

TRANSPORTATION ⊕ ENVIRONMENT



XXth Regular Session of the CEC Council and Meetings of the
Joint Public Advisory Committee (JPAC)

JPAC Round Table Discussions: Sustainable Transportation in North
America

Strengthening Cooperation for a Sustainable Transport in North America

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Los Cabos Baja California

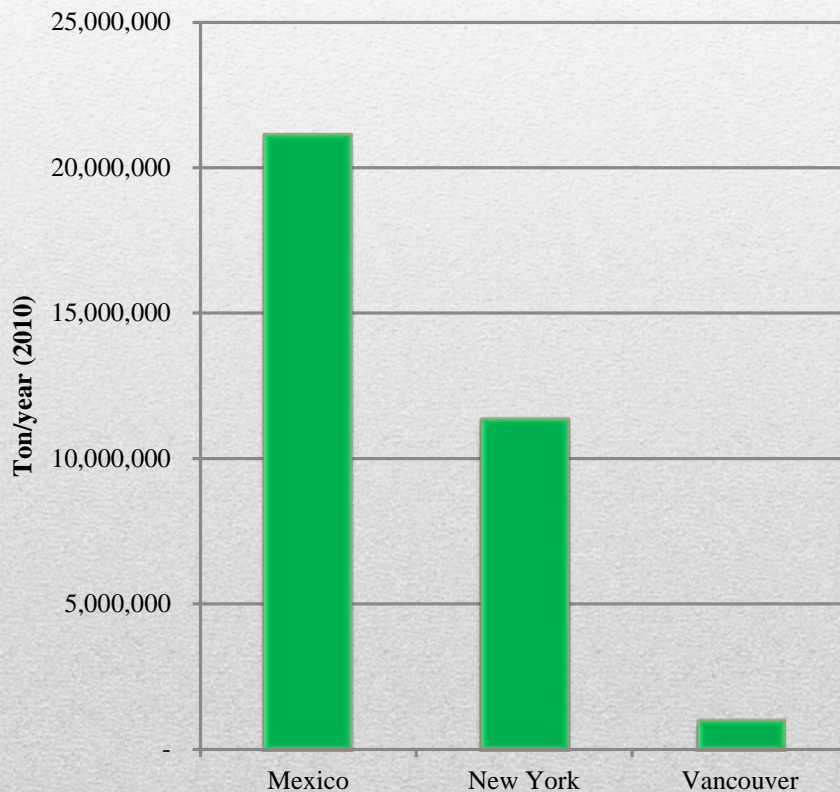
July 10th, 2013

Key messages

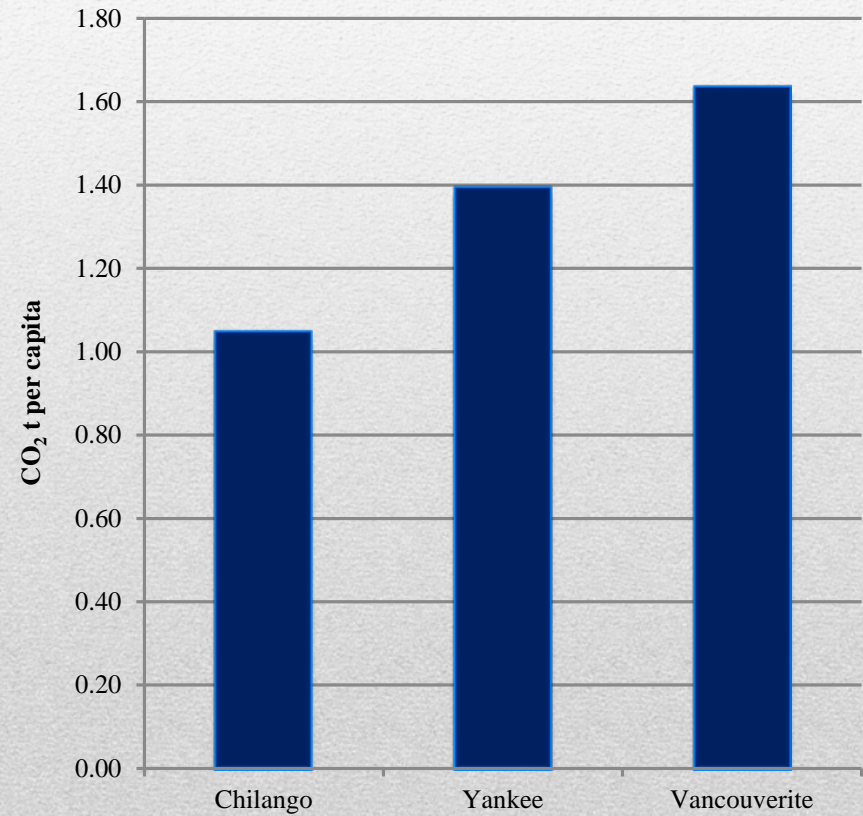
- Sustainable Transport is indispensable to achieve a green, inclusive growth and reduce poverty.
 - Therefore, sustainable transport should be placed as a high priority in national, North America and global agendas.
 - Identification and prioritization of key trilateral intervention is crucial to facilitate and catalyze actions with a national, regional impact and global impact.
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Total CO₂ transport emissions in three North American cities (2010)

