Sustainable Transport in Mega-cities

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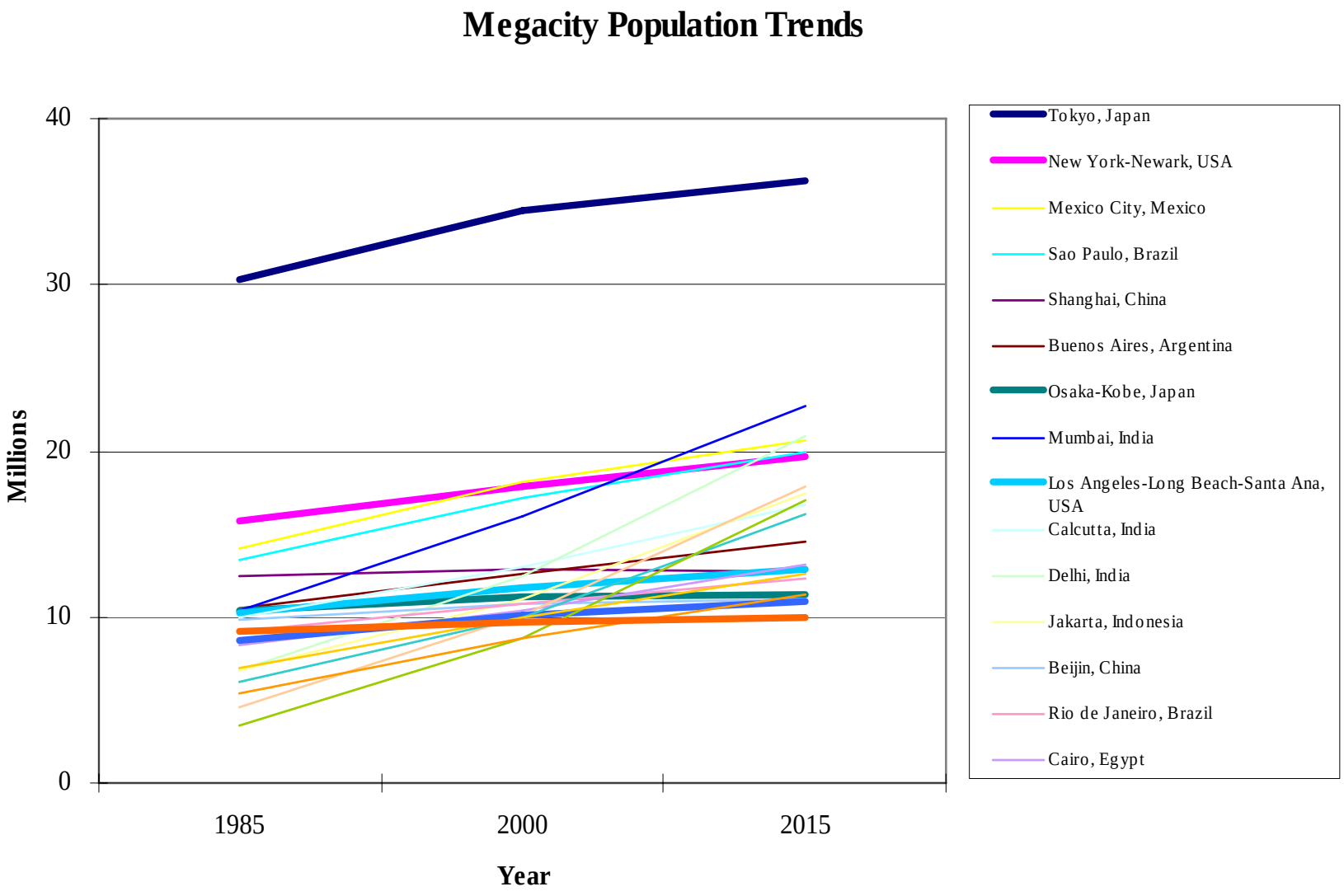
Summary of presentation

- **What is a mega-city?**
- **What is sustainability?**
- **Observations of four cities studied**
  - Mumbai
  - Tokyo
  - Mexico City
  - Paris
- **Sustainability report card**
- **Is there hope?**

Mega – City?


Megacity Population Trends
Millions
40
30
20
10
0
1985
2000
2015
Year
Tokyo, Japan
New York-Newark, USA
Mexico City, Mexico
Sao Paulo, Brazil
Shanghai, China
Buenos Aires, Argentina
Osaka-Kobe, Japan
Mumbai, India
Los Angeles-Long Beach-Santa Ana, USA
Calcutta, India
Delhi, India
Jakarta, Indonesia
Beijin, China
Rio de Janeiro, Brazil
Cairo, Egypt

