

ENVIRONMENTAL CONFLICTS AT SÃO PAULO MACROMETROPOLIS: PARANAPIACABA AND SÃO SEBASTIÃO¹

PEDRO HENRIQUE CAMPELLO TORRES²
RUTH FERREIRA RAMOS³
LEANDRA REGINA GONÇALVES⁴

Introduction

Major cities around the world have experienced the process of implosion and explosion as described by Lefebvre (1970), with a redefinition of the relationship between the city, industry, urbanization and countryside. In Latin America, the historical movement and the process of intense urbanization was no different in the twentieth century, with further acceleration during the second half, and with the formation of large cities like São Paulo, Mexico City, Santiago, Lima, Rio de Janeiro and Bogota, for example. From the 2000s, however, a new urban phenomenon has received the attention of planners and researchers: the territorial expansion of the urban sprawl of the metropolis (LENCIONI, 2005). Authors like Scott and Storper (2001), characterize the formation of this territory as a city-region, or postmetropolis (SOJA, 2013).

The metropolitan expansion process is followed by a significant increase in matter and energy consumption (MADLENER, 2011). The urban transformation in the global southern cities, not only gives rise to the level of their material production, but also involves new forms of subjectivity and social relations (LUQUE-AYALA, 2014), as well as conflicts over appropriation, by the capital, of the natural resources needed to meet the growing demand for food, electricity and water, among others. More than that, the process of expansion of the metropolitan urban area in Latin American cities has been characterized by many tensions in relation to mega infrastructure projects and logistics, often in conservation areas or lands of traditional communities.

1. Article produced within the Thematic Project FAPESP 2015 / 03804-9 “Environmental Governance in Macrometropolis Paulista Face to Climate Variability”. We appreciate the discussions in Group 2 “Territorialities, spatiality and innovation in environmental governance”, coordinated by Professors Dr. Luciana Travassos and Dr. Sandra Momm, from the Federal University of ABC (UFABC).

2. Social Scientist and Urban Planner, researcher of the Institute of Energy and Environment (IEE) of the University of São Paulo (USP), scholarship FAPESP Process 2018/06685-9. pedrotorres@usp.br . <https://orcid.org/0000-0002-0468-4329>

3. Biologist, PhD student in Planning and Territory Management, from Federal University of ABC (UFABC) ramosruth78@gmail.com . <https://orcid.org/0000-0003-2647-6966>

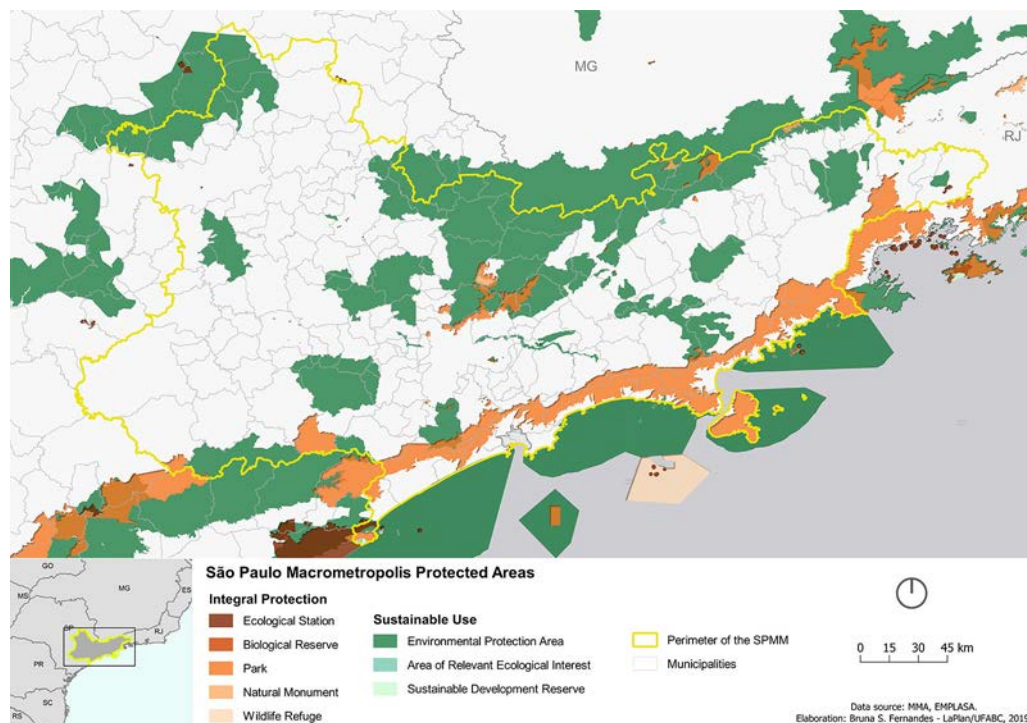
4. Biologist, PhD in International Relations. Researcher at the Oceanographic Institute. leandra.goncalves@usp.br. <https://orcid.org/0000-0003-1182-418X>. Bolsista FAPESP Processo 2018/00462-8.

With about thirty-three million inhabitants and a GDP of almost a trillion and a half of real, the São Paulo Macrometropolis (SPMM), such as territorial planning units or public policy platforms, is still an undefined territory, both in its institutional arrangements and planning tools and even in its geographical composition. It has 53 thousand square kilometers and 11,700.2 square kilometers of urban area, represented by 174 municipalities that account for nearly 73.9% of the total population, 82.5% of Gross Domestic Product (GDP) state and 27.3% Brazilian GDP (EMPLASA, 2018).

