13/2019, according to Gonçalves *et al.* (2019), the green IPTU system has been present in society since the 20th century.

Gonçalves *et al.* (2019), also state that The World Commission on Environment and Development (WCED), which took place between 1988 and 1991, contributed significantly to the first understandings of sustainable development.

May (2016) points out that among the alternatives for the realization of sustainable development, the green IPTU aims to encourage the owner to adopt good construction and land use practices, aiming to induce a reduction in energy demand and greenhouse gas emissions, water waste, and inadequate waste disposal.

Nevertheless, taken by extrafiscality, which according to Gonçalves, *et al.*, consists of having the tax as an instrument of economic intervention aiming to influence taxpayers in clashes of collective interest, the green IPTU emanated as a socio-environmental alternative to reduce the environmental impacts caused in urban civil construction.

The IPTU is a tax reviewed in art. 156 of the Magna Carta of 1988, and the competence for increase, institution and discounts is of the Municipalities and the Federal District. Thus, each municipality participating in the green IPTU program has its own legislation regulating its rates and percentages of discounts for each situation. Below is a table summarizing the law in some of the cities that use the program:



Table 1- Summary of how the green IPTU works in some municipalities.

CITY	SUMMARY OF THE GREEN IPTU LAW
SALVADOR	The law was created in 2013 and grants discounts of between 5% and 10% through a complex scoring system.
VILA VELHA	The law came into force in 2002 benefiting properties with native green areas, properties with solar energy and developments that use eco-bags. Percentage discounts of up to 50% of IPTU.
SÃO CARLOS	It encourages the planting of trees on the public sidewalk of each residence and grants a reduction of up to 2%.
ARARAQUARA	Established in 2010, the law grants benefits of up to 40% for those who maintain a green area in the residence in 80% of the land. Lower percentages are granted for preservations between 30% and 79% of the residential area.
BELO HORIZONTE	In force since 1983, the law grants up to 100% discount for homes considered ecological, with woods that can influence the local microclimate.
CURITIBA	Relevant native woods receive Percentage discounts of up to 100% reduction for vegetation covers above 70% of the area. For non-relevant woodlands receive discounts of up to 60% reduction for vegetation covers above 80% of the area. Isolated trees immune to felling, 10% reduction per unit up to a maximum of 50%.

Source: GONÇALVES, *et al.* (2019, p.125).

Jahnke, Willani and De Araújo (2019) emphasize that in a broad sense, sustainable development is a pyramid that involves economic, social and environmental. "For something to be specifically sustainable, it needs to merge the ecologically sound, economically viable, socially just and culturally accepted." (JAHNKE; WILLANI; DE ARAÚJO, 2019, p. 416).

Still regarding the financial benefits to taxpayers, Gonçalves, *et al.*, states that the maximum discount allowed will depend on the bill of each municipality and can reach up to 100%, as in Curitiba, Paraná and Belo Horizonte, Minas Gerais. However, in the vast majority of municipalities the reduction is between 20% and 30%.

Regarding the environmental benefits achieved by the cities participating in the green IPTU program, it is not always possible to analyze the accuracy of each benefit. Gonçalves *et al.* state that the returns of these policies are still poorly evaluated, some evidence shows that they promote an improvement in social and environmental well-being, real estate valuation, improvement in air quality, fauna and flora, and other diverse.

According to Passos and Rangel (2016), this method, which provides equal distribution of benefits from sustainable practices, should be used to ensure the future of



society and nature. Even with few studies on the result of this sustainable habit in the municipalities, it is possible to verify the decrease in the use of natural resources in the participating cities.

5 CONCLUSION

When studying about the green IPTU, the reduction of natural resources and sustainable development, it is concluded that in Brazil ecological taxation has emerged as a large means of environmental protection, since the reduction in tax is an incentive to people.

With regard to the research problem, it focuses on the analysis of how the green IPTU contributes to sustainable development. At this point, it was possible to identify several benefits achieved by this tax, among them, the preservation of water, soil, improvement in air quality, among others.

Regarding the specific objectives, it was possible to observe that the financial advantages to taxpayers are relative, depending on each municipality. As for the environmental returns, these have not yet been measured in detail, but in general, the results of ecological taxation are visualized.

In this area, when researching the theme of green IPTU, it has been observed that in Brazil, the competence to establish, increase and decrease this tax belongs to the municipalities and that so far there are not many municipalities participating in this sustainable practice, although results are already being noticed in the integrating cities.

In view of the research, the suggestion to researchers on the subject is to study in more depth the environmental benefits achieved in cities that participate in the green IPTU, so that the evolution of each municipality can be observed in a concrete way.



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