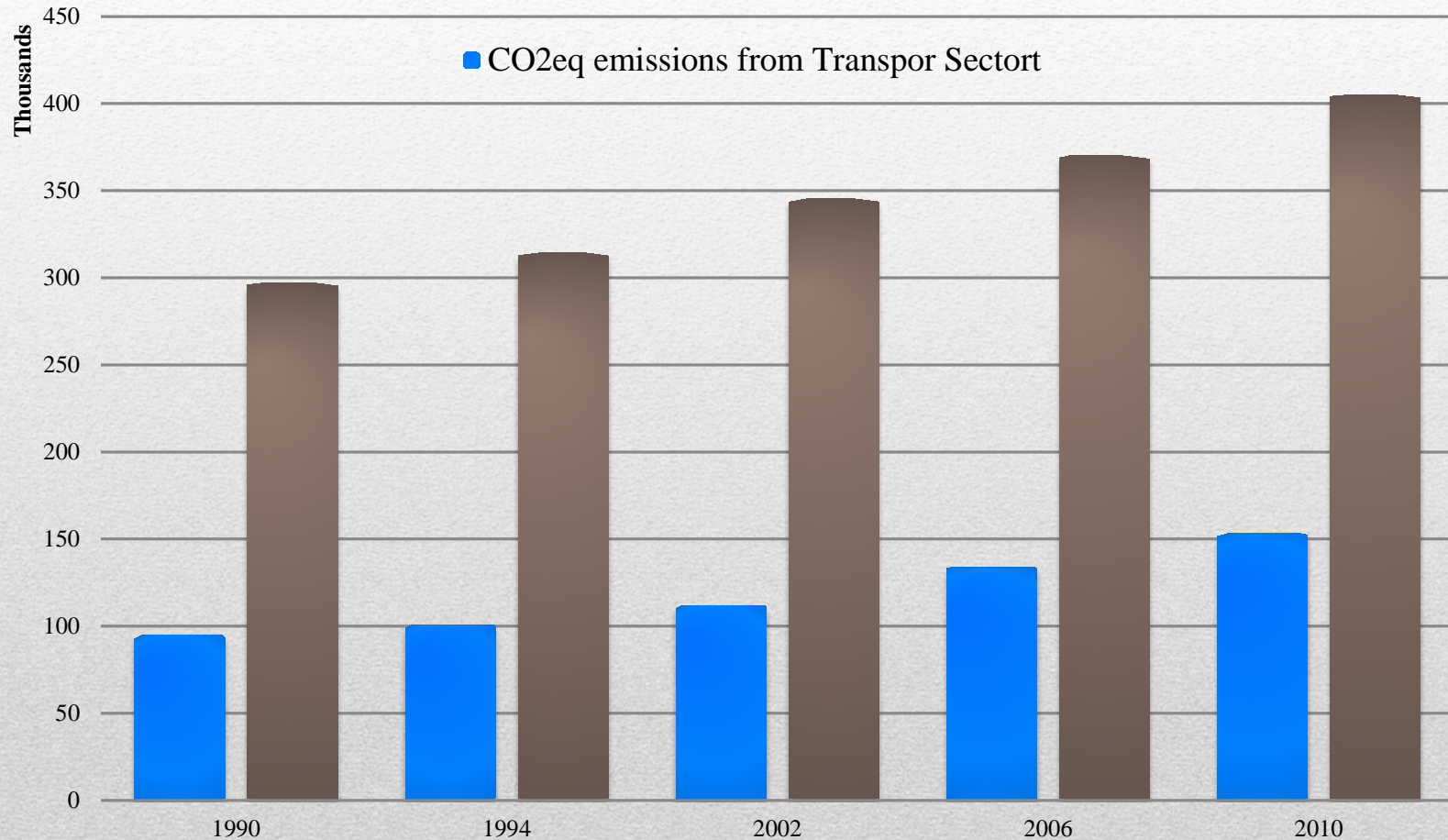
CO₂ annual transport emissions



CO₂ transport emissions per capita

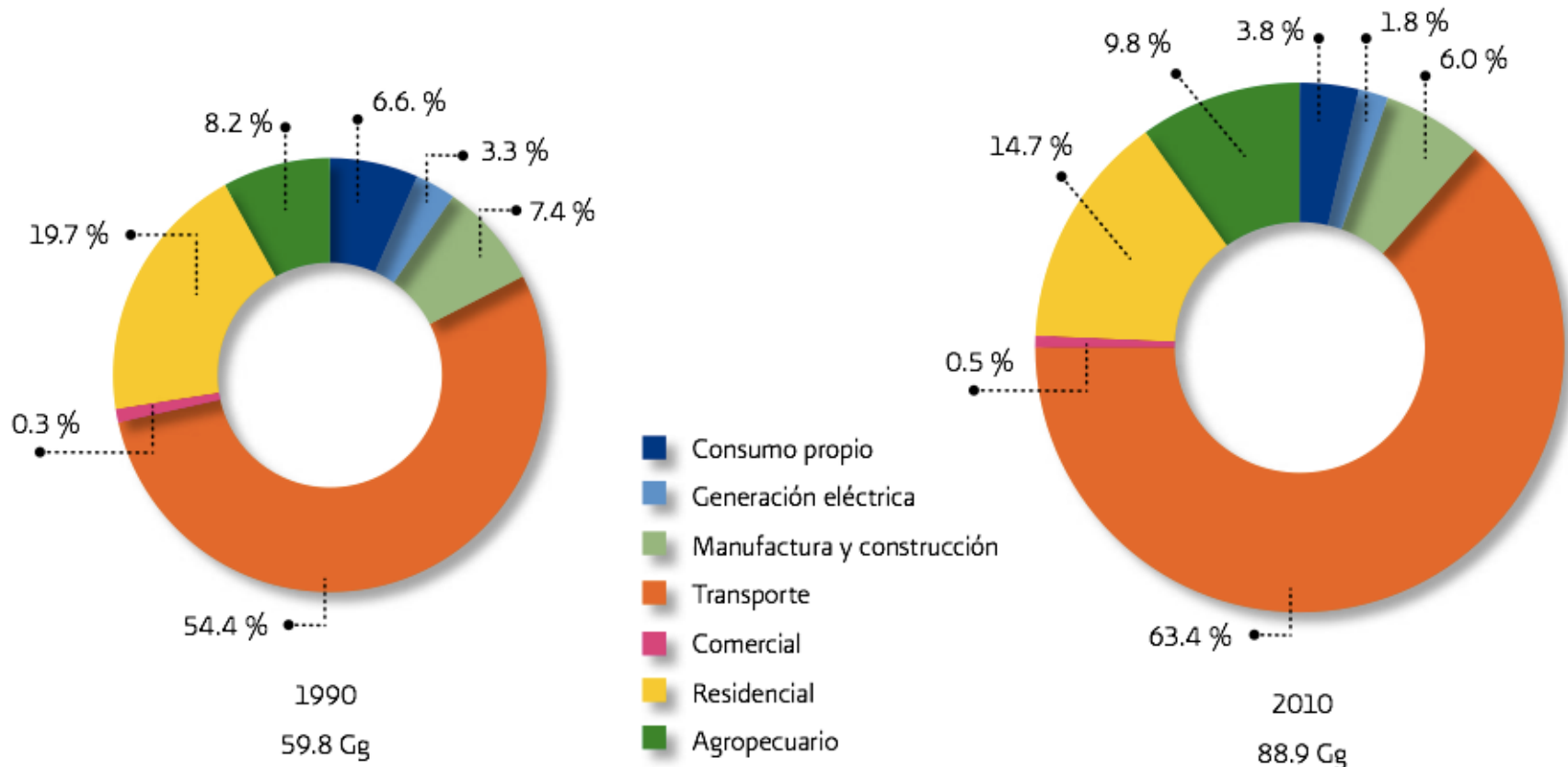


CO₂ EMISSIONS IN MÉXICO FROM FOSSIL FUEL BURNING [Gg]