Officially established, produced and designed to integrate public policies and joint actions to the territory of the expanding metropolis, within its territory coexist different territorial social realities (TRAVASSOS, MOMM and TORRES, 2019). Through the concentration of wealth, SPMM still exhibits indicators that show the existence of deep environmental and social inequalities. Composed of five metropolitan areas (São Paulo, Campinas, Paraíba Valley and North Coast, Sorocaba and Santos), two urban agglomerations - Piracicaba and Jundiaí, in addition to the micro-region Bragança (non-institutionalized), the three largest metropolitan areas present a contingent of more than 3 million people living in precarious housing conditions, many in hazardous areas with poor urban and social infrastructure. Of these, 2.1 million were concentrated in the Metropolitan Region of São Paulo, 297 thousand in the Metropolitan Region of Baixada Santista and 160 thousand in the Metropolitan Region of Campinas (MARQUES, 2013).

Significant portions of the natural heritage of São Paulo State are within SPMM boundaries, including major conservation areas located in the “Serra do Mar” and “Serra da Cantareira” (EMPLASA, 2014), constituting important remnants of Atlantic Forest and ecosystem service provider areas. In the figure below, it is possible to observe the presence of protected areas in territorial traces of the São Paulo Macrometropolis.

Figure 1 - SPMM Protected areas.



Source: MMA, EMPLASA. Elaborated: Bruna S. Fernandes LaPlan / UFABC, 2019.

In this context, the objective is to analyze two cases of environmental conflict in the São Paulo Macrometropolis, both related to regional planning and installation of large logistics projects, as well as examining how they are embedded in a planning logic, development and a rule of vision beyond the reactions of how civil society copes with the impacts that such projects bring with them. The first case refers to the Paranapiacaba district (a Santo André district, in the Greater São Paulo) and the other looks at the municipality of São Sebastião (Metropolitan Region of the Ribeira Valley and North Coast), see the location of cases in Figure 2, below.

Figure 2. São Paulo Macrometropolis and two cases worked: Paranapiacaba (Santo Andre) and São Sebastião.



Elaborated: Guilherme Leria Sanches/MacroAmb/FAPESP, 2018.

Methodology

Assuming that areas with vulnerable populations, and areas relevant to environmental conservation due to natural attributes, are those that are more likely to be affected by major projects and construction, and where the main environmental conflicts dwell, this research addresses two cases that represent, within the São Paulo Macrometropolis territory, identification of tensions and conflicts arising from the announcement or implementation of large urban intervention with environmental impacts and governance breakdowns (JACOBI, 2005).

For the analysis proposed here, it has initially defined the universe of São Paulo Macrometropolis, geographically, using the cartographic base of the Paulista Company of Metropolitan Planning (EMPLASA) and the SPMM Action Plan (SPMM-AP). The analysis was complemented by a review of the scientific literature to seek socio-economic data in that territorial coverage. Admittedly, SPMM is not a scientific nomenclature from the point of view of urban and regional planning - there are no examples in the world of similar nomenclature which typically uses city-region or mega-region - but will be used here as a political territorial frame in terms of deciphering what the state understands and intends with this new way of planning in the territory within the state of São Paulo.

In view of this, we aimed to analyze what has been produced by the institutional bodies of the region, investment flows, the agenda for development, and how the proposed agenda relates to the current conflicts in the territory of SPMM. First, we understand that it is a priority to search for understanding the role of planning and urban development on a scale such as the SPMM is to the Government of São Paulo.

Secondly we understand, conversely, the struggles for environmental justice, or those against the imposition of large projects with high potential to generate environmental impacts, which can also be articulated in another way and on another scale. Our hypothesis is that institutional arrangements developed to produce SPMM did not take into account the need for interaction and dialogue between the different fields of public policies, especially in the integration of programs and projects with environmental issues. Evidence of this process is the current no integration between public policies in this territory, such as the municipal housing policies, sanitation, mobility, climate, etc., with the development of PDUIs - Integrated Urban Development Plans.

This work, by illuminating these two conflicts, also seeks to demonstrate the challenges for the establishment of transformative governance, in fact, in this area, overcoming the usual practices that favor a section development of environmental issues. The first case concerns the expansion of the Port of São Sebastião by the state government. The second deals with the possible deployment of a logistics complex next to the historic village of Paranapiacaba. Both cases refer to the implementation of logistic and transportation infrastructure, overshadowing the natural heritage, creating negative environmental impacts and conflicts with local populations.

It is understood that current environmental problems for this city-region will tend to worsen in the coming years with increasing population, demands for housing, water, energy and food, reduction of green areas and confronting a new political and social context in the country. Assuming that environmental conflicts are an expression of tensions in the reproduction process of development models (ACSERALD, 2004), the recorded cases bring empirical evidence to the discussion in relation to the capitalist production process of the space that has been produced, with the leadership of State Government, in conjunction with private entities, creating constant tension around environmental issues.

The cases of both Paranapiacaba and São Sebastião can be considered examples of environmental conflict (Acsehrad, 2004), where there exists the involvement of social groups with different modes of ownership, use and significance of the territory, which threatens undesirable impacts on the mode of life of other social groups.

