

# Urban Challenges in Latin America and the Caribbean: The importance of transport

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**Working Session 5: Climate innovation in the transport sector in LAC**  
**Latin America & Caribbean Climate Week 2018**  
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# 1

- Some traits of the region

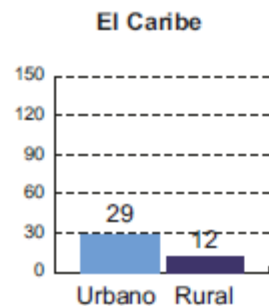
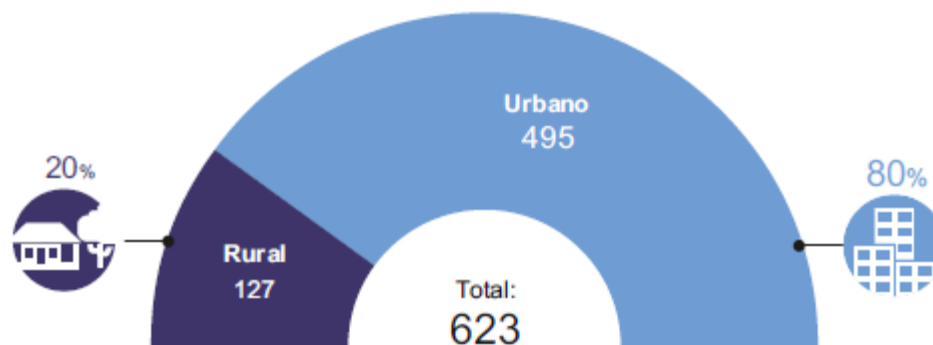


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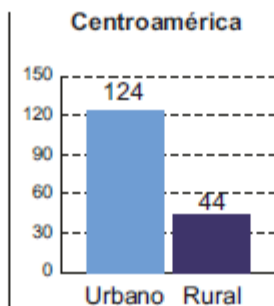
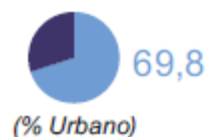
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# Latin America and the Caribbean: population of urban and rural areas, 2014

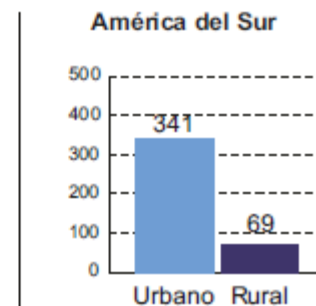
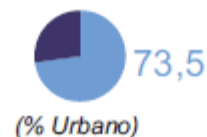
(In millions and percentages)



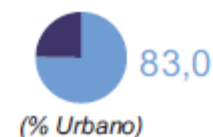
TOTAL: 42



TOTAL: 169



TOTAL: 410



Source: Own elaboration based on data of United Nation, Department of Economic and Social Affairs & Population Division (2014), «World Urbanization Prospects, the 2014 revision».



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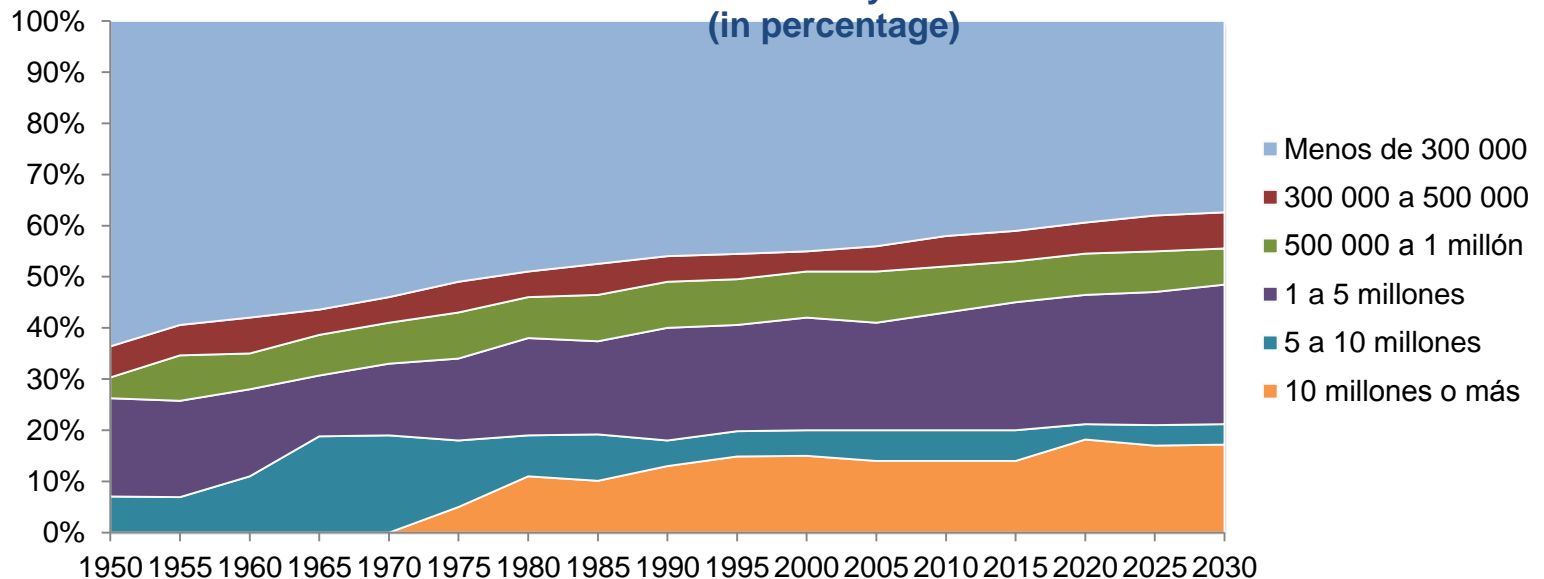
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# Urban patterns

