

# Financing Urban Transport Policies and Programs

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# We Insist in a Paradigm Shift

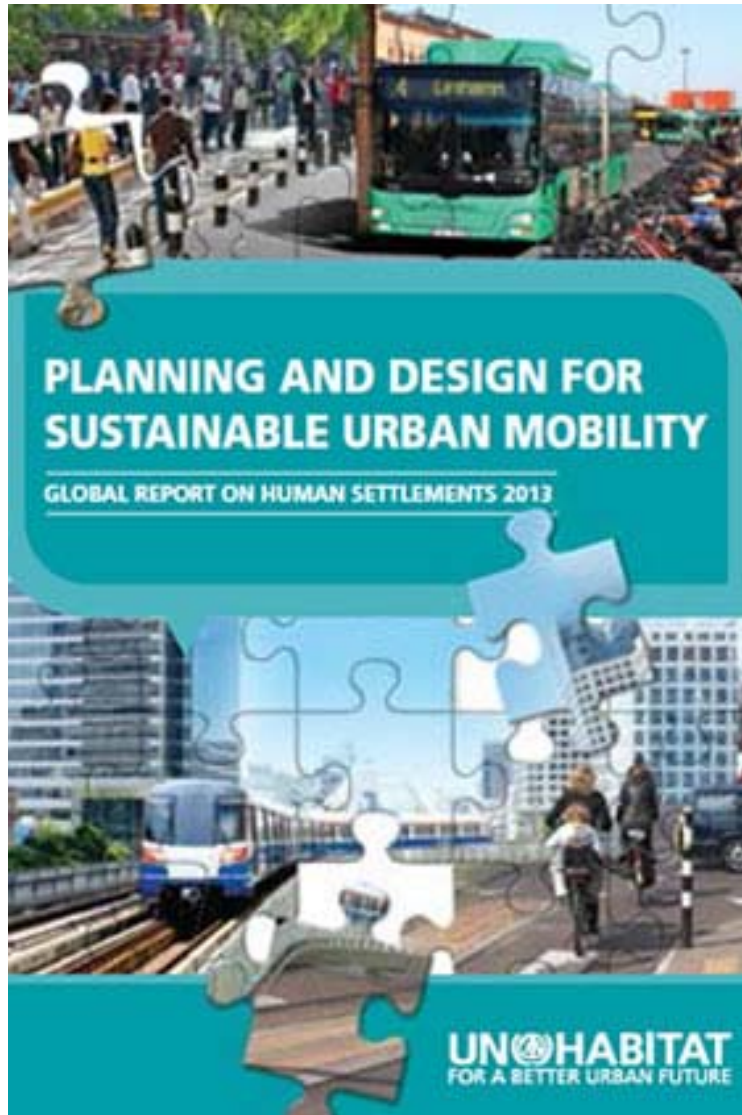
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## Moving Cars



