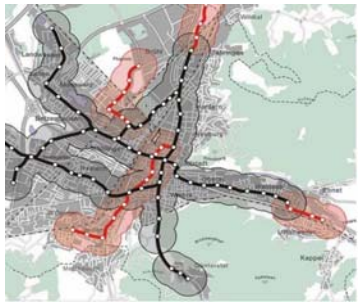
Effective strategies for sustainable urban transport

Policy Options for National and Local Governments



Christian Schlosser, Ph.D.
UN-HABITAT, Transport and Energy Policy Section

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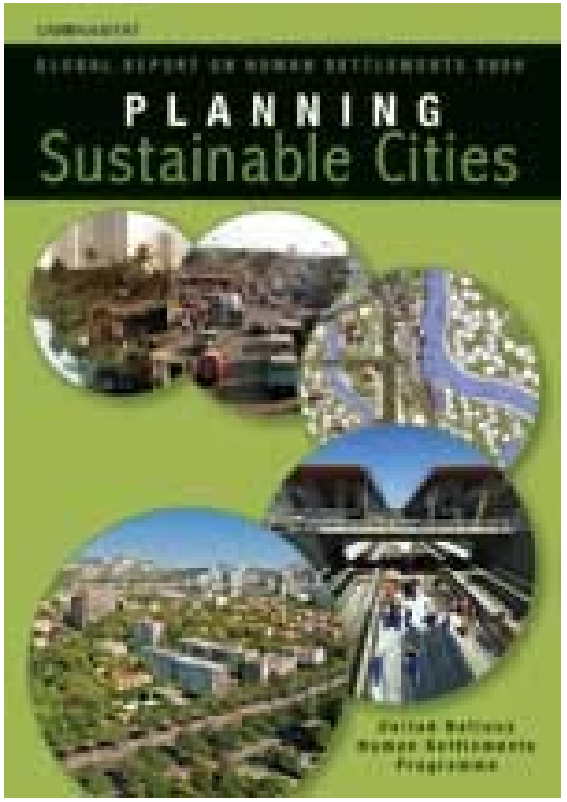
UN-HABITAT Mandate in Urban Transport

- General mandates with provisions on transport (Vancouver Declaration on Human Settlements, Habitat Agenda, Istanbul Declaration on Human Settlements, the Declaration on Cities and Other Human Settlements in the New Millennium)
- Governing Council Resolution GC 22/8 (2009) “Access to basic services for all”
- MTSIP Focus Area 4: Environmentally Sound Basic Urban Infrastructure and Services

⇨ Focus on Enhancing Access to Mobility for the Urban Poor in the Context of Sustainable Urbanization



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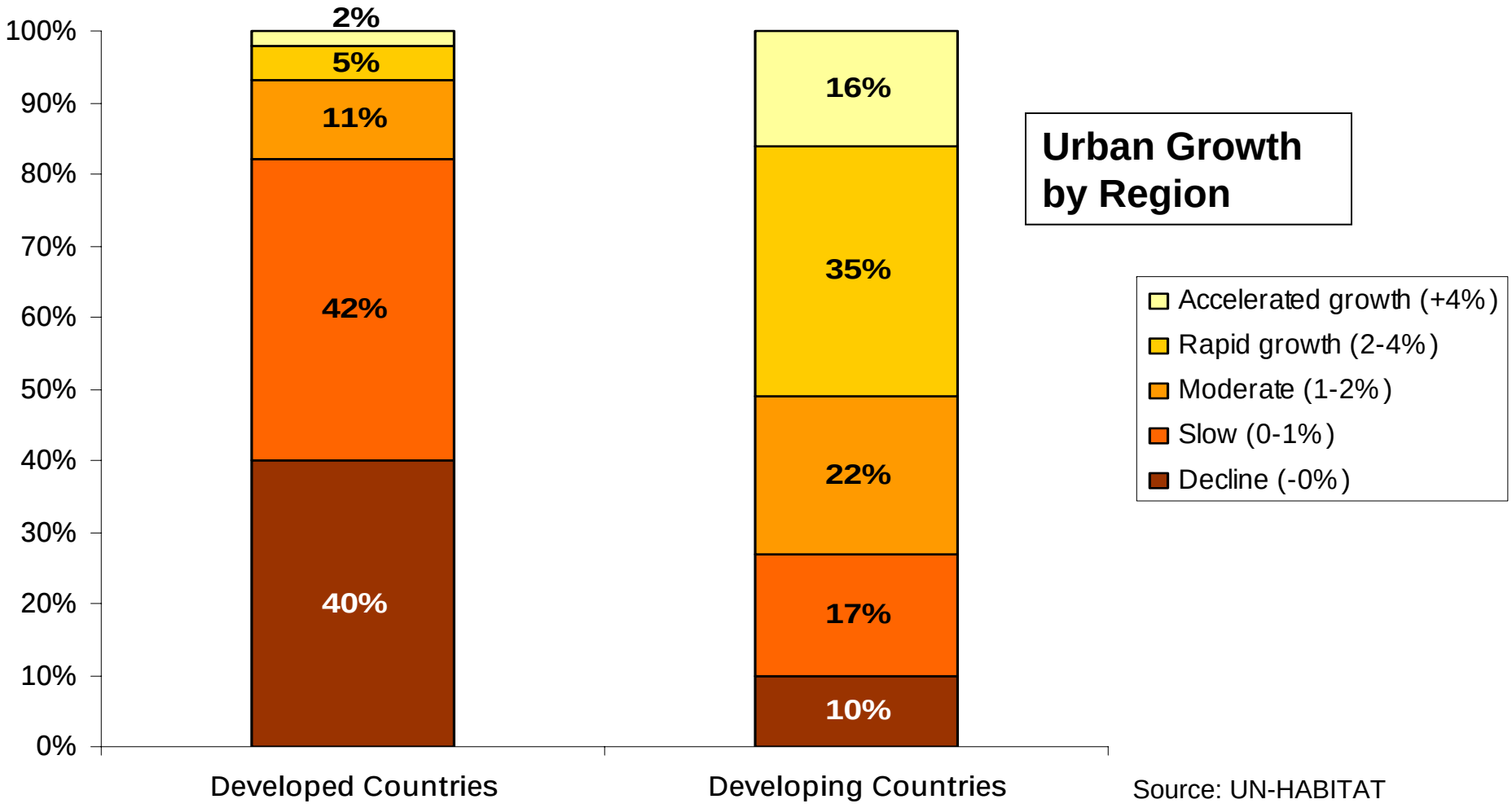
Context: Global Variances in Urban Growth