Despite the heterogeneity of cities, there are trends:

- A double transition: the urban and demographic transition;
- A high economic, population and administrative concentration in few and large metropolitan areas;
- An increase in the economic and population importance of intermediate cities;

Latin America and the Caribbean, Distribution of the population by type of city (in percentage)

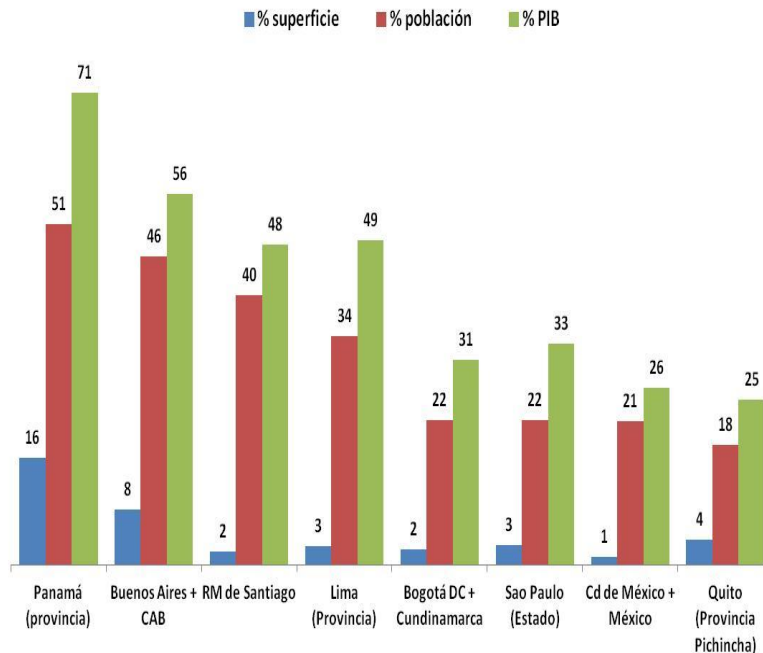


Source: ECLAC Social Panorama  
2014



# The style of development in Latin America produces territorial concentration, population and production.

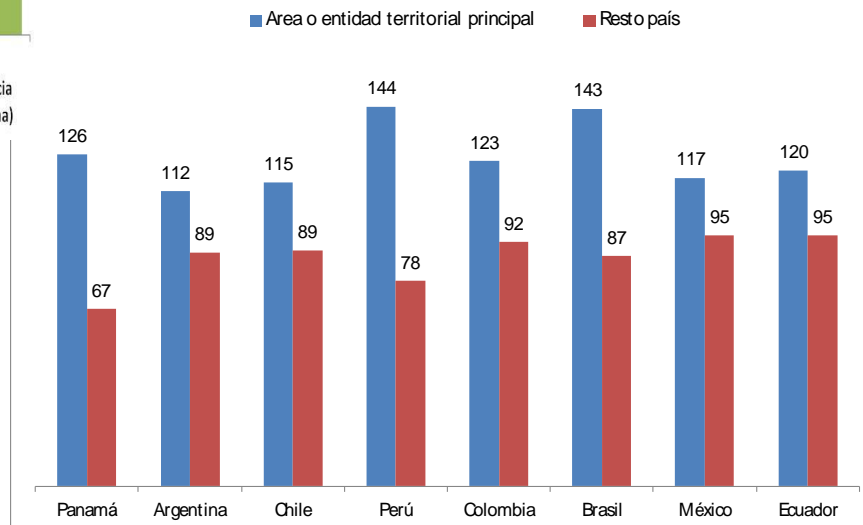
Latin America: 8 main metropolitan areas (or territorial entities that contain them) Weight of area, population and GDP (percentages, circa 2010)



Latin America and the Caribbean exhibit the highest levels of spatial concentration on the planet, both in terms of population and economic production.

