



## Sustainable urban mobility: visions beyond Europe

2<sup>nd</sup> October 2013

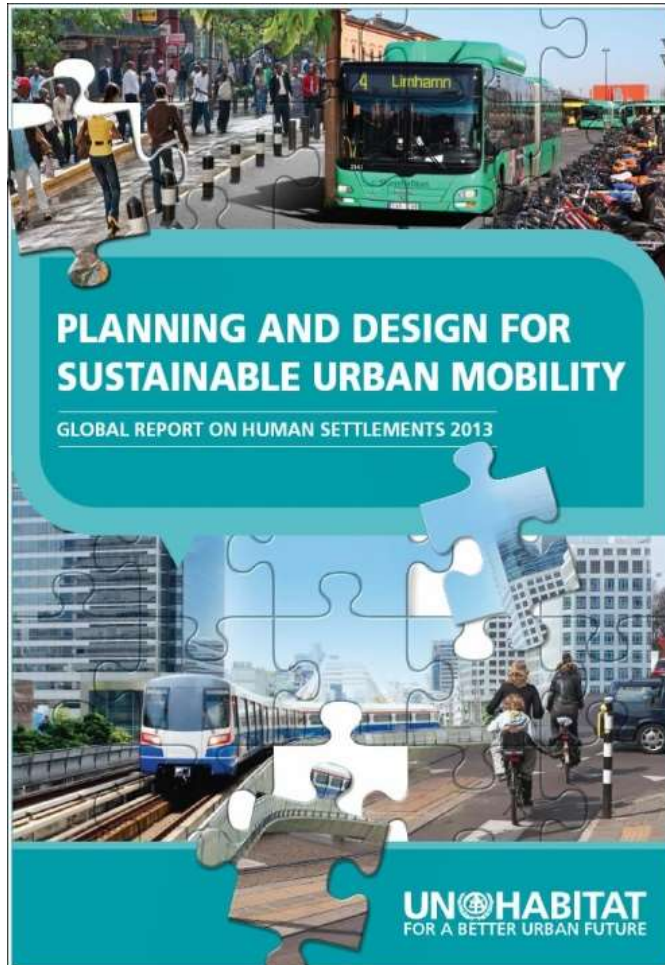
Brest

Udo Mbeche, UN-Habitat



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# The Global Report for Human Settlements



- Published every two years under a UN General Assembly mandate.
- Aims to inform governments and partners of global human settlements conditions and trends

# Planning Design for Sustainable Urban Mobility

## Global Report for Human Settlements 2013



- Examines:** Current trends in passenger and goods transport;  
How cities manage urban transport/mobility;  
Linkage between urban form and mobility.
- Identifies:** Role of transport/mobility in the city;  
Social, environmental, economic, institutional and  
governance challenges to sustainable urban mobility.
- Provides:** Extensive empirical data on mobility trends worldwide;  
Examples of policy approaches towards  
achieving sustainable solutions to the  
management of urban mobility systems.

# Global Urbanization Trends



## World's urban population:

- Quintupled between 1950 and 2013;
- 60% will live in urban areas by 2030.
- Each year addition of 73 million; more than 90% are living in developing countries



# The Urban Mobility Challenge



- **Mobility flows** are the key dynamics of urbanization, with the associated infrastructure constituting the backbone of urban form.
- 64% of all travel kilometers made are urban; amount will triple by 2050.



# The true cost of privatized motorization



## ■ Factors supporting motorization:

- Urban sprawl;
- Rising trade flows and incomes;
- Expanding globalization;
- The influence of the automotive industry;
- Large investments in road infrastructure.
- For many urban dwellers all around the world, the private car is the preferred means of mobility; it is a **status symbol** depicting affluence and success in life.