In the North, almost half of the cities are declining
In the South, more than half of cities are growing very fast
Developing World cities grow 10 times faster



Source: UN-HABITAT

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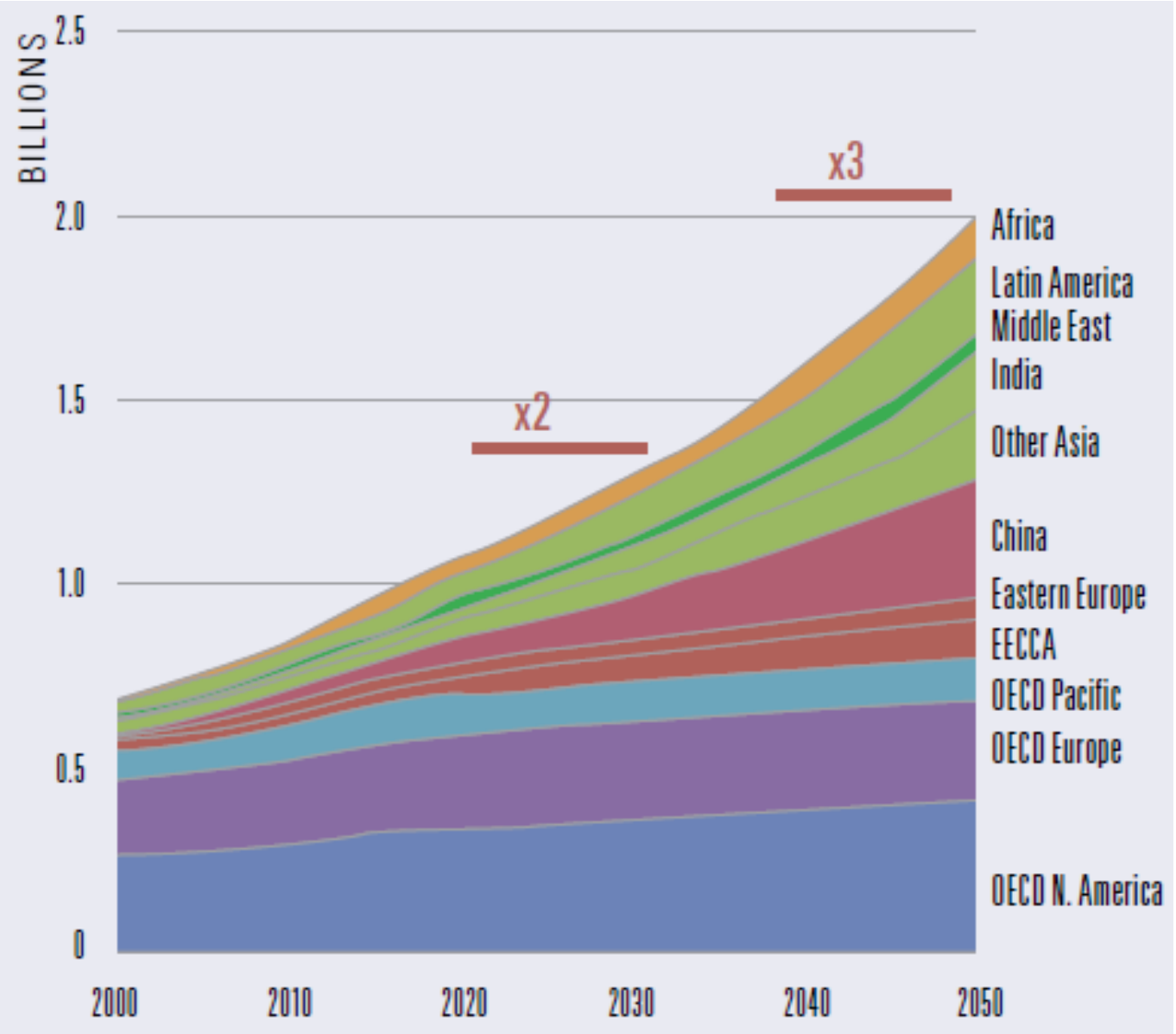
The Global Transport Challenge

