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Climate justice in local urban policies: a case study of the São Vicente city, São Paulo-Brazil

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Abstract
The issue of climate justice is crucial in a context where climate change impacts all individuals and regions, but disproportionately and unequally, particularly affecting those most vulnerable to climate risks and least capable of responding. Therefore, it is essential to understand how cities and their governments are addressing the climate crisis, especially in terms of integrating climate issues into urban planning policies considering climate justice. In this sense, this article analyzes whether and how climate justice is incorporated by local public management in São Vicente, understanding how the issue is assimilated into the development of local public policies for urban planning and climate action. For this, the research employs a qualitative approach, including a case study based on a literature review; analysis of documents and other secondary data; and interviews with main protagonists in the management of the São Vicente city, with data processed using content analysis. In addition, methodological triangulation was used as a research strategy to understand the relationship between secondary and primary data. The results indicate that, despite recent initiatives to integrate the issue of climate change into São Vicente's urban planning policies, this integration has been limited and has not only failed to achieve climate justice but also reinforced cases of climate injustice.

Keywords: Climate change. Socio-environmental inequalities. Public policies. Local governments. Coastal cities.

Justiça climática nas políticas urbanas locais: um estudo de caso da cidade de São Vicente, São Paulo-Brasil

Resumo

O tema da justiça climática é essencial no contexto em que as mudanças climáticas têm promovido impactos a todos os indivíduos e territórios, mas de uma forma desproporcional e desigual, atingindo, especialmente, os mais vulnerabilizados aos riscos climáticos e com baixa capacidade de respostas. Sendo assim, é preciso compreender o que as cidades e seus governos têm feito frente à crise climática, principalmente quanto à incorporação da problemática climática nas políticas de planejamento urbano, considerando a justiça climática. Nesse sentido, este artigo analisa se e como a justiça climática é incorporada pela gestão pública local de São Vicente, compreendendo como o tema é assimilado na elaboração de políticas públicas locais de planejamento urbano e de ação climática. Para isso, a pesquisa se desenvolve a partir de uma abordagem qualitativa, empregando um estudo de caso por meio de levantamento bibliográfico; análise de documentos e outros dados secundários; e entrevistas com atores-chave da gestão da cidade de São Vicente, com tratamento dos dados a partir da análise de conteúdo. Ainda, foi empregada a triangulação de métodos como estratégia de pesquisa para apreensão da relação entre os dados secundários e primários. Os resultados obtidos revelaram que, apesar de iniciativas recentes para integrar o tema das mudanças climáticas nas políticas de planejamento urbano de São Vicente, esta integração tem acontecido de forma incipiente, com essas iniciativas não apenas falhando na provisão da justiça climática, mas também reforçando os casos de injustiça climática.

Palavras–chave: Mudanças climáticas. Desigualdades socioambientais. Políticas públicas. Governos locais. Cidades costeiras.

Justicia climática en las políticas urbanas locales: un estudio de caso de la ciudad de São Vicente, São Paulo-Brasil

Resumen

La cuestión de la justicia climática es esencial en un contexto en que el cambio climático ha afectado a todos los individuos y territorios, pero de forma desproporcionada y desigual, llegando especialmente a aquellos que son más vulnerables a los riesgos climáticos y que tienen poca capacidad de respuesta. Por lo tanto, es necesario entender qué han estado haciendo las ciudades y sus gobiernos frente a la crisis climática, especialmente cuanto a la incorporación de las cuestiones climáticas en las políticas de planificación urbana, teniendo en cuenta la justicia climática. En este sentido, este artículo analiza si y cómo se incorpora la justicia climática en la gestión pública local en São Vicente, entendiendo cómo se asimila la cuestión en las políticas públicas locales de planificación urbana y acción climática. Para ello, la investigación se basa en un enfoque cualitativo, empleando un estudio de caso a través de una investigación bibliográfica; análisis de documentos y otros datos secundarios; y entrevistas con actores clave en la gestión de la ciudad de São Vicente, con un tratamiento de datos basado en el análisis de contenido. También se utilizó la triangulación de métodos como estrategia de investigación para comprender la relación entre datos secundarios y primarios. Los resultados mostraron que, a pesar de las recientes iniciativas para integrar la cuestión del cambio climático en las políticas de planificación urbana de São Vicente, esta integración ha sido incipiente, y estas iniciativas no sólo no han proporcionado justicia climática, sino que han reforzado los casos de injusticia climática.

Palabras clave: Cambio climático. Desigualdades socioambientales. Políticas públicas. Gobiernos locales. Ciudades costeras.

1 Introduction

Climate change represents one of the biggest contemporary socio-environmental challenges, with impacts that vary according to geographic location, social structure, and governance processes, among other factors. In the context of cities, climate change generates and intensifies a series of socio-environmental problems, such as floods, the formation of heat waves, water scarcity, and food and nutrition insecurity, thus exacerbating social inequality.

At the city level, these inequalities are quite incident, linked to political, economic, environmental variables, etc., which condition different externalities that refer to the social, economic, environmental effects indirectly caused by the current dominant productive system, demonstrating, in some way, the leading role that cities have in facing climate change (BARBI, 2015; NEDER et al., 2021). Nevertheless, cities are generally unprepared to respond to climate change (DI GIULIO et al., 2019; TEIXEIRA; PESSOA, 2021).

Especially in emerging regions of the Global South, such as Brazil, cities face unique challenges due to rapid urbanization and historical social inequalities. These problems, which are associated with others, such as inefficient planning and management of cities, end up triggering adverse effects in several locations when in contexts of climate change, especially in those that are poorer and historically more vulnerable (KEMP et al., 2022; LEE et al., 2023), thus configuring situations of climate injustice.

