The need for Climate Finance for Urban Transport

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Webinar

Urban Transport and Climate Finance

Mobilise Your City (MYC)

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  - Demographic Transitions
  - Trends in Urban Transportation
  - Impacts
- Climate Financing
  - Transport Financing Needs
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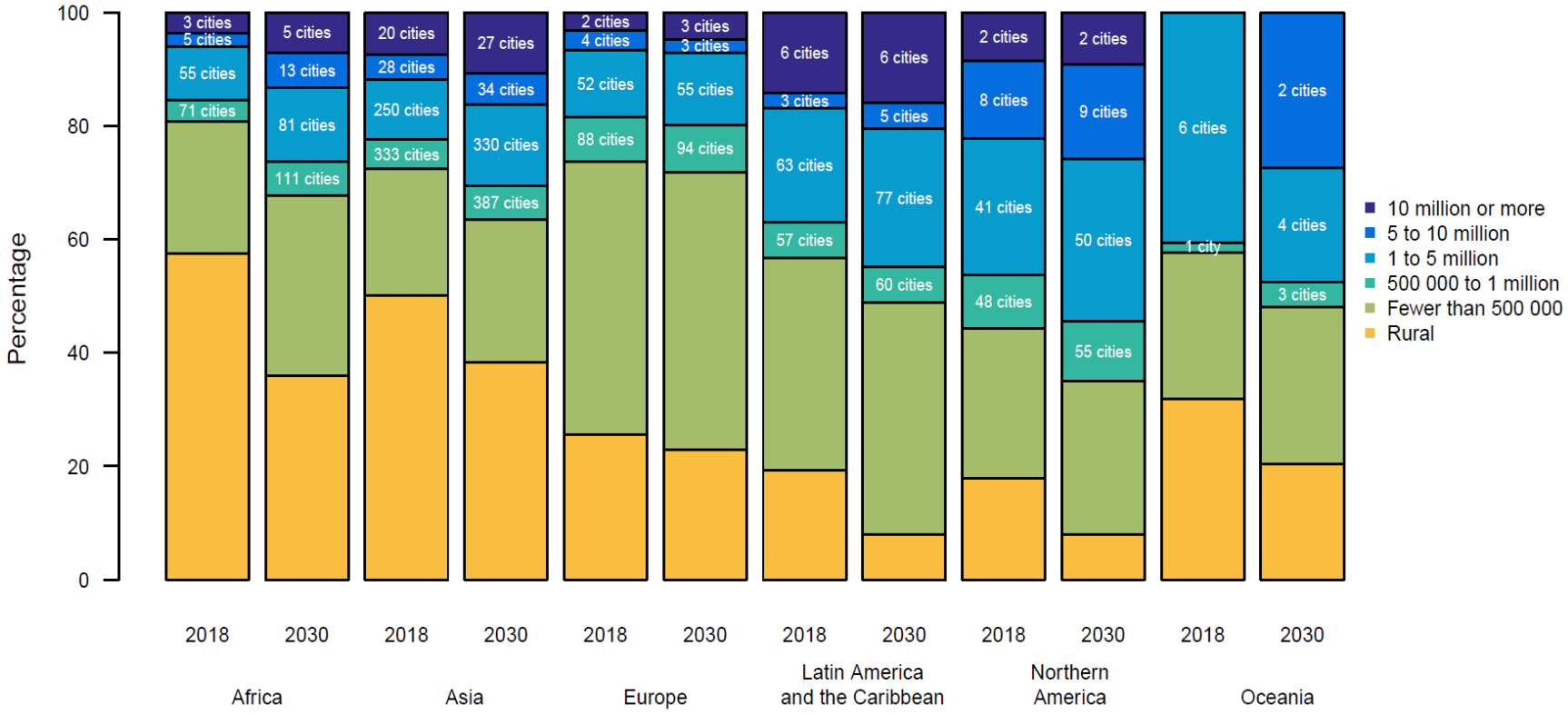
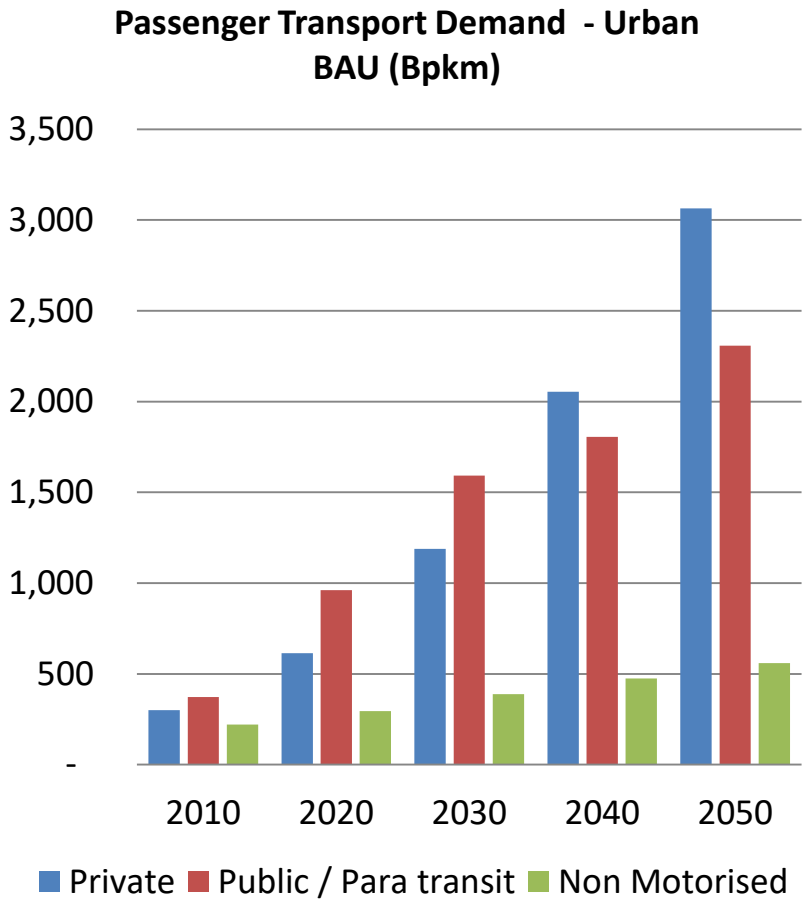
Population Distribution