## Moving People





# Global Report on Human Settlements 2013

<http://www.unhabitat.org/content.asp?typeid=19&catid=555&cid=12336>

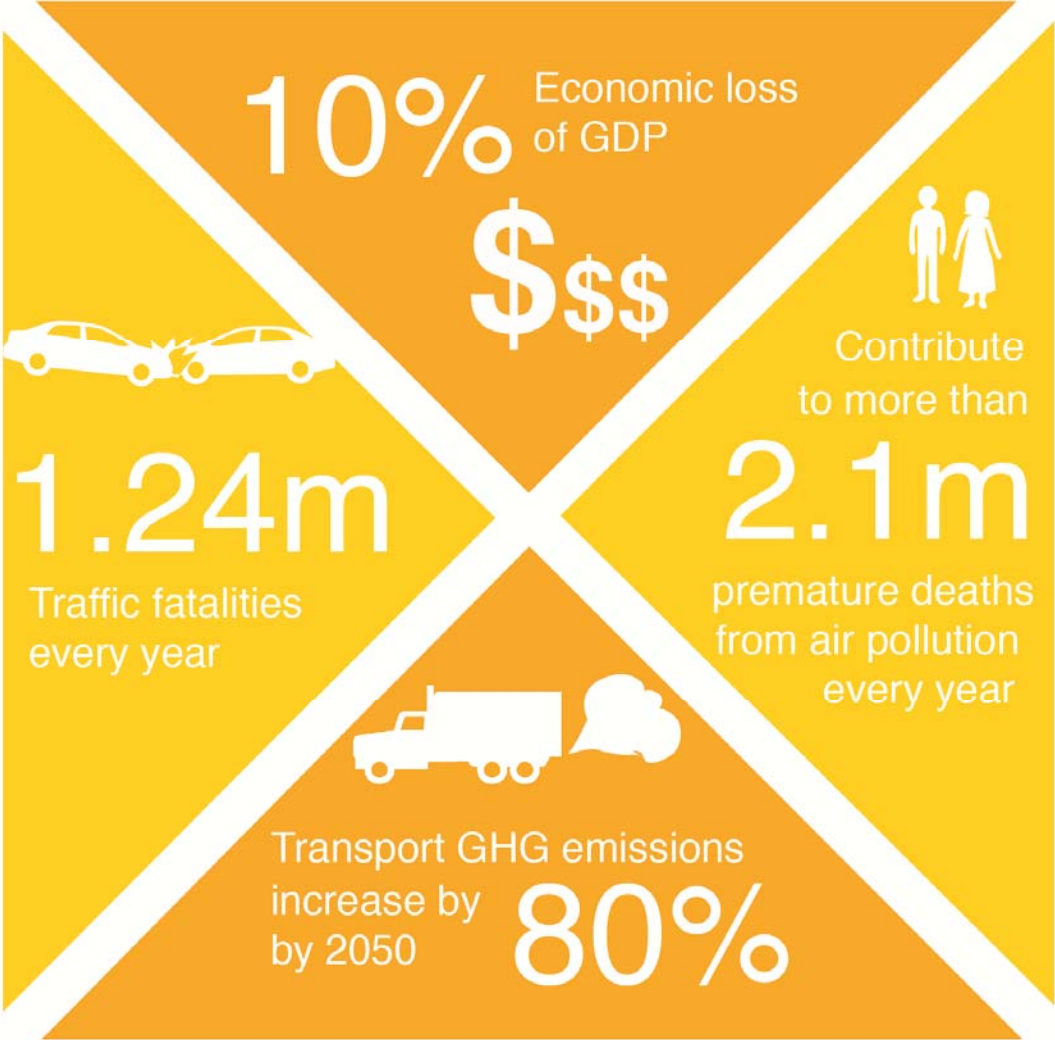


# We think we have it clear how

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Avoid	Shift	Improve
Quantity and length of motorized trips	To the most efficient modes	Technology and operations

# But not enough change is happening



# Why?



Dispersed single land use



Provision of Road Capacity

Increased urban area



[Prediction of Vehicular Flows]