In some cases, the relative weight of GDP is close to or greater than 50% of the country's total.

Average labor productivity of selected territorial areas or entities and the rest of the country, 2010 (country index = 100)



The high degree of concentration is associated in part with the high levels of average productivity of the central metropolitan areas, which are significantly higher than the rest of each country.



# 2

- Pressures associated with increasing income, the pattern of consumption and land use

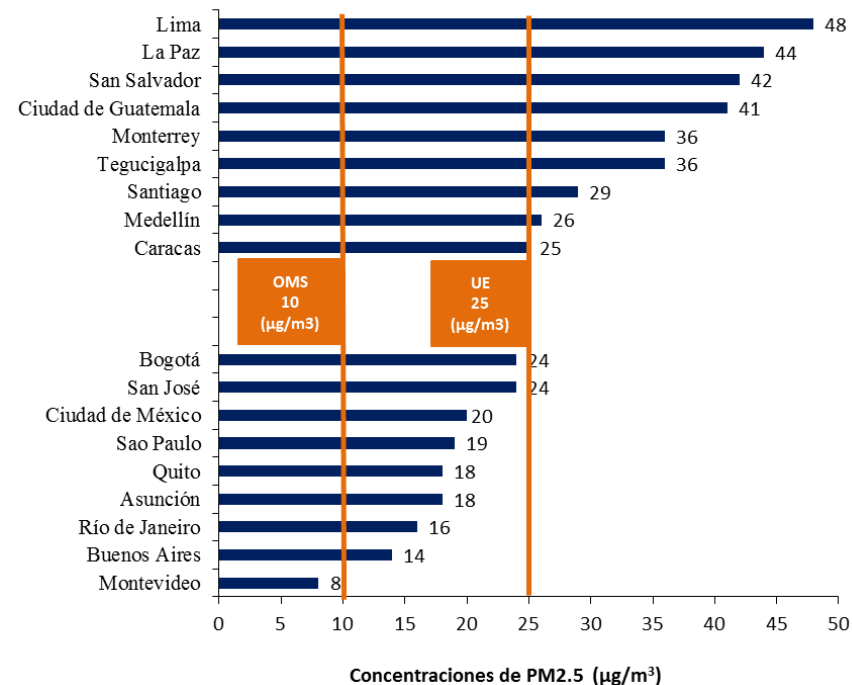
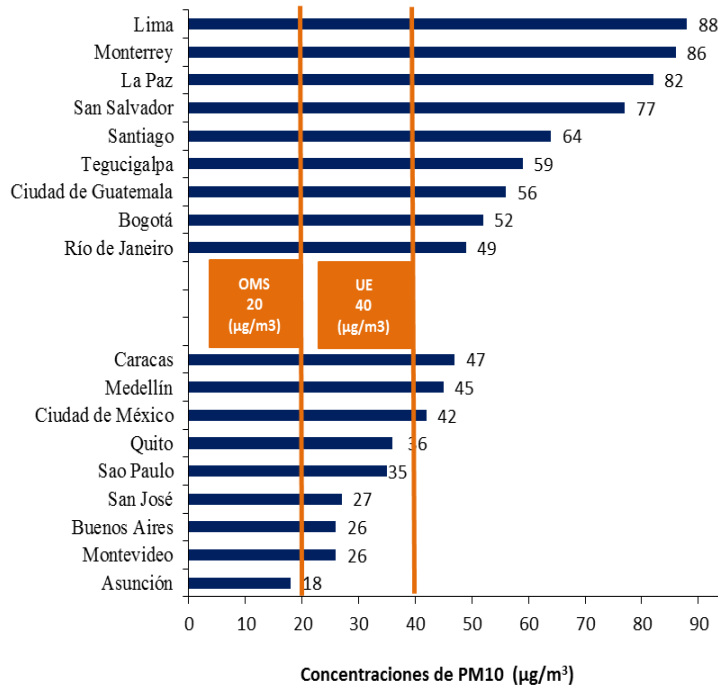