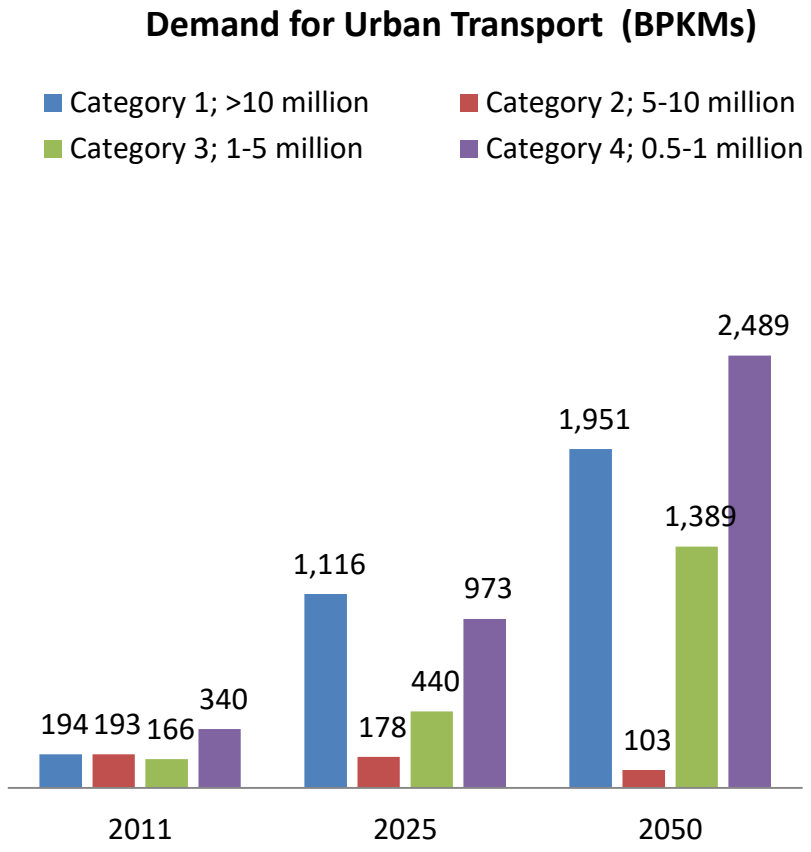
(By Size of Settlement and Region)



Source: United Nations, Department of Economic and Social Affairs, Population Divi-sion (2018). The World's Cities in 2018—Data Booklet

Urban Transportation Demand for India





Source : Authors

Sustainable Development Goals (relevant for Urban Transport)

Goal 3 - Good Health and Well Being

In 3.6.1 Death rate due to road traffic injuries

Target - Half number of deaths by 2020

- **Goal 11 - Sustainable cities and communities**

In 11.2.1. Proportion of population that has convenient access to public transport