BLACK CARBON EMISSIONS IN MÉXICO

Figura IV.40. Contribución relativa de los subsectores de Energía a las emisiones de CN en México en 1990 y 2010



MOTORIZATION

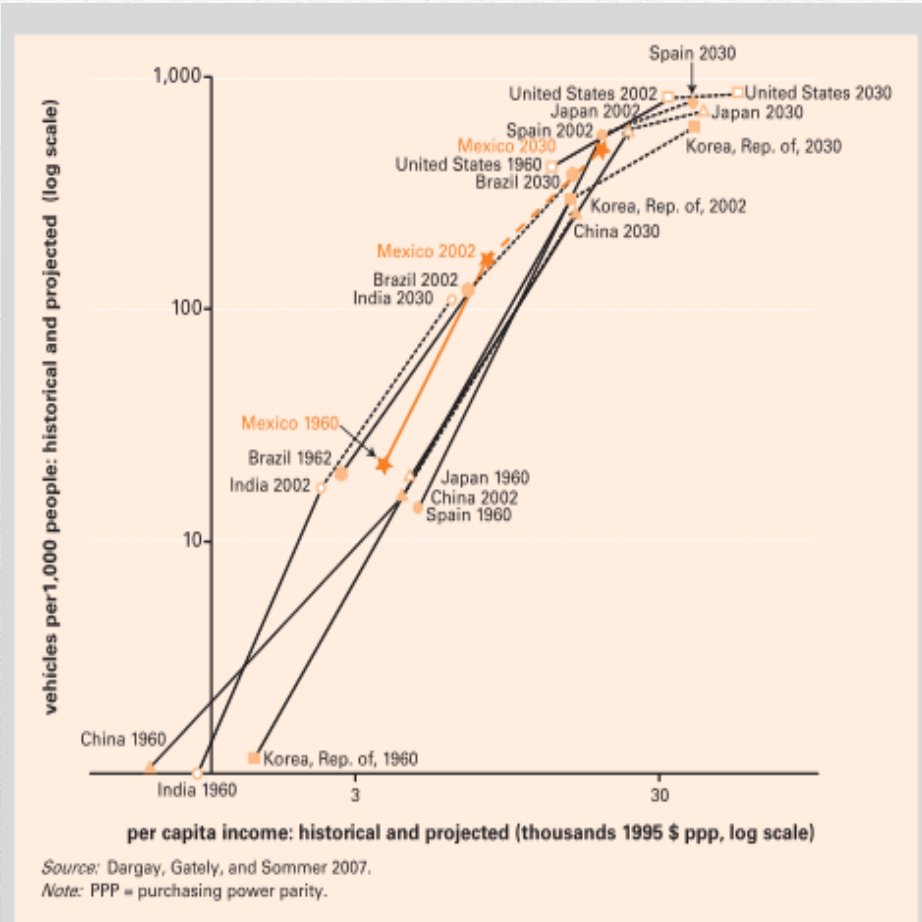
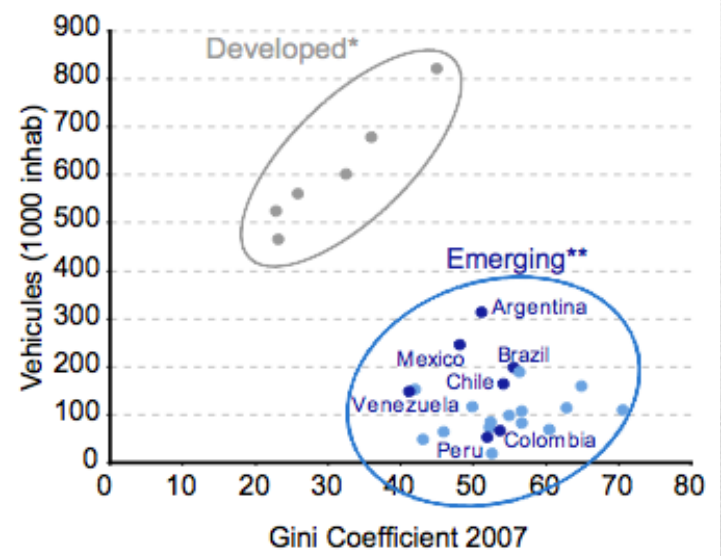