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# Cities in the region exceed air pollution standards

**Latin America (selected cities): Concentrations of PM10 and PM2.5, 2014.**  
(In micrograms per cubic meter)



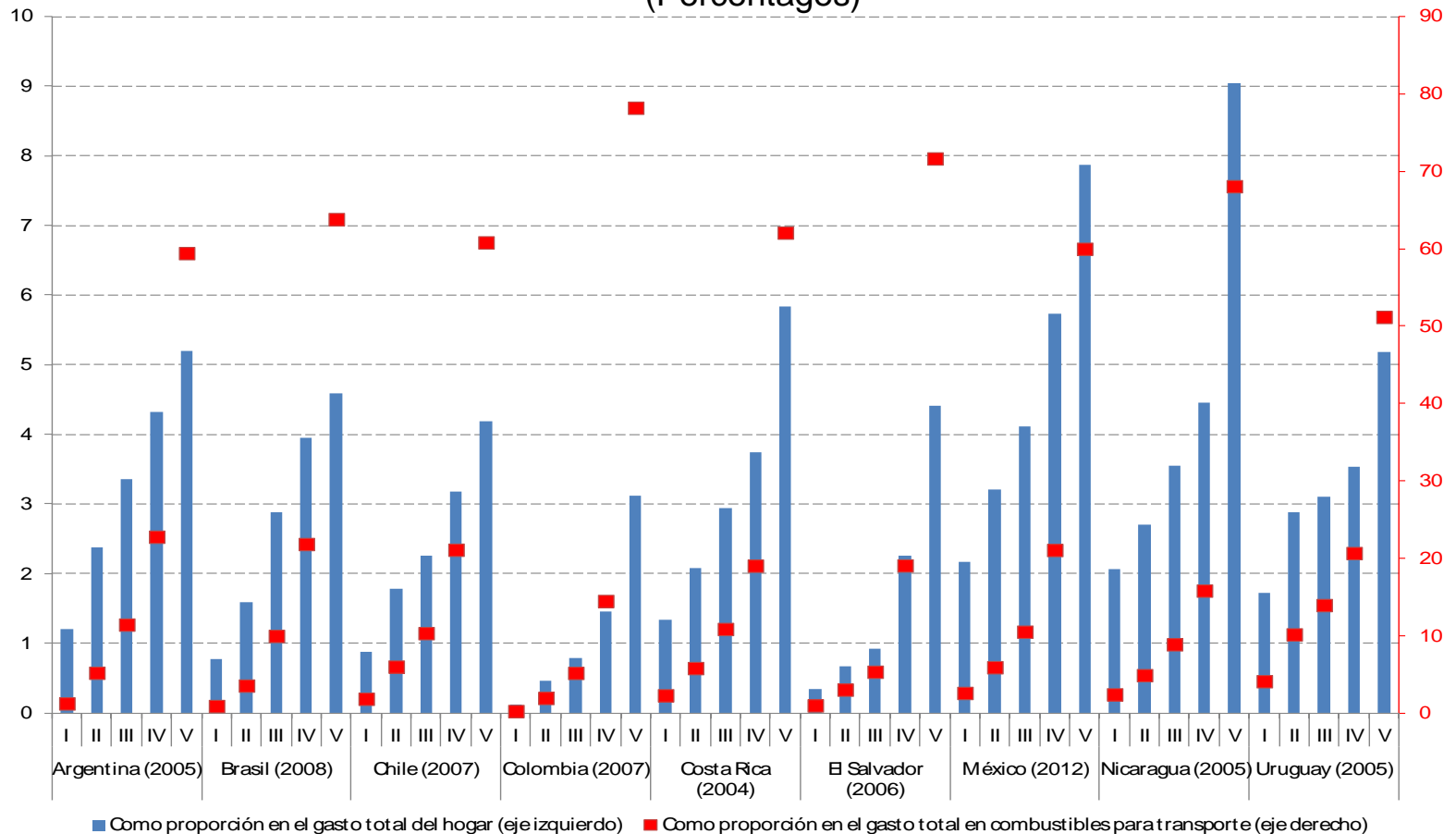
**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of World Health Organization (WHO), Ambient Air Pollution Database, May 2014.

Data are for La Paz, Medellín, and Rio de Janeiro in 2010; San Salvador, Santiago, Lima, Mexico City, Monterrey, San José and Caracas in 2011; Guatemala City, Bogota, Buenos Aires, São Paulo, Montevideo and Quito in 2012; and Tegucigalpa up to 2013. Air quality standards are those of the European Union and WHO.