“Conflict can derive from the dispute over ownership of the same resource base or bases distinct, but interconnected by ecosystem interactions mediated by the atmosphere, the soil, the water, etc. This conflict has the arena territorial units shared by a set of activities whose “symbiotic agreement” is broken due to the complaint of the undesirable effects of the activity of one of the agents on the material conditions for the exercise of the practices of other agents. (ACSELRALD, 2004, p.16) “

In this context, the issue of (un)metropolitan governance and urban mega-territoriality has been resumed in the academic debate on government agendas (Ribeiro and Ribeiro, 2010; RIBEIRO 2016, SOJA, 2013). Because of their complexity, contradictions, conflicts, flows and scales, the metropolitan areas require articulated cross-policies, involving different social actors and different levels of government (NEGREIROS et al., 2015), as well as new governance arrangements.

What is the São Paulo Macrometropolis?

The Metropolitan Region of São Paulo (SPMR) has expanded to other territories to such a degree that flows and pressure from the city of São Paulo, as well as its magnitude, introduce several conflicting activities with the natural vocation of the region. Several conceptual nomenclatures have been used to describe large urbanization processes or expanded urbanization: metropolis, dispersed city, conurbation, megalopolis, global, city-region, global city-region, megacity, regional urbanization and mega-region (XU and YEH, 2010).

The framework of the São Paulo Macrometropolis, a city-region to Lencioni (2015), proposes a new level of functional territorial interaction and those interdependencies that demand comprehensive review of existing paradigms around sectorial and multi-sectorial instruments of governance and planning at different spatial scales. It is an integrated area for the flow of goods, people, property speculation, agribusiness, ecosystem services, slums, dormitory towns, vulnerabilities and information, with the state capital as its polarizing center.

Using the frame of SPMM as a scientific object of analysis, it contributes to a critical reflection on the existing intentions in this new proposal for a Macrometropolitan scale, with the metropolitan regions of São Paulo in mind. The SP State government addresses the entire issue in the four reports of the SPMM Action Plan (AP-2013-2040) planning tool prepared:

“(…) Recognize the strategic importance of SPMM, the state government has engaged in the search for a planning process, prioritizing the functionality of the territory, outlining the guidelines for its development.” (Message from the Governor, EMPLASA, 2014, p.3).

However, governance and environmental planning in SPMM-AP kept the traditional logic of betting on economic projects as development vectors, excluding, for example,

the huge natural heritage of the region, as well as existing threats to the most vulnerable populations of this territory. In the specific case of ports and logistics centers, for example, there is no mention of the environmental impacts that new ports or expansion of existing would bring to the region (EMPLASA, 2014, p.51-53).

Although there is difficulty in understanding the process of the invention of SPMM, according to Tavares (2018), it is from the SPMM-AP that the SPMM was inserted into the state planning system and established in the region.

“With the publication of the Action Plan of Macrometropolis 2013-2040, SPMM-AP entered into the regional planning system of the state of São Paulo and was formed as an institutionalized region (but not regulated by specific law). Evidence of this established process of a new planning scale can be evidenced by the inclusion of SPMM next to public planning instruments and policies of the State of São Paulo: the Multi-Year Plan (PPA), the Budgetary Guidelines Law (LDO) and the Law Annual budget (LOA) have set specific budget for SPMM. The PPA 2012-2015 (Law 14,676 of 28/12/2011 “(TAVARES, 2018).

In addition to budgetary indications mentioned by Tavares (2018), and found in other public policy instruments, was evidence of the entry of this new range planning in the policy agenda of the State government, as (i) the Master Plan took advantage of Water Resources for São Paulo Macrometropolis coordinated by DAEE and published in 2013, which proposed a Macrometropolitano Operator Regional Water Resources (DAEE, 2013); (ii) the State Water Resources Plan (2016-2019), which provides specific data on water quality, the classification of water bodies and hydraulic schemes specifically for the territory of the SPMM (SSRH, 2017), and (iii) and the Integrated Plan for Urban Transport (Asquino, 2010).

Development and nature protection in SPMM as a planning tool.

As shown previously, the Action Plan Macrometropolis (AP) 2013-2040 is a planning tool projected by the Government of the State of São Paulo that proposes the formulation and integration of public policies, projects and actions in SPMM territory. Prepared under the coordination of EMPLASA (Paulista Company of Metropolitan Planning S / A), it has as its main guideline integration and complementarity between the regions of SPMM and SPMM with other regions of the State of SP (EMPLASA, 2014).