Increased Motorization



# Wrong solution!



Eating



Expanding  
the Size of  
The Pants

Lack of  
Exercise



Obesity



Lewis Mumford, October 19, 1895 – January 26, 1990



# “Lock-in” effect

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# Keys to “Unlock”

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➤ Re-allocating Finance

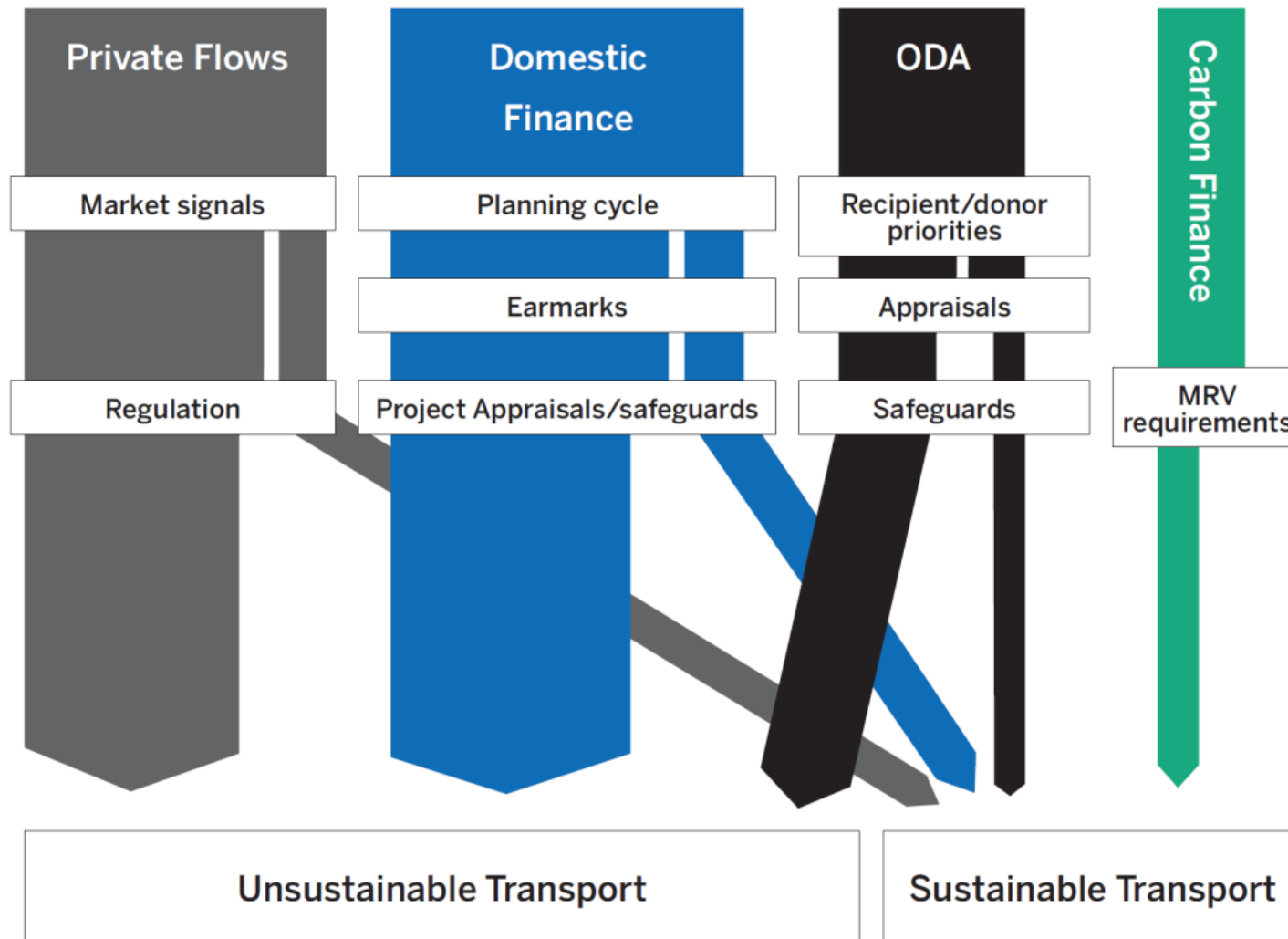
➤ Building Capacity

➤ Capturing the trends

<http://thecityfix.com/blog/on-the-move-pushing-sustainable-transport-concept-tipping-point-dario-hidalgo-heshuang-zeng/>