# Spending on fuels

Share of total household expenditure accounted for by expenditure on petrol, diesel fuel and biodiesel fuel and share of total expenditure on petrol, diesel fuel and biodiesel fuel for each income quintile  
(Percentages)



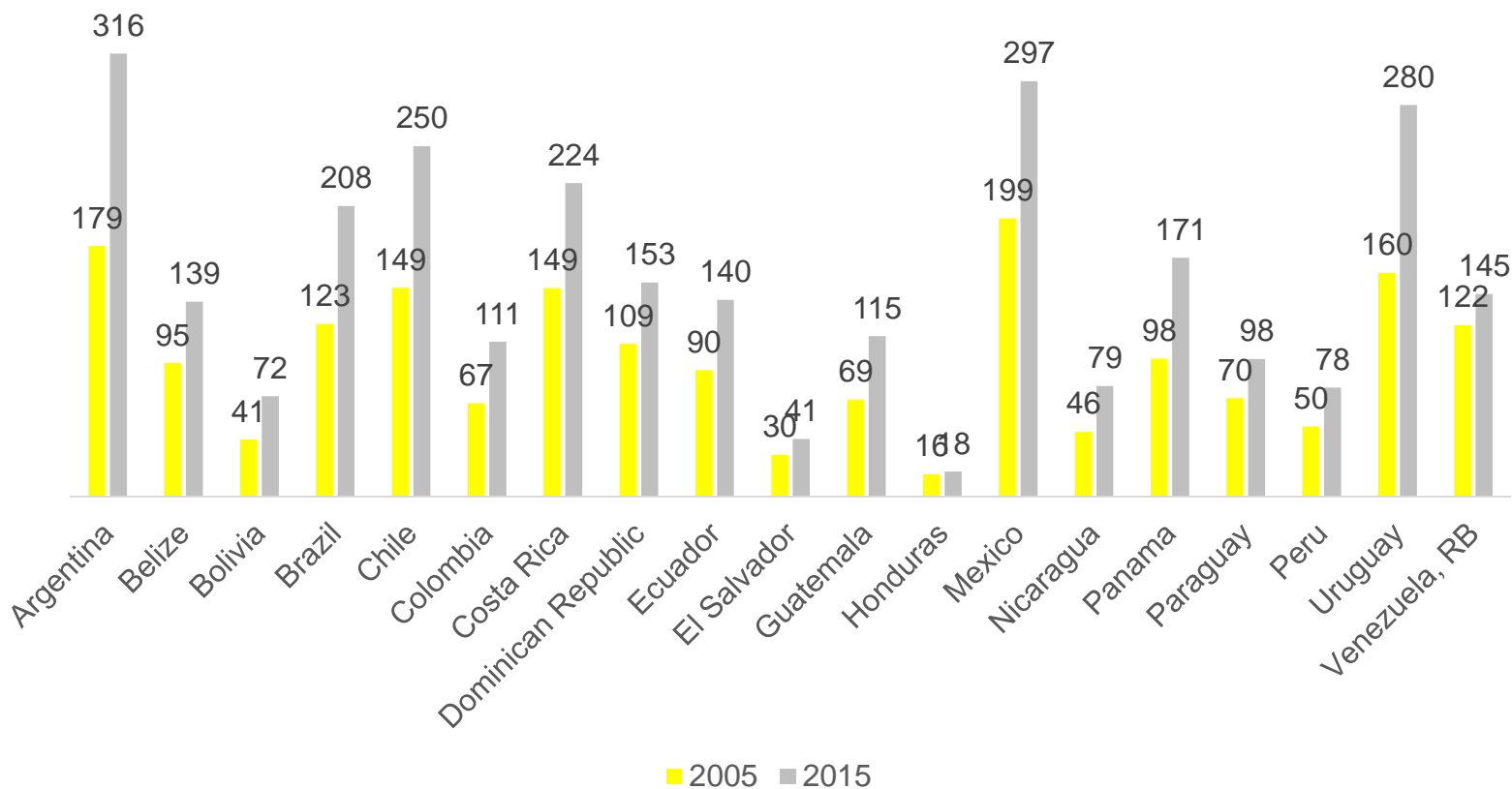
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of household expenditure surveys. los países.