Projected total stock of light-duty vehicles by region 2000-50



Source: GEF/WBCSD 2004

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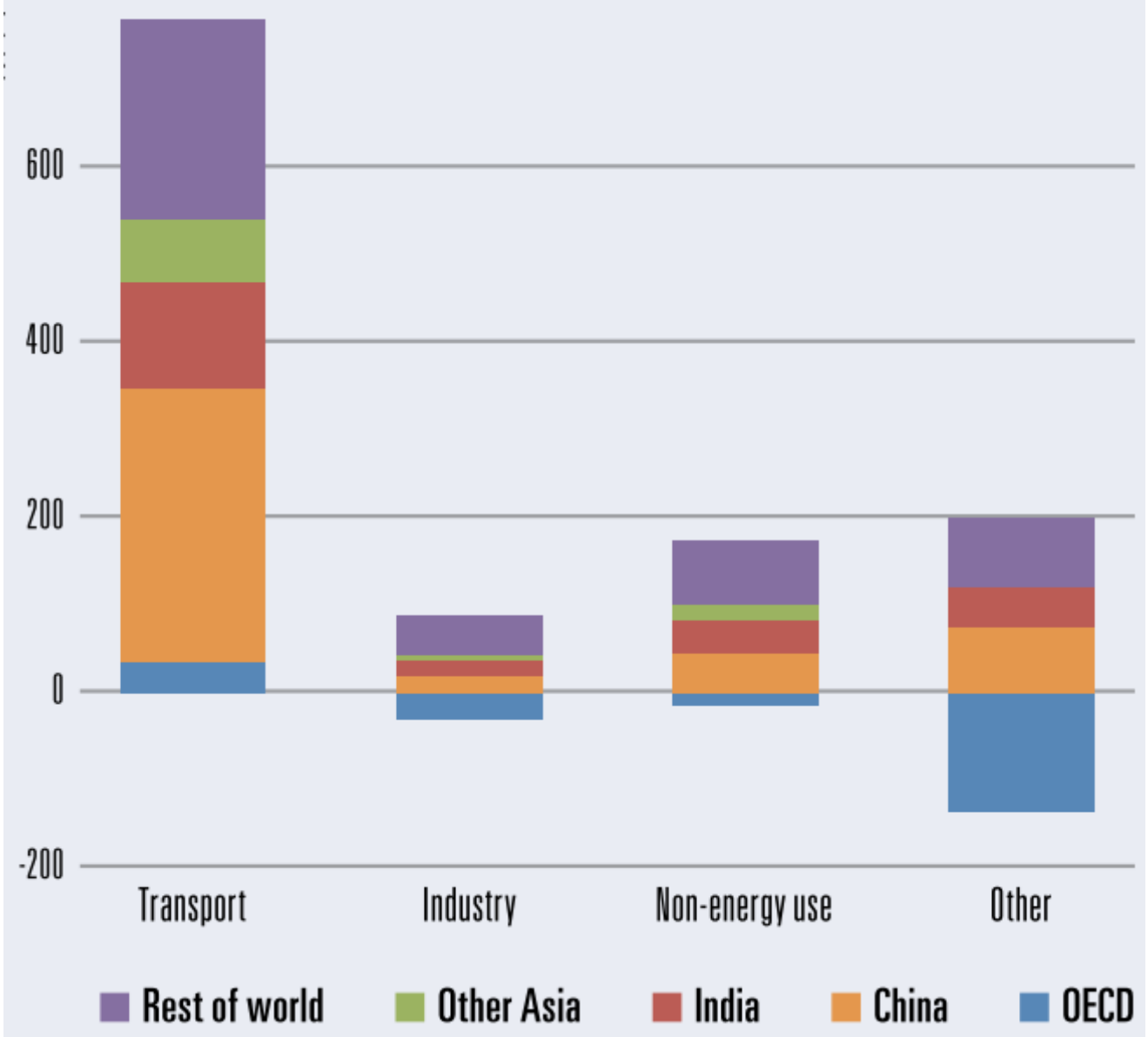
Unresolved Transport Questions – Environmental