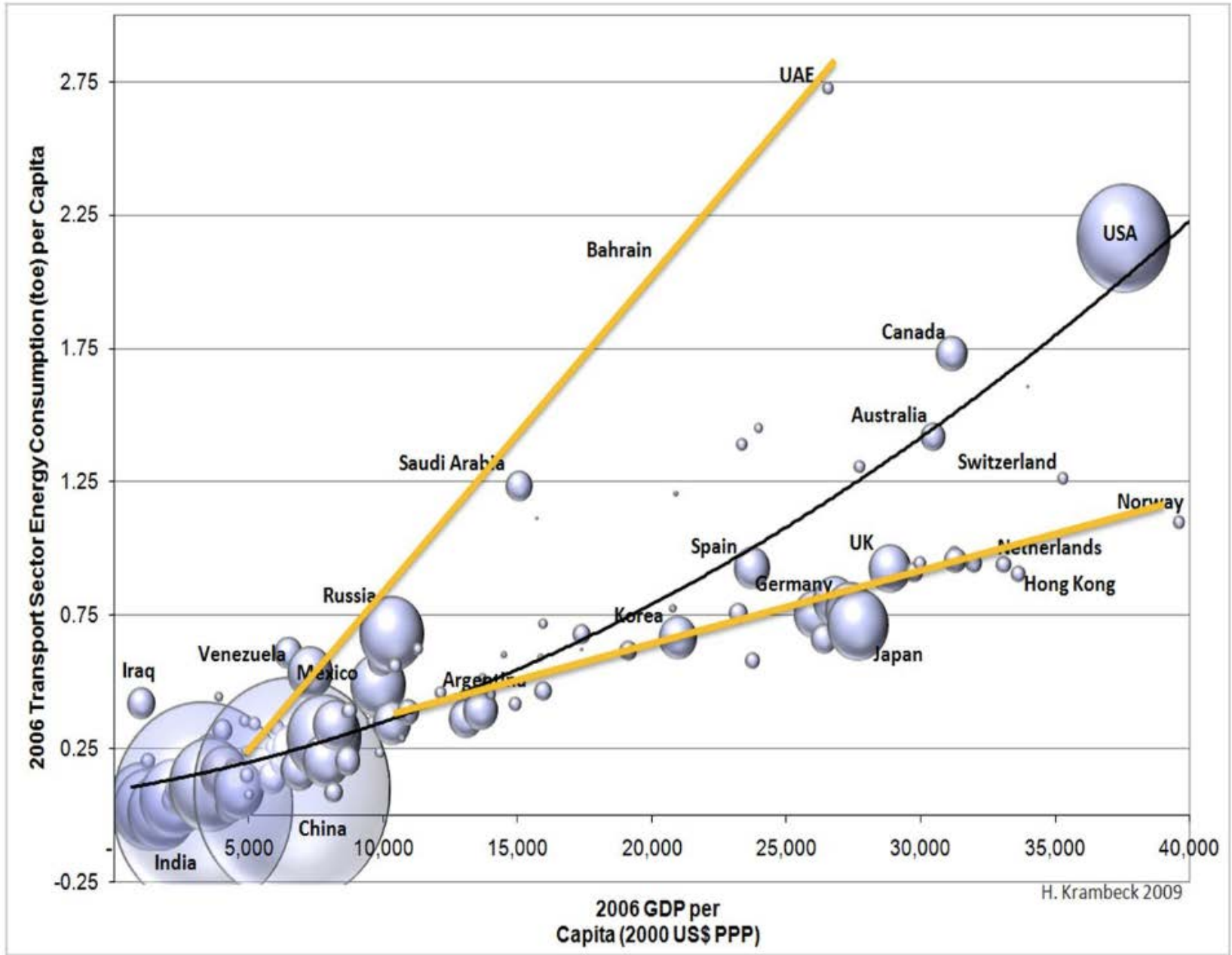
Chart 3

The size of the region



* Developed: U.S., Italy, Spain, Finland, Sweden and Denmark.
 ** Emerging: Argentina, Mexico, Brazil, Panama, Chile, South Africa, Costa Rica, Venezuela, Guatemala, Botswana, Namibia, Zimbabwe, Honduras, El Salvador, Paraguay, Hong Kong, Bolivia, Colombia, Ecuador, Peru, Nicaragua and Zambia
 Source: WDI

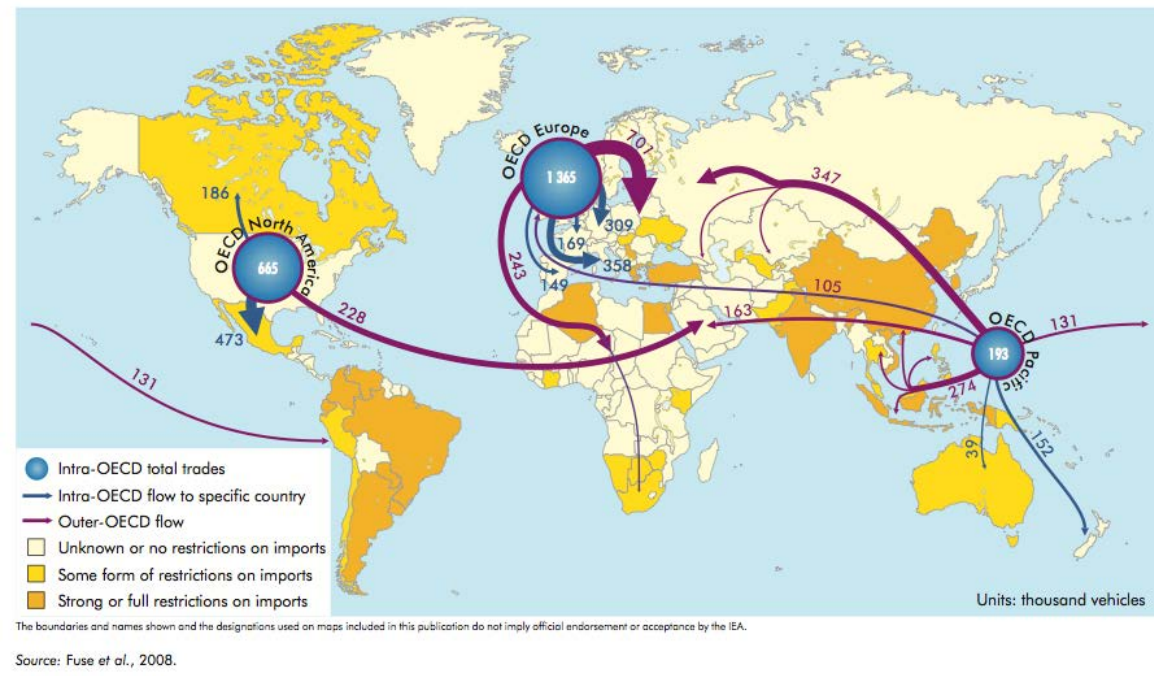
Energy consumption in the transport sector vs. GDP per capita