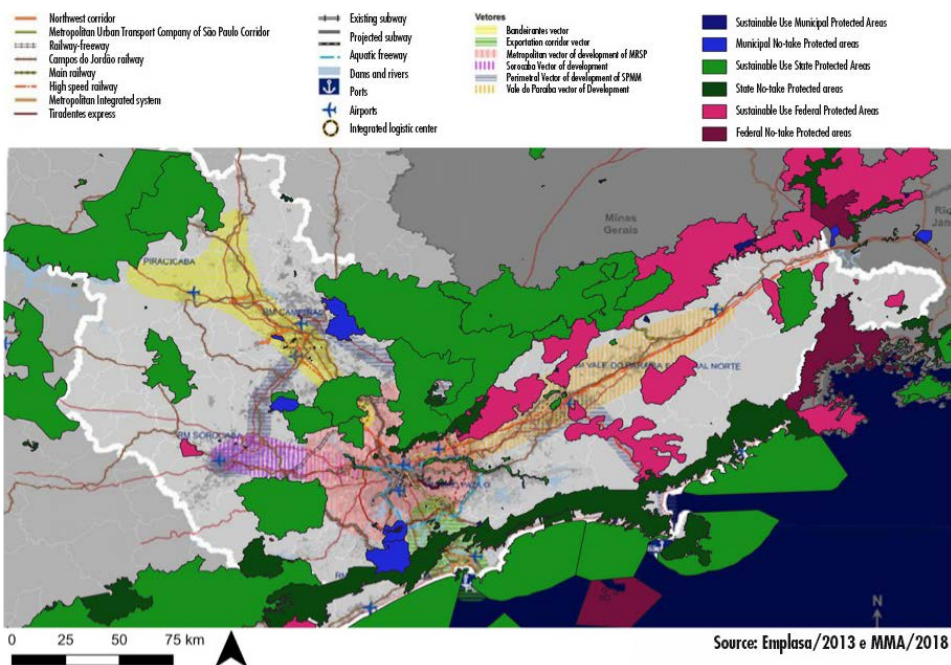
Starting with a diagnosis of “major development potential, as well as problems and bottlenecks present in different dimensions of regional reality” (EMPLASA, 2014, p.15), AP defined its objectives, goals and proposals considering a trend scenario and a vision-desired future for the territory of SPMM. By analyzing the AP, it appears that support of the development of infrastructure and environmental conditions of SPMM were included as relevant issues for the planning and management of the macro region, which are defined respectively as Macro metropolitan vectors and spatial development of systemic development.

These concepts comprise part of the territorial development of vectors, the logistics platform implementation projects, recovery of the rail network for freight transportation, implementation of regional and metropolitan and structuring of the airport complex SPMM trains. The systemic development vectors include energy-related programs, water resources, environmental, technological innovation, professional training and tax management.

In this context, it is possible to note that the territorial development vectors correspond to existing infrastructure mobility and transport highways. By now, the systemic development vectors category included the “environmental asset” (EMPLASA, 2014, p.31), of SPMM with respect to remnants of natural vegetation and protected areas. While the first vector of development proposes the development and expansion of transport infrastructure, the second assumes that there is a need to protect the environmental heritage of SPMM, highlighting the potential for valuation of ecosystem services.

In general, we can say that AP, while planning policy platform and land management, also deals with the question of equating the Macrometropolitan scale development with what constitutes sustainability. However, in practice this situation equation between development and protection of the environment involves what Frey (2018) calls the tragic choices of public policy as it inevitably will involve the clash of different interests “leading to fierce strongly conflicting political battles” (p.32). This idea is presented below when examining two emblematic cases of environmental conflicts in SPMM. The following figure (Figure 3), indicates the location of the two cases studied and the relationship with the storage units present in the SPMM and the pressure existing within vectors.

Figure 3. Overlap between protected areas in SPMM and Territorial Vectors. Source: Guilherme Leria Sanches (MacroAmb / FAPESP). Translated by authors.



Case study: São Sebastião and Paranapiacaba

São Sebastião

The region of São Sebastião, on the coast of São Paulo, has one of the largest remnants of Atlantic Forest in the State of São Paulo and the country (34,262, 22ha) (SOS Atlantic Forest Foundation, 2018⁵). Its history was marked by economic development and a disorderly coastal occupation associated with major infrastructure projects, including the port and road expansion. Nevertheless, these efforts encouraged an increasing migration of tourists to the region for leisure, as well as workers in search of employment (CUNHA, 2003).

According to Teixeira (2013), most of the land areas with high biodiversity were established within the full protection units, mostly in the 1970s, in São Paulo. A total of 22 protected areas (between storage units, indigenous lands and slave cores) occupying more than 470,000 ha, or approximately 80% of the total area of the region. UNESCO has also recognized all the major remnants of the Atlantic Forest, including its coastal area, as a Biosphere Reserve in 1992 for its importance to environmental conservation. Furthermore, the Atlantic Forest has been identified as one of two hotspots for conservation of biodiversity in Brazil (MYERS et al., 2000).

The development of the region gained strength in the 1970s with the paving of the Rio-Santos highway. According to Cunha (2003), the arrival of Petrobras into the region brought the improved Tamoios Highway, linking the region to the Paraíba Valley. The consolidation of the supply of electricity brought banks and modern jobs and opened the migratory process of Northern Workers Minas Gerais to the region.

In addition to the public port, it is worth mentioning the Maritime Terminal Almirante Barroso -TEBAR, Petrobras, operated by Transpetro, which transports oil and its derivatives. Because of the presence of this terminal, the Port of São Sebastião has the highest handling of liquid bulk and makes Brazil the fifth largest country moving cargo in tons (ATLAS NATIONAL GEOGRAPHIC, 2008 apud TEIXEIRA, 2013).

The intention of the government of the State of São Paulo to transform the Port of São Sebastião into a multipurpose port, focusing on general cargo, containerized or not, with berths capable of receiving larger ships than other ports in the Southeast, was coupled to an expansion in terms of area occupying the direction of Araçá Bay (Amaral et al., 2010).