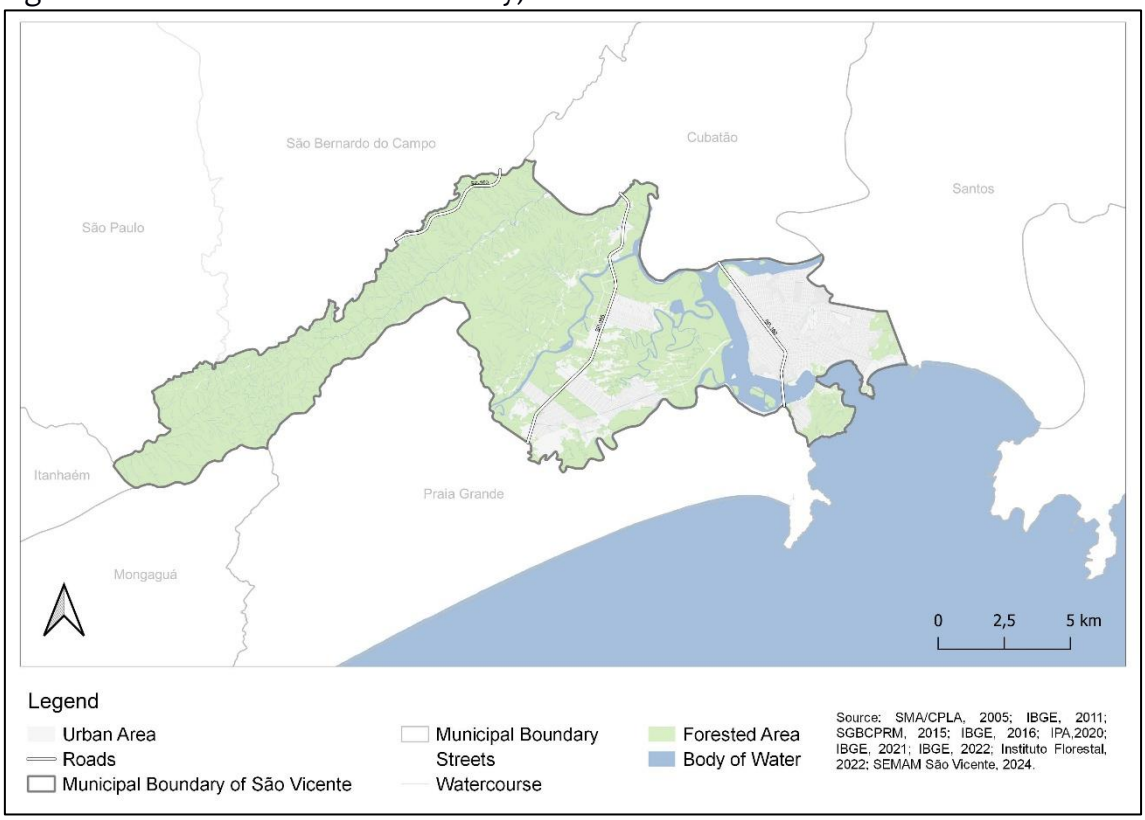
As Milanez and Fonseca (2010) point out, climate injustice events are already quite noticeable in Brazil, although little noticed, with actions to incorporate the issues into the country's agenda. The Brazilian case is relevant because, in addition to more than half of its population (approximately 61%) living in urban areas (IBGE, 2023), about 8% of people in the country are living in marginalized areas, such as slums, according to a study by the Locomotiva Institute, the Data Favela Institute, and the Central Única das Favelas (CUFA) (SALLES, 2021). The data from this survey also revealed that the Brazilian slum is an urban condition in which 89% of the population is in Metropolitan Regions (MRs), with 67% of this total referring to the black population (SALLES, 2021).

This data shows that besides the slums in Brazil being an urban condition, it is composed mostly of black people, reaffirming the idea that the most vulnerable populations are conditioned to be in more vulnerable territories and exposed to risks, such as slums. People in these areas, for example, generally have less capacity to emit Greenhouse Gases (GHG) because they have fewer resources and means to generate and produce activities that are sources of these gases; but, on the other hand, they are the most impacted, being the first to suffer from the direct effects of climate change. In short, the planning and management of Brazilian cities reinforce these scenarios of climate injustice.

The analysis of climate justice in the Brazilian urban context demands an approach that considers the intersection between urban policies, land management, and the distribution of climate impacts, focusing on promoting more adapted, resilient, and fair cities in the face of climate change. In this context, looking at the specificities of coastal areas gains relevance, as they tend to be more susceptible to extreme hydrometeorological effects, with impacts that correlate

with existing social problems (ARAÚJO et al., 2024). It is in this sense that the city of São Vicente, in the Metropolitan Region of Baixada Santista (RMBS), on the coast of the state of São Paulo (SP) (Figure 01), is investigated as a specific case, allowing a deeper understanding of local dynamics and possible solutions to integrate climate justice into urban policies.

Figure 01 - Location of São Vicente city, SP-Brazil



Source: CoopClima team (2024).

In light of this contextualization, this article seeks to analyze whether and how climate justice is incorporated by the local public management of São Vicente, understanding how the theme is assimilated into the development of local public policies for urban planning and climate action. This analysis is based on a qualitative approach, making use of a set of research tools and techniques, as detailed in the next topic.

From this perspective, this article is structured in four topics, in addition to this introduction and conclusions. The first one refers to the details of the methodological procedures of the research. The second topic is related to the review of the scientific literature on the issues within the scope of the object of study. Subsequently, the third refers to a brief socio-environmental characterization of São Vicente city. Finally, the fourth topic analyzes the incorporation of climate issues and climate justice in the development of public policies for urban planning and climate action from the empirical object.

2 Research methodology

In order to achieve the objective proposed in the previous topic, this article follows a qualitative approach and a case study (YIN, 2010) of São Vicente city from the perspective of the performance of local management in relation to climate issues, especially the incorporation of the lens of climate justice in its public policies of urban planning and climate action. The choice for São Vicente was due to two main factors.

The first of them refers to the city's critical scenario in terms of socio-environmental susceptibility and vulnerability to the risks of climate change, with floods and landslides already recorded, and which may be intensified in the coming decades (CAMARINHA, 2021) due to increased climate variability, and the frequency and intensity of extreme hydrometeorological events. Despite this, there is a lack of scientific studies on the subject from a local perspective, thus reinforcing the need for research like this. The second factor is related to easy access to local public management, providing primary and secondary data to understand the challenges, difficulties, and existing potential in the city in the face of the global climate crisis.

The case study used a set of methodological procedures, one of which was a literature review on the themes related to the object of study. For this purpose, this review made use of the combination of the keywords "Housing policies and housing programs", "Law nº 13.465", "Urban public policies" and "Climate and environmental justice", searched in different online databases: Google Scholar, Scielo, Dedalus System (University of São Paulo - USP), CAPES Journals, and Brazilian Digital Library of Theses and Dissertations (BDTD).

In parallel, the collection and analysis of documents was carried out, focused on the context of the local reality (such as the Strategic Master Plan of São Vicente and the technical reports of the Institute of Technological Research - IPT). With the collection and analysis of these documents, the objective was to identify how local public management has incorporated the theme of climate change and, above all, the lens of climate justice in implementing public policies for urban planning and climate action. Documentary analysis was used to give treatment to the data, as it is a technique that enables an understanding and analysis of documents of the most diverse natures (SÁ-SILVA; ALMEIDA; GUINDANI, 2009). In the case of this research, the documentary analysis followed the themes of urban public policies, public policies for local climate action, and climate justice (Chart 01).

Chart 01 - Themes of the documentary analysis

Theme	Key concept/Reference	The analysis focus
Urban public policies	The theme of urban public policies refers to the actions of the State with a focus on the urban fabric, focusing on its individuals. (MARQUES, 2018).	Analysis of the assimilation of the climate change themes, adaptation, and climate justice in implementing urban public policies.

Public policies for local climate action	The notion of public policies on local climate action is related to the existence of public policies for managing climate change risks, with action, above all, in climate adaptation, following the guidelines of the World Health Organization.(WHO, 2017).	Understanding to what extent local management has developed and implemented policies, initiatives, instruments, etc., for climate action, considering the adaptation dimension.
Climate justice	Climate justice is adopted as an intersectional notion (SULTANA, 2022), recognizing socio-environmental inequalities of gender, race, class, and others.	Analysis of the climate justice theme as an intersectional way and its insertion in different local policies of urban planning and management.

Source: Authors' own elaboration (2024).