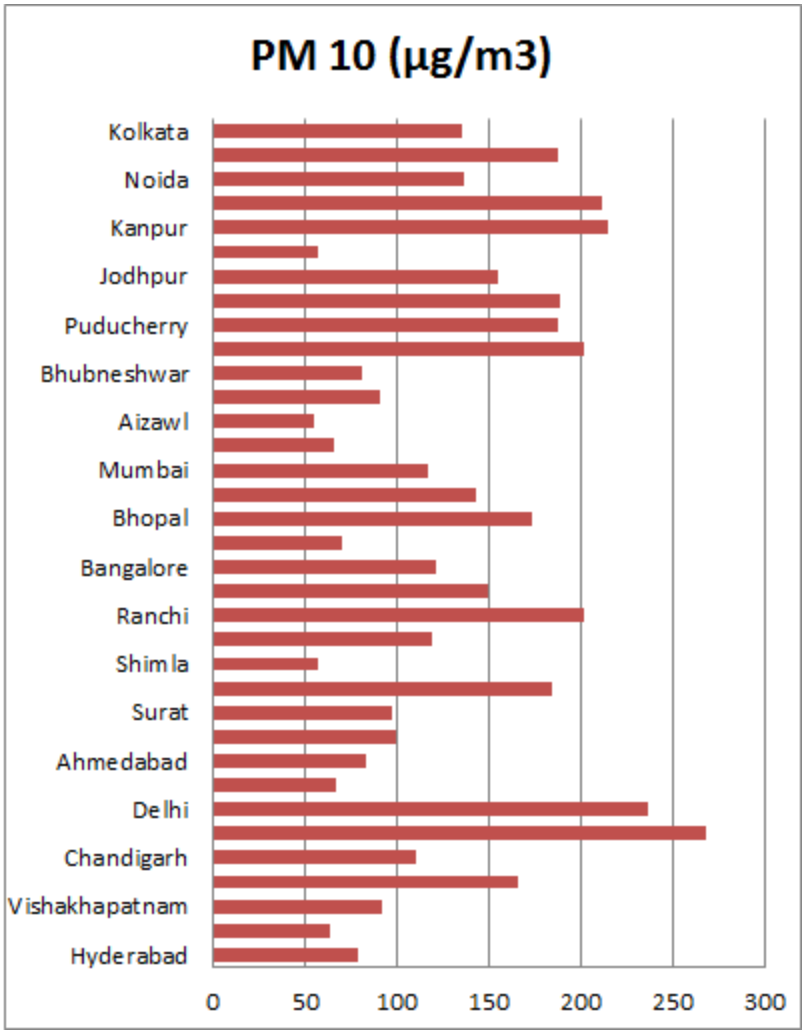
Target - All population by 2030

In 11.6.2. Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities

Target - Reduce by 2030 (??)