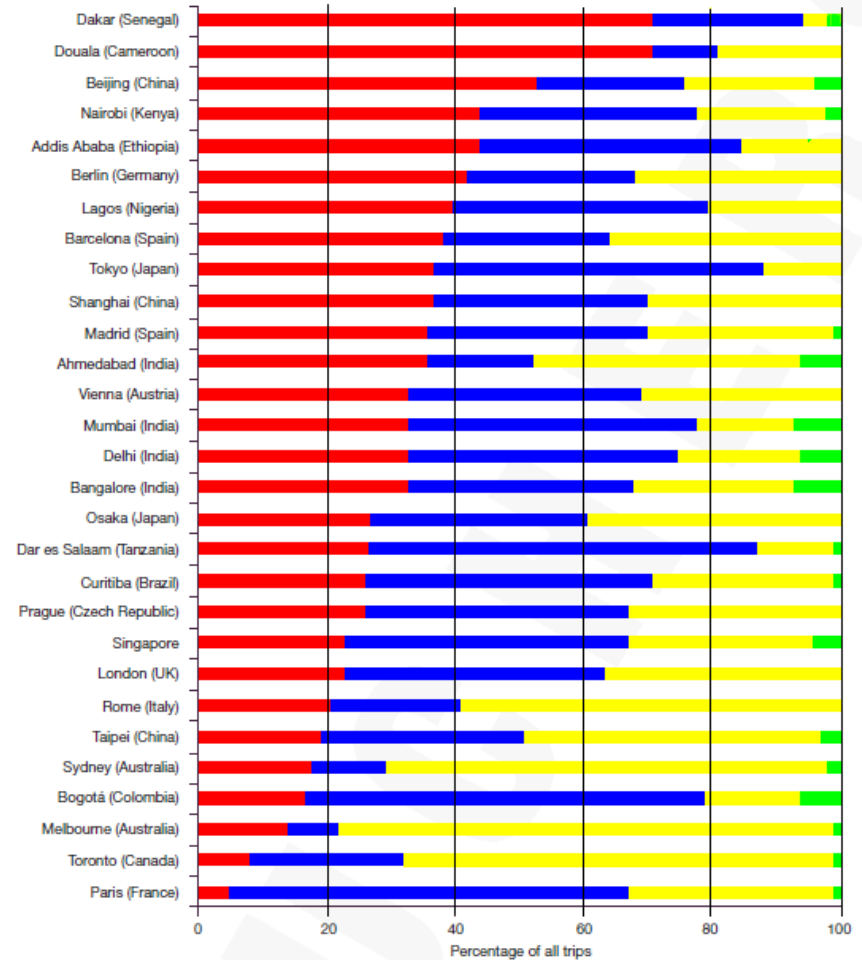
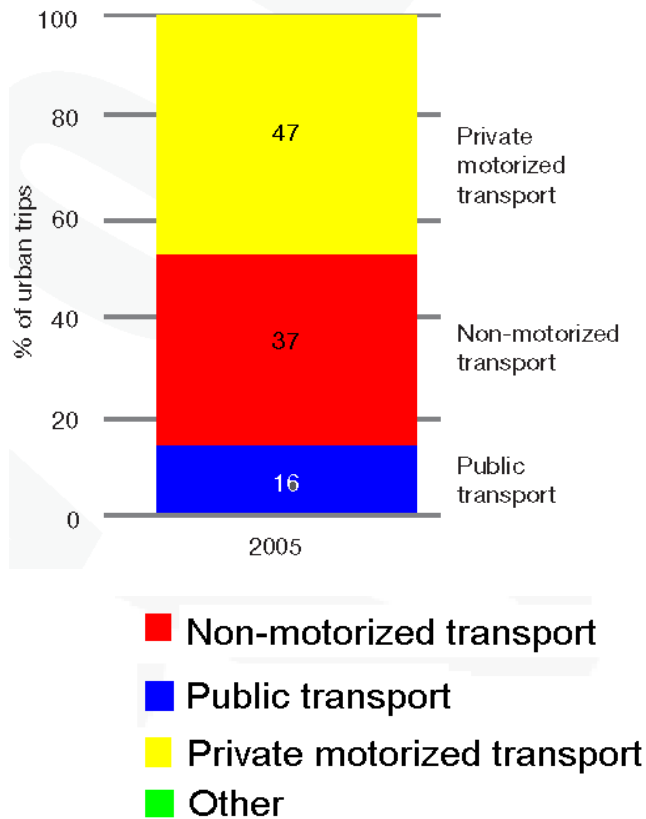


# Need for Paradigm Shift



- **Access is the ultimate objective of all transportation.**
- **Focus on the** human right to equitable access **to destinations and opportunities.**
- **Strengthen** enabling and developmental role of transportation **within cities.**
- **Review the** relationship between urban form and mobility.
- **Support** sustainable modes of transportation, **i.e. public and non-motorized transport.**
- **Efficient and** high-capacity public-transport systems **are the backbone of sustainable urban mobility.**

# Urban Travel Modal Shares





# Public Transport



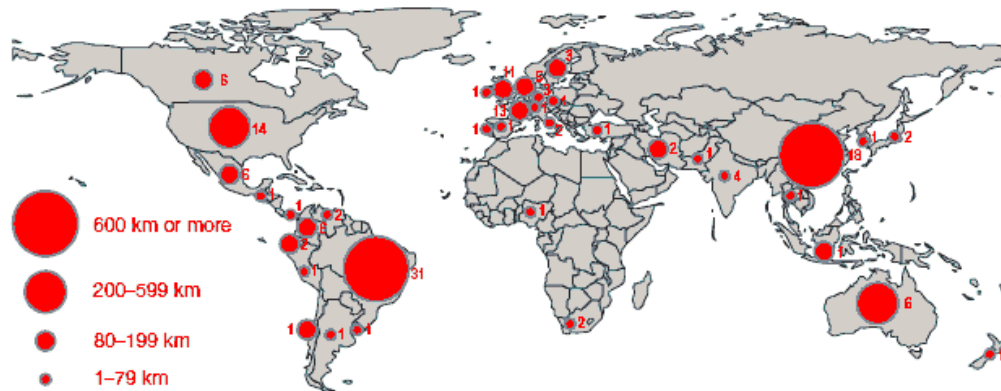
- **Modal share of formal public transport is declining** globally.
- Notable shift from publicly owned provision to a privately owned, **market-driven approach** since 1980s.
- **Informal transport** accounts for 50% of all motorized trips in developing countries.
  - Often a major source of **congestion, road traffic accidents and pollution;**
  - **Major source of employment:** 15% in developing countries.