# Motorization

**Motorization rate, 2005 and 2015**  
(Vehicles in use per 1,000 inhabitants)

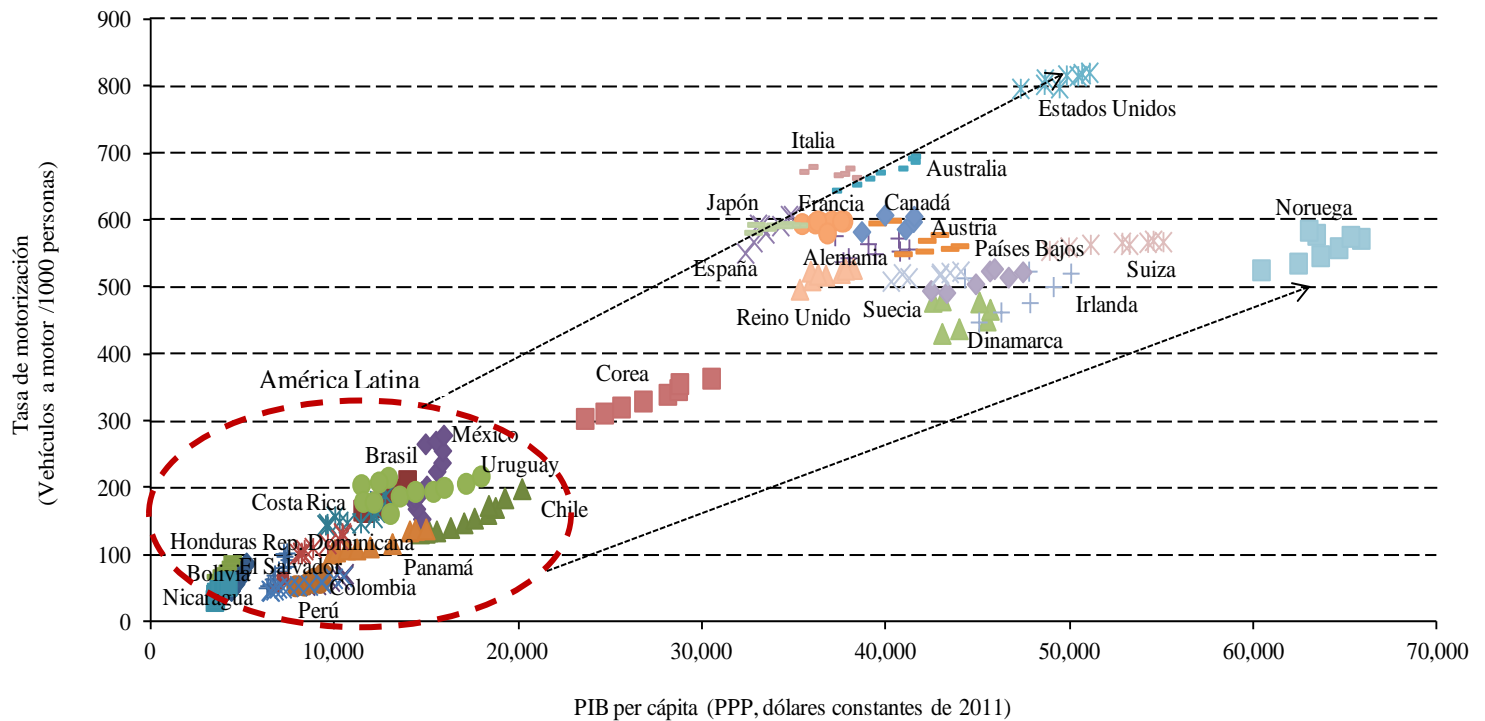


Source : Economic Commission for Latin America and the Caribbean (ECLAC) on the basis of International Organization of Motor Vehicle Manufacturers.



# Motorization with a very unfavorable potential trajectory

Relationship between the rate of motor vehicle use and per capita GDP in developed countries and Latin American countries, 2000-2011  
(Motor vehicles per 1,000 persons and PPP dollars at constant 2011 prices)



