

DUEL OF THE TITANS: ANALYSIS OF THE POTENTIALS AND LIMITATIONS OF REAL ESTATE VERTICALIZATION IN BALNEÁRIO CAMBORIÚ

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Abstract: Since 1970, the Santa Catarina municipality of Balneário Camboriú has opted for a strategy of radical densification, allowing almost limitless verticalization on the central border. The city built a unique landscape, bringing together eight of the largest buildings in the country. This strategy is reflected in the master plans and legislation for land use and occupation, which opted for flexible urban control, seeking to manage the impact of large enterprises on a case-by-case basis. More recently, the municipality has been using urban planning instruments provided for in the City Statute to, on the one hand, maximize positive externalities arising from real estate development and, on the other hand, minimize impacts caused by the negative externalities of this urbanization process. To collectively appropriate benefits generated by real estate appreciation, the city has been using consortium urban operations to raise funds from the real estate sector for infrastructure works. The use of neighborhood impact studies, on the other hand, seeks to minimize and compensate for the socio-environmental and landscape impacts of large projects. The analysis of economic, tax and socio-environmental indicators seems to demonstrate that the municipality has achieved success in terms of economic and socio-environmental development, but it is observed that a better use of the available urban instruments would have the potential to increase the benefits for the population as a whole.

Keywords: Verticalization, Consortium urban operation, Neighborhood impact study, Balneário Camboriú.

INTRODUCTION

Brazil is essentially – and increasingly – urban. In 2017, the Brazilian Institute of Geography and Statistics (IBGE), when qualifying data from the 2010 Demographic Census, indicated that 76% of the Brazilian population is concentrated in predominantly urban areas. Over time, especially since the second half of the 20th century, Brazilian cities have been growing, making the demand for services continue to progressively put pressure on the cities' infrastructure offer.

When a growing population demand meets a relatively inelastic spatial supply, the tendency of cities to become denser, combined with a complexification of activities carried out in urban areas, makes the role of public managers and urban planners even more challenging, who, in order to try to contribute to the construction of a better organized and kinder city, they need to consider different variables in their analyses. Only this way is it possible to provide a technical basis for better political-administrative decisions at the municipal level.

In a complex society, it is the role of the State, as the main instance of society's coordination, to serve as an entity aimed at balancing, balancing and, as far as possible, harmonizing different expectations of different agents. Considering that there are always different interests, different values, different priorities and different capacities for action among the different actors, a society can be more prosperous and equitable to the extent that it manages to reconcile all these differences, in the fairest and most balanced way possible, within the real possibilities.

There is, on the one hand, in cities, a driving force of spontaneous order, sometimes chaotic, sometimes surprisingly balanced, bringing innovations, ideas, discoveries, new relationships, growth. On the other hand, the instances of planning, control

and induction can, in some circumstances, give rationality to the existing movements, sometimes reestablishing necessary balances. Although the available planning instruments, such as municipal master plans, due to their bureaucratic-institutional character, are generally anachronistic in relation to the challenges that arise unknowingly, they can contribute to the incessant search, sometimes inglorious, for the possible balance in a society.

The main practical instrument to try to align interests and conflicts in Brazilian cities, according to the Brazilian urban legal framework, is the master plan of each municipality. It is in this instance that disputes over space in the city materialize in norms, guidelines and collective definitions to be applied in the city. However, the mere formulation of a master plan – made nationally mandatory by the City Statute (2001) for municipalities with more than 20 thousand inhabitants – is no guarantee that its guidelines and determinations will be effectively applied. In his contribution to the history of urban planning, Flávio Villaça already pointed to the ineffectiveness of “plans without a map”, conceptualization for a master plan that “lists the most praiseworthy and well-intentioned objectives, policies and guidelines possible. This eliminates discord and hides conflicts” (VILLAÇA, 1999, p. 221), but, in practice, it does not have great effects on the existing dynamics in the city.

In the case of the municipality of Balneário Camboriú, in Santa Catarina, the different versions of the master plan of the municipality, over time, seem to have followed the trail of a deliberate choice in relation to the desired design: a vertical city by the sea. The occupation of the city’s territory began in the 1940s, expanding, in the following decades, more intensely from 1964, when the emancipation of the then district of Praia de Camboriú from the municipality of Camboriú, creating

the municipality of Balneário Camboriú (SKALLE, 2008).