TRANSBOUNDARY FLOW OF USED VEHICLES... AND THEIR EMISSIONS

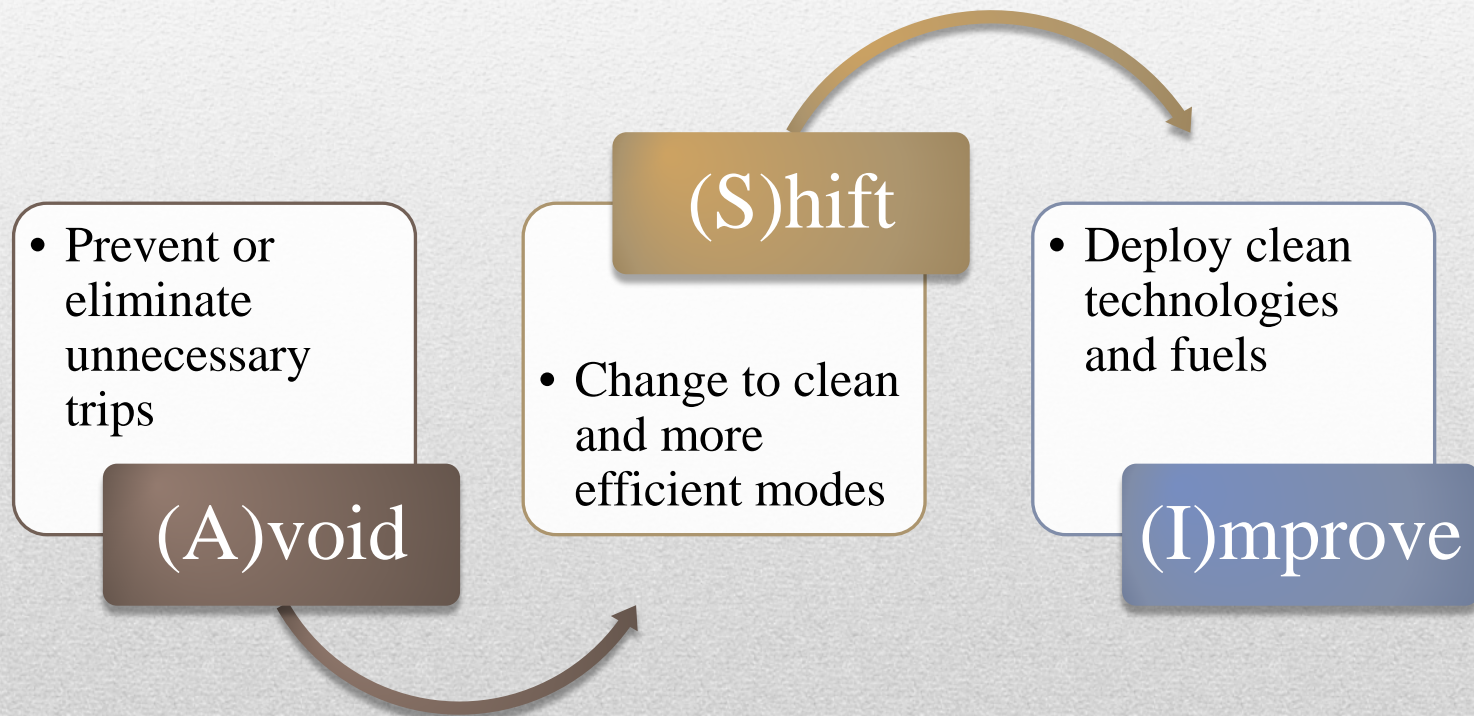


Massive entrance of in-use vehicles at the Chilean-Bolivian border (Source: Lacy 2011)



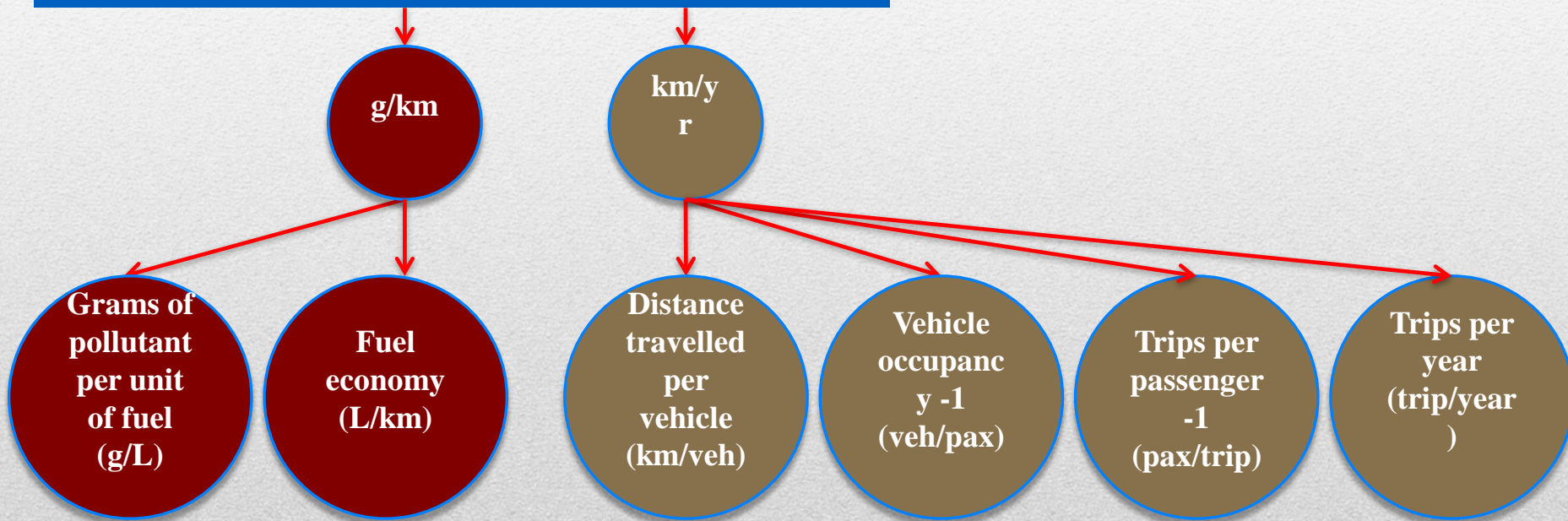
Source: OECD 2009

How to transition to a more Sustainable Urban Mobility: ASI



Factors that affect emissions

$$E = [\sum_j Fe_j \cdot Fa_j]$$



Towards a sustainable development

- Poverty alleviation
- Inclusive green growth
- Preservation of natural capital

A Virtuous Sustainable Transport Cycle

Access enhancement

- Work and school
- Recreation and social life
- Goods and services

Externalities abatement

- Health protection
- Air quality improvement
- Climate change mitigation
- Congestion reduction
- Accident decrease
- Improved productivity
- Enhancement of national and international competitiveness