Since the beginning of the project announcement, local NGOs, scientists and traditional communities have warned that the much desired expansion, which seemed obvious from the logistical point of view and development, did not address the concerns of users, nor matched the importance of the ecosystem in the region where scientific research confirmed the biological relevance of this region (AMARAL et al., 2010; AMARAL et al., 2016, SANTOS & TURRA, 2017).

5. Information available on the Sos Mata Atlantica website. <http://aquitemmata.org.br/#/sobre> in work with INPE.

The justifications of that Megaproject, initially budgeted at \$2.5 billion, supported the need pointed out by the State Government to expand and decentralize the logistics capacity of state transport of São Paulo and the Southeast, providing adequate infrastructure for the multimodalities required. To this are added the natural port vocation of the São Sebastião channel, the proximity to the wells in the Santos Basin and its strategic positioning of the region in relation to areas of intense industrial activity, which require import and export channels (TEIXEIRA, 2013).

Within the Araçá Bay, other activities are carried out that would also be affected by the expansion of the Port of São Sebastião. One is its use by fishermen and residents of distant neighborhoods, such as the center of São Sebastião and Ilhabela. In being sheltered, the bay offers ideal conditions for mooring and protection of the small boats used by fishermen. With the hydrodynamic changes, the areas planned in the Environmental Impact Study to function as a navigation channel for these users would most likely be subjected to a gradual silting. Also, the use of space would not allow small boats kept in the bay to be sheltered and could potentially contribute to the end of the activities of traditional fishermen using this space, causing socio-economic and cultural damage (TURRA et al., 2017).

Other social benefits related to recreational uses by surrounding residents would also be affected. The presence of an extensive plain tide, a rare environment on the coast of São Paulo, shows remarkable changes in the scenery with the tides shifting throughout the day. In general, the bay has different purposes, which together form the cultural heritage of the Municipality of São Sebastião, contributing to the sense of place of the inhabitants of the surroundings, the Caçara, and their cultural identity, their quality of life and good social relations (SANTOS & TURRA, 2017).

In 2017, the Supreme Court of Justice Superior Court upheld the decision preventing the expansion of the Port of São Sebastião without proper completion of the previous license. The verdict guaranteed the upholding of the decision, suspended the preliminary license and determined a new environmental impact study for the realization of the work, taking into account the cumulative impacts of the port with other ongoing mega-projects in the North Coast (SANTOS & TURRA, 2017).

In relation to regional planning in the region, it is important to note Gomes' reflection (GOMES et al., 2018) that "Every problem planning is rather a problem of territorial history." In this sense, the authors point out; it is essential to review the structural problems of the formation of the territory - not settled by successive plans - when preparing the PDUI for the region.

One of the article's assumptions lies in the tendency to reshuffle urbanorregional space Paraíba Valley and North Coast, in the light of the guidelines WFP, without proper considerations of global-local dialectic, meaning the indispensable Paulista leadership at the expense of building one national project, social and territorial comprehensive (RESCHILIAN & UEHARA, 2015). In case, the metropolitan areas of Paraíba Valley and North Coast, Sorocaba and Ribeirão Preto would be taken as "missing parts" of the territorial mosaic Macrometropolis - the main planning unit of the state government. (GOMES et al., 2018)

policies for local development, particularly through the enhancement of the region's heritage and sustainable tourism.

Declared a cultural heritage site of Brazil at all three levels (federal, state and municipal), the villa is set within extensive areas of Atlantic Forest remnants and Conservation Units, and is declared a UNESCO Reserve of the Green Belt Biosphere (FIGUEIREDO, 2014). Currently, with a population of 967 inhabitants (SANTO ANDRÉ, 2016), much of the local population gets its income through tourism, environmental and cultural monitoring, accommodation and food services.

Paranapiacaba is located on the plateau railway linking the Port of Santos, the "main gateway and product output in Brazil" (EMPLASA, 2014, p.127). In early 2016, an owner of large tracts of land located on the outskirts of the village, filed a license with the environmental agency of São Paulo for a high impact project foreseeing the installation of a large distribution park.

Budgeted in the amount of 785 million – the estimated cost just for vegetation removal, grading and drainage, as it is not included in the cost presented in the EIA / RIMA, the implementation of warehouses and logistic yards (p.190, the EIA, CETESB 2018), the implementation of the logistics center provides for the elimination of 91 hectares of Atlantic Forest remnants in protected border areas. Although the project presumes the renewal of railway use, its logic remains anchored in the road transport once used in the full employment scenario existing there 25 years ago, now planned in the form of 1,176 truck trips per day (EIA, CETESB, 2018 p.549) .

In this situation, the Paranapiacaba community, who learned of the project only in early 2018 when they were summoned to the public hearing, reacted with a movement launched against the planned logistics condominium, called SOS Paranapiacaba. Made up mostly of residents and leaders of Paranapiacaba, the movement managed to suspend the licensing process through a preliminary injunction causing the cancellation of the public hearing to be held by the State Environmental Council. However, the developer's attempts to use this determination show that his interest remains.

In reviewing the EIA / RIMA of the logistics center, the venture builds in a justification positioning a logistics condominium next to Paranapiacaba, given the existence of a railway linking the plateau to the Port of Santos, which will serve "to expand the operation of the railway system loads in the southeastern region of the country" (EIA, CETESB 2018, p.79).