The purpose of this article is to analyze the positive and negative impacts of the strategy, adopted by Balneário Camboriú, of having a more flexible legislation, in generic terms, combined with the choice of using specific control instruments by enterprise, with the requirement of impact studies neighborhood, including actions to mitigate socio-environmental and landscape impacts, in addition to financial compensation to the municipality, due to the intensive use of urban infrastructure, such as energy, water supply, collection and treatment of sewage and solid waste, urban roads, between others. The hypothesis to be verified is whether this strategy, which has been generating economic development and influx of people, on a large scale, proves to be advantageous or not in the face of the impacts generated by the verticalization of the city, mainly with regard to economic, environmental and environmental aspects. social.

METHODOLOGY

The theoretical framework of this article is based on two fundamental lines. The first is an analysis of the role of public power in regulating urban development, with the aim of mediating the relationships between the different agents that make up society, seeking to achieve a possible balance between different interests. In order to do so, the fundamental pillars are sought in the theory of public sector economics to discuss the limits and potential of the state’s role in this process (ANDRADE, 2004).

The second line is the critical analysis of the effectiveness and effectiveness of the application of urban instruments for land use planning, defined by the City Statute, commonly seen as a set of tools available to local authorities for the practical

implementation of choices., urban precepts and guidelines defined by society for a given location (LOLLO, 2005; SIQUEIRA and SCHLEDER, 2021).

As a way of giving tangibility to these theoretical reflections, the article seeks to analyze the urban trajectory of the Santa Catarina municipality of Balneário Camboriú, which, unlike many coastal cities in Brazil, adopted an aggressive strategy of verticalization of the seaside, making Praia Central, with less than seven kilometers in length, ended up housing eight of the ten largest buildings in the country, five of them with more than 60 floors and more than 200 meters in height (PRANDI, 2020).

In the empirical study of the urban development of the municipality, the economic-financial analysis of the development of the city is based on the study of the municipal tax evolution of Balneário Camboriú, based on data compiled by the Operational Support Center of Tax Order of the Public Ministry of Santa Catarina. Catarina, available from 2009. Complementing the tax issue, the collection potential of the three consortium urban operations used by the municipality so far, in order to expand the municipality's ability to pay for infrastructure works.

The analysis of economic development is contrasted with an analysis of social, environmental, road and landscape impact, in order to observe how the impacts of major works in the city are being treated, both in terms of mitigating negative externalities that affect society. as a whole, as well as in the aspect of collective appropriation of the positive externalities brought about by these projects, including in terms of real estate appreciation. For this, we analyze the neighborhood impact study of what will be the largest residential development in the world, the Triumph Tower building, as well as the technical opinion of the public authority that approved, in April 2022,

the realization of the project, including all mitigation actions and required counterparts.

CHALLENGES OF ECONOMIC REGULATION OF URBAN SPACE

In order to understand some of the concepts presented throughout the work, it is worth mentioning some definitions from economic theory: i) externalities, ii) balance and ways of correcting externalities and iii) distribution of social costs and benefits. The understanding of these concepts helps in the discussion about the treatment of different costs and benefits, by society and the government, allowing a more precise analysis in relation to which actors are benefited or negatively affected by different actions carried out.

EXTERNALITIES

From the perspective of economic sciences, agents choose their actions in order to maximize their benefits and minimize costs. In this sense, firms aim to maximize profits and people seek to maximize utility or well-being (ANDRADE, 2004). As these actions are carried out, they may incur costs or indirect benefits to third parties – these costs are defined as negative externalities and benefits are positive externalities. Externalities are not necessarily financial, and can be perceived in different ways, such as, for example, the negative effects of air pollution or the positive effects of basic sanitation on health indicators.

The discussion about changes in construction standards and expansion of templates – and the different ways of dealing with urban problems arising from these changes – is related to the understanding of what exactly are the externalities generated by taller buildings, which lead to greater population concentration and greater potential for generating negative externalities, such as those related to the saturation of urban infrastructure capacities. It must be considered

that there may also be positive externalities, such as those linked to the expansion of tourism, attraction of investors, increase in municipal revenue, among others. Therefore, it must be noted how the state can act in such a way as to minimize negative externalities and maximize positive externalities.