Projected Incremental Oil Demand by Sector 2006-30



Source: GEF/IEA 2008

The Urban Transport Divide

In many countries, low-income residents are excluded from access to high quality, safe and healthy urban transport options

Unresolved Transport Questions - Economic

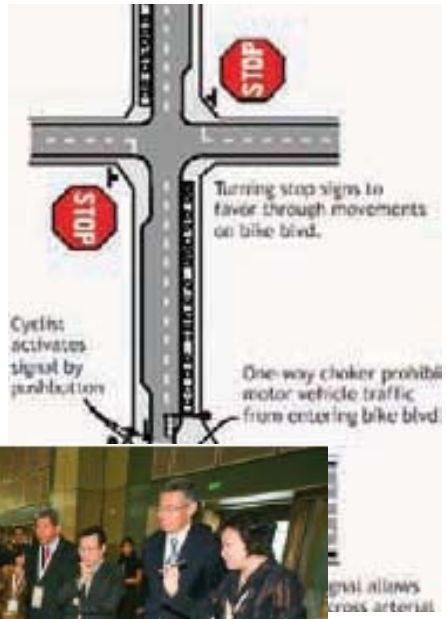
Traffic congestion in urban areas leads to increased fuel consumption and loss of productive time

Sustainable Urban Mobility – Key thematic areas

- Linking transportation to urban planning to reduce motorized trips
- Non-motorized transport infrastructure
- Public transport systems and services
- Car traffic demand management/parking
- Vehicle and fuel technologies and efficiency

Policy Instruments to influence Urban Transport

- Economic Incentives and Disincentives: taxes on fuel/vehicles, subsidies
- Direct Investments in Infrastructure and Services: national/local infrastructure, technology
- National and Local Regulation on Vehicles, Fuel, Urban Planning, Parking etc.
- Knowledge and Research
- Marketing and Education to influence travel decisions
- Wider Social and Economic Policy Framework



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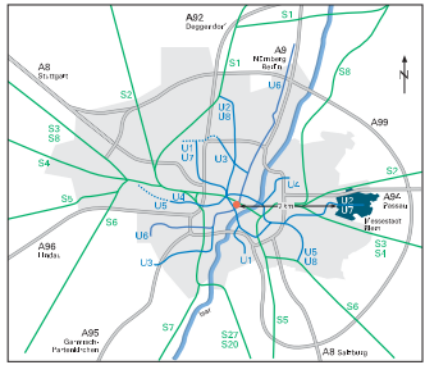
Geographic Levels for Sustainable Mobility Policies

Policies for Sustainable Mobility have to work at different geographical levels:

- Neighborhood: planning/street design for density, mix of compatible uses
- City: Compact and viable sub-centers and affordable housing provision, planning for intermodality, compact, effective public transport systems
- Urban regions: managed urban growth, urban renewal, TDM: economic incentives/disincentives, regulations
- National: Coherent policy frameworks and investments