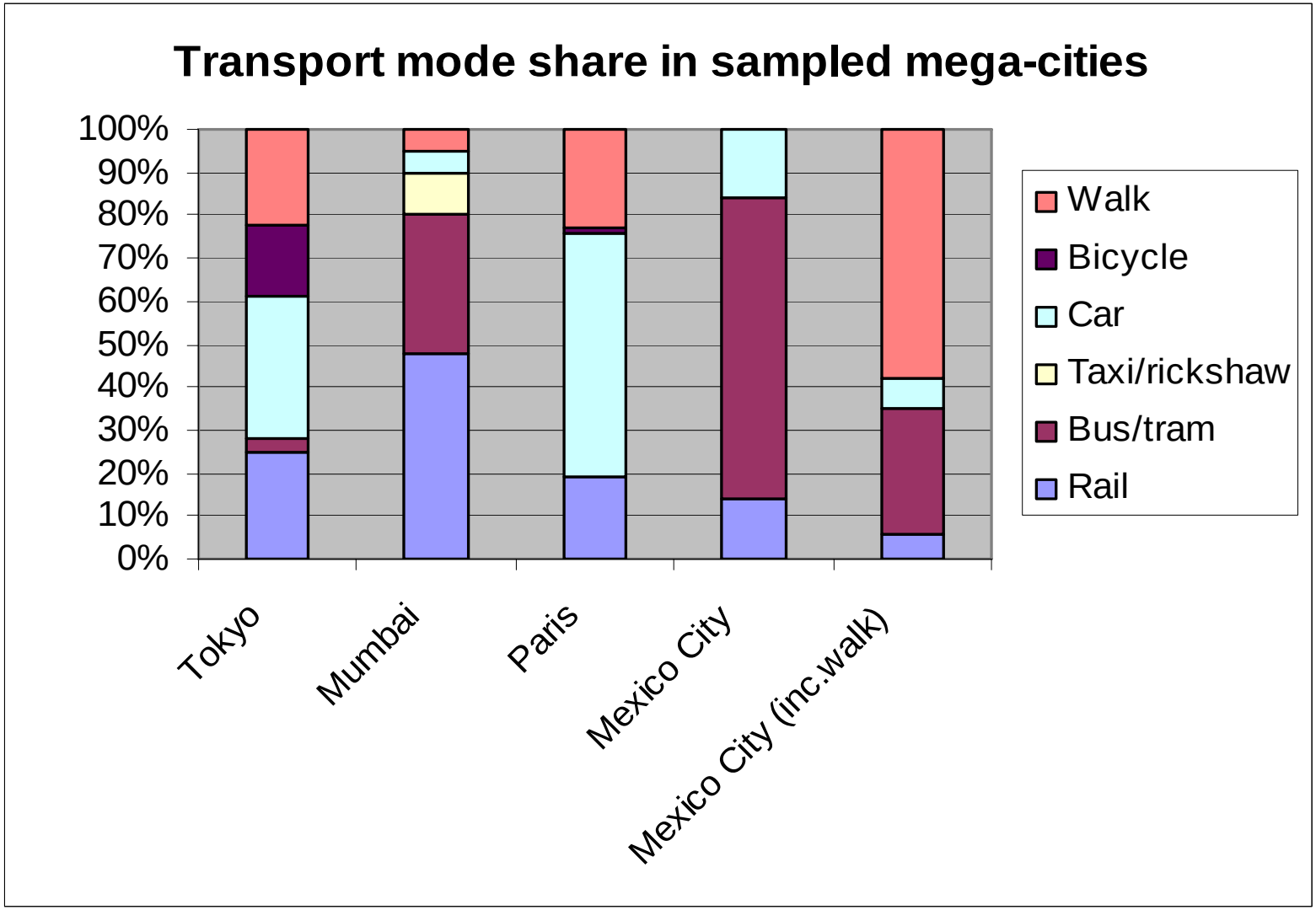
Transport sustainability

- **Economic and financial – continuing capability to support an improved standard of living**
- **Environmental and ecological – generating the greatest possible improvement in the quality of life, not merely an increase in traded goods**
- **Social – the benefits that transport produces must be shared equitably by all sections of the community**

Four cities compared Economic

Country	GDP per capita (US$ 2006)	Growth per year 1999 to 2004 (%)	Growth 2006
Japan	36,300	5.1	2.8
France	33,000	4.6	2.0
Mexico	10,600	2.6	4.5
India	3,700	14.4	8.5