BALANCE AND FORMS OF CORRECTION IN CASES OF EXTERNALITIES

When there are externalities, positive or negative, the market equilibrium point between producers and consumers is altered, as society suffers costs or receives benefits not perceived by the producer, and, therefore, does not generate an incentive to offer in the quantity and at the optimal price of Marketplace. According to Andrade (2004), when this situation is perceived, there are four ways for the state to act so that the balance of social well-being is achieved:

a) Establishment of clear property rights: this option is known as Coase's Theorem, assuming that, under the assumptions of a competitive market, with low transaction costs and well-defined property rights, the different agents are able to find the best solution by negotiating directly, without the need for state action (COASE, 1960). In this case, an eventual action by a third party as a mediator would reduce the efficiency of the system. It must be noted that the conditions for the adequate use of this form of treatment of externalities are difficult to achieve, which ends up making it impossible to use it in the real estate market, marked by great asymmetries of information, financial power and the capacity for political influence. of the different actors.

b) Internalization of externalities: in this option, applied in cases where there are negative externalities, normative mechanisms are established so that the agent producing the externality is responsible for adopting

measures to internalize costs. In this case, the greatest control difficulty lies in the asymmetry of information and in the possibility that the offering agent has incentives to circumvent the internalization rules.

c) Regulation: action occurs in the sense of restricting or prohibiting the action of the provider or generator of the action that produces negative externalities, or encouraging such action in cases of positive externalities. Usually, the main difficulty in implementing this option is related to the ability of large groups to lobby or, eventually, to encourage biased scientific publications, that is, it is a political-financial asymmetry.

d) Government intervention: in this case the government acts directly from the creation of negative or positive incentives for a smaller or larger production by the agent generating the opportunities. One of the most common actions in this regard is the implementation of the so-called "Pigouvian tax", named in honor of the economist Arthur Pigou, who outlined the concept in 1920. This solution changes the supply curve of the good, moving it down or up., in order to reach the social welfare equilibrium point considering the externalities. It must be noted that this tax must not be seen only as a simple pecuniary fee, but as a set of financial or non-financial incentives aimed at altering the action of the producing agent. Thus, in the case of negative externalities, this tax may include a fee or fine, plus improvements or infrastructure and compensation for the impacts generated for the population, which must be carried out by the agent. In cases of positive externalities, there may be incentives, both in the form of subsidies and in the form of facilities that induce the performance of a certain behavior. With the application of the tax, the producer is incentivized to produce at a point where the new quantity will be smaller and the new price will be higher than expected for the

market in equilibrium, thus causing some loss of efficiency.

When carrying out any intervention in the market, it is essential that the public authorities observe how the very costs of implementing the different incentives can cause efficiency impacts, which can sometimes outweigh the benefits. One of the advantages of applying the Pigouvian tax from the perspective of incentives to the real estate sector concerns the possibility of acting on a case-by-case basis, which allows greater control and sharing of information. On the other hand, this application specificity generates high costs related to control and inspection.

Another element of fundamental attention with regard to externalities is the distributive analysis of impacts, in which the distribution of costs and benefits is considered in the face of a counterfactual scenario of not doing (JENKINS, KUO and HARBERGER, 2011). By comparing the scenarios, it can be concluded that, for example, the benefits of doing are largely concentrated while the costs are distributed, compared to a scenario of not doing, in which there are no costs and the benefits are distributed. For example, in spite of the general benefit, it is evaluated whether carrying out an action would not be the best choice due to a very concentrating character, in contrast to not carrying it out. The distribution assessment is, therefore, fundamental for decision making.

URBANIZATION STRATEGIES IN BALNEÁRIO CAMBORIÚ AND THEIR URBAN, ENVIRONMENTAL AND SOCIOECONOMIC EFFECTS

The colonization of the site where the Praia Central de Balneário Camboriú is located began in the mid-19th century, with the presence of Azorean settlers, followed by German families who settled in the region, living essentially from fishing. Until the 1960s,

the urbanization of the then district of Praia de Camboriú occurred in a similar way to the other coastal regions of Santa Catarina, with houses and small buildings in front of the sea. In 1964, the year of emancipation of the municipality of Balneário Camboriú, there were only four buildings on the waterfront with more than four floors (BEUTING and MARTINS, 2016).

From then on, the city observed an accelerated growth of buildings by the sea, both in number and in size, completely transforming, in a few decades, the urban landscape of Praia Central. In 2013, a total of 939 buildings with more than four floors were recorded in the central area of the city and another 150 were under construction (BEUTING and MARTINS, 2016).