In addition to the collection and documentary analysis, this article used other secondary data, such as i. socio-environmental characterization of São Vicente; and ii. the sociodemographic profile of the population and its race, class, and gender markers in the reproduction of social inequalities within the process of occupying urban areas. These data were obtained from virtual platforms (such as the Brazilian Institute of Geography and Statistics - IBGE), as well as other data provided by the City of São Vicente (such as susceptibility maps and geotechnical maps).

Also, in this article, field research was conducted, with the development of interviews with two key actors in local public management during March and June 2023, one representing the Municipal Secretariat for the Environment and Animal Defense (SEMAM) and the other representing the Secretariat for Housing and Land Regularization (SEHAB). These represented are respectively named here as Interviewee A and Interviewee B. The objective of the interviews was to gather primary information about the characteristics and particularities of the territory of São Vicente about its local urban governance for the construction and implementation of a governmental agenda focused on the climate issue, especially one that integrates the lens of climate justice.

The primary and secondary data collected were analyzed based on content analysis (BARDIN, 2011), as it is a widely validated technique in qualitative research (MOZZATO; GRZYBOVSKI, 2011). In the case of this article, the analytical categories used were: "climate change and local impacts," "climate change mitigation and adaptation", "climate justice", "social inequalities" and "urban policies". These categories followed the mixed analysis grid (preliminarily defined, may be included, excluded, or modified later once there is exploitation of the collected material) (LUKOSEVICIUS; SOARES, 2016), in that they can capture data and information crucial for the analysis and discussion of the results.

The relationship between primary and secondary data obtained with this research, performing exploratory, descriptive, and analytical analysis on the case of São Vicente, is generally referred to in the scientific literature as "methodological

triangulation". For Minayo et al. (2005), the methodological triangulation consists of a research strategy in which different methods, theories, and data are combined and are widely used in research with interdisciplinary perspectives, as in the case of this article, which brings the debate on climate change, adaptation and (in)justice in the context of cities, as presented in the following topic.

3 Scientific literature review

Climate change is a global socio-environmental problem, being understood as changes in the climate system, which occur naturally over a long-term period, usually decades (UNFCCC, 1992); but with strong anthropogenic interference (IPCC, 2007), which have intensified them more rapidly. Although climate change is a global problem, its impacts are more felt locally: it is in cities where territories and their populations feel such impacts more closely and evidently, becoming highly susceptible to climate risks and impacts (AYLETT, 2014; LECK; ROBERTS, 2015; RYAN, 2015).

In addition, cities and their local governments are crucial agents in producing strategies to respond to climate change, with an essential role in mitigation and adaptation (BARBI, 2019). Mitigation shall mean a set of measures aimed at reducing or eliminating GHGs and carbon sequestration (IPCC, 2007; SMITH et al., 2008). Adaptation, on the other hand, is understood as the set of strategies to adjust systems to climate change and its effects, reducing climate vulnerabilities and risks (IPCC, 2007; PELLING, 2011).

Associated with the susceptibility and vulnerability of coastal cities to climate risks is the absence or insufficiency of local urban planning that integrates the climate issue, especially the adaptation (COBBINAH et al., 2019; ESPÍNDOLA; RIBEIRO, 2020; TEIXEIRA; PESSOA, 2021). It is worth mentioning that urban public policies are defined as State actions that work on the space of the city, especially on its territories and individuals (MARQUES, 2018). For the author, these policies can act directly with state action in the production of the urban space through interventions in urban infrastructure, such as housing and transportation, just as through state regulation of urban interventions by the private sector.

Urban planning, in this sense, has a crucial intersectoral role in the climate crisis, particularly from an adaptive perspective, as it allows the development of intersectoral actions with other areas (TEIXEIRA; PESSOA, 2021). Climate adaptation is commonly integrated into existing government portfolios, such as urban planning (UITTENBROEK et al., 2014). However, this does not happen, especially in practice (BLAKELY, 2007; ESPÍNDOLA; RIBEIRO, 2020).

It points out that cities are poorly prepared to deal with the climate crisis when referring to the most vulnerable territories, revealing situations that can be qualified as climate injustice. The theme appears in the literature under the notion of climate justice, an emerging and relatively new concept (TORRES et al., 2020), anchored in the current movements for environmental justice. This current emerged from the perspective of environmental racism in the United States (USA) from the American activist Benjamin Chavis, but into the scientific field, Robert Bullard is its founder.

In conceptual terms, climate justice consists of a conception derived from the movements for environmental justice, referring to the denunciation and criticism of the disproportionate socio-environmental impacts of climate change on the most vulnerable populations, even if they are the ones that contribute the least to GHG emissions and, thus, the intensification of climate change (MARTÍNEZ-ALIER et al., 2016; BATHIANY et al., 2018; ARAÚJO et al., 2021). These population groups are generally made up of low-income people and/or historically discriminated against in racial and patriarchal structures (CARTIER et al., 2009), such as black people and women. Such groups tend to be underrepresented at all levels of decision-making on climate issues (HEMMATI, 2002), ending up promoting socio-environmental injustices that fall disproportionately on vulnerable ethnic-racial groups.

Thus, climate injustice idea materializes even more in these populations due to their consumption pattern of low GHG emissions and, even so, suffering from these impacts more markedly (KLEIN, 2014). It is necessary to deepen studies on occupation models, considering their relationship with climate justice about the intersectional aspects of class, race, and gender to understand the profiles most susceptible to climate impacts and exacerbate pre-existing inequalities in cities. Social and power inequalities are at the root of environmental degradation and directly interfere with the disproportionate condition of socio-environmental vulnerability. It is because there is a kind of "environmental benefit," in which capital is accumulated by appropriating the benefits of the environment and imposing forced consumption of its undesirable impacts on marginalized groups (ACSELRAD; MELLO; BEZERRA; 2009).

In this sense, climate justice involves understanding the inequalities and discrimination present in society and is fundamental for facing socio-environmental problems, such as climate change. For example, Martins and Oliveira (2020) point out that the persistent permanence and current expansion of irregularity in urban settlements (particularly in environmentally sensitive areas) lead to the identification that the urban environmental issue is intrinsically associated with the theme of housing and the lack of opportunities and alternatives. In the dynamics of cities, the development of adaptation processes to climate change reveals contradictions associated with the appropriation dynamics and private management of solutions, social exclusion, and environmental intervention and degradation, often generating adverse effects in the most marginalized groups (SOVACOOL, 2018).