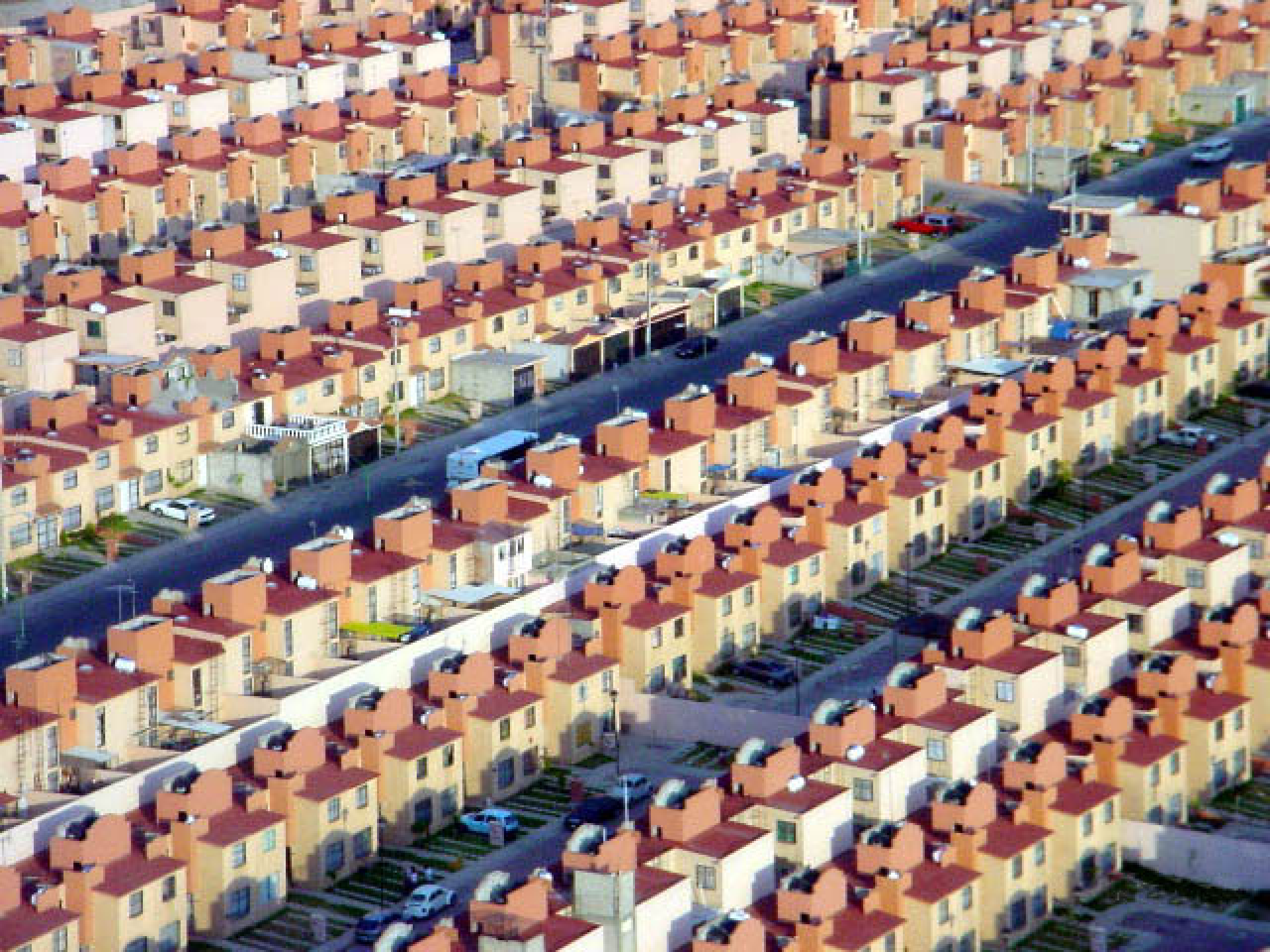
More sustainable transport

- Public transport
- Non motorized transport
- Transit oriented development
- Travel demand management
- Freight management
- Clean technologies and fuels