The municipality's strategy of allowing a sharp verticalization was reflected in the choices made through the legislation that deals with the use and occupation of land in the city. Since the municipality's first Master Plan, in 1970, regulated by Law nº 128/1970, the first legislation in the municipality that brought zoning, land use and occupation guidelines, a land use coefficient of 1.2 was already foreseen. This coefficient was increased to 6, after the new master plan of 2006, by Law nº 2794/2008, still in force. This coefficient is much higher than the standard of 1, commonly used throughout the country, including in this index the bonuses acquired through urban planning instruments such as the Outorga Onerosa and the Operação Urbana Consorciada.

Regarding the maximum height allowed, the 1970 legislation initially did not impose height limits. From the 1989 law on land use and occupation, there was a limitation. Instead of the more commonly used template limited to a certain number of floors, the legislation in Balneário Camboriú limited the height of buildings according to a formula linked to

the 70° inclination of the street axis. Thus, it was the width of the road that determined the height of the buildings, through the ventilation and insolation cone (SIQUEIRA and SCHLEDER, 2021). In practice, this meant the possibility of having up to 48 floors in Praia Central (BEUTING and MARTINS, 2016).

The legislation was also, over time, being modified in relation to what was or was not computed for the calculation of the use of a building. The garage area ceased to be computed in 1974. In 1989, the legislation ceased to compute the ground floor, leisure areas, caretaker's apartment, upper terrace, engine room, water tank and, when there was, the helipad. As of 1997, vertical circulations, gardens, balconies, central air and barrels were also allowed to be computed. Even walls with less than 10 centimeters were no longer counted in 2002. In the most recent legislation, from 2008, there was a small inflection and the areas of the janitor's apartment, balconies and walls of up to 10 centimeters. In practice, over time, these changes in the criteria for accounting for the construction coefficient progressively allowed for an even greater increase in the number of floors in buildings (BEUTING and MARTINS, 2016).

In summary, the evolution of the master plans of Balneário Camboriú, as well as the laws of the municipality that deal with the use of land occupation, seem to dialogue with a thoughtful choice of development of the city, which chose to adopt verticalization as the main strategy for the urbanization of the city. Praia Central – although there are questions about the real representation of the population in relation to these choices, since, as Siqueira and Schleder (2021) point out, generally the representatives of society in these decision-making spheres are members of the real estate market, whether properties or representatives of construction companies.

It can be said that the strategy adopted by Balneário Camboriú was to create a more permissive generic legislation, in terms of general rules, preferring to opt for individual monitoring of each project, considering the positive and negative externalities that each building would bring to the city's environment.. This monitoring includes both the financial aspects, whether of economic development potential or collection for the municipality, as well as the socio-environmental impacts of each project, mediated by instruments such as the Neighborhood Impact Study - EIV, considering the impact mitigation actions and financial compensation for the municipality.

In terms of taking advantage of the positive externalities generated by economic development - observed by the increase in the influx of people, tourists, commerce, services and businesses to the municipality -, it seems, the public power has been able to appropriate the benefits of development from the very beginning. municipal collection, which benefits both from the expansion of the number of residences, through the collection of IPTU - Urban Property and Territorial Tax, and from the heating up of the real estate market, taxing the purchase and sale of units through the ITBI - Tax on Transmission of Real Estate, and also the collection related to the expansion of economic activity, through the ISS - Service Tax.

Driven mainly by the strength of the real estate market, as well as the flow of tourists, the collection of municipal taxes has shown significant growth in recent years. According to a report prepared by the Public Ministry of Santa Catarina, considering only its own revenues, not counting transfers from the state or the Union, the municipality of Balneário Camboriú went from a collection of R\$ 95.24 million in 2010 to R\$ 169.71 million in 2014, reaching R\$ 319.78 million in 2018 – an increase of more than 300% in eight years.

Of this total, in the period, the collection by ISS went from R\$ 19.16 million in 2010 to R\$ 35.26 million in 2014 and reached R\$ 58.97 million in 2018. The collection by IPTU went from R\$ 52, 51 in 2010 to BRL 80.14 in 2014, reaching BRL 143.40 in 2018. And the collection by ITBI went from BRL 19.33 in 2010 to BRL 43.21 in 2014 until reaching BRL 70.21 in 2018 (PUBLIC MINISTRY OF SANTA CATARINA, 2020).