# Metro and BRT

## Metro systems around the world

(cities with operational metro systems)



## BRT systems around the world

(number of cities and system lengths)

# Showcasing Success – Curitiba's BRT



Curitiba's forward-thinking and cost-conscious planners **integrated public transport into all other elements of the urban planning system.**

- System focused on meeting the needs of all people – rather than those using private cars.
- Success derives from political leadership & innovation.

Master Plan focuses on **bringing people, activities and places together.**

- Limits central growth area and encourages commercial growth along the transport arteries.

Land within two blocks of the transport arteries is zoned for **high densities**, since it produces more transit ridership per square foot.



# Urban Goods Transport



## Goods transport accounts for:

- 10-15% of vehicle kilometres travelled in urban areas;
- 2-5% of the urban employment ; and
- 3-5% of urban land use.

# Urban Goods Transport

- The cost of goods transport and logistics has a direct bearing on the efficiency of the economy.
- Urban goods transport has been **neglected in the planning process**; focus is on passenger transport.
- Challenges faced by sector: **congestion**; **parking for deliveries and reverse logistics** (e.g. recycling and garbage collection).
- Due to **scarcity of space, density** and **complexity of the urban landscape**, conflicts among stakeholders are common.



# Mobility and Urban Form



**Density = key element  
of urban form**

**Enhance  
connectivity**



# Mobility and Urban Form



- Integrated development along public transport corridors generates economic growth and **increased income from property taxes.**
- Planning for sustainable urban mobility:
  - **Traditional neighborhoods:** Walkable with concentration of daily activities.
  - **Transit-oriented development:** Physical orientation to public transport station.
  - **Car-restricted districts:** Traffic calming, banning of cars, pedestrian-friendly.

# Financing Mobility



The report reviews a number of different sources of **finance for Public and Non-Motorized Transport:**

- General revenue model (general taxes).
- Other allocations of public funds (i.e. from parking fees, advertising, sales taxes, employer contributions, international grants, etc.).
- Value-capture models.
- Public-private partnerships.





# Future Directions



The ultimate objective of all travel is **access**.

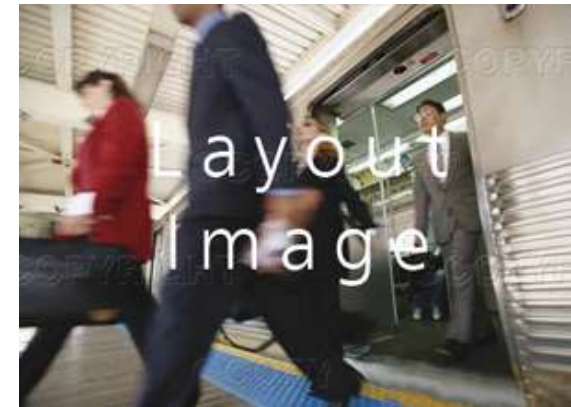
- Planning should focus on better accessibility instead of simply increased road investments for private cars.

City planning should focus on **bringing people, activities and places together**.

- Thus, stronger linkages are required between land-use planning and transport planning.

Policies should encourage **sustainable urban densities**, characterized by **mixed land-use** and **enhanced access**.

- This will encourage non-motorized movement (due to shorter distances), and public transport (due to higher job and population densities).



# Future Directions



## Urban mobility policies should focus on:

- Ensuring **equitable access for all** (including for the poor, women, the young, old and disabled).
- Reducing **air and noise pollution, and other** negative externalities.
- Enhanced understanding of, and increased attention to, the requirements and challenges of **goods transport**. (these are often in conflict with those of passenger transport).

# Future Directions

The **most efficient modes** of mobility are **non-motorized and public transport**. Urban mobility policies should thus include:

- Incentives for non-motorized and public transport (including targeted subsidies).
- Disincentives for private motorized transport (including paying the full cost, i.e. accidents, pollution, climate change, land use).

**High-capacity public-transport systems (metro, light rail and BRT) are necessary conditions for sustainable urban mobility**

- The type of system chosen depends on local conditions and requirements.



# 'The System is the Solution'



The efficiency of a high-capacity public-transport system is more than the sum of its individual parts. For such a system to be competitive with the private car, it should ensure:

- **Route integration:** Between different service providers; in terms of departure locations, departure times, and fare structures.
- **Integration with private motorized transport:** e.g. in the form of 'park and ride schemes'.
- **Integration with non-motorized transport:** e.g. through easy (and secure) pedestrian and cycling access to stations, safe bicycle parking



# Thank you!

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