São Paulo: Global Metropolis of the South

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Introduction: A metropolis of superlatives

São Paulo is a metropolis of superlatives. It is the largest metropolis of South America, with 20.2 million inhabitants in the Greater Metropolitan Area and 11.8 million in the city proper (IBGE, 2014 prognosis). Numbers vary considerably, but it is generally accepted that São Paulo is among the 10 largest urban agglomerations in the world.

The Greater São Paulo comprises 39 municipalities, with a total area of 8,051 km² (similar to the area of South and North Holland, Utrecht and Flevoland, the four provinces composing the Randstad-Holland, put together). The build-up area covers 2,139 km², stretching approximately 70-80 km East-West.

São Paulo is a city of unmatched social and spatial fragmentation. Inequality is rampant and many peripheral neighbourhoods lack basic services and amenities. The city is facing enormous ecological challenges, as unchecked urbanisation has endangered its water sources and the surrounding rain forest. Its main challenges for the 21st century are related to environmental sustainability, social cohesion and the reform of its informally developed neighbourhoods in a socially, economically and environmentally sustainable way. Housing, mobility, sanitation, energy production and water management are absolute priorities.
The city's origins

São Paulo is South America’s largest and youngest metropolis. The core city was founded in 1554, as an outpost of Jesuit missionaries operating under the Portuguese crown. During centuries, it worked as an outpost for the colonisation of the south-eastern part of South America, because of its strategic position on an elevated plateau with access to the vast River Plate Basin. From this point, it was possible to penetrate the vast South American hinterland via the rivers and valleys connecting the region to three different river basins (River Plate, Amazon and São Francisco), with together cover most of South America east of the Andes mountain chain.

Groups of Portuguese mercenaries used São Paulo as a springboard to search for precious metals and gems and, sadly, to hunt for Amerindians to be used as slaves. In the process, they opened trails and routes and enlarged the territory claimed by the Portuguese crown from the River Plate to the Amazon. However, the city itself remained minuscule until the second half of the 19th century, when it became the main centre for export of coffee being planted in the fertile lands of the hinterland. The city became the converging node of a complex rail and road system, partly based on the old trails and routes opened by the old mercenaries.

The emergence of a metropolis

The city's unprecedented expansion during the 20th century is related to a variety of reasons. The main trigger for this expansion process was the accumulation of capital from
coffee production in its hinterland starting in the middle of the 19th century and a relatively early industrialisation process. Industrialisation was accelerated in the period after WW II, when the automobile industry concentrated around the city and the region became the indisputable economic core of the country. This process triggered two subsidiary processes:

1. The concentration of industrial activities
2. Demographic explosion that took place in two main waves:
   - i. European, Japanese and Middle-Eastern immigration promoted by the State before World War II. It is believed that during the period of early industrialisation, more than 3 million European and Asian immigrants established themselves in the city of São Paulo, which gave it a marked European character until the wave of internal migrations in the post-war period.
   - ii. Internal migrations after WW II, when huge amounts of peasants from the central and northern regions of Brazil were attracted by the city’s prosperity.

Unchecked and explosive demographic growth in the second half of the 20th century means that a large part of the metropolis is built outside planning regulations, resulting in a large ‘clandestine city’ (Grostein, 1987).

According to the Municipal Spatial Plan of the City of São Paulo (City of Sao Paulo, 2004), illegal occupation of large areas and unregulated real estate development occupied an estimated area of 338.8 km² (approximately 22.5 % of the total area of the municipality) in 2002. Around 2.8 million people lived in substandard dwellings in 2002 (20% of the estimated city population). The characteristics of such illegal occupation may vary, but it generally follows the same pattern: a large piece of land is illegally subdivided into small plots and sold for low prices to people unable to acquire land in the formal market. Urbanisation is precarious and sometimes there is a total lack of basic infrastructure. New plot owners generally build their own houses, with the aid of relatives and friends. This is known as “self-help”. Substandard urbanisation happens generally peripheral areas.