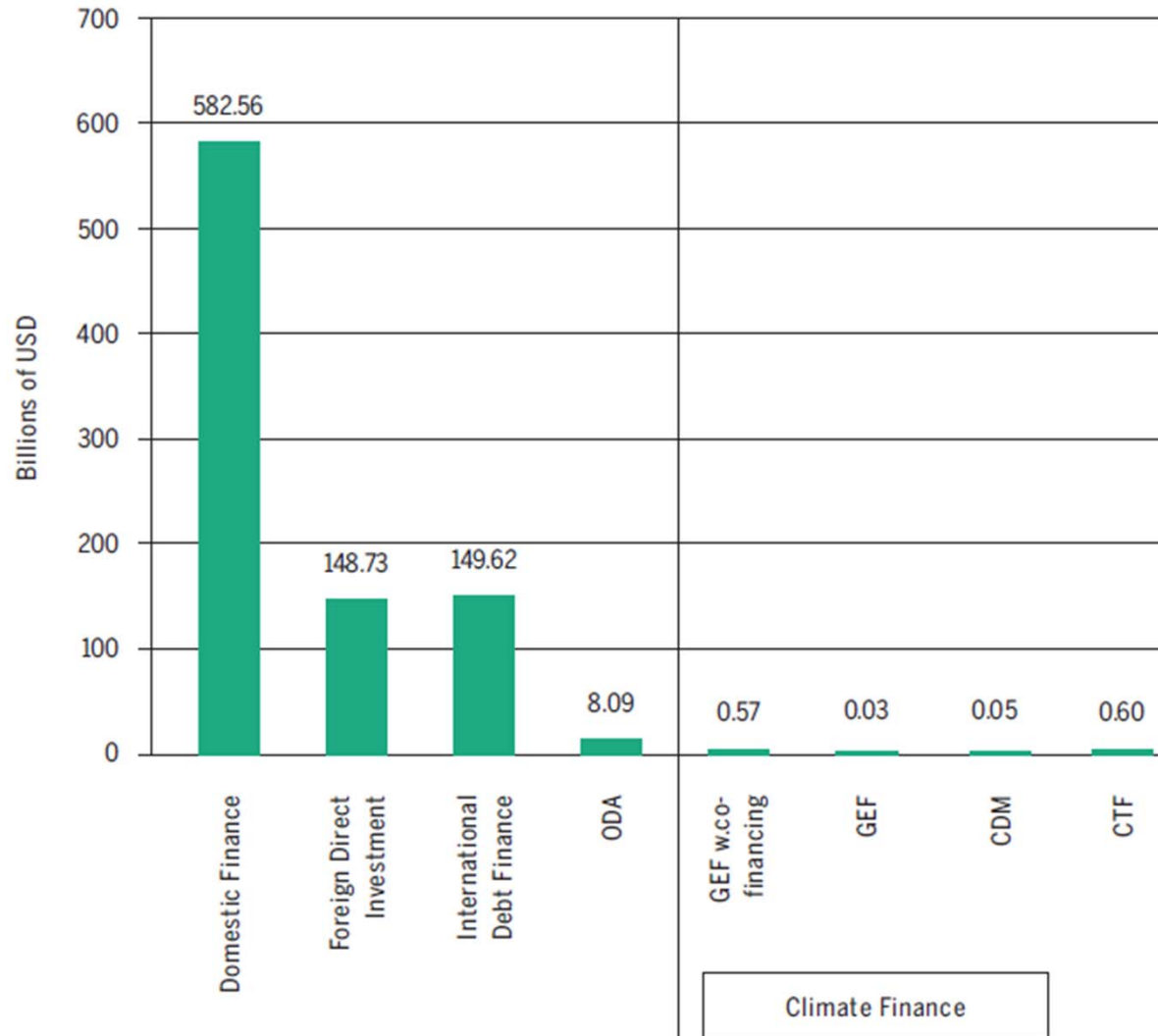


# Re-allocating finance



Source: Sakamoto et al. (2010)