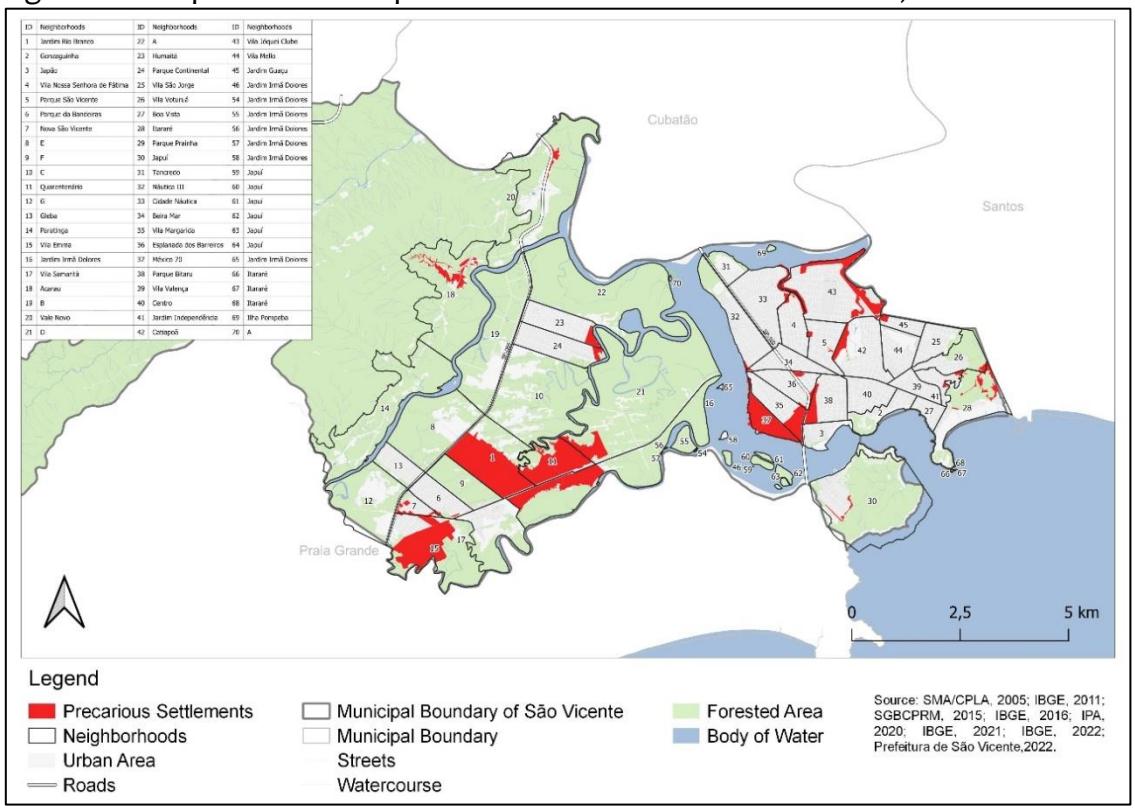
Despite the significant advances, to a certain extent, the adherence to the theme of climate change in local urban planning and management instruments (BARBI; REI, 2021), attention to the dimensions of climate justice is still incipient (ABOAGYE; SHARIFI, 2023), being one of the central axes for facing the climate crisis at the local scale (TORRES; LEONEL; ARAÚJO, 2021; AMORIM-MAIA et al., 2022), as discussed in the following topic based on the case of São Vicente.

4 Vulnerabilities and socio-environmental risks in the context of climate change: characterizing São Vicente

The city of São Vicente, located in a coastal region that has 148,151 square kilometers (km²) of territorial extension, has a total population of 329,844 inhabitants, of whom 53.34% (176,007) are self-declared black or brown (IBGE, 2022). In addition, the population of women in the city is more than half the total, representing 51.88% (IPVS, 2010). In general, the town of São Vicente has a significant percentage of inhabitants in situations of social vulnerability, most of whom are "single" mothers who head their households (IPVS, 2010). From the perspective of climate justice, women are the group most affected by climate change, especially in the Global South, suffering disproportionately and unfairly from the effects of these changes (ALVARENGA, 2022).

The city has a social imbalance in population distribution in its territory, with a spatial organization with socioeconomic and racial contours and limits, in which there is a clear division of the city by income brackets and accompanied by racial patterns. This imbalance points to the middle and high-income social class, mainly white, living in valued areas close to the beachfront, privileged by the satisfactory presence of urban infrastructure. However, the black and low-income population focuses on peripheral areas, in the insular and mainland areas of the city, where infrastructure is precarious and, in general, non-existent. The city has 39 precarious settlements, including favelas, irregular allotments, and one rural settlement, totaling 27,266 households, 60% in the insular portion and 40% in the mainland area (Figure 02) (INSTITUTO PÓLIS, n.d.).

Figure 02 - Map of slums and precarious settlements in São Vicente, SP-Brazil.



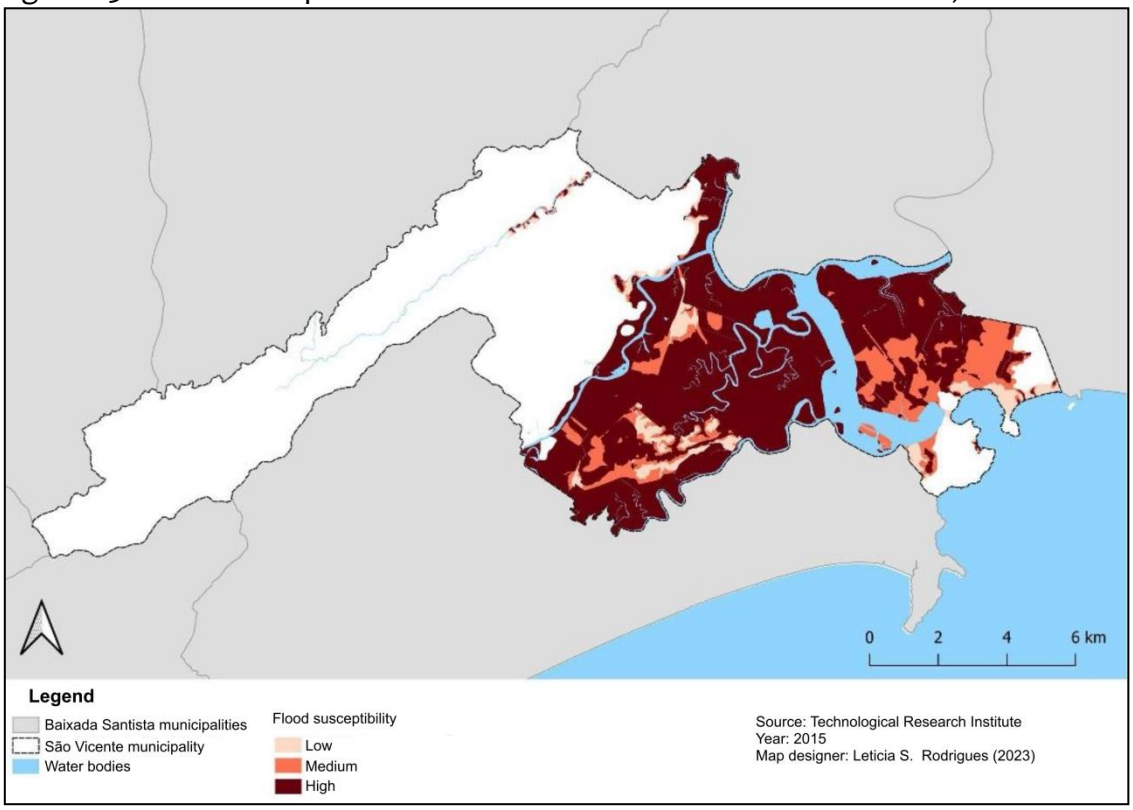
Source: CoopClima team (2024).