In 2021, in order to strengthen the economic recovery after the downturn caused by the Covid-19 pandemic, the city hall of Balneário Camboriú decided to take off the paper a plan that had been approved in a plebiscite, in 2001, by 71% of the inhabitants: the widening of the sand strip of Praia Central. With the insertion of 2.1 million tons of sand, the stretch of the beach went from 25 to 70 meters. With this, in addition to increasing the period of sunshine in the afternoon, since the sea was set back in relation to the buildings on the edge, the result was an increase in the satisfaction of tourists and residents and the possibility of receiving, in comfort, a greater number of regulars. The work had a total cost of R\$ 66.8 million, financed by a bank loan to the municipality.

If the forecast of representatives of the real estate market is confirmed, who predict a 10% increase in the average value of properties in the city due to the work, it is an investment that will pay off in just two years, considering only the projections in the increase in collection. If the increase is as expected, the tax returns themselves would already compensate for the public investment made, since the owners of properties that were indirectly valued by the public work would compensate the municipality for the appreciation obtained through the payment of taxes.

In addition to the regular collection, Balneário Camboriú has been seeking to carry out Consortium Urban Operations, an instrument provided for by the City Statute,

in order to finance structural works in the city through sources of funds from the real estate sector, which ends up benefiting, by the appreciation of real estate., from the soil created by buildings with a gauge higher than that allowed by municipal legislation.

To date, the municipality of Balneário Camboriú has carried out three consortium urban operations – one completed and two still in progress. The first, in 2011, had as the object the creation of Martin Luther Avenue; including the implementation of lighting, landscaping, cycle paths and auxiliary drainage systems, as well as the creation of Praça do Cidadão. The second, started in 2014, foresees the extension of the road created by the city's first operation, including the adaptation of sidewalks, drainage and landscaping treatment. The third, also from 2014, is aimed at connecting 4th Avenue with BR-101. In short, the three operations are focused on infrastructure works – they are structural road works, which somehow end up benefiting the city as a whole.

Combined, these three operations provide for the sale of construction potential certificates totaling approximately R\$ 208 million, at values at the time. In spite of the pertinent criticism made by Siqueira and Schleder (2021), pointing out that the price calculation of building potential certificates has been based on values of the regions of the works and, later, they have been used in constructions by the sea, at higher prices – generating surplus profits for real estate developers – the fact is that the funds raised made it possible to improve the city's road infrastructure, with resources from the real estate sector itself, without putting pressure on the municipality's budget.

The use of urban operations in consortium with resources aimed at infrastructure actions allows the municipality to have greater fiscal space to allocate regular collection resources

to other sectors. One of the advantages of the strategy of expanding resources through the expansion of tax collection is precisely the fact that these municipal taxes (IPTU, ITBI and ISS) do not have a linked destination of revenue, and the resources can be applied in what the municipal public power considers more appropriate, including, for example, essential services such as health and education. In this sense, the municipality of Balneário Camboriú seems to be managing to transform these resources into social capital.

This is demonstrated by the fact that the municipality has managed to position itself as one of the most developed in the country, having the fourth best result, among the 5,570 Brazilian municipalities, measured by the Human Development Index - municipal HDI, in 2010. Calculated by the United Nations Program United Nations for Development - UNDP, the HDI is a summary measure of long-term progress in three basic dimensions of human development: income, education and health. It must be noted, however, that part of the workers who work in trade and services in Balneário Camboriú, live in the neighboring municipality of Camboriú, which is only in the 1,133rd position in the HDI in Brazil - that is, they possibly have, in addition to lower income, less access to public education and health services compared to those who live in Balneário Camboriú.

Regarding the environmental aspect, Balneário Camboriú has also stood out positively, reaching the first place, among 677 Brazilian municipalities with more than 50 thousand inhabitants, in the environmental aspect of the Connected Smart Cities Ranking 2021, prepared by the consulting companies Urban Systems and Necta. The municipality was well evaluated for having, among other aspects, managed to supply 100% of the residences with running water and waste collection, in addition to 94.9% of urban sewage service. In

the summer season months, however, basic public services sometimes reach their limit, as the city's floating population can, at times, exceed one million people, almost ten times more than the fixed population of the city.