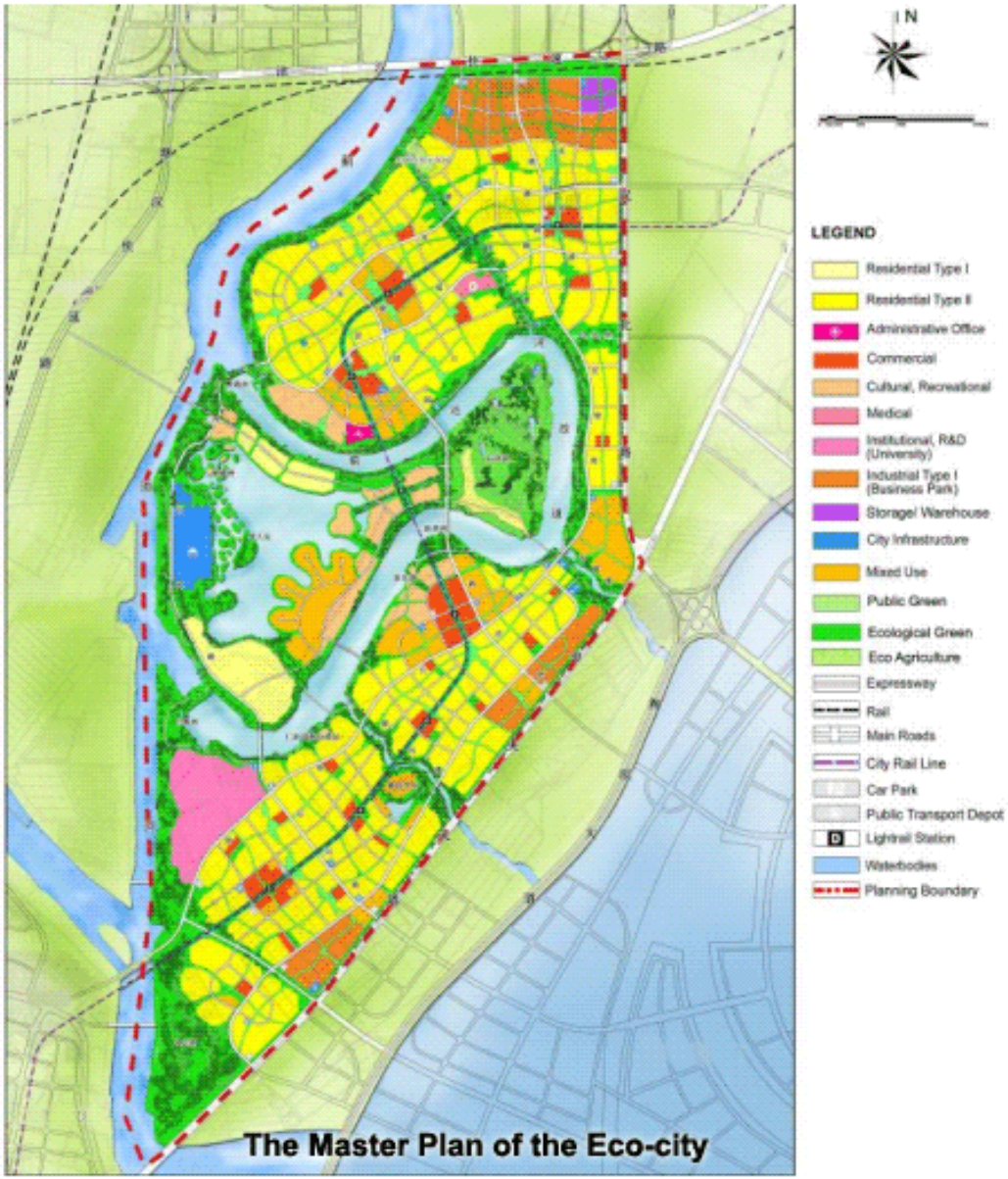


Source: City of Munich

Towards Low Carbon Transport – Urban Planning

Master Plan of Sino-Singapore Tianjin Eco-City, China

"as scaleable, practicable and replicable model for sustainable development for other cities in China and around the world"



