

C40CITIES

CLIMATE LEADERSHIP GROUP

Reducing Vehicle Use in Megacities

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Transportation and Energy Conference

August 8, 2013



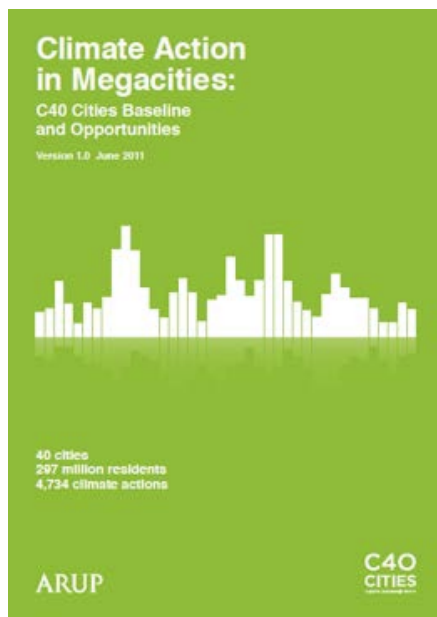
Megacities and Climate Change



C40 Cities Climate Leadership Group



Cities Act



City streets & parking **87%**



Outdoor lighting **80%**



Transit **63%**



Residential waste **66%**



Landfills **60%**



Building regulation **57%**



Water supply **60%**



City planning **50%**

What does C40 Do?

PEER-TO-PEER
EXCHANGE



C40
EXCHANGE

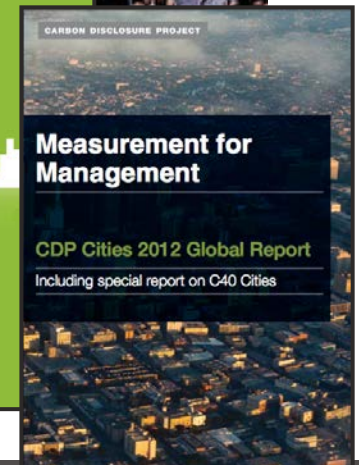
ON-THE-GROUND
CITY SUPPORT



**Climate Action
in Megacities:**

C40 Cities Baseline
and Opportunities
Version 1.0 June 2011

RESEARCH &
KNOWLEDGE
MANAGEMENT



C40 Initiatives & Networks

Energy

- Cool Cities
- Private Buildings
- District Energy
- Municipal Buildings
- Municipal Utilities
- Outdoor Lighting
- Renewables

Finance & Economic Dev.

- Green Growth
- Sustainable Infrastructure Finance

Measurement & Planning

- Community GHG Protocol
- Climate Action Planning

Sustainable Communities

- Sustainable Urban Development
- Climate+

Transportation

- Bus Rapid Transit
- Electric Vehicles
- Hybrid & Electric Buses
- Transportation Demand Mgmt.
- Non-Motorized Transport
- Transportation-Oriented Development

Adaptation & Water

- Connecting Delta Cities
- Climate Risk Assessment
- Urban Drainage & Green Infrastructure
- Wastewater Treatment

Waste

- Sustainable Solid Waste Systems
- Innovative Policies
- Waste-to-Energy

Global Transportation Demand Trends

- 70% global population expected to live in cities by 2050.
- Roadway occupancy levels could increase sixfold in some countries.
- Energy needed to move these people around will double.
- Global transportation accounts for 20% of the world's energy use; 40% of this occurs in cities.
- Road traffic accidents are the leading cause of death among 15- to 29-year-olds. Overall, traffic mishaps cause 1.3 million deaths a year and cost more than \$500 billion.
- World's stock of motorized vehicles will double by 2050.

Urban Policy Opportunities

Improved Transit options	Incentives/ disincentives	Land Use policies	Other programmes
Public transit improvements	Congestion pricing	Transit oriented development	Transportation Demand Management policies
Walking and cycling improvements	Parking pricing	Parking management	Freight management
Flexible and home working	Pay-as-you-drive vehicle insurance	Traffic calming	
Car-sharing	Fuel and other tax increases		
Ride-sharing	Distance based taxes/ charges		

Paris

Expanded public transport; implemented Vélib bikeshare program; parking reform, road diets

- Vélib: 20,000 bikes in 1,800 stations
- Reduced street parking by 9% (14,300 spots) & began charging for 95% of spots
- 24% reduction in driving between 2001-2010



Seoul

Replaced 95% bus fleet (6,100 buses) with CNG & diesel hybrid buses; 142 km of BRT along 8 corridors

- Increased bus speeds by 33%-65% between 2003-04
- Increased daily passenger trips by 11% between 2003-04
- Decreased bus accidents by 23% and serious injuries by 43% by 2005



Mexico City

Installed parking meters in Polanco neighborhood

- Reduced trip times by 10:22 minutes per trip (6.73 million hours annually)
- Reduced vehicle-kilometers by 80.8 million km
- Saved 7.7 million liters gasoline
- Reduced GHGs by 18,000 tons annually

BEFORE



AFTER



New York City

Closed Broadway to car and truck traffic in Times Square

- 11% increase in foot traffic
- 63% reduction in injuries to motorists and passengers
- 35% reduction in pedestrian injuries
- NO reduced by 63%
- NO₂ reduced by 41%
- 60% of workers, property owners and building executives supportive
- 70% of local retail managers supportive



Milan

“Area C” road pricing downtown

- 30.7% reduction in traffic
- 23.8% reduction in road accidents
- 10% increase in public transport speed during peaks
- 18% reduction in PM10, 10% reduction in exhaust, 18% reduction in NOX; 35% reduction in CO2
- 58% residents supportive



Singapore

100% private vehicle tax

- **Only 15% of Singaporeans own a car**



London

2012 Olympic Summer Games

- Reduced traffic flows in Central and Inner London by 16.3% (AM peak) and 9.4% (PM peak)
- Planning to make measures permanent



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