“When this sudden population increase in December is related to the undersized urban infrastructure available, a problem arises. Analyzing just one of the many aspects of municipal infrastructure, EMASA (Municipal Water and Sanitation Company), responsible for water supply in Balneário Camboriú, has data that confirm the increase in consumption during a certain period of the year: water consumption in the city it rises from 30 million liters of water a day in low season to almost 80 million a day in high season, between December and March. An increase of about 165% causing interruptions to the full water supply of the entire city. The situation is repeated in many other cases, such as energy supply and sewage collection. It seems that the available infrastructure is still insufficient for the high density that you get in high season” (BEUTING and MARTINS, 2016, p. 5).

Due to the population concentration and the shortening of distances, verticalization – in what is capable of generating a consequent population density – tends to facilitate (and cheaper) the installation of infrastructure, since it is possible to serve more people with fewer facilities. In this regard, the verticalization strategy, due to population density, tends to facilitate the fulfillment of issues such as access to energy, water and sewage. Likewise, a denser area can facilitate the use of collective urban transport, due to the ease of costing for more concentrated use, provided that the urban mobility policy is designed by municipal planning with priority for this mode of transport.

Considering the strategy adopted by the municipality of seeking to mitigate on a case-by-case basis the negative externalities caused by large enterprises that have been

set up in the city, the municipality has been using the instrument, provided for by the City Statute, called Neighborhood Impact Study - EIV, whose objective is to mitigate at least part of the negative impacts of the project for the residents themselves, as well as for the community around them, with demands regarding the efficiency of the infrastructure, accompanied by financial compensation for the impact that that project will have on the city.

In order to understand how the monitoring of the impact of the construction of large projects in the city works in practice, we analyzed the document of the neighborhood impact study of what will be the largest residential project in the world, the Triumph Tower building, as well as the technical opinion of the public authorities. which approved, in April 2022, the realization of the project, including the mitigation actions and required counterparts.

ANALYSIS OF THE NEIGHBORHOOD IMPACT STUDY OF THE TRIUMPH TOWER BUILDING

Designed to be the tallest residential building in the world, at 509 meters high, the Triumph Tower Building had its EIV approved in April 2022, after the fourth analysis by the Special Commission for the Analysis of the Neighborhood Impact Study - CEIV, composed of technical representatives of the municipality, who analyzed the feasibility of the enterprise, as well as indicated measures to mitigate the impact and compensation amounts to the municipality. The EIV was presented to the municipality in March 2021, prepared by the company Koeddermann Consultores Asociados, at the request of the entrepreneurs: the developer FG Empreendimentos, in partnership with the Havan network.

As described in the EIV, the mixed-use development (residential and non-residential) will have 134,036 square meters of built area on a plot of 6,976 square meters and will have 140 floors at a height of 509 meters. Included in the presented project: 233 housing units, 4 restaurants, parking with 968 spaces, exhibition area, events area, entertainment space and even an electric kart track.

In the EIV, the characteristics of the enterprise, the characteristics of the neighborhood, the assessment of impacts on the neighborhood and the compensation value were presented. The study analyzed, as determined by legislation, the positive and negative impacts both in the implementation phase and in the operation phase. Data and mitigating measures were collected for issues of fauna and flora, water and electricity consumption, production of solid waste and liquid effluents, drainage effluent and rainwater generated, production of noise, heat, vibration, radiation and atmospheric emissions., study of insolation and shading, study of ventilation, road system and generation of employment and income.

The study analyses, considering the impact on the neighborhood, the overload arising from the increase in population density in public urban infrastructure facilities – such as water distribution, electricity, piped gas, sanitary sewage and rainwater drainage – and public facilities for community use – such as schools, squares, hospitals and health posts.

Based on the qualitative-quantitative methodology used to assess the impacts of the project contained in Complementary Law No. 24/2018, the study concluded that the construction and operation of the Triumph Tower will have a low environmental impact on the neighborhood.

After analyzing the documentation contained in the EIV, the CEIV approved the feasibility of the Triumph Tower building,

considering the impacts generated by the project and conditioning the approval of the project to the fulfillment of mitigating measures to be taken during the construction and during the use of the building. The mitigating measures, for the most part, concern the conscious use of water, the minimization of noise and dust, the integration of the building with the urban landscape, the compensation in the local flora, the minimization of the impact on urban mobility in the region and the sustainability issues.