Source:
http://www.tianjinecocity.gov.sg/masterplan.htm

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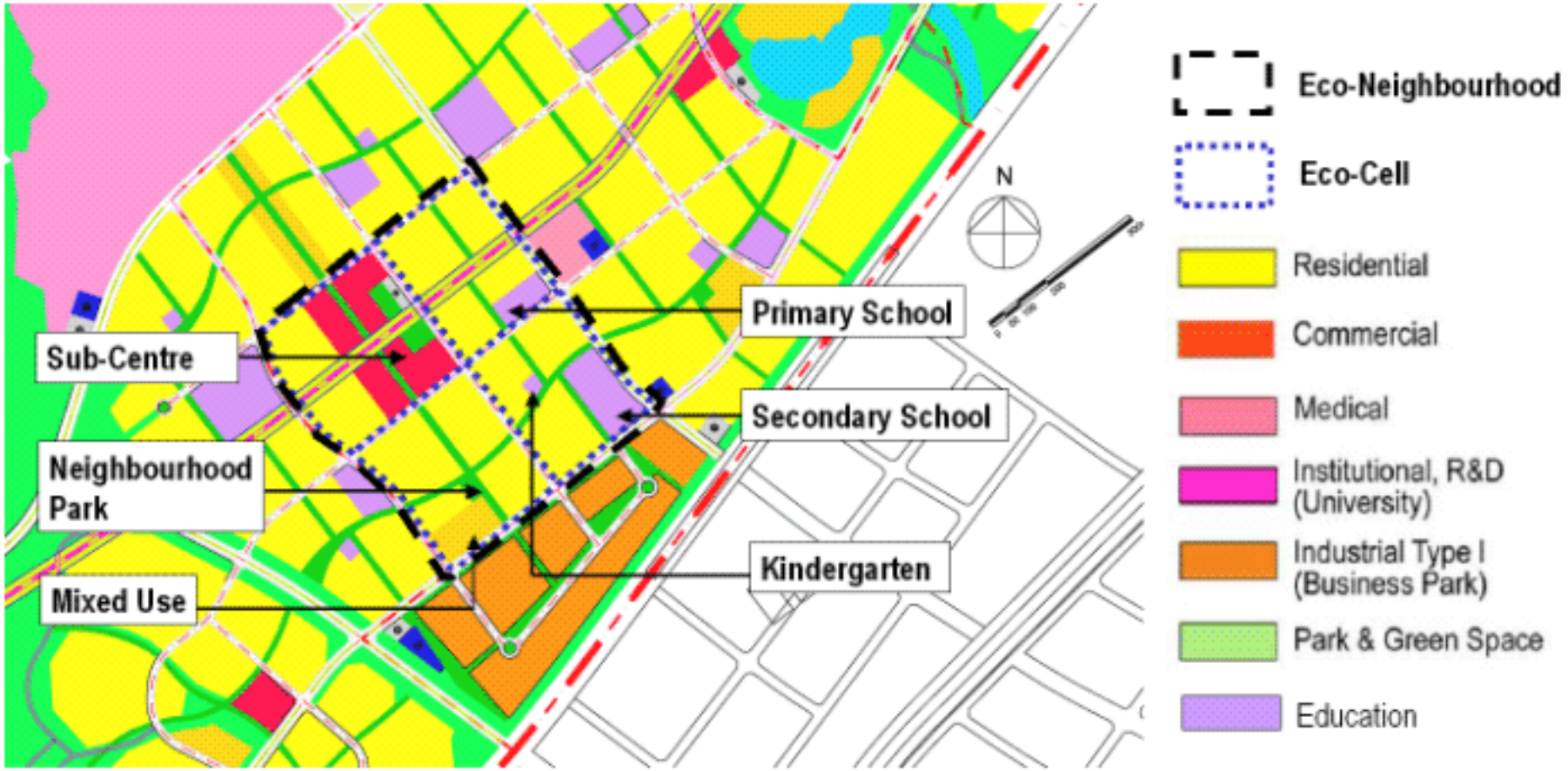
Compact Neighbourhoods Tianjin Eco-City, China

"Eco-Cell" concept: integrating different land uses within a modular 400m by 400m grid, basis for neighbourhoods, districts, and urban centres