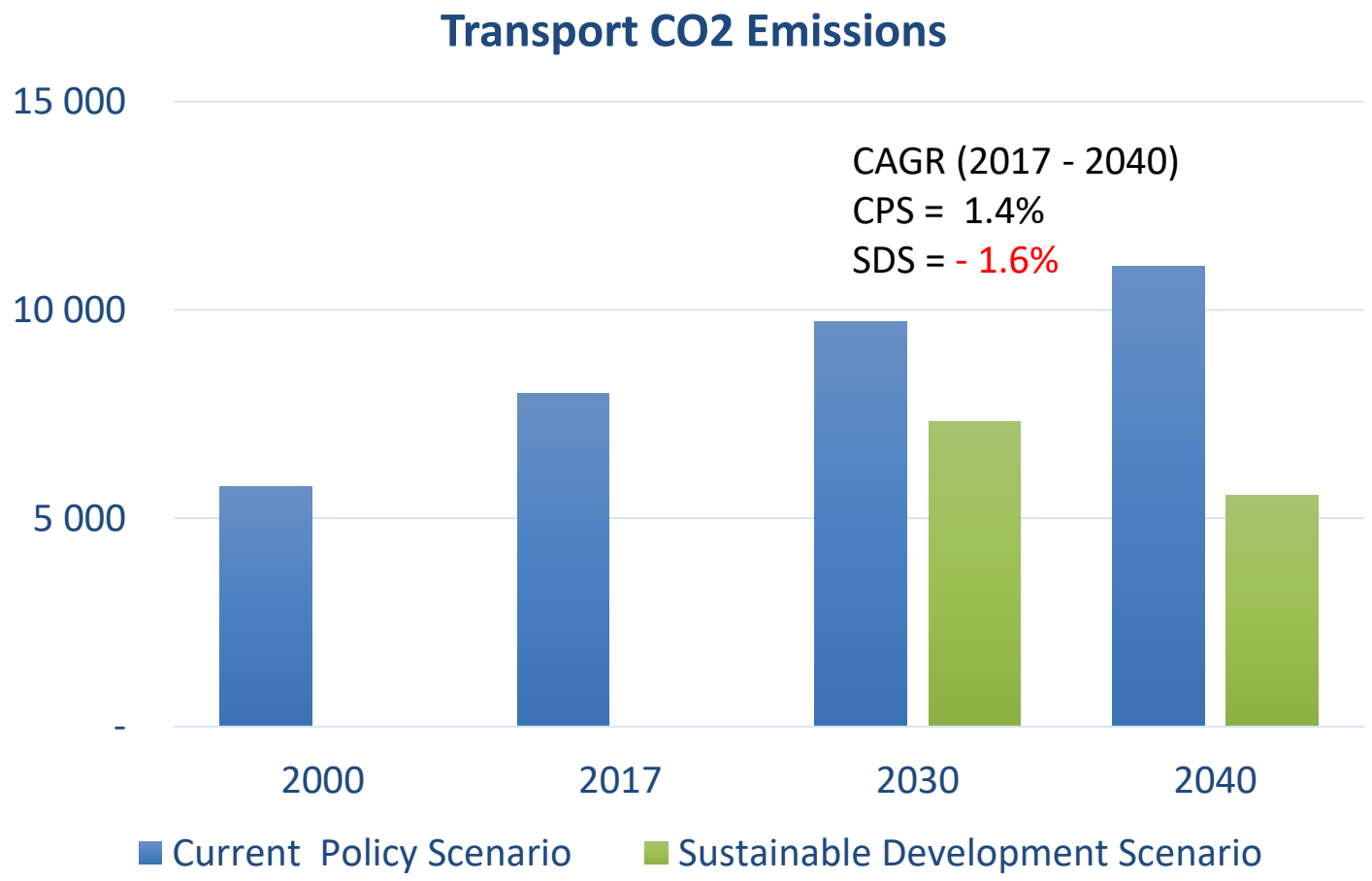
- **Goal 13 - Climate Action**

In 13.3.1 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions



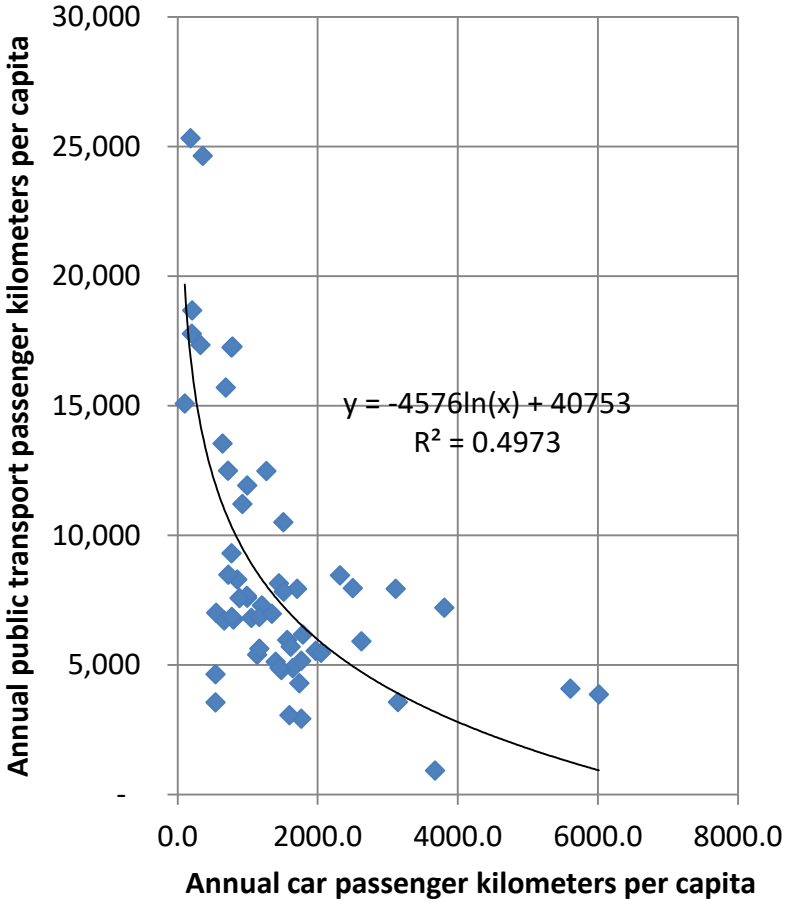
Source : Central Pollution Control Board, India

