Extended Abstract


Introduction

The theme is to stress the importance of the matter at the Master Course of Urban and Environmental Engineering and their practices in the Municipal policy on Climate Change and Sustainable Development consequences, establishing goals for reducing anthropogenic emissions of greenhouse gases in stimulating and disseminating concepts and structuring practices in the construction of residential, commercial, and institutional buildings mixed.

It started with the Strategic Plan of the Municipality of Rio de Janeiro by the terms of Law No. 5,248 of January 27, 2011 and subsequently by Municipal Decree No. 35,745 of June 6, 2012, when the environmental seal "QUALIVERDE" was created as on option for new projects and existing buildings, residential, commercial, institutional or mixed use application.

Objectives

The main objective was to encourage the proliferation of projects that address sustainable actions and practices (green building), with efficiency in the use and consumption of water and energy, to encourage the reduction of environmental impacts in the Rio de Janeiro City.

As a counterpart to its use, the City instituted buildings and tax developments that hold the qualifying benefits. There is no denying the importance of the construction industry for economic and social development of the city, however, the sector is one of the fastest cause environmental impacts across the world, especially because of the great generation of waste and the high consumption of raw materials, water and energy.

Our comparative study evaluates the parameters established in the other three most applied international labels, Green Building - Leed, Aqua-H.q.e., and Breeam, which will serve to analyze the applicability and effectiveness of
Qualiverde, comparing the actions and specific measures used in foreign certificates, evaluating their joint strategies, as: a) Management of Water Consumption; b) Energy Efficiency; c) Innovative Solutions in Architectural Design.

Qualification measures

The qualification shall be obtained by the Qualiverde enterprise, every action corresponding to a score established by Decree. When you reach at least 70 points, it will be classified as "Qualiverde", and when you reach 100 points, it will be reported as "Total Qualiverde" (art. 2, pI and II of the Decree). In the case of a renovation project or modification of an existing building, the actions shall be related to any existing building on the lot on which it stands, and not only to the increase of building or renovated area.

Obtaining the qualification does not exempt to the full implementation of Environmental, Urban, Building Construction Laws, and other applicable legal standards. Actions and practices that justify the grant may not be modified nor the facilities for commercial activities that cause discomfort or injury to the neighborhood and the environment will be permitted. Being found not attending the established qualification issued will be canceled.

Development Study

Comparative study has the main objective to aggregate measures and conceptions of International Certificates, adapting them to our urban and constructive reality, power and spread awareness of the need to considerably increase the number of sustainable buildings in Rio de Janeiro City. The Qualiverde Certificate has a specific score on each of these actions, and the projects are evaluated based on their set of measures, that in the overview are: a) Management of water consumption, b) energy efficiency and c) Innovative solutions in Architectural Design. Projects that choose to practice the "Retrofit" in existing buildings, will receive a special bonus, for trying to recover more complex to apply innovative technologies.
Differentiation of systems

The Buildings assigned the seal are fundamental to sustainable development because it results in cities with better quality of life for its residents, less waste, less consumption of water and energy, generating fewer emissions of greenhouse gases and reducing air pollution in large urban centers.

The development of a systematic base of resources available for sustainable building and its monitoring in the evolution of corporate responsibility, will expand the number of buildings certified by Qualiverde and replicate this trend among builders and designers.

Greater awareness of employees involved in the production chain of the importance of their activities, generate better care of the stakeholders of companies continues improvement of products generated.

Justification for the adoption of certified

The creation of Qualiverde qualification certificate granted by the City with the aim of encouraging projects that address sustainable practices, is a key step in the development of the City, especially now that the eyes of the world are facing Brazil in the Football World Cup in 2014 and the Olympics Games in Rio de Janeiro in 2016.

With Qualiverde approach the concept of sustainability to the daily practices of buildings, establishing and maintaining harmony between the natural and built environments, reducing power consumption and preventing unnecessary losses. However, for the concept is definitely enter in the everyday actions of the construction, it is necessary incentives to encourage builders to adopt sustainability practices in their endeavors.

This Complementary Bill establishes buildings and tax breaks for buildings that adopt sustainability initiatives that minimize environmental impacts, proven by obtaining the qualification measures significantly mitigate the requirements for approval of projects, and on the other hand, substantially reduce taxes generated in the projects, such as property taxes tax on Land and Urban Land ownership before and after the Occupancy Permit, the ITBI tax Transfer of real property and rights relating there o, and the ISS tax Services during construction.
Conclusions

There is no denying the importance of the construction industry in the economic and social development of the city, however, at the same time, the sector is one of the major causes of environmental impacts across the world, specifically because of the large waste generation and high consumption of raw materials polluting water and energy. That’s why it is so important to reduce their impacts, streamline and manage their discards at construction sites and especially minimize the emission of greenhouse gases and improve air quality, air pollution and quality of life of citizens.

The enterprises with Qualiverde accredited qualification will be exempt in the areas of open porches, appropriate to our climate, and the outside gardens, working in favor of temperature, shading facades and creating green patches that humanize the buildings making them more attractive.

The Qualiverde enterprises are also exempted from direct access to the movement of car park from the same unit, streamlining and optimizing these uses its spaces. These benefits will not lead to increase in height of the buildings, this case will be respected existing ones, which would not harm the ambience and the structure of urban neighborhoods.

The liability lawsuits are happening with great force, enabling the country increasingly receiving new technologies essential for the growth of sustainable buildings. The qualification in the form of decree is for the City of Rio de Janeiro has the agility to keep up with all the news reaching the market. Thus, the goal would be to increase the number of sustainable buildings in the city, reaching the level of most developed countries in sustainable buildings in the world.

Keyword

Qualification Certificates of Sustainable Practices in Construction; Qualiverde of Rio de Janeiro; Green Building- Leed, American; Aqua H.q.e, French and Breeam English.