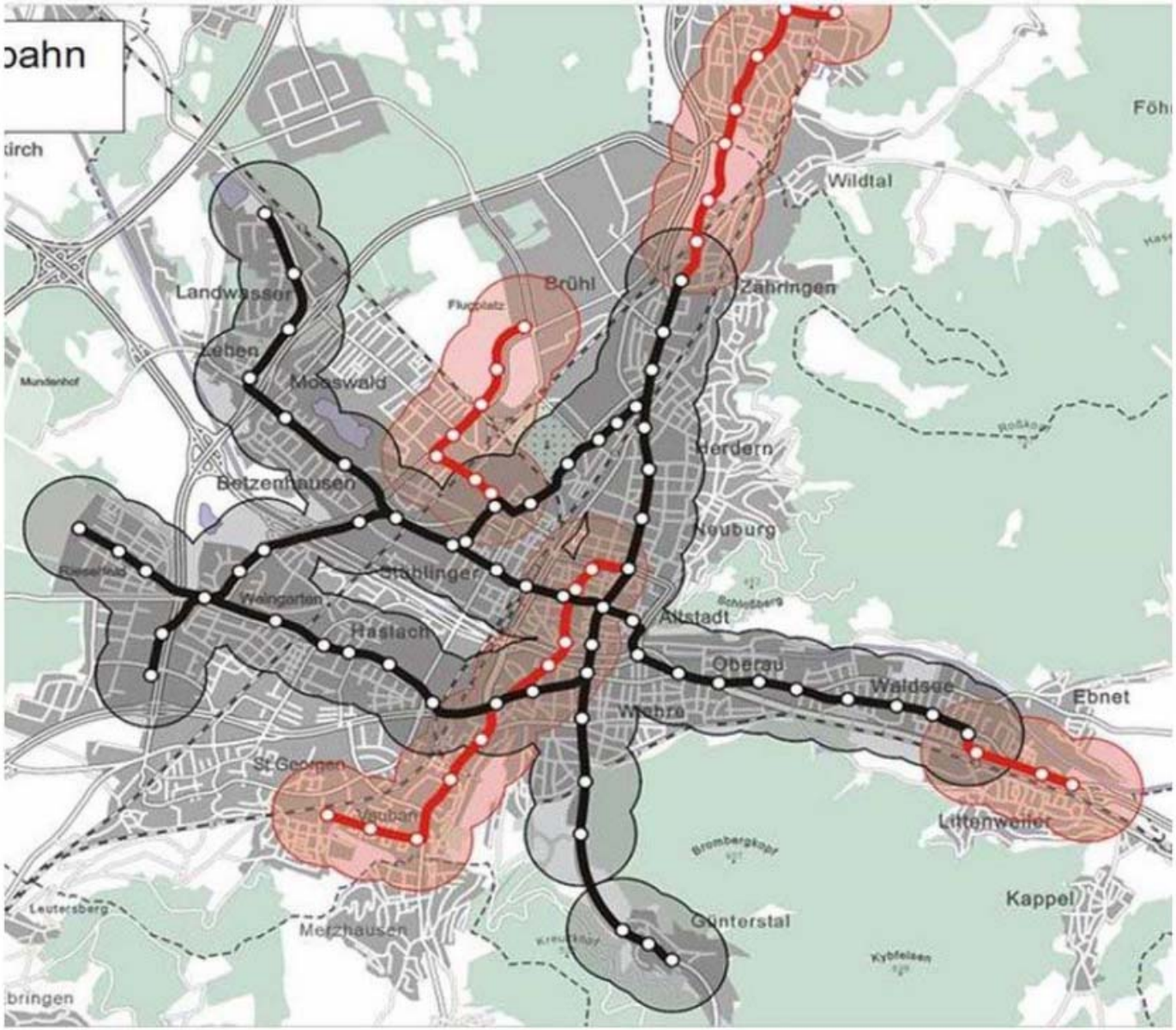


An illustration of the Eco-cell

Source: http://www.tianjinecocity.gov.sg/masterplan.htm

Enabling a symbiosis of NMT and public transport

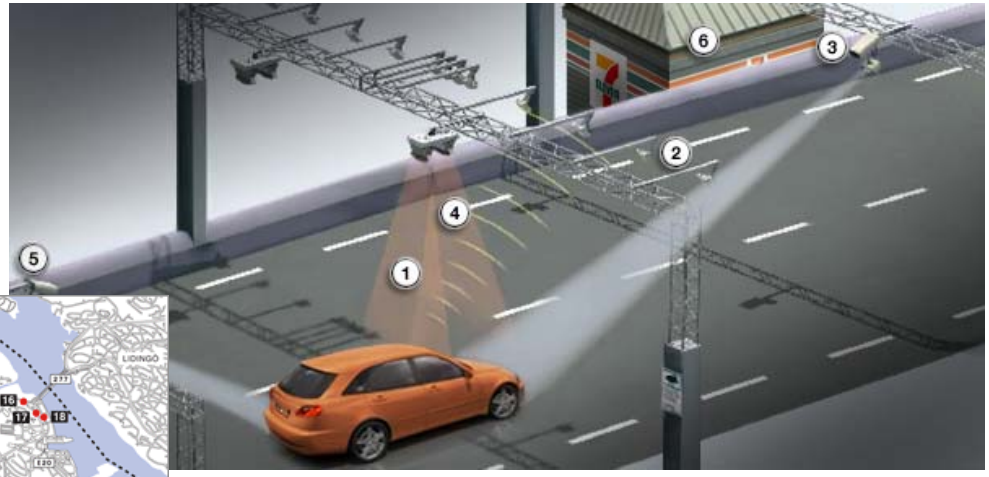
Residential areas within 300m of a light-rail stop in Freiburg/ Germany

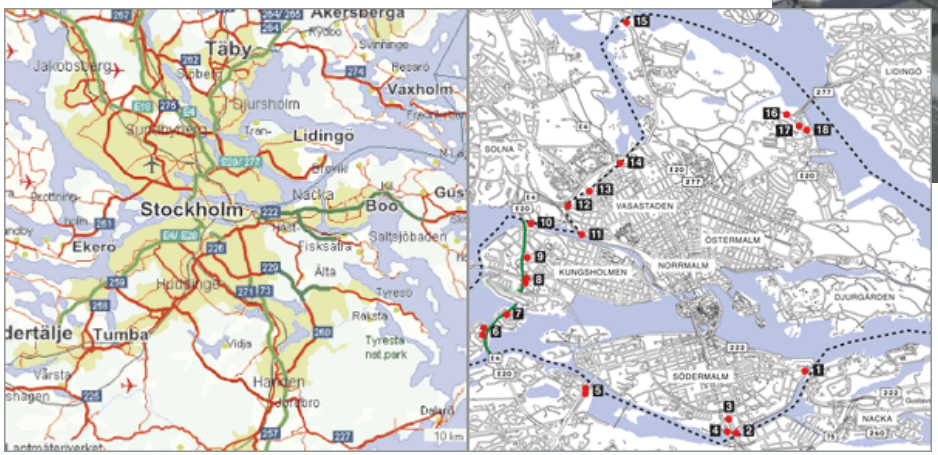


Source: City of Freiburg, in: Pucher/ Buehler

Traffic Demand Management: Parking / Road Pricing

- Road pricing mostly applied in developed countries, e.g. Stockholm London, Singapore
- Regulatory and parking schemes more widespread