In the wake of this characterization, it is noteworthy that São Vicente is marked by the occurrence of diverse landscapes under the domination of the

Serranias and Coastal Plain zones, in which, as Amorim and Oliveira (2008) point out, there is an intense urban use that is established under areas of risk and vulnerable to events related to mass movements and floods, facts that became more serious due to the growing process of occupation. According to a study by Camarinha (2021), São Vicente is a critical location, as there is a concentration of historical precipitation events in the RMBS, with a tendency for these events to occur with greater frequency and magnitude.

In the Figures below, the susceptibility of the areas to the occurrence of extreme hydrometeorological events in São Vicente. More specifically, Figure 03 shows the parameter of the city's susceptibility to floods, in which 31% of the total area is highly susceptible to the occurrence of these extreme events, corresponding to 53.8% of the total urbanized area of the city (IPT, 2015). Floods are one of the most relevant climate impacts that affect territories and populations in low-lying coastal regions due to sea levels (MCGRANAHAN; BALK; ANDERSON, 2007), as is the case of São Vicente. In this city, floods, for example, are aggravated due to the growing process of space occupation (AMORIM; OLIVEIRA, 2008).

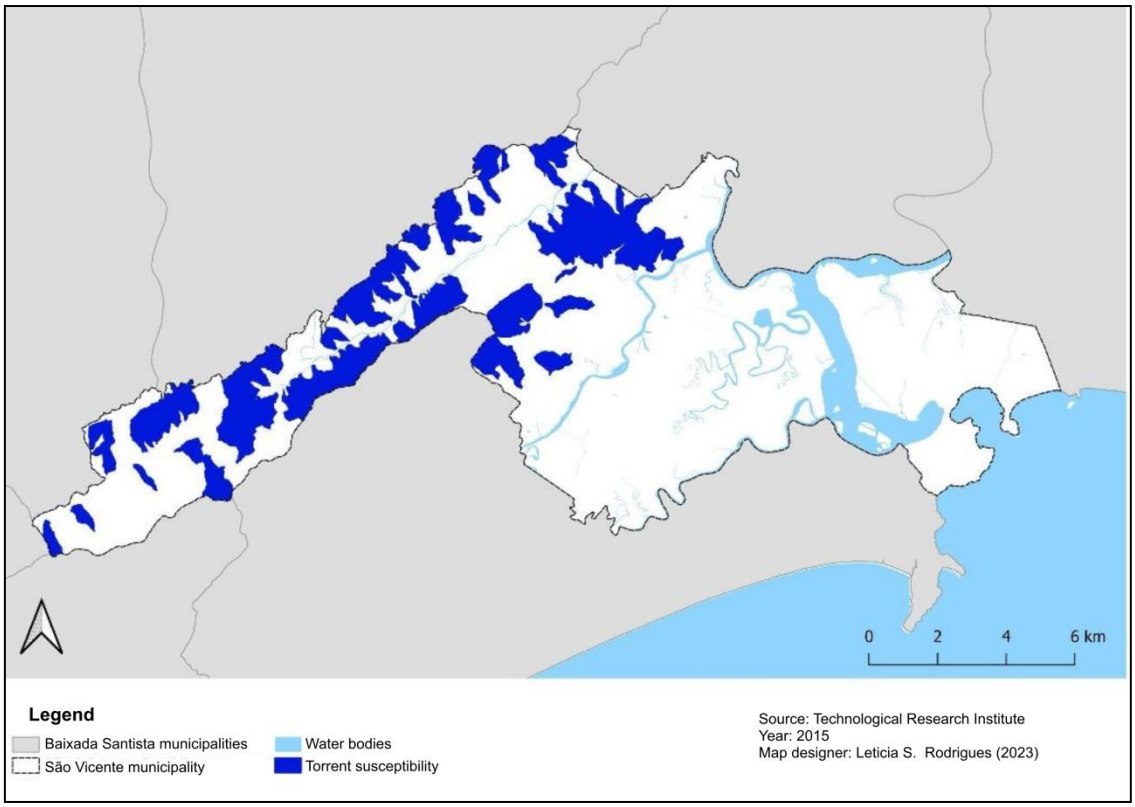
Figure 03 - Areas susceptible to the occurrence of floods in São Vicente, SP-Brazil



Source: Prepared by the authors based on data from IPT (2015).

Figure 04 shows the areas susceptible to flash floods in São Vicente, especially in the mainland portion, which also presents greater socioeconomic vulnerability (IPT, 2015). Flash floods, for example, have a great potential to cause losses and negative damage to populations, especially for long periods with daily rainfall, no matter how small this rainfall concentration is (TOMINAGA; SANTORO; AMARAL, 2012).

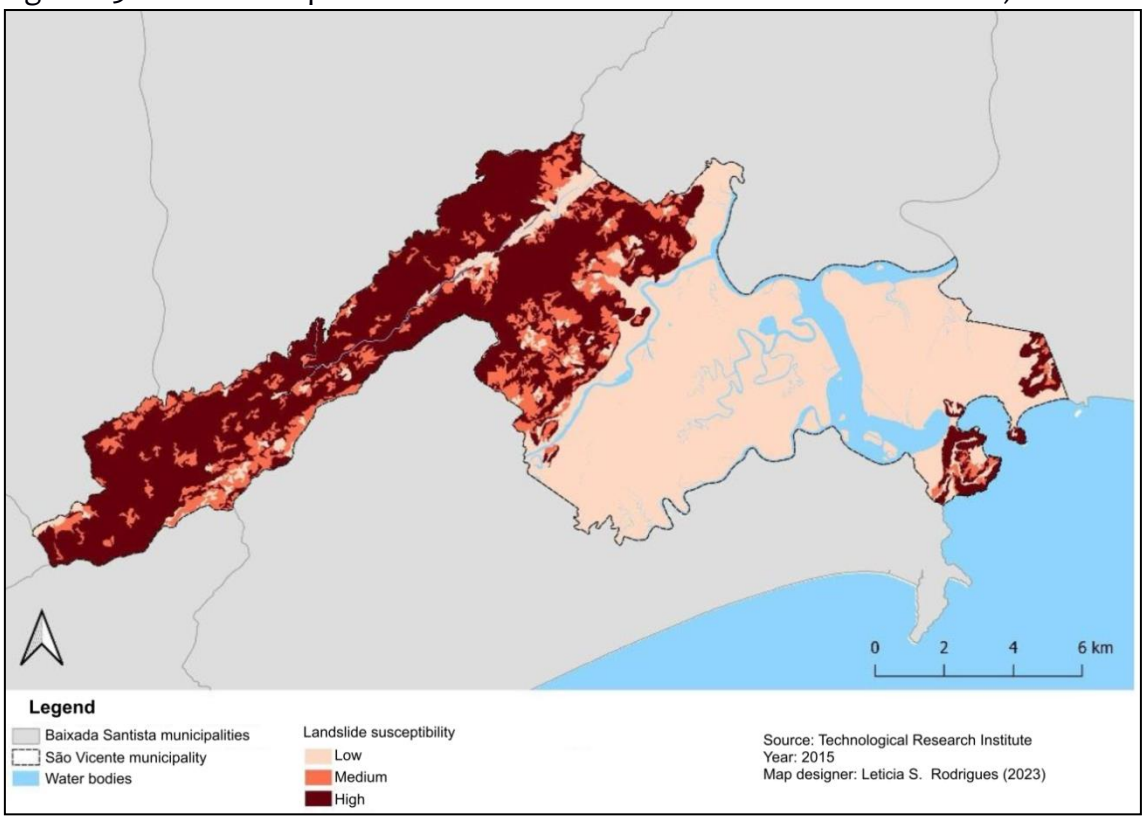
Figure 04 - Areas susceptible to the occurrence of flash floods in São Vicente, SP-Brazil



Source: Prepared by the authors based on data from IPT (2015).