# Public finance in the transport sector

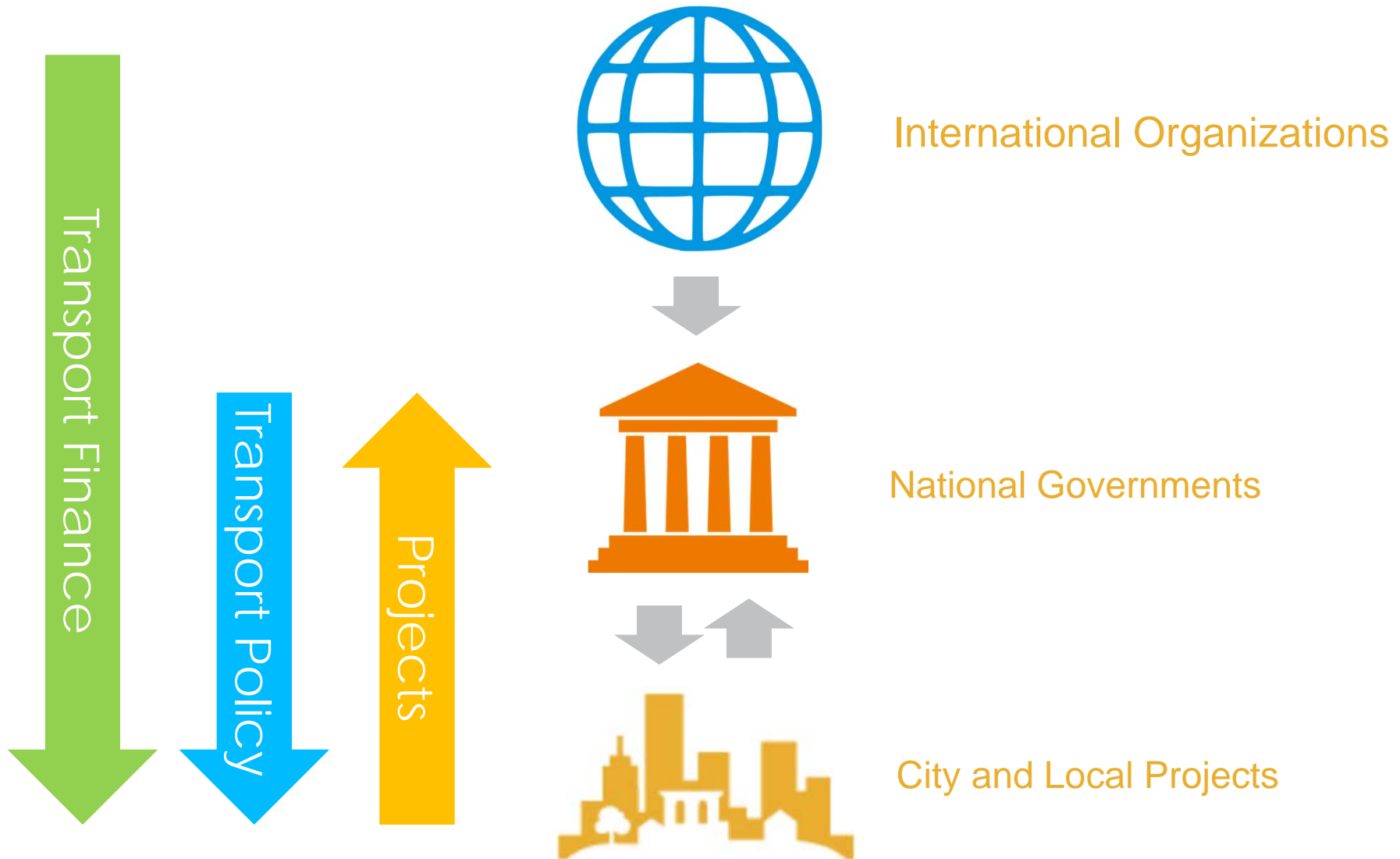


Source: Sakamoto et al. (2010)



# National Governments are Central

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# National Programs



## Financing Sustainable Urban Transport

International Review of National Urban Transport Policies and Programmes

Partnered by  

## Financing Sustainable Urban Transport – International Review of National Urban Transport Policies and Programmes

<http://sustainabletransport.org/financing-sustainable-urban-transport-international-review-of-national-urban-transport-policies-and-programmes/>

# National Programs

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## EVALUATE, ENABLE, ENGAGE

Principles to Support Effective  
Decision Making in Mass Transit  
Investment Programs

**Evaluate, Enable, Engage:  
Principles to Support  
Effective Decision Making  
in Mass Transit  
Investment Programs**

<http://www.embarq.org/en/evaluate-enable-engage-principles-support-effective-decision-making-mass-transit-investment-programs>





# Some Examples: Brazil

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- National Urban Policy
- Comprehensive Mobility Plan (1,600 cities 20,000+)
- Growth Acceleration Program (PAC) USD 9.5 billion for BRT, LRT, Metro Infrastructure – co-funding from state and local levels
- Additional loans for vehicles and rolling stock BNDES



# Some examples: Colombia

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Fig. 6. Integration of transport systems in accordance with local urban development plans is a key point of Colombian policies. A BRT system in Pereira, Colombia, offers fast boarding.  
©Carlos Felipe Pardo, Pereira/Colombia 2007

- National mass transit policy
- Up to 70% support for infrastructure
- USD 2.5 billion for BRT in seven cities
- Integrated public transport in intermediate cities
- Technical assistance
- Encourages private participation
- Metro in Bogotá (expected)

## Some examples: México

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- Mass transit program (PROTRAM) USD 2.4 billion
- 50% of project capital cost for Rail and BRT
- 5 Cities in operation/final construction; 34 cities identified
- Requires private participation



Fig. 13: Suburban Train Mexico City financed by PROTRAM.  
©EMBARQ, Mexico



# Some Examples: India

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- National Renewal Mission  
JnNURM USD 20 billion
- Requires comprehensive mobility plan and co-funding from the state and local levels
- Resulted in implementation of Metro in 6 cities and BRT in 7 cities
- Encourages private participation



Bhopal BRTS Mybus

<http://sustainablecitiescollective.com/sites/sustainablecitiescollective.com/files/Picture3.jpg>

# Some examples: China



- “Transit City” project 30 cities
- Requires co-finance of provincial governments
- In 2012 Beijing Metro reached 16-lines 442km - 1,050km expected by 2020
- Other 16 Chinese cities expanding Metro; 18 cities with Metro and LRT systems under construction; 22 cities with construction planned.
- 15 cities with BRT; 11 under construction or planning