In a chapter of the EIA titled "Overview of the Transportation System in Macrometropolis Paulista" the argument presented to the licensing authority is that the project "is presented as an infrastructure project aligned to state and federal policy development and logistics of transport. [...] the logistics center Campo Grande fits the characteristics and location planned for Logistics Platforms Peripheral" (EIA, CETESB 2018, p.78).

It should be emphasized that the EIA / RIMA, although mentioning the logistics issue as a priority for SPMM, does not mention the existence of systemic vectors of environmental protection in the Macrometropolis Action Plan and also conflicts with public policy provided for SPMM, the protection of its natural heritage and valuation of ecosystem services.

Moreover, from crossover of data transport vectors and SPMM mobility with the protected areas map, it appears that Paranapiacaba, although located in a border area of the railroad Santos-Jundiaí, is not actually located in a priority area for the deployment of a logistics center for SPMM, as claimed by the private entity. The area closest to the ring road axis areas were prioritized for this type of development.

Conclusions

This article aims to discuss two case studies that depict the environmental conflicts in SPMM and how these are related to a new scale of planning and integration of the territory within the dynamics of the contemporary production of the global capitalist space.

Thus, although the proposal of territorial planning in Macrometropolitan scale is relatively new, it is entering the public policy agenda of the state government of São Paulo in order to attract new investments. Analyzing SPMM-AP (EMPLASA, 2014), Master Plan for Water Resources Utilization for SPMM (DAEE, 2013), the State Water Resources Plan 2016-2019 (SERHS, 2016), together with the budget data indicated by Tavares (2018), and information about Integrated Plan for Urban Transport indicated by Asquino (2010), we find evidence of this political movement enough to consider the SPMM as a territorial development of Macrometropolitan scale.

It is mainly with the issue of transport and logistics infrastructure and ecosystem services, with attention to the issue of water, where this agenda seems to be more evident. However, when studying the two emblematic cases portrayed in the confrontation between these two priorities for the development of SPMM, the expansion of infrastructure and protection of nature, we could demonstrate that the contradictions of metropolitan (and now, Macrometropolitan) planning remain.

We note that the development with nature protection in a new planning scale is necessarily linked to the issue of injustice and environmental conflicts. This aspect proved clear when analyzing the cases of expansion of the Port of São Sebastião and the implementation of a logistics condominium in Paranapiacaba. Both refer to large interventions for the expansion of transport infrastructure, undertaken by SPMM-AP as a planning tool essential for regional development. To date, the environmental licenses are suspended due to the legalization promoted by opposition movements in civil society.

The cases discussed here have clear differences both of scale, location and goals. On the other hand, both are projects that were built and produced long ago, each with twists and turns, advances and retreats. Both are projects that were the subject of social struggle by civil society, especially those who would feel the direct impact of implementation. It is not, therefore, an exclusive matter of São Paulo, but a phenomenon that haunts Latin American cities and their legal civil rights (SABATINI, 2004).

Through the main results and with evidence of the conflicts, it was possible to show that the political practice and planning in legitimizing the SPMM planning unit remains disconnected from environmental issues, keeping an orientation favoring the development model of major projects, providing or enabling locational advantages for companies and private capital without taking into account impacts to the environment and to the residents of a certain region.

References

- ACSELRADH. Desregulamentação, contradições espaciais e sustentabilidade urbana. *Revista Paranaense de Desenvolvimento*, IPARDES, Curitiba, 107, 25-38, 2004.
- _____. As práticas espaciais e o campo dos conflitos ambientais. In Acserald, H. (Org.), *Conflitos ambientais no Brasil*, p. 23-35, Rio de Janeiro: Relume Dumará: Fundação Heinrich Böll, 2004.
- AMARAL, ACZ, MIGOTTO, AE, TURRA, A., NOVELLI & SCHAEFFER, Y. Araçá: biodiversity, impacts and Threats. *Biota Neotropica*, 10 (1), 219-264, 2010.
- AMARAL, ACZ; TURRA, A. ; CIOTTI, AM; WONGTSCHOWSKI, CLDBR; SCHAEFFER-NOVELLI, Y.(Eds.). *Life in Araçá Bay: diversity and importance*. 1. ed. São Paulo: Lume, 2016.
- ASQUINO, MS. The importance of Macrometropolis Paulista and Range of Movement and Transportation Infrastructure Planning. *Journal of Urban and Regional Studies*, 12, 1, (83-98), 2010. <http://dx.doi.org/10.22296/2317-1529.2010v12n1p83>
- BRENNER, N. ; SCHMID, C. Planetary Urbanization. In: GANDY, M. (Eds.), *Urban Constellations* (10-13). Berlin: Jovis 2011.
- _____; _____. The 'urban acts' in question. *International Journal of Urban and Regional Research* (2014), vol. 38, no. 3, 731-755. <http://dx.doi.org/10.1111/1468-2427.12115>
- CETESB - Environmental Company of the State of São Paulo. EIA / RIMA Logistics Center Campo Grande, 2017.
- CUNHA, IA D. Environmental conflict in coastal waters: port-city relationship in the São Sebastião Channel. *Environment & Society*, VI, 2, (83-98), 2003.
- EMPLASA - Paulista Company of Metropolitan Planning S / A. Secretary of the Civil House. Action plan Macrometropolis Paulista 2013-2040: a view of the macro-metropolis. Sao Paulo. São Paulo, 2014.
- EMPLASA, 2018. Access 2018 <https://www.emplasa.sp.gov.br/MMP>
- DAEE - Department of Water and Power. Department of Sanitation and Water Resources. Master Plan for Utilization of Water Resources to Macrometropolis Paulista. São Paulo, 2013.
- FIGUEIREDO, VGB cultural heritage, city, sustainability: the role of urban laws in preservation and development? *Environment & Sociedade*, XVII, n.2, 91-110, 2014. <http://dx.doi.org/10.1590/S1414-753X2014000200007>
- FREY, K. Metropolitan Environmental policy in the context - proposal of an analytical framework. In: 1. International Workshop on Public Policy at the University of Pittsburgh. Pittsburgh International Public Policy Association - IPPA, 1-16, 2018.
- GOMES, C. RESCHILIAN, PR, & UEHARA, A. Y. (2018). Prospects for regional planning in the Paraíba Valley and the northern coast: landmarks and institutiona-