Among the 77 mitigations listed in the document as compliance requirements by the construction company, the following stand out:

1. Adoption of LEED (Leadership in Energy and Environmental Design) certification sustainability measures, including: infrastructure for electric car charging; more than 30% of the land area with open area and with at least 25% of the open area with vegetation; collection of 100% of rainwater to be used for flushing, irrigation and cleaning; reduced consumption of potable water and electricity; generation of 1% of the energy through wind turbines at the top of the building, sufficient to supply the building's external lighting; adoption of sustainable technologies in building materials; and 75% autonomy of natural light in the apartments.

2. Improvement in the drainage system, together with the Secretary of Works, before the start of the works; Commitment to submit an electric kart noise report for evaluation by the CEIV before issuing the construction permit.

1. Guarantee of use of high constructive

1 It is curious (and questionable) that this condition is presented as a mitigating measure. The term "imposing facades" is subjective and shows the relevance of the tourist aspect, equating the magnificence of the construction with mitigating measures of urban infrastructure brought in the EIV.

2 "The main indicator of the construction sector, the Basic Unit Cost (CUB) is calculated monthly by the Civil Construction Industry Unions across the country. It determines the global cost of the work in order to comply with the provisions of the law for the incorporation of residential buildings in condominiums, providing potential buyers with a comparative parameter to the reality of costs. Currently, the monthly percentage variation of the CUB has served as a price adjustment mechanism in contracts for the purchase of apartments under construction and even as a sectorial index" (SINDUSCON-PR, 2022).

standards, with architectural design of imposing facades, so that the enterprise becomes an icon of tourist attraction in the municipality¹;

2. Development of a landscape project and complementary actions for Praça da Bible, at the request of the Executive Branch;

In addition to the mitigating measures, the CEIV stipulates a compensation amount to be paid with reference to the Basic Unit Cost of the civil construction in Santa Catarina-CUB/SC², considering the total investment of the enterprise and the impact caused by the building to the municipality. With the planned investment of 287 million, the compensation value indicated by the commission would be 955.01 CUB/SC. Considering the current value of CUB/SC of R\$ 2,140.56, the current amount of compensation to be paid by the developer to the municipality would be around R\$ 2 million, that is, the equivalent of 0.7% of the total value of the real estate project.

Article 12 of Complementary Law No. 24/2018 establishes that the amount of the financial contribution must be paid initially with 20% of the total, conditioning the issuance of the construction permit, and the remainder in 24 equal, monthly and consecutive installments, monetarily updated with the variation of the CUB/SC. It also provides that the issuance of the "occupancy" document for the work is conditioned to the payment of the total amount of the installment payment of the compensatory measure.

Within the possibilities of analysis on reports – from the entrepreneur himself and from the analysis commission –, without direct knowledge of the object, it is difficult to

observe whether the requirements formulated by the city hall, in fact, cover all the impact that must be generated by the enterprise. In any case, in this case, it is observed that most of the recommendations refer to the enterprise itself, with little attention to the indirect impacts on the community, especially considering a long-term time horizon.

In the view of Lollo (2005), in theory, the factors dealt with in the neighborhood impact study must be compatible with the characteristics of the enterprise and must consider all the components that may be affected. In practice, however, problems in the road system are usually solved with investments from the public power that end up making the enterprise viable and valuing it. The area of influence considered is normally only a few blocks adjacent to the area, not considering other affected regions. In the urban landscape, projects similar to neighboring buildings, in size and type of activity, are considered not to generate impacts, lacking the urban significance of the building for the neighborhood. In the present case, it can be considered that the generic criticisms of the instrument may also apply to the analyzed enterprise.

In short, despite the effect that the presented set of mitigations can contribute to minimizing the impact, it is considered that the EIV instrument has even greater potential to contribute to the good urban management of the municipality. The analysis of the EIV of the Triumph Tower building seems to indicate that the potential of the instrument is still underused - the recommendations and requirements may be greater, more detailed and firmer, so that the indirect impacts on the community are also mitigated, generating a greater positive effect. the community. After all, neighborhood impact studies that do not fully assess and mitigate the effects of the enterprise in question generate consequences

for the environment, the population and the government; while the corrective investments of the public power reach the entire population (Lollo, 2005).