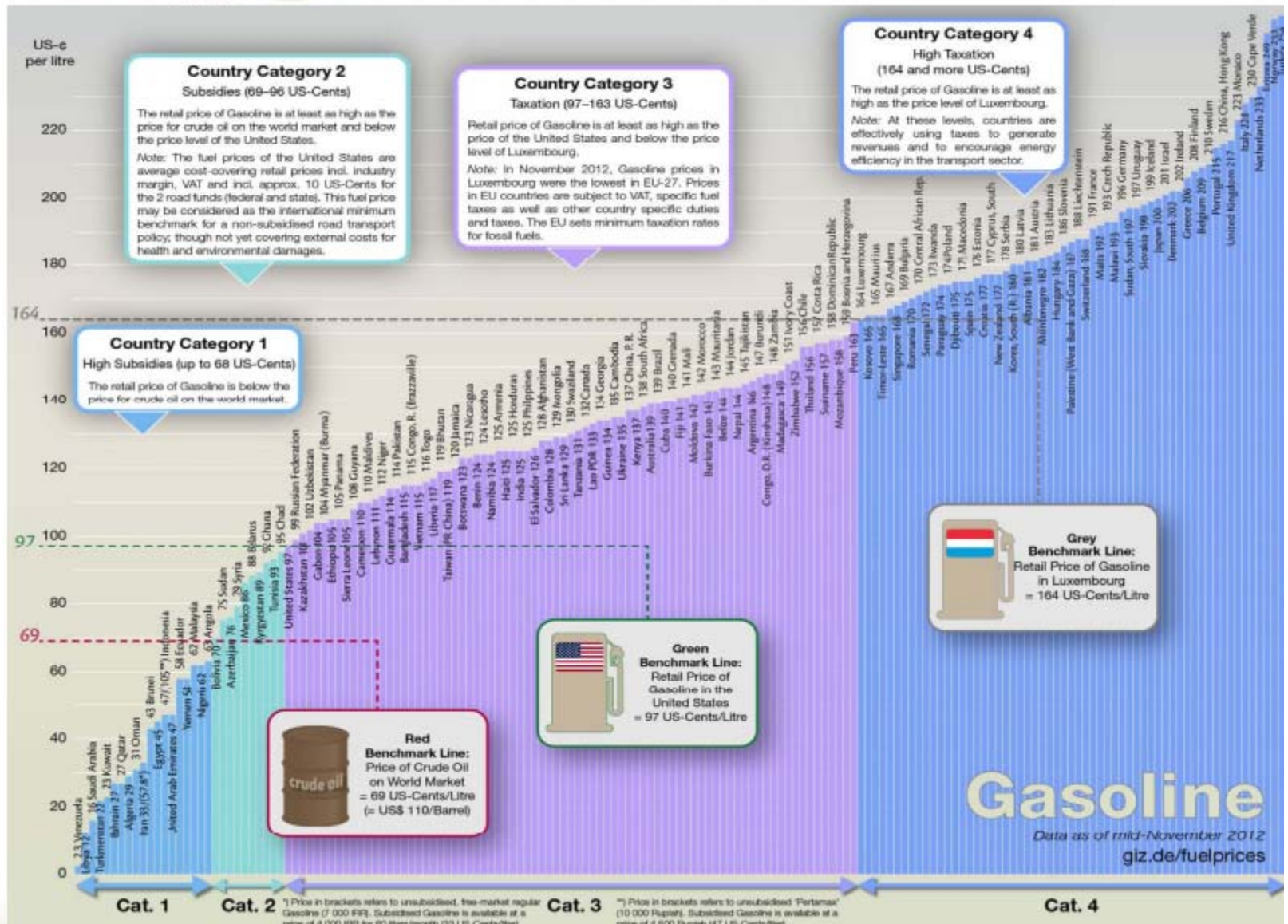
# Continued Funding - National

International Fuel Prices Series

<http://www.giz.de/expertise/html/4317.html>



## Gasoline prices





# Continued Funding - Local

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## Land Development

- Property taxes
- Value capture
- Transit Oriented Development

## User and Property Taxes

- Registration/licence (property)
- Taxes to inputs (fuels)
- Parking management
- Urban tolls



# Hong Kong



**HK\$4 billion (US\$506 million) in property sales on top of stations 32% of the income of the Mass Transit Agency in 2010** (<http://www.bloomberg.com/news/2011-03-03/mtr-s-full-year-underlying-profit-advanced-19-on-home-sales-fare-revenue.html>)

Photo: Courtesy of Oren Tatcher



# Singapore





# Ørestad City, Copenhagen



[http://www10.aeccafe.com/blogs/arch-showcase/files/2011/12/Wing-House\\_1.jpg](http://www10.aeccafe.com/blogs/arch-showcase/files/2011/12/Wing-House_1.jpg)



## Bogotá Central Station Urban Renewal Project (under construction)

<http://www.eru.gov.co/contenido/articulo/247-estacion-central>

Source:  
Empresa de  
Renovación  
Urbana, Bogotá



# Vehicle Reistration Fees (Quotas)

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Singapur  
Shanghai  
Guangzhou, China  
Beijing (loteria)

<http://www.bloomberg.com/news/2012-06-04/singapore-family-sedan-matches-cost-of-a-u-s-home.html>