lization of the metropolitan area in the Paulista Macrometropolis Action Plan. *urbe. Journal of Urban Management*, 10 (1), 154-171, 2018. <https://dx.doi.org/10.1590/2175-3369.010.001.ao07>

JACOBI, Pedro Roberto. institutional governance of environmental problems. *Politics & Society*, Florianopolis, v. 4, No. 7, p. 119-137, 2005.

LENCIONI, S. diffuse urbanization and the creation of mega-regions. The case of São Paulo-Rio de Janeiro. *E-metropolis*, 22, 6-15, 2015.

_____. The Emergence of a New Fact Metropolitan Urban Character in Sao Paulo. *Paulista Bulletin of Geography*, São Paulo, v. 82, p. 45-64, 2005.

_____. Networks, cohesion and fragmentation of the metropolitan territory. *Scripta Nova-Journal of Geography Electronica y Ciencias Sociales*, vol. XIV, p. 1, 2010.

LEFEBVRE, H. (1970) *La révolution urbaine*. Paris, Gallimard

LUQUE-AYALA, A. Reconfiguring the city in the global South: Rationalities, techniques and subjectivities in the local governance of energy, theses Durham, Durham University, 2014.

MADLENER, R., SUNAK, Y. Impacts of urbanization on urban structures and energy demand: What can we learn for urban energy planning and urbanization management? *Sustainable Cities and Society*. Volume 1, Issue 1, Pages 45-53, 2011. <https://doi.org/10.1016/j.scs.2010.08.006>

MARQUES, E., BITTAR, M. CAZOLATO, D., FUSARO, E. WALDVOGEL, D. Diagnosis of slums in the cities of Macrometropolis Paulista Second Report. Studies Center of Metropolis - CEM / CEBRAP Administrative Development Foundation - FUNDAP, 2013.

SLAVE, R., SANTOS, SMMD, & MIRANDA, ZAID New range of planning, investment and governance: in the state macro-metropolis. *Revista Iberoamericana de Urbanism*, 12, 121-135, 2015.

RIBEIRO LCQ; RIBEIRO, MG Metropolises and productive structures: convergences and divergences space-time. *Metropolis notebooks (PUCSP)*, 12, 331-348, 2010.

RIBEIRO, LCQ Metamorphoses of the Order of the Brazilian Urban Metropolis: the case of Rio de Janeiro. *Sociologias (UFRGS)*, 18, 120-160, 2016. <http://dx.doi.org/10.1590/15174522-018004205>

SABATINI, F., & W., GUILLERMO. La guerra de la basura de Santiago: desde el derecho a la vivienda al derecho a la ciudad. *EURE (Santiago)*, 30 (91), 67-86, 2004. <https://dx.doi.org/10.4067/S0250-71612004009100005>

SAINT ANDREW. Department of Budget and Participatory Planning. *St. Andrew's Yearbook 2016*, 2016.

SANTOS, CR; TURRA, A. (Eds). *Directions coastal sustainability: a view of the North Coast Paulista*. São Paulo: Oceanographic Institute of the University of São Paulo, 475p, 2017.