Also, according to the IPT (2015), 37.3% of the total area of the city of São Vicente presents a high susceptibility to landslides, corresponding to 1.4% of the urbanized area (Figure 05). In the RMBS as a whole, in addition to in the other cities on the coast of São Paulo, the issue of landslides, for example, is closely related to the rainfall regime (TEIXEIRA; SATIAMURTY, 2006). Still, Iwama (2014), for example, points out that the overlapping of the areas susceptible to landslides, floods, or soil subsidence with areas of social vulnerability results in the cartography of potential risk and vulnerability.

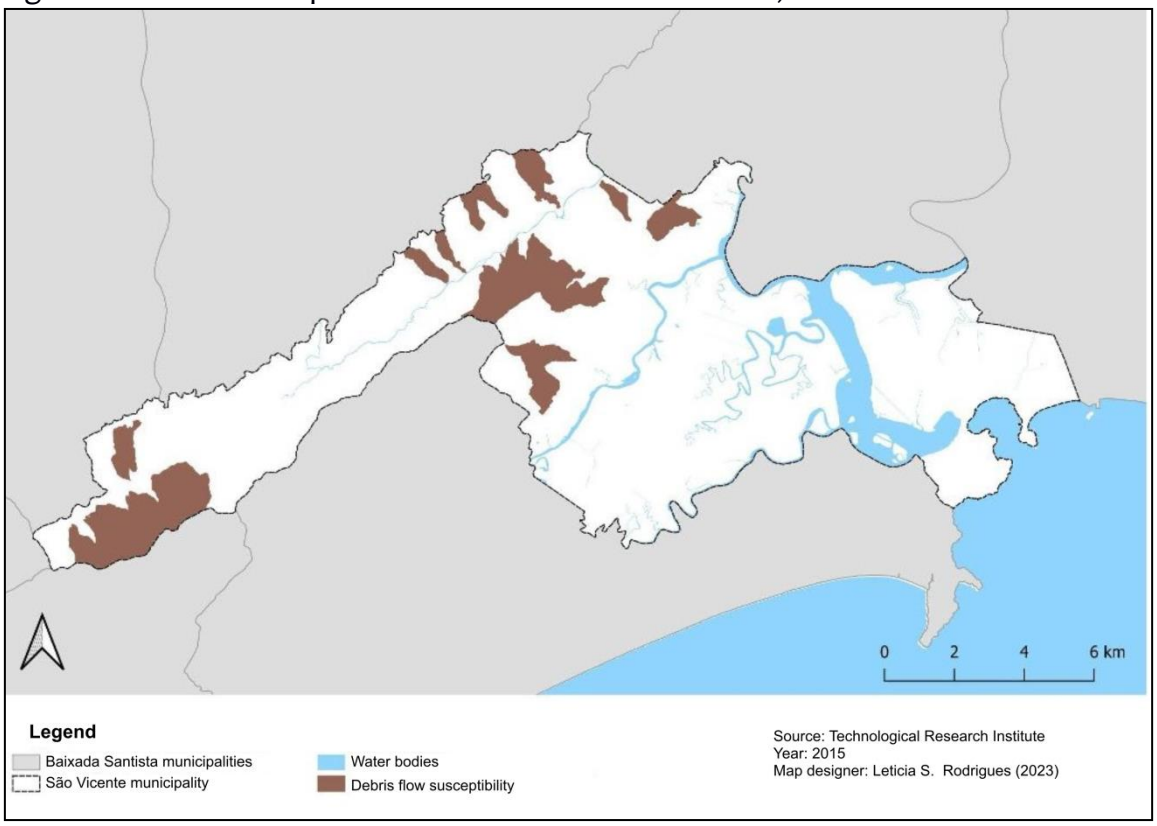
Figure 05 - Areas susceptible to the occurrence of landslides in São Vicente, SP-Brazil



Source: Prepared by the authors based on data from IPT (2015).

It is also possible to identify the areas subject to the debris flow, especially in the mainland portion of the city (Figure 06). Dias and Vieira (2022, p. 05) affirm that, in several studies, "the application of methods for classifying areas susceptible to debris flow and debris floods has become an important tool for identifying and preventing critical areas".

Figure 06 - Areas susceptible to debris flow in São Vicente, SP-Brazil



Source: Prepared by the authors based on data from IPT (2015).

Concerning sea level rise in São Vicente, it is estimated that, by the year 2100, the sea level in the city, in addition to in Santos (a neighboring town), may increase by up to 1.50 meters (ALFREDINI; ARASAKI; AMARAL, 2008). This trend also points to an increase in erosion on some beaches in the region (such as Milionários beach in São Vicente), in addition to scenarios in which most of the densely occupied areas and mangroves in the city of São Vicente may stay submerged(ALFREDINI; ARASAKI; AMARAL, 2008).

In this sense, the case of São Vicente highlights an alert to what Nogueira et al. (2022) highlighted: the dimension of the impacts associated with climate threats depends on the characteristics of exposure and vulnerability of the affected territory, that is, the damage tends to be more serious due to the existence of occupation (exposure) and the conditions of social inequalities, economic and political, with emphasis on class, race, and gender markers of these vulnerable territories. In this context, the following topic analyzes the local public policies of urban planning and climate action in São Vicente.