# Vehicle Registration Fees (Quotas)

## Singapore (1990)

Auction: USD 67,000 per vehicle

Quota 1% increase in fleet per year

~ 6,000 new cars, ~US 400+ million per year (for SUT)

## Shanghai (1994)

Auction: USD 9,000 per auto

~ 96,000 new vehicles per year

~US 900+ million per year (for SUT)

## Guangzhou (2012)

120,000 new vehicles per year (12,000 clean vehicles lottery, 60,000 rest lottery, 48,000 auction)



# Parking Management



<http://www.baycitizen.org/transportation/story/clog-streets-pay-premium/>

# Parking income in San Francisco US \$187 million per year (for SUT)

US \$87,263,867 Parking violation fines

US \$47,119,999 Parking-meters

US \$43,354,632 Garages

US \$9,747,900 Residential permits

29,058 spaces with parking meters

79,000 residential permits

263 enforcement officilas

Fuente: Autoridad Metropolitana de Transporte de San Francisco SFMTA, 2011

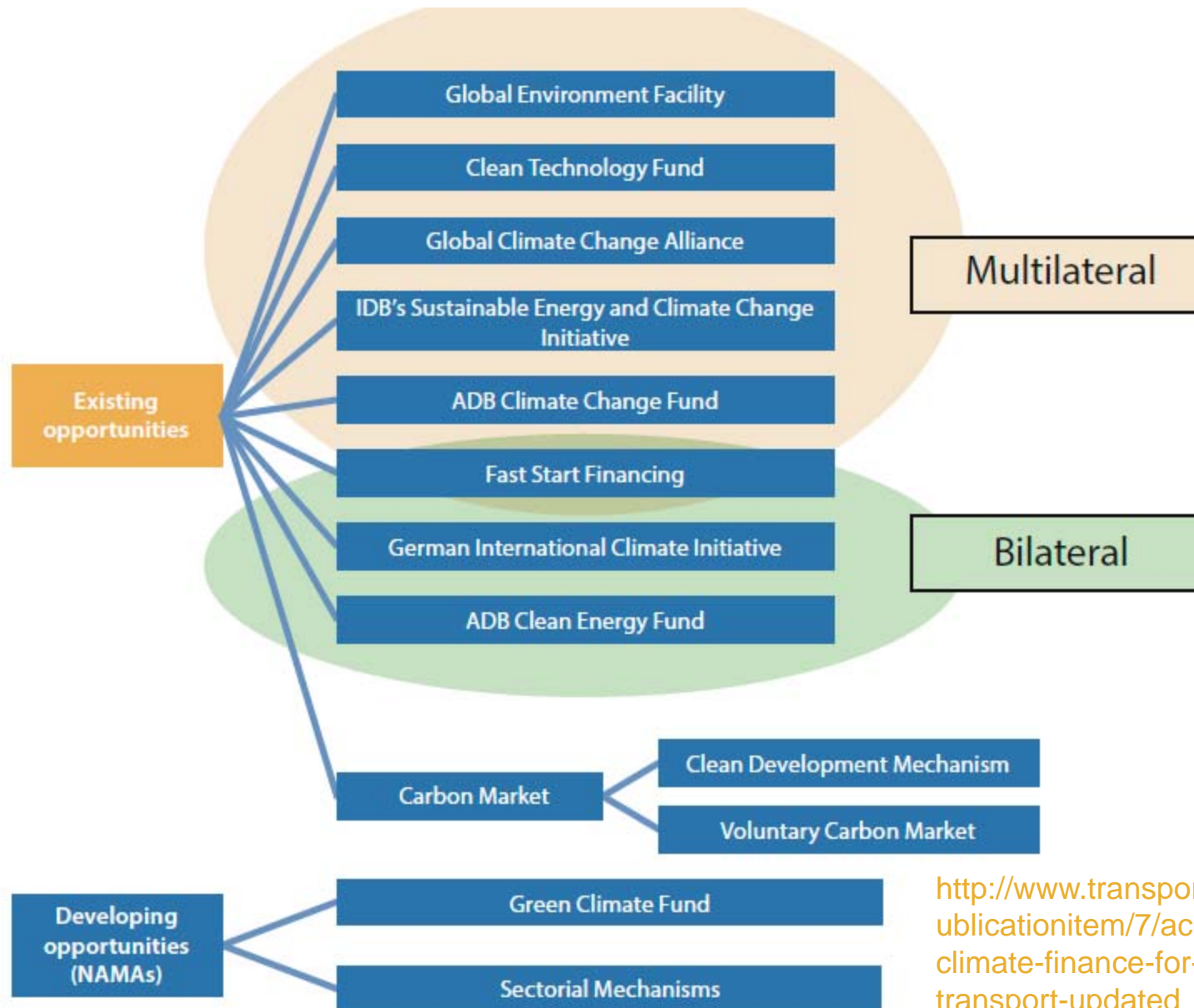


# Congestion Pricing London, Sweden, Valetta, Singapore





# Climate/Environmental Funds for Transport

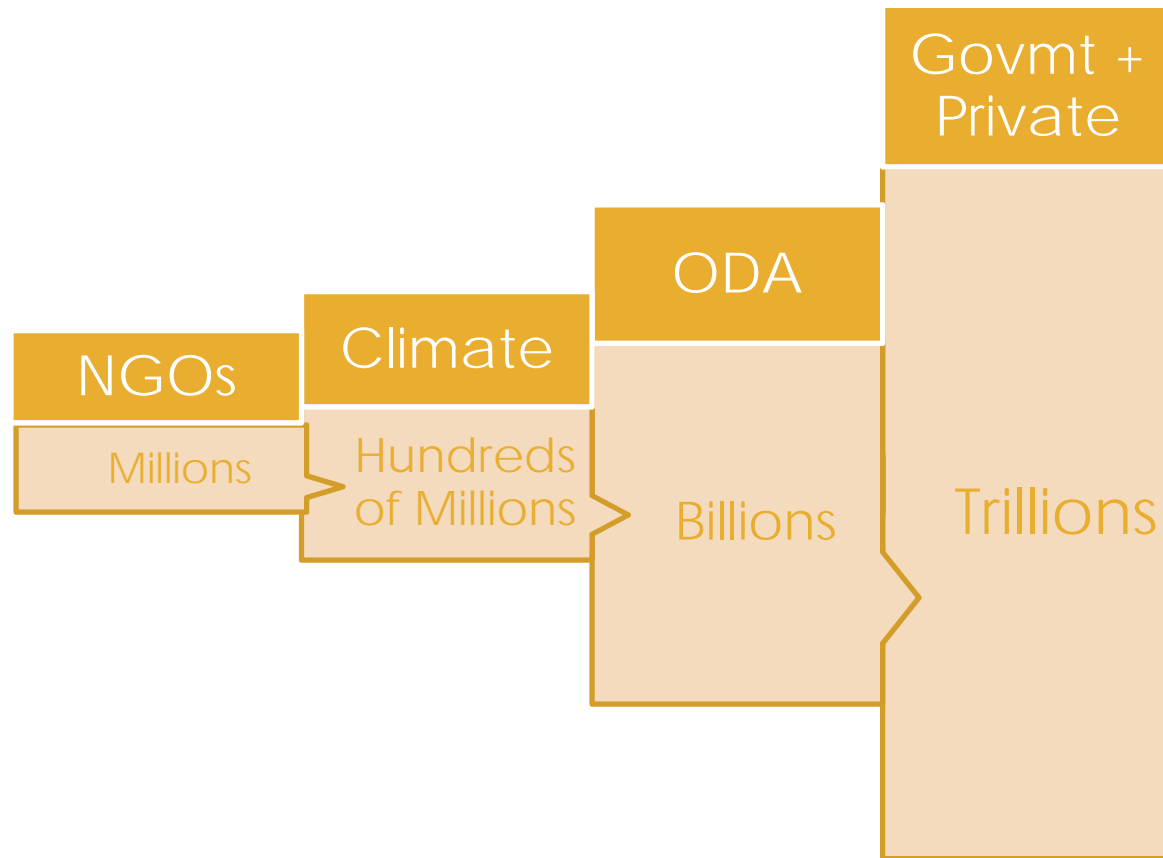


<http://www.transport2020.org/publicationitem/7/accessing-climate-finance-for-sustainable-transport-updated>

