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Urban Freight for Livable Cities:

-How to deal with collaboration and trade-offs.

B. Multi-level and multi-modal interaction: Interaction between different levels of administration and modes of transportation

The case of Sao Paulo Metropolitan Region, Brazil – some current and future challenges

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The Metropolitan Region of Sao Paulo (Greater Sao Paulo) is the main economic and logistic hub in Brazil. Concentrating 10% of Brazil's population and 20% of its GDP, it is a megacity of 20 million people squeezed in less than 0.1% of Brazil's area. It clusters 39 municipalities, with an average density of 249 people/hectare, ranging from 4 (Salesopolis, a rural city with important water sources) to 1,253 (Diadema, an industrial city). Sao Paulo City (SPC), with 11.3 million people, has a density of 743 people/hectare, on a par with other big, very dense metropolitan concentrations in developing countries.

With a fleet of 7.5 million cars and trucks, GSP generates 34 million passenger trips/day, while only 3 million are made on rail (subway and metropolitan trains), resulting in heavy congestion during peak hours. There is also a sizeable motorized two-wheeler fleet of 1.5 million, mostly dedicated to small, express deliveries. The figure of 75 two-wheelers/1,000 people is about half of some Asian cities as Kuala Lumpur or Chennai.

SPC is a junction of major highways and railroads that connect Brazilian South and Northeast/Southeast regions. It is also the passageway for the port of Santos (largest in Latin America, and 50 km from SPC) which accounts for two thirds of all Brazilian foreign trade. Most of this road and rail traffic have to cross SPC, with dire impacts in congestion, pollution and noise.

GSP is part of Sao Paulo State, which has the best infrastructure in Brazil. On the other hand, current infrastructure is clearly not enough to fulfill demand. As GSP does not have an outer, high capacity beltway system for truck and rail, strict time windows for cargo flows inside SPC are now enforced, with negative consequences for urban and Brazilian logistics (truck trips to/from Santos are lengthened in many hours). On the other hand, these measures resulted in strong reaction from truck drivers: this year, for the first time, a major strike resulted in fuel shortages which stopped the city, and it was a strong incentive to the growth of driver unions.

Due to conurbation with other adjacent cities (as Santos to the South, and the Jundiai/Campinas region to the North), even the current beltways are locked with commuters, and major highways that access SPC now have urban speeds and characteristics.

These infrastructure problems are exacerbated by administrative and funding issues. For instance, air, rail and two of the main highways are federally mandated, and coordinating the 39 municipalities, with mayors from many different parties, is also quite complex. There is a specific Sao Paulo State Secretary for the GSP, but it has to deal with other Secretaries, such as Energy (which controls the waterways), and Transportation. And Brazilian government (allegedly) lacks funding to invest in infrastructure, thus it is now looking for new institutional arrangements, as public-private partnerships.