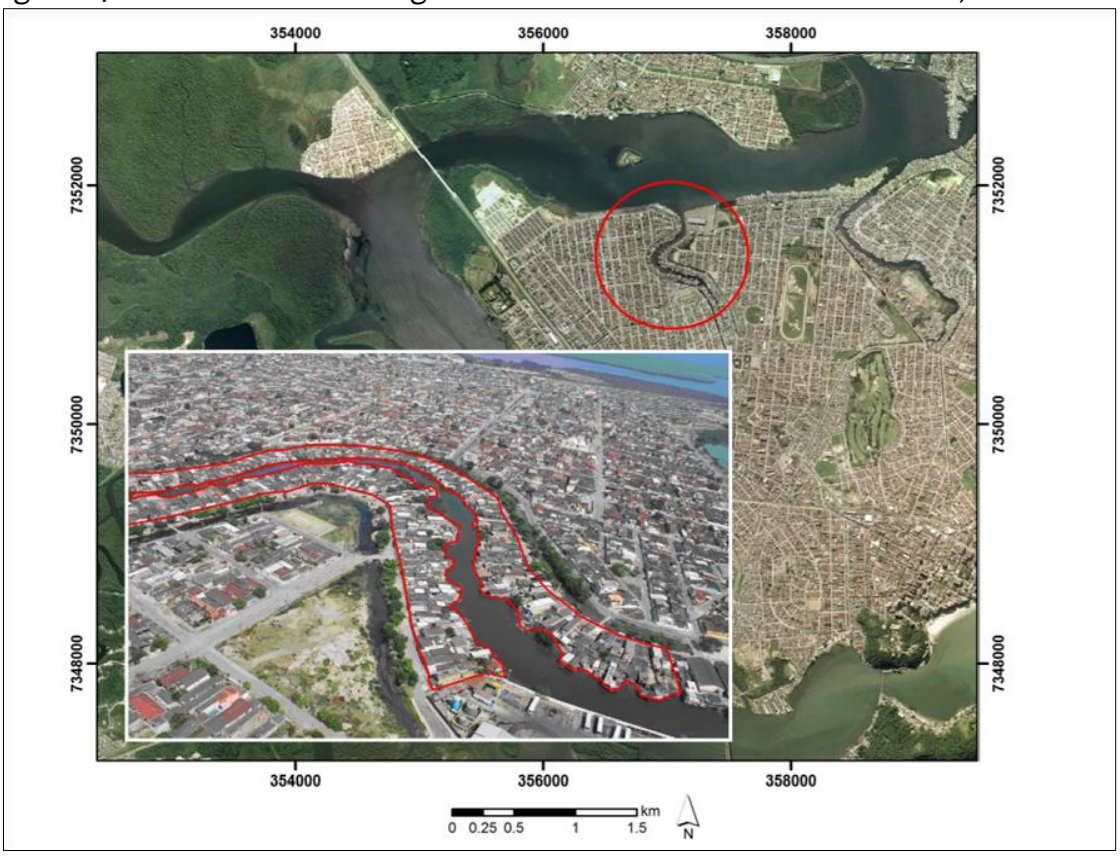
5 Climate (in)justice in São Vicente's local urban planning and climate action policies

In São Vicente, the Strategic Master Plan is regulated by Complementary Law No. 917 of 2018 (SÃO VICENTE, 2018), constituting, following the definitions of the City Statute (BRASIL, 2001), the main instrument of local urban public policy, to promote the planning, development and urban-territorial management of the city.

Another important instrument of this urban policy at the regional level is the legislation for land use and occupation planning, which, in the case of São Vicente, is established through Complementary Law No. 987 of 2020 (SÃO VICENTE, 2020).

In São Vicente, many of the legislative guidelines contained in the Strategic Master Plan, for example, are still not very precise and converted into actions to incorporate the climate issue nor to promote the fight against inequalities that affect the reduction of cases of climate injustice (SÃO VICENTE, 2018). This aspect is observed from the urban pattern in the territory, which focuses on socio-environmental inequalities and still has inconsistent housing policies. The neighborhoods of Humaitá, Parque Continental, Jardim Rio Branco, Glebas I and II, and Vila Ema appear as urban areas distributed along the highway (Figure 07). These settlements were responsible for suppressing mangroves and sandbankareas, which make up the native vegetation of the place.

Figure 07 - Settlements on mangrove and sandbank areas in São Vicente, SP-Brazil



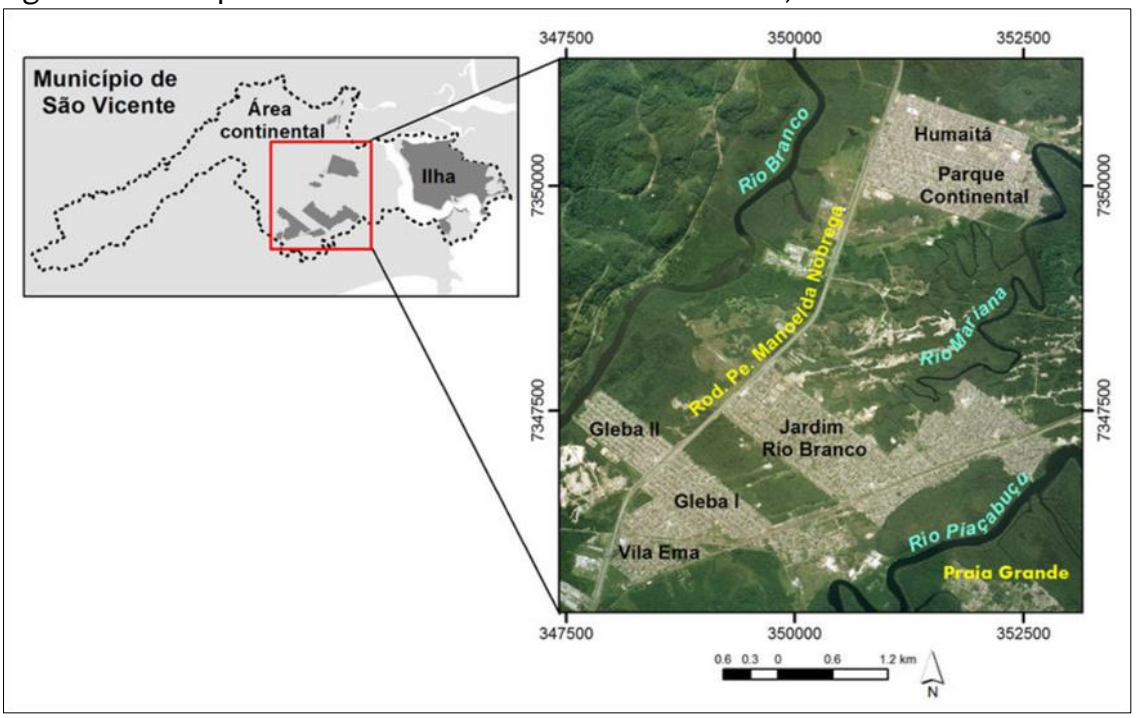
Source: Toppa and Buchman (2008 apud MELLO et al., 2013). Note: Detail of the stilt houses associated with the canal on São Vicente Island.

Article 203 of the Strategic Master Plan of São Vicente establishes the Municipal Social Interest Housing Fund, which is created and regulated by a specific law whose purpose is to raise and provide resources to be allocated to the promotion of housing programs, prioritizing residents in degraded and at-risk areas in the city (SÃO VICENTE, 2018). The land and urban regularization of urban settlements must meet environmental, risk reduction, and housing policies, ensuring the social function of urban property (SÃO VICENTE, 2018).

Considering the history of irregular occupation and the tendency to increase urban pressure in the RMBS, motivated by oil and gas exploration, as well as property speculation, which is common in most coastal cities in Brazil and the world, in São Vicente, the implementation of special zones dialogues with the attempt to avoid the growth of slum processes in the city, and to prevent irregular occupation in preservation zones and springs water dialoguing with one of the commitments of the Strategic Master Plan (SÃO VICENTE, 2018). That way, promoting the premise of sustainable development.

On the other hand, according to the latest Local Plan for Social Interest Housing (PLHIS), there were 38 precarious settlements in the city (SÃO VICENTE, 2009). The large majority originated from allotments on public lands. The occupied areas of the mainland region are practically all associated with the presence of the Padre Manoel da Nóbrega highway (Figure 08), showing that the establishment of highways represents a major vector of urban expansion (CUNHA-LIGNON et al., 2009).