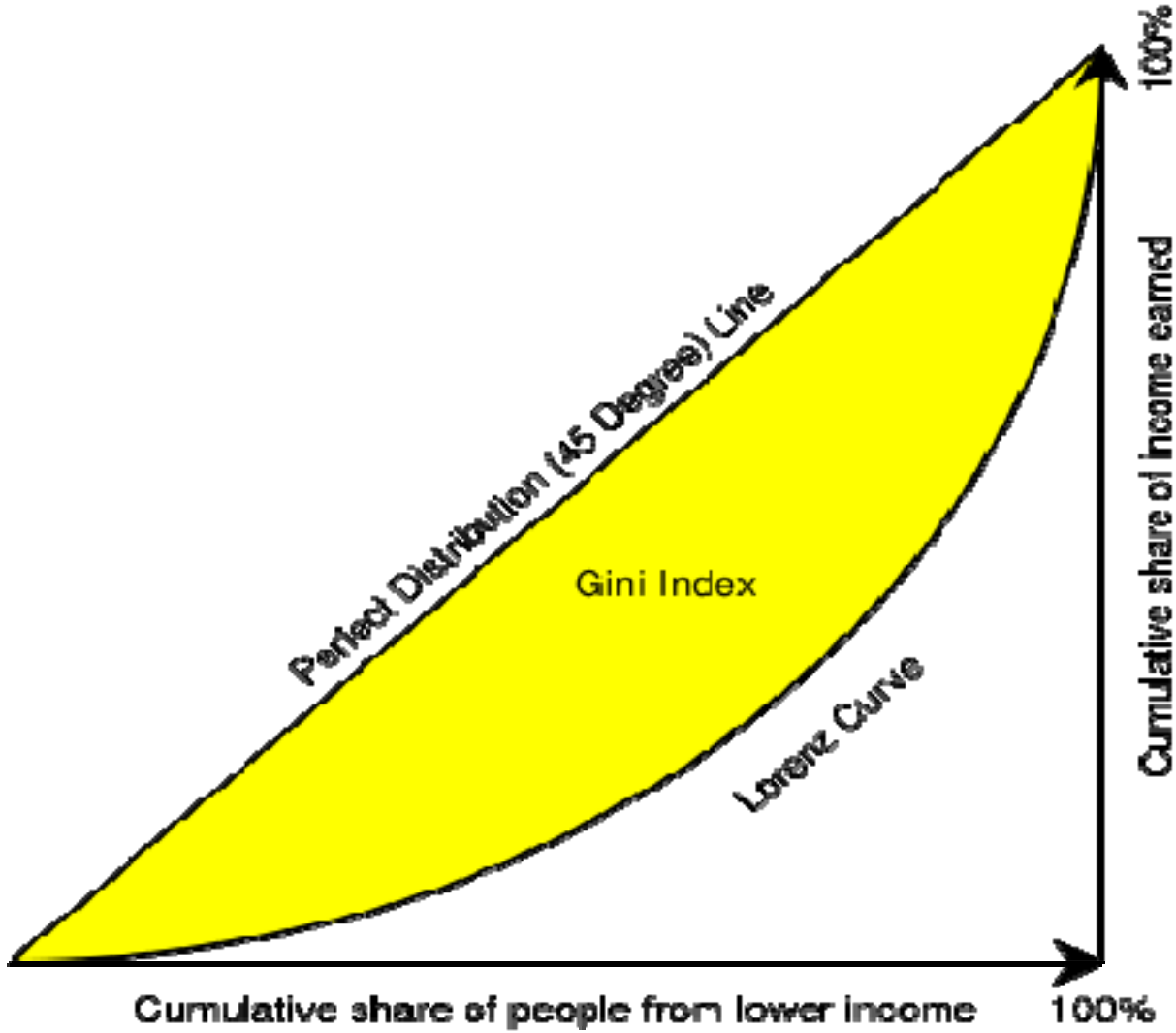
Four cities compared Environment 1



Four Cities compared Environment 2

Mega-city	Particulate air pollution (micrograms per cubic metre)
Paris	14
Tokyo	49
Mumbai	240
Mexico City	279

Gini Co- efficient (%) Graph



Four cities compared Social

Country	GINI Co-efficient (%)	Trend	Comment
India	30 to 38	Rising	Social equity decreasing
Japan	35	Rising	Social equity decreasing
France	33	Flat	Social equity not increasing
Mexico	50	Fluctuating	Outside efficient range

Sustainability report card

Mega-city	Sustainability criteria		
	Economic	Environmental	Social equity
Paris	Improving	Policy having some effect	Neither improving nor declining
Tokyo	Improving	Policy having some effect	Declining slightly
Mexico City	Improving	Weak policy having insignificant effect	Inequitable and inefficient
Mumbai	Improving	No policy, no effect	Declining

Outlook for four cities

- **To improve by continuing in the same direction:**
  - Paris and Tokyo will have to draw up more ambitious plans or undertake more aggressive implementation, or both;
  - Mexico City will need to change direction; and
  - Mumbai will need both the right plan and its implementation

Observations on four mega-cities

- Mega-cities = mega-problems
- All have plans – all behind in implementation (big variation)
- All have complex governance arrangements around city and transport planning
- Tension between economic, environmental and social sustainability criteria
- Mega-problems = mega solutions?

Guides for sustainability in mega-cities

- **Recognise the economic, environmental and social indicators of sustainability, and the tension between them.**
- **Set implementation and outcome targets, based on sustainability criteria, particularly for the low energy, low polluting transport modes**
- **Recognise the complexity of governance arrangements around urban and transport systems planning.**
- **Establish strong long term co-ordination arrangements with clear accountability for planning and implementation, including funding. Cover the dimensions:**
  - ➔ Vertical – between federal, state and local governments
  - ➔ Horizontal – among the local governments of the mega-city
  - ➔ Internal – between the public and private sectors.
- **Implement, implement, implement.**
- **Measure and report progress over decades.**