FINAL CONSIDERATIONS

With 560 kilometers in length, the beautiful coast of Santa Catarina is almost entirely formed by quiet and bucolic beaches, small towns, with small houses and buildings, with strict rules for land use and occupation. This is the rule of urbanization in the state and in the country. The main and most striking exception is the stretch of less than seven kilometers in length of Praia Central de Balneário Camboriú, which represents less than 1% of the coast of Santa Catarina.

In this small stretch, the urbanization concept adopted since the 1960s was that of intense verticalization in front of the sea shore. This strategy was consolidated and reaffirmed in all master plans and legislation for the use and occupation of the city's land in recent decades. The choice of the municipality was to make the city's urban legislative apparatus more flexible, in order to attract people, businesses, services and tourism to the region, betting on economic development led by the real estate sector.

Over the years, this strategy has been the target of repeated criticism, many of them seeking to point out environmental and social problems in the city. There is a recurring criticism of the fact that visitors to Praia Central are practically without sun in the afternoon, because of the shadows of the buildings. Despite this fact, the problem of lack of sun on the beach does not seem to matter to many residents and tourists, whose influx to the city is increasing. More than just enjoying the beach, residents and visitors also seek the buzz, the movement on the boardwalk, the various shops, the possibility of doing a lot on foot, the parties and nightlife,

the nature walks around the city..

Over time, it seems, the bet made by the city has been successful. Every year, the population of residents and visitors grows, generating foreign exchange and economic dynamism, which also, through municipal tax collection, become public services for the population. This economic dynamism seems to be also reverting to social capital, since, among all Brazilian municipalities, Balneário Camboriú reached the 4th place nationally in the Human Development Index, which considers health, education and income factors. Also with regard to environmental management, the city has been gaining prominence, as seen with the first place achieved, among 677 Brazilian municipalities with more than 50 thousand inhabitants, in the environment category of the Connected Smart Cities Ranking 2021.

To minimize the problem of lack of sun on the beach, in 2021, the city hall of Balneário Camboriú decided to invest in a work to widen the sand strip in Praia Central, which became 70 meters wide instead of the original 25 meters. With this, it was possible to extend the period of sun in the afternoon, since the sea was set back in relation to the buildings on the edge. The result was an increase in the satisfaction of tourists and residents and the possibility of receiving, with comfort, a greater number of visitors. The work had a total cost of R\$ 66.8 million, financed by a bank loan to the municipality. The analysis of municipal collection trends shows that, if the 10% increase in property prices in Praia Central is confirmed, as estimated by the real estate sector, the increase in municipal tax collection (IPTU, ITBI and ISS) will compensate in two years the investment made.

In spite of having a more flexible municipal urban legislation, the local public power has been using, more recently, urban instruments such as the transfer of the right to build, consortium urban operations and

neighborhood impact studies, provided for in the City Statute, both to appropriate the economic benefits generated by the city's real estate appreciation (positive externalities), and to mitigate the negative effects caused by large real estate developments in Praia Central (positive externalities).

In the first case, the use of consortium urban operations allows the city to raise funds from the real estate sector to finance infrastructure works that end up benefiting the city as a whole. In the second case, the use of neighborhood impact studies has been the way chosen to monitor each of the projects individually, serving as a source of compensatory resources for the city hall and as a way of demanding actions by entrepreneurs to reduce impacts. negatives of the great works.

The analysis performed seems to indicate that both instruments have significant potential for use by the municipality. It is observed that the three consortium urban operations already carried out in the city were successful in obtaining resources for the municipality's infrastructure, but would have even more potential if the analysis of values considered the project gain by the real estate sector in Praia Central - and not in the area of the consortium urban operation, as has been done so far.

Regarding the use of the neighborhood impact study instrument, it is observed that the reports that have been made are beneficial in terms of requiring certain mitigating and compensatory actions, but could be even better used if not only the direct effects were considered. of the enterprise, but also the indirect effects on the community, observing a long-term period of time, especially related to the more intensive use of public infrastructure, considering aspects such as energy, water supply, collection and treatment of sewage and solid waste, urban areas, among others.

In short, the urbanization strategy that has been adopted by the municipality of Balneário Camboriú has shown many positive effects for the population and the economy of the region, but still has great potential for improvement, with the improvement of available urban instruments, used in a combined way. and complementary to a sustainable and inclusive urban development strategy.

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