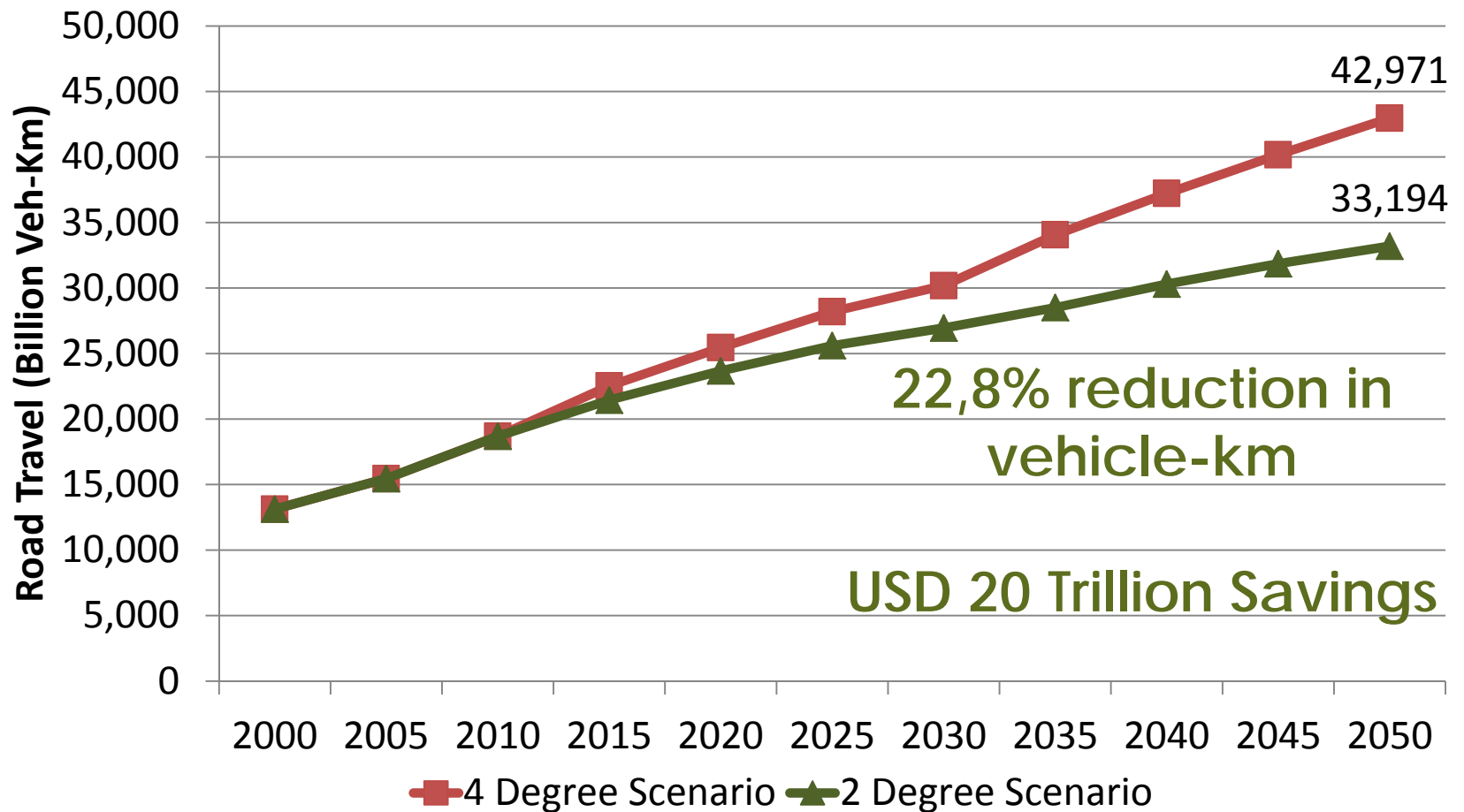


# The idea is to leverage funding

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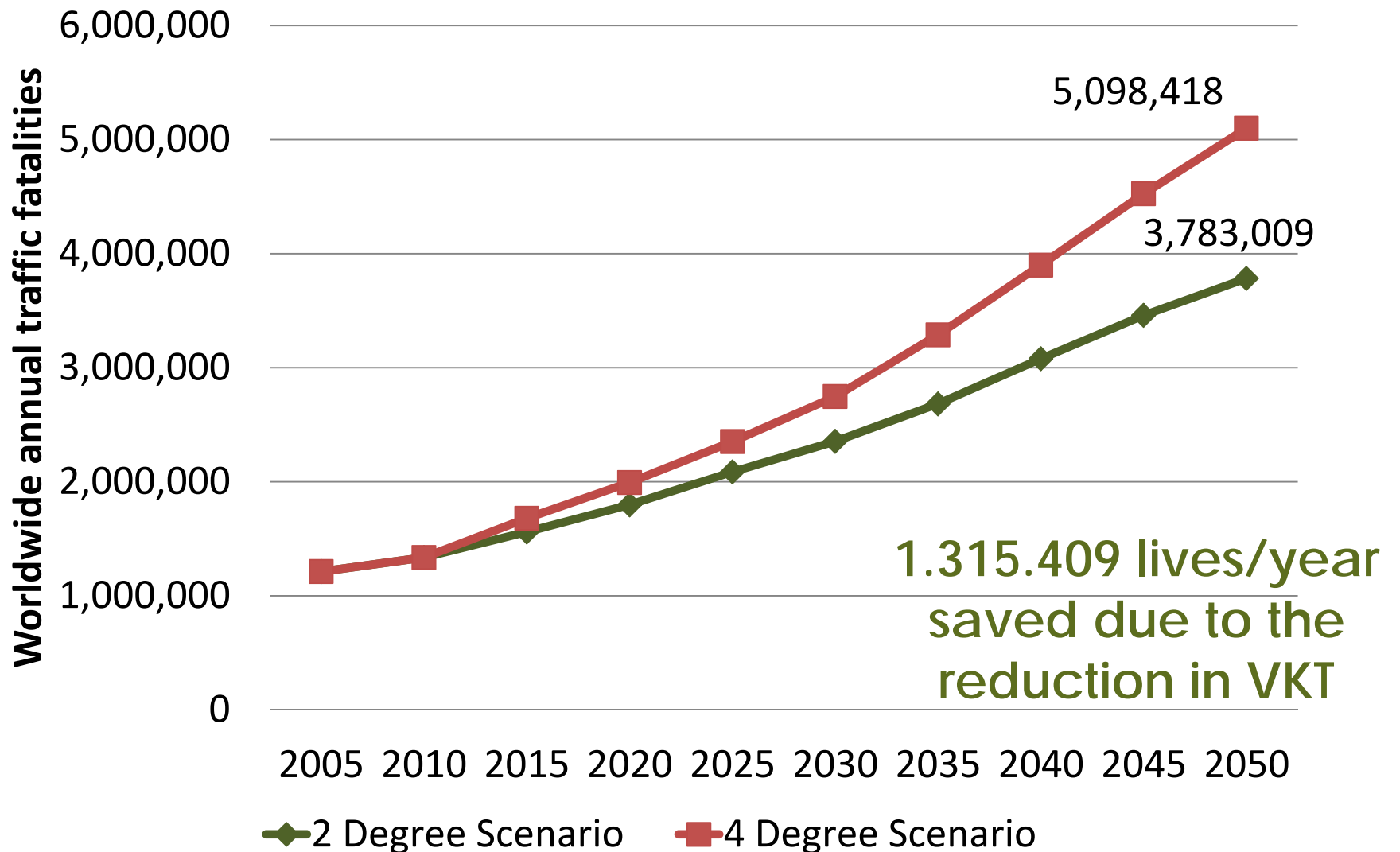


# The challenge 23% reduction in VKT in 2050



Source: IEA (2012) Energy Technology Perspectives

# The impact: 1,3 million people not killed in traffic



Source: EMBARQ Analysis, Duduta and Hidalgo (2013)

Thank You! ¡Muchas Gracias! धन्यवाद

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