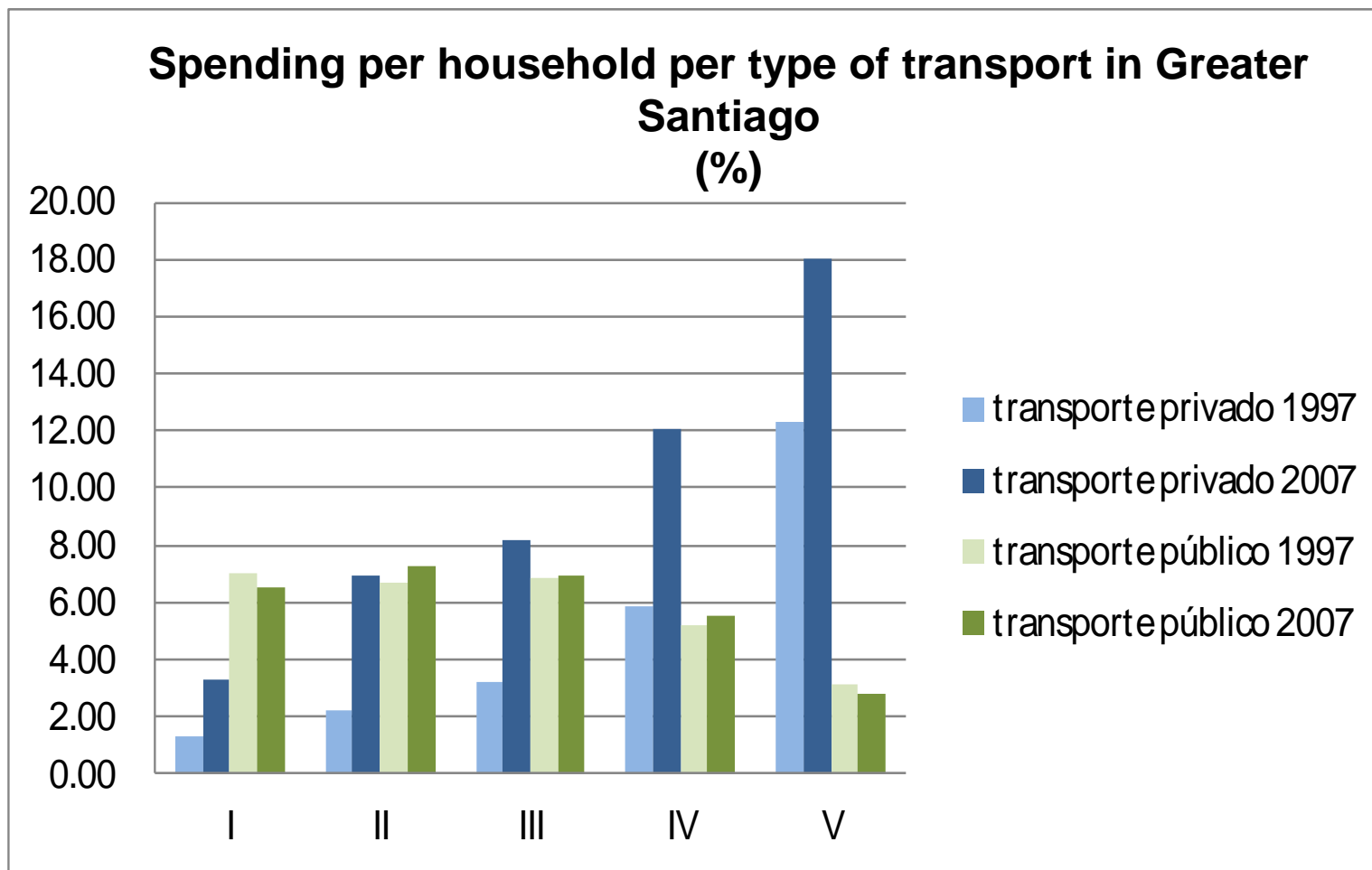
- |             |           |             |                |              |                   |                  |             |
|-------------|-----------|-------------|----------------|--------------|-------------------|------------------|-------------|
| ◆ Bolivia   | ■ Brasil  | ▲ Chile     | × Colombia     | × Costa Rica | ● Ecuador         | + El Salvador    | - Guatemala |
| - Honduras  | ◆ México  | ■ Nicaragua | ▲ Panamá       | × Perú       | × Rep. Dominicana | ● Uruguay        | + Alemania  |
| ■ Australia | - Austria | ◆ Canadá    | ■ Corea        | ▲ Dinamarca  | × España          | × Estados Unidos | ● Francia   |
| + Irlanda   | - Italia  | - Japón     | ◆ Países Bajos | ■ Noruega    | ▲ Reino Unido     | × Suecia         | × Suiza     |

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of World Bank, World Development Indicators



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# Escape from the public service to the private service. Gradual merchandising of public goods and services: transportation, education, security, recreation, health.



Source: Own elaboration on the basis of Household income and expenditure surveys.