**Globalisation and change**

The last decades of the 20th century brought deep changes in the spatial and economic organisation of the city. The two main processes related to São Paulo’s role as the economic powerhouse of the country began to reverse. First, the city saw industrial activities relocate to other areas of the State and the country. Far from representing economic decline, it meant that the city rapidly moved towards the services sector, while industrial activities were lured somewhere else by the availability of cheaper industrial sites, lower wages, better connectivity to exporting facilities (ports and airports) and cheaper land.

The new economic scenario, with an emphasis on tertiary activities (services, culture and commerce) has had a significant impact on the urban structure of the city. The transformation of spatial structure in order to adjust to this new scenario is related mainly to the construction of new gleaming business districts and new infrastructure, mainly related to road transport. These changes have relied heavily on investments by the public sector and occasionally on partnerships between the private and the public sectors.

The metropolitan area of São Paulo is indisputably the financial and economic core of Brazil. The region’s GDP is approximately 45% that of the state of São Paulo (one of the 26 federal
states that compose the country) and 15% of that of the country (IBGE, 2014). It is home to one of the most diversified industrial economies in Latin America and home to a large number of international and national headquarters (Rocco, 2008). The service sector employs 51% of the working force, that is, more than 2 million workers. The main sectors are telecommunications, technical producer services, ICT, postal services and general producer services. Liberalization of the economy, internationalization and flexibilisation of labour relations has had a deep impact in the city, which is recognised as an important global city of the Global South, and the centre of advanced producer services in South America (Rossi, 2011).

The challenges of water management and integration with spatial planning

Environmental sustainability, spatial fragmentation, and high social inequity are the challenges that have resulted from explosive growth and ineffective spatial planning in São Paulo. The intense urbanisation of this region has generated intense pressure on the environment, including surface and groundwater resources. Rapid urbanization has increased the demand for water (domestic, commercial, and industrial). The simultaneous increase in water demand and decreased water availability caused by the contamination of water sources from domestic and industrial discharges and deficient urban drainage systems has led to water scarcity issues in the region.

The integration of regional spatial planning and water management seems highly desirable, but policy-makers face serious challenges concerning the governance of resource management and service provision at the regional level.

The Metropolitan Area of São Paulo is especially vulnerable to severe flood events. The geography, intense rainfall, channelization of natural water ways, and land use changes (i.e. increase in impervious surface cover and development of protected recharge areas and sensitive riparian habitat) in the metropolitan area has increased the frequency and severity of flooding. A recent study estimated the economic losses due to flooding in the MASP at 450 million USD per year. The magnitude of these losses, which are directly related to water resource management and spatial planning, has significant implications for the national economy (Haddad and Teixeira, 2013).

A major challenge in the management and regulation of water resources and critical habitat within the MASP area is informal urbanization. The principal fresh water recharge areas in the watershed, despite being designated as environmentally protected areas under local law, are nonetheless almost entirely urbanised. These developments, mostly informal, pose a serious threat to water resources by negatively impacting both water quantity and quality.

In addition, the marginalized populations in these developments are extremely vulnerable to water related disease as the water sources on which they depend are polluted by residential and industrial wastewater and solid waste discharges (Costa, 2003).

Conclusions: An integrated form of sustainable urban development is needed

In this way, we believe that spatial planning and the management of water resources cannot be dissociated from social issues. Although sustainability is intimately related to limiting the
environmental harm created by human activity in order to ensure the availability of natural resources for future generations (UN-HABITAT, 1987), it is also about the reduction of deprivation and suffering caused by the inefficient management of natural resources. This is, in-turn, integrally related to the financial and economic conditions that are required for the long-term provision of services (e.g. water, sanitation, electricity). The failures in urban development strategies over the past few decades have demonstrated that concerted attention to the environmental, social, and economic issues is not, in and of itself, sufficient. Rather, for sustainability to occur, it must occur simultaneously in each of these three dimensions (Larsen, 2012).

References