Shenyang, China
National Geographic - Special Edition, May 2008



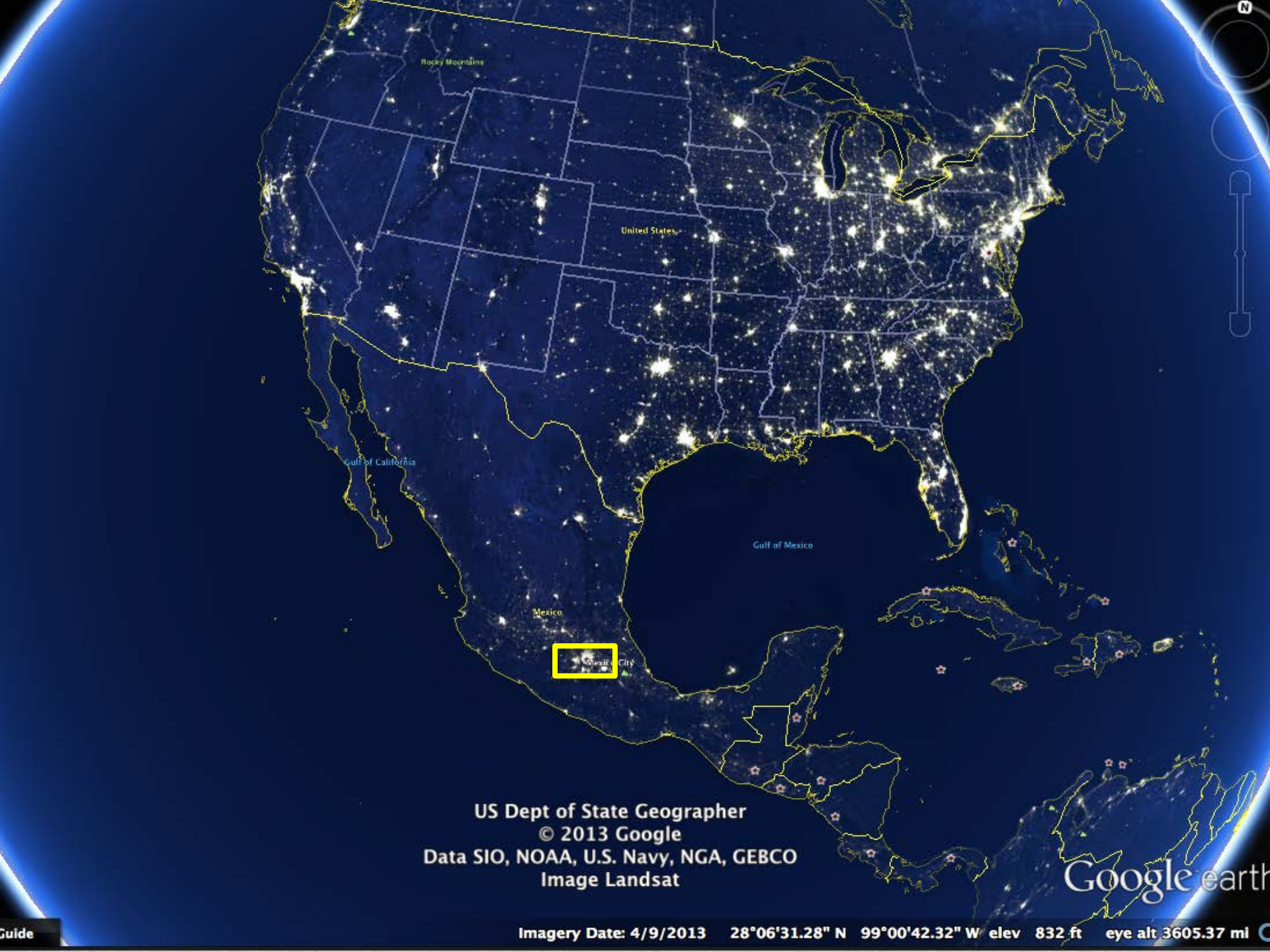
Via rápida

Canaleta de transporte

Via rápida

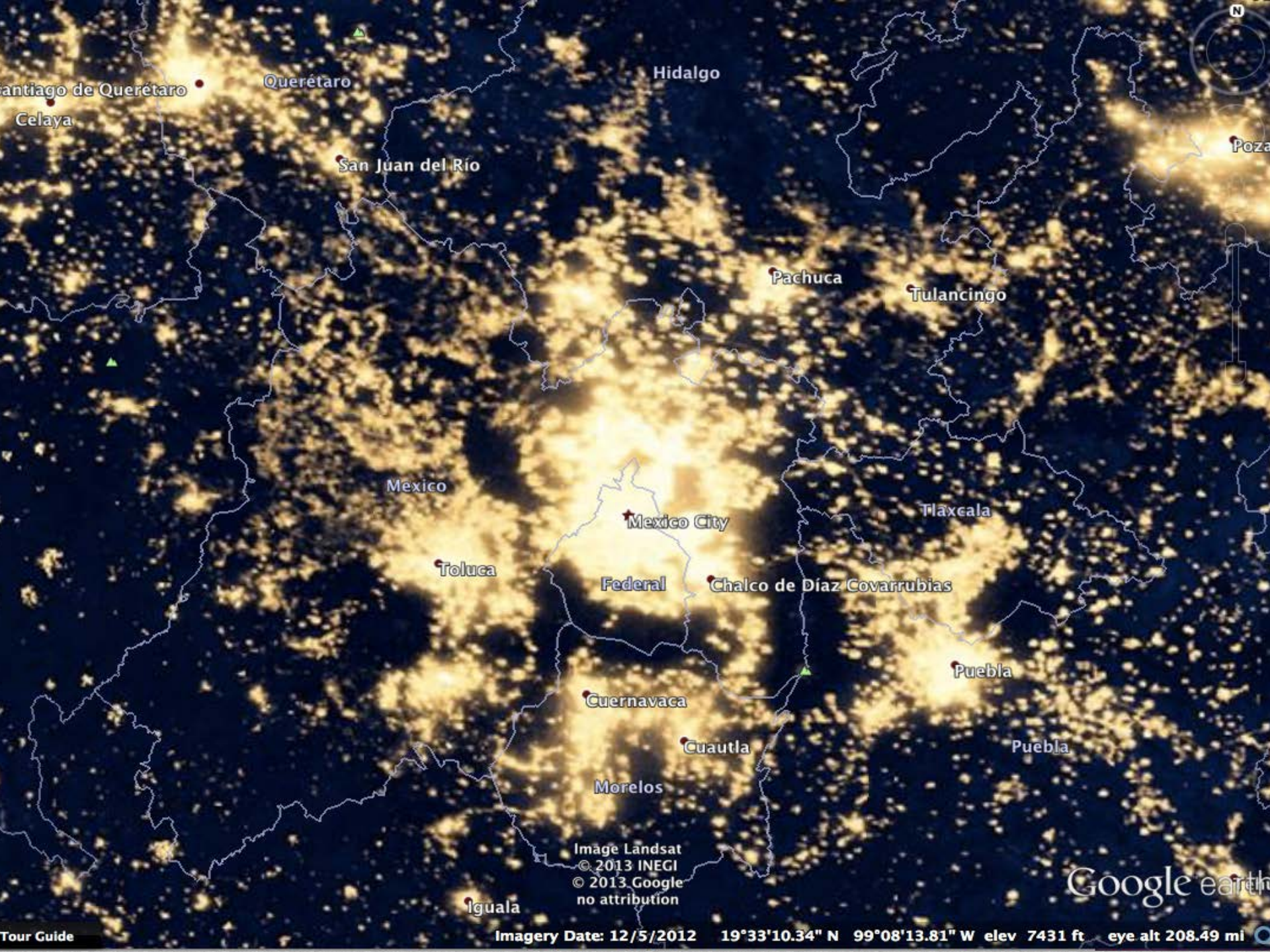






US Dept of State Geographer
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Santiago de Querétaro
Celaya