Figure 08 - Occupation of the mainland area in São Vicente, SP-Brazil



Source: MELLO et al. (2013). Note: 1. Aerial photograph from 2001, e 2. Translation of the terms on the smaller map into English: Município de São Vicente = Municipality of São Vicente, Área Continental = Continental Area and Ilha = Island.

Private properties, both public and private, were grouped, leaving few isolated cases. As for the consolidation of the nuclei, a substantial fraction may have some consolidated percentage, with few cases of relocation or not consolidated and many situations in which part of the families need to be resettled. Most settlements require complex urbanization, while those with less need for relocation are framed as simple urbanization.

With these data, the Municipality of São Vicente considers in its plan (PLHIS, 2009) that it has a deficit of 9,767 housing (36% of the settlements in slums) and

17,348 inadequate to consolidate, that is, 64% of the settlements, on average, need adjustments. In this sense, based on data from the São Vicente Transparency Portal, it appears that the set of interventions for Social Interest Housing (HIS) is diversified, involving the City Hall, the Housing and Urban Development Company (CDHU), private construction companies and social housing movements (SÃO VICENTE, 2009). Even so, there is a lack of long-term planning that can meet the housing demand.

From this perspective, considering the statement given by Interviewee B (2023), "São Vicente has a housing deficit of 40 thousand housing units," a characteristic observed in PLHIS (SÃO VICENTE, 2009). Thus, in the view of Interviewee B, "the local property market serves only 30% of the population, [...] many 'occupy' land to live in, usually environmentally protected areas, such as springs water and mangroves". For example, this Interviewee considers that [...] "the mainland region of São Vicente, especially Fazendinha, has high rates of irregular occupation in preservation areas". Fazendinha was described by Interviewee B as "a region of difficult access and articulation of zoning teams [...] and other agents of the city hall".

In this way, the municipalization of environmental licensing is an imminent challenge that requires adequate preparation within the scope of São Vicente. Therefore, it is believed that environmental management should be integrated into housing and urban policies to ensure that development occurs sustainably, respecting socio-environmental limitations and promoting climate justice. This scenario implies the need to incorporate environmental considerations in all phases of planning and execution of housing projects, which does not eliminate the need to enact specific laws for the approval of certain projects that combine environmental and social aspects, as observed in the Jóquei Clube and Humaitá complexes, as well as in the precarious settlement Mexico.

Given this, socio-environmental issues need to receive special attention in the context of São Vicente due to the seriousness of the problems faced by the city and its region. For example, according to Lombardo (2007), one of the most worrying urban socio-environmental risks is floods. In the RMBS, this is one of the most frequent risks of occurrence (CAMARINHA, 2021).

In the wake of this discussion, the Strategic Master Plan of São Vicente has an entire chapter dedicated to the theme of climate change, highlighting, among other aspects, the need to prepare and implement a Municipal Plan for Adaptation to Climate Change, "containing indicators and goals for adaptation to climate change and mitigation of greenhouse gases, to increase its level of resilience and improve the environmental quality of the territory" (SÃO VICENTE, 2018, s.p.).

Although there is this alignment of local urban policy with the climate issue, there is still a need for a deep understanding and concrete actions on the theme, whether from the point of view of mitigation or adaptation. Specifically, regarding adaptation to climate change, the city does not present a local policy or plan or other relevant initiatives on the subject. This reality is obviously in the statement of Interviewee A (2023): "Although the impacts of climate change are recognized, we are still structuring measures that consider adaptation and mitigation. I participated in the elaboration of the Master Plan, and during the discussions, we saw the relevance of the theme".

Even more worrying is the marginalization of the theme of climate justice in São Vicente's local planning and management, as evidenced in the local public policies analyzed in this article. Although some attempts at intersectoral policies have been implemented, none of them emphasize the complexity of the history of the occupation of the territory of São Vicente, marked by inequalities and socio-environmental vulnerabilities. It is important to highlight that the assimilation of the climate justice context by the São Vicente administration in the elaboration of urban plans and the climate action plan is being relocated into a "long-term" field for its consolidation, though the theme is recognized as relevant.

The regulation of urban policies uses harmful urban models and production processes, such as irregular urban expansion, verticalization in consolidated areas, and the expansion of the road system over fragile areas. From this perspective, it is emphasized that assuming the perspective of climate justice means presenting the wounds of colonization (SULTANA, 2022) and the territorial vulnerabilities resulting from historical socio-environmental injustices (HERCULANO, 2008). The following topic will briefly review the results discussed in this and the previous topic, presenting the conclusions and other aspects of the article.

6 Conclusions

The results obtained from this article indicate that the urban public policy of São Vicente perpetuates, in many aspects, the logic of segregation and spatial inequality. In addition, the housing deficit, which persists, is evidence of the insufficiency of housing policies to meet the basic needs of populations, especially those most vulnerable. Moreover, the centralization of the business sector as a promoting agent in a context of low regulatory capacity on the part of the public authorities and almost non-existent social control has contributed significantly to the social exclusion and vulnerability of the poorest populations susceptible to the risks of climate change.

This context makes addressing climate risks and impacts in coastal regions even more complex once these regions have biophysical aspects that are more susceptible to environmental impacts. In this sense, the research revealed that, despite recent initiatives to integrate climate change into urban planning and management instruments, it is still an incipient and quite challenging reality within the scope of São Vicente, as this integration between socio-environmental aspects and climate justice is inconsistent. This study highlights that the instruments of local urban policy in São Vicente, such as the Strategic Master Plan, not only have failed to build and implement climate justice but can also be reinforcing cases of climate injustice.

From these aspects, this article managed to achieve its objective, proposed in the introduction, by understanding the assimilation of climate justice into the urban governmental agenda of São Vicente based on analysis of its public policies on urban planning and climate action. However, the research has limitations, such as the unavailability of updated data, lack of depth of the analyses provided by the interviewees, and limited time coverage of the public policies investigated.

The importance of this article for the Academy, for example, is its contribution to the theoretical-analytical and interdisciplinary field of the Human

Dimensions of Climate Change, given that it contributes to the promotion of discussion on cities, public policies, adaptation, and climate (in)justice. In the social field, this study plays a central role in the argument about the negative reverberations of climate change for populations, especially those in the context of socio-environmental vulnerabilities and risks to climate change and who suffer more and unequally from its impacts.

In the sphere of public management, this article stands out for bringing the analysis of the (in)action, at least still, of local management in the face of climate change, elaborating and implementing public policies and actions to respond to the risks and impacts of these changes. Additionally, from this perspective, this study offers valuable insights to produce fairer and more inclusive public policies, fostering future debates and investigations on climate justice themes.

Finally, it is recommended that future studies include analyses at multiple scales to identify the intersection of factors and the heterogeneity of situations of vulnerability present in the territory. A close look at the various spatial and temporal scales is necessary to capture the differences in the adaptation and resilience capacities of different local communities, whether peripheral, riverside, fishermen, artisans, or others. Only in this way will it be possible to develop public policies that promote climate justice effectively, ensuring that all communities, especially the most vulnerable, can face and adapt to climate change equitably and sustainably.

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