- SANTOS. civil investigations and multi-institutional action in defense of Araçá bay. In: Santos, CR; TURRA, A. (eds). Directions coastal sustainability: a view of the North Coast Paulista. São Paulo: Oceanographic Institute of the University of São Paulo, 475p, 2017.
- SSRH - State Department of Sanitation and Water Resources. State Water Resources Plan 2016-2019. São Paulo, 2017.
- SCOTT A .; AGNEW, J .; SOYBEANS, E AND STORPER, M. global city-regions. Space and Debates 41, seventeenth year, p1-25, 2001.
- SOY E. Besides postmetropolis. Magazine UFMG, Belo Horizonte, 20, 1, 136-167, 2013.
- TAVARES, J. Formation of Macrometropolis in Brazil: theoretical and conceptual construction of a planning region. EURE (Santiago) [online], 44, 133, 115-134, 2018. <http://dx.doi.org/10.4067/s0250-71612018000300115>
- TORRES, P, RAMOS, R. Paranapiacaba e a dupla face de Jano: Macrometrópole, governança e planejamento ambiental. IN: RAMOS, R., PASSARELLI, S., SULAIMAN, S., JACOBI, P. (Org.) **Paranapiacaba e os conflitos: saberes e perspectivas de desenvolvimento na macrometrópole Paulista**. EdUFABC, 2019 [in press].
- TRAVASSOS, L., MOMM, S., TORRES, Notes on urbanization, Adaptation and Vulnerabilities in the SPMM. IN: TORRES, P, JACOBI, P. Gonçalves, L., Barbi, F. Governance and environmental planning: adaptation and public policy in the São Paulo Macrometropolis. Editora, Letra Capital, 2019
- TEIXEIRA, LR Megaprojects in the North Coast Paulista: The Role of Large Infrastructure Projects in the Regional Transformation. Campinas (Doctoral Thesis), 2013.
- TURRA, A. Environmental impact assessment under an ecosystem approach: San Sebastian harbor the expansion project. Environment & Society, XX, 3, (155-176)<http://dx.doi.org/10.1590/1809-4422asoc166v2022017>, 2017.
- XU JIAN, ANTHONY GO YEH. Governance and planning of mega-city regions. Diverse processes and reconstituted state spaces. In Xu, J. & Anthony, GO (Eds.), Governance and Planning of mega-city regions: An international comparative perspective. 2010.
- Zion, S., TRAVASSOS, MOMM L. S., LEONEL A. The São Paulo Macrometropolis and challenges for planning and governance. IN: TORRES, P, JACOBI, P. Gonçalves, L., Bardi, F. Governance and environmental planning: adaptation and public policy in the São Paulo Macrometropolis. Editora, Letra Capital, 2019

Submitted on: 12/01/2019

Accepted on: 16/05/2019

<http://dx.doi.org/10.1590/1809-4422asoc20190101vu2019L2AO>

2019;22:e0101

Original Article

ENVIRONMENTAL CONFLICTS AT SÃO PAULO MACROMETROPOLIS: PARANAPIACABA AND SÃO SEBASTIÃO

Abstract: The objective of this paper is to analyze two cases of environmental conflicts in the region of Macrometropolis Paulista related to territorial development on the installation of large logistics enterprises, seeing how they fit into the logic of planning and vision of the state as well as the reactions of civil society to impacts that such projects bring with them.

In Latin America, the urbanization process from the second half of the twentieth century produced the formation of large cities such as São Paulo, Mexico City and Santiago, for example. From the 2000s, a new urban phenomenon has received attention of planners and researchers: the urban territorial expansion of the metropolis and the formation of this territory as a city-region. The question here is how this metropolitan expansion is related to natural resources and the tensions inherent in the contemporary production process space.

Key words: environmental conflicts, São Paulo Macrometropolis, metropolization, environmental governance, environmental planning

Resumo: O objetivo deste artigo é analisar dois casos de conflitos ambientais, na região da Macrometrópole Paulista, relacionados ao desenvolvimento territorial quanto à instalação de grandes empreendimentos logísticos, verificando como eles se enquadram na lógica de planejamento e visão do Estado, assim como as reações da sociedade civil aos impactos que tais empreendimentos trazem consigo.

Na América Latina, o processo de urbanização, a partir da segunda metade do século XX, produziu a formação de grandes cidades, como São Paulo, Cidade do México e Santiago, por exemplo. A partir dos anos 2000, um novo fenômeno urbano tem recebido atenção de planejadores e pesquisadores: a expansão territorial urbana da metrópole e a formação desse território como cidade-região. A questão aqui é como essa expansão metropolitana está relacionada aos recursos naturais e às tensões inerentes ao processo de produção contemporâneo do espaço.

Palavras-chave: conflitos ambientais, Macrometrópole paulista, metropolização, governança ambiental, planejamento ambiental

Resumen: El aim of this es artículo analyze cases of conflicts ambientales en la región de São Paulo, both related to her regional Planificación en cuanto a la instalación large logistics

emprendimientos, checking cómo se encuadran en la logic PLANNING y visión del Estado, además de las Reacciones de la sociedad civil to them impacts tales emprendimientos Traen you. In Latin America el proceso de urbanization from her second mitad del siglo XX, produjo la formación large ciudades like Sao Paulo, Lima y Santiago, por ejemplo. From los años 2000 urban un nuevo fenomenon ha recibido atención planners and researchers: it urban territorial expansión de la Metrópoli y la formación de ese territory as ciudad-región.

Palabras clave: ambientales conflicts, São Paulo Macrometropolis, metropolización, environmental governance, environmental planeamiento

DOI da errata: <http://dx.doi.org/10.1590/1809-4422asoc20190101vu2019l2aoerrata>

ERRATA

No artigo CONFLITOS AMBIENTAIS NA MACROMETRÓPOLE PAULISTA: PARANAPIACABA E SÃO SEBASTIÃO, com número de DOI:

<http://dx.doi.org/10.1590/1809-4422asoc20190101vu2019l2ao> , publicado no periódico Revista Ambiente & Sociedade, Vol 22, nas páginas 01 e 20:

Onde se lia:

LEANDRA GONÇALVES REGINA

Leia-se:

LEANDRA REGINA GONÇALVES

In the article Environmental conflicts at São Paulo Macrometropolis:

Paranapiacaba and São Sebastião, with DOI number: <http://dx.doi.org/10.1590/1809-4422asoc20190101vu2019l2ao>, published in the journal Revista Ambiente & Sociedade, Vol 22, On pages 01 and 18:

Which read:

LEANDRA GONÇALVES REGINA

Read:

LEANDRA REGINA GONÇALVES