Source: IBM

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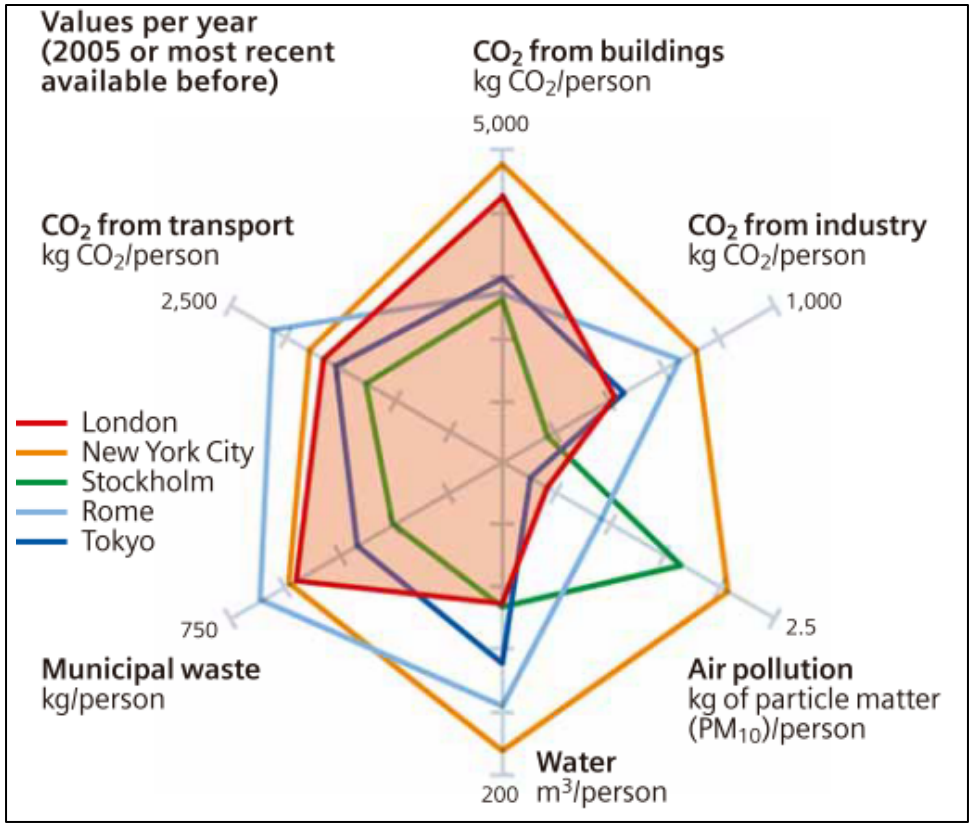
Impacts: Developments Patterns vs. Vehicle Miles

Findings of a recent 2009 US-TRB Report on “Driving and Built Environment”:

Developing more compactly. i.e. at higher residential and employment densities, is likely to reduce VMT:

- doubling residential density across a metropolitan area might lower household VMT by about 5 to 12 percent,
- reductions as much as 25 percent possible if coupled with higher employment concentrations, significant public transit improvements, mixed uses, and other supportive demand management measures



Comparison of cities’ environmental footprint

Source: Siemens/McKinsey 2008

What is needed for Sustainable Urban Mobility ?

A combination of political will, financial resources and effective national and local institutions

- Joint National-Local Mobility Strategies covering all activity areas, differentiated approaches for addressing technical vs. political constraints
- Esp. in Developing Countries: viable project proposals and institutional arrangements to mobilize investments from domestic and international financial institutions

Central London
Congestion Charging

Source: Transport for London

Bogota Before versus After TransMillenio

Source: ESMAP Energy Efficient Cities Initiative - Bogota Case Study

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Sustainable Urban Mobility in the Global Context

Statements for Discussion

- In the face of rising motorization, models for sustainable transport in developed and developing countries will only be successful if they surpass the mainstream by providing higher quality of life, energy savings and economic efficiency and opportunities
- With the importance of Transport for greenhouse gas emissions, Sustainable Mobility and Communities can offer significant Investment Opportunities within Green Economies
- While many developing countries may have to focus their efforts in the context terms of climate change on Adaptation, expanding access to mobility has a potential for “anticipated Mitigation”