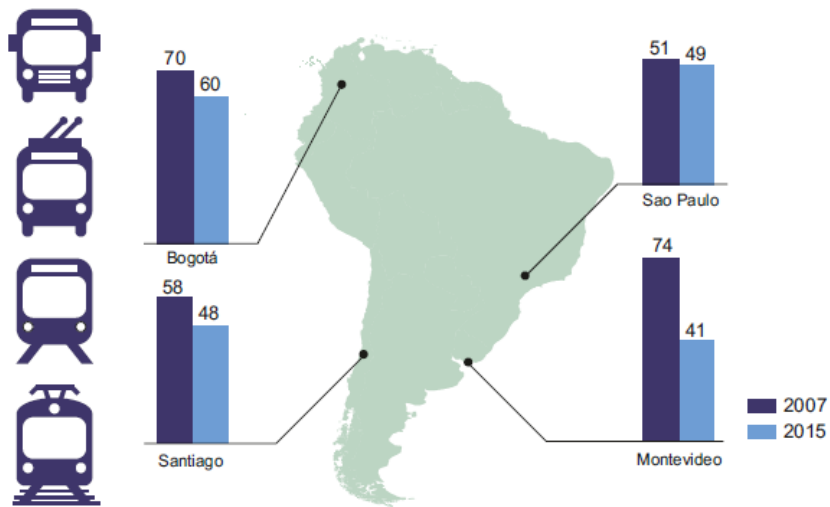


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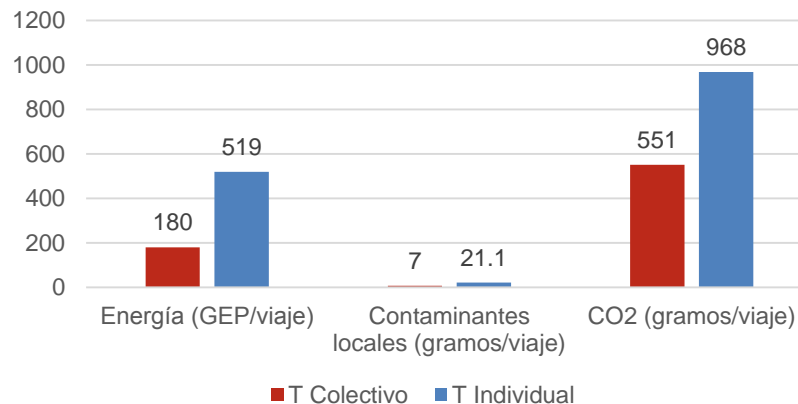
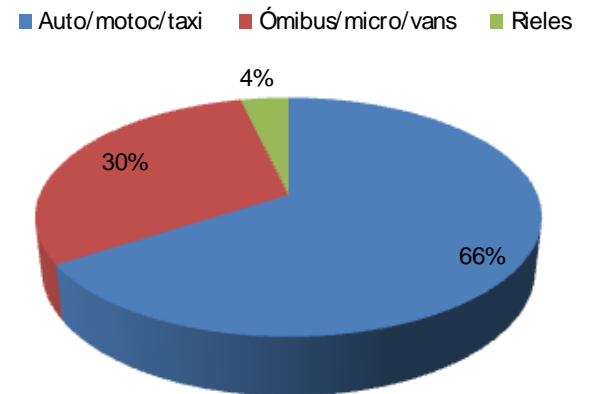
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# Mobility scenarios ...

Selected cities: changes in the participation of collective transport, 2007 and 2015 (in percentages) - CAF (2015)



Energy use by main transport mode, urban areas of Latin America (in percentage) - CAF (2016)



Energy use and emission of pollutants per trip: cities with more than 60 thousand inhabitants Brazil - 2014. ANTP (2015)



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# Why the cities?

- Cities can be "engines" of economic development. They can regulate, set standards for public goods and services and thus reorient production and consumption patterns: sector + territory.
- The city addresses a key component of welfare and of redistribution, inclusion and equality through the quality of public goods and services, and through public participation in the discussion on the direction of development): it deals with collective consumption.
- The main urban challenges of the region are no longer to solve the problems of rapid rural-urban transition, but to improve the quality of life, close gaps in inequality, democratic cohesion and achieve sustainability in their cities.



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# A big environmental push: tilting the field

1. Programming the demand: improvement of the public transport systems: reorganization, electrification of vehicles,
2. **Creating the supply: production of inputs for the respective value chains.**
3. The coordination of supply and demands at the right scale would allow to capture that demand and its benefits (employment, income, domestic inputs) with national or Latin American production: batteries, chassis, bodies, hydrogen).
4. Other demand/supply coordinatinons (bicycles, electronics for the sectors, programs, renewable energy value chains, remote perception capabilities, waste and wastewater treatment in increasing percentages, their technological developments (gasification of organic, use of methane gas, recovery of nutrients, refining of plastics, recycling of metals and displacement of extracted materials.)



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