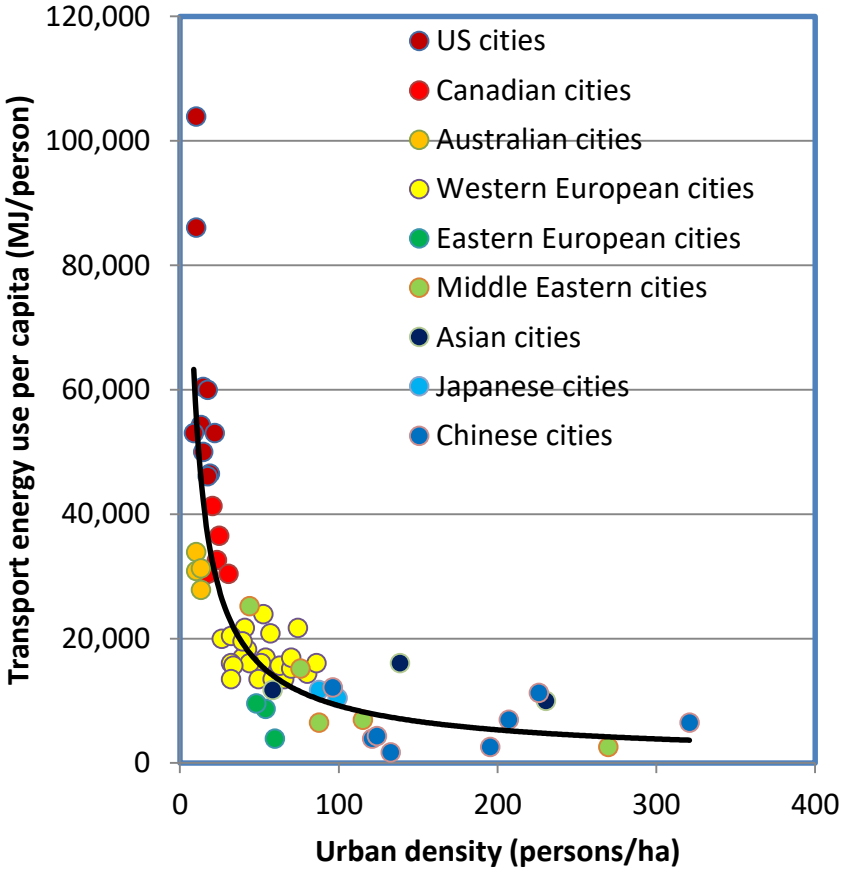
Transport CO_2 Emissions



Source: IEA, 2018. World Energy Outlook

Patterns of Urban Transport Energy





Source: Newman, P & J. Kenworthy, 2011, Evaluating the Transport Sector's Contribution to Greenhouse Gas Emissions and Energy Consumption, in Salter, R; Dhar, S. & Newman, P. (Eds) Technologies for Climate Mitigation : Transport Sector, UNEP Risoe Centre, Denmark

Urban Financing Needs

- US $ 4.1 to 4.3 trillion needed per annum for urban areas (New Climate Economy Report)
- To make the urban infrastructure sustainable you need even more - US $ 0.4 to 1 trillion needed per annum (New Climate Economy Report)

Infrastructure Costs & Funding

Transport infrastructure	Capital costs US$/km	Capital costs/ Capacity
Dual-lane highway	10–20 million	**5,000–10,000**
Urban street (car use only)	2–5 million	**2,500–7,000**
Bike path (2m)	100,000	**30**
Pedestrian walkway / pavement (2m)	100,000	**20**
Metro rail	40–350 million	**2,000–5,000**
Light rail	10–25 million	**800–1,000**
Bus rapid transit (BRT)	**1–10 million**	**200–250**

Bus Rapid Transit Project

- Trans Karachi BRT
- Use Economic rate of return
- Grant from local government to cover infrastructure cost
- Executing agency responsible only for operating costs and bus replacement
- Loans / Grants from GCF
- Loans from ADB

Key Costs and Revenue	US $
Construction cost	563 million
Revenue, all years (includes fare collection, rentals, advertisement, etc.)	650 million
Operating costs, all years	455 million

Financial Ratio	Value
Project Pre-tax IRR	-7.4%
NPV	-292 million US $
Average DSCR	0.4

Financial Analysis Assumptions

- Discount Rate - 9%
- Project Life - 20 years
- Debt / Equity - 70/30
- Loan interest rate (US $ Loan) - 3.89%

Final Remarks

- Climate financing needed in bridging the financing gap and reducing risks
- But also needed is political will