Querétaro

Hidalgo

San Juan del Río

Pachuca

Tulancingo

Poza

México

Mexico City

Tlaxcala

Toluca

Federal

Chalco de Díaz Covarrubias

Cuernavaca

Puebla

Cuautla

Puebla

Morelos

Image Landsat
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Google earth

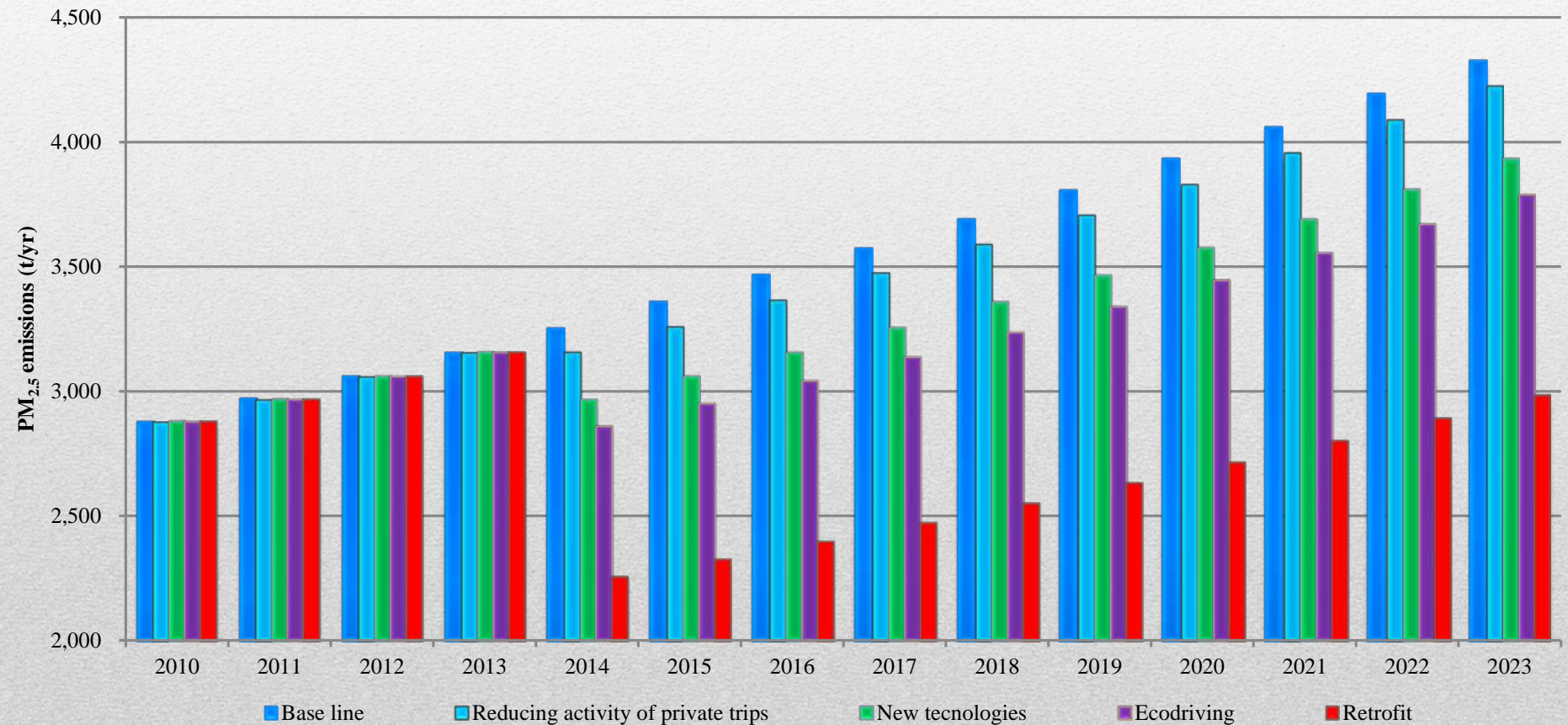
Case Analysis:

Emission scenarios for MCMA

- Modeling of five different scenarios in Mexico City:
 - Business as usual
 - Use of cleaner technologies in some of the new vehicles
 - Retrofit schemes for PM emission reduction
 - Ecodriving in freight and public transport
 - Reduction of 15% of activity factors in private cars
 - Based on emissions inventory of the ZMVM
 - To be understood as an example of the potential in emission reduction of each policy
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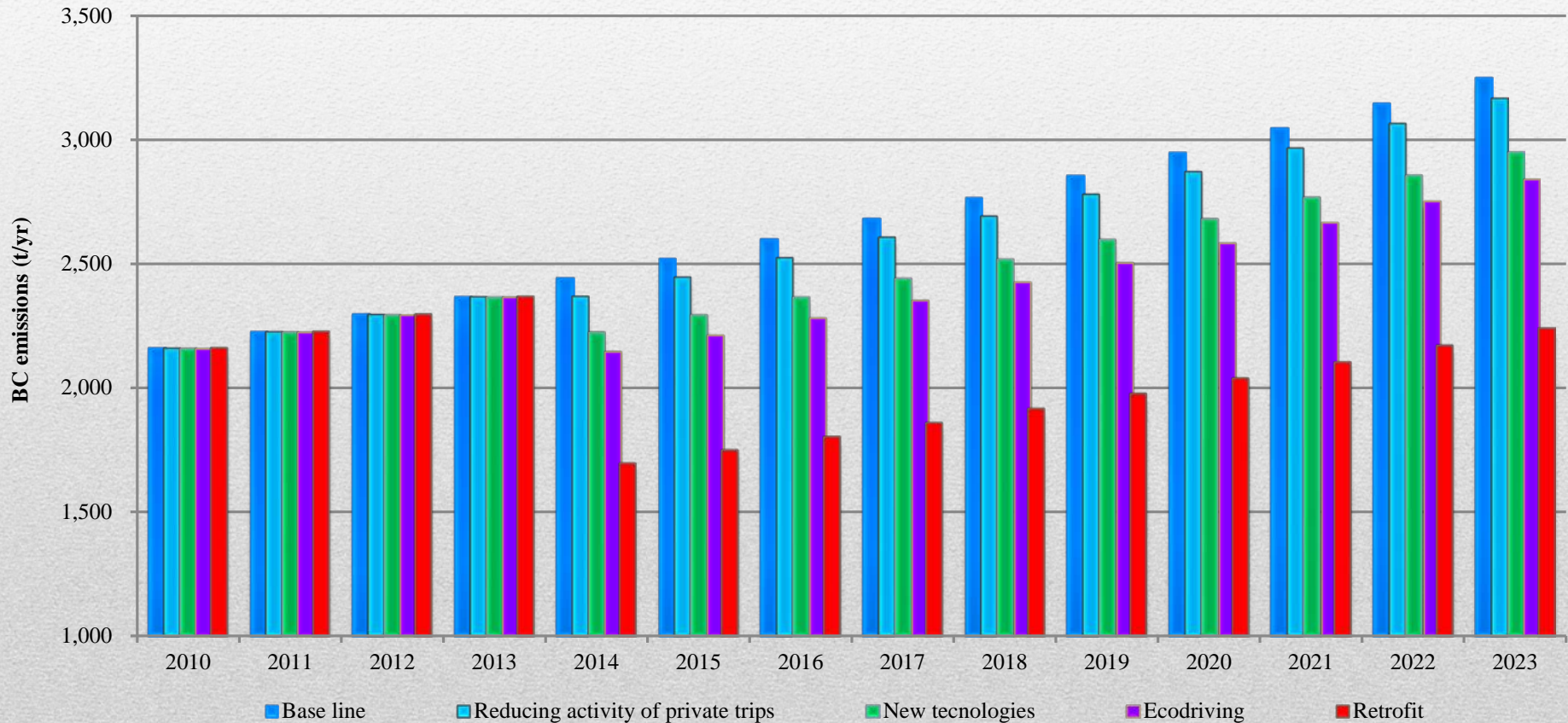
PM_{2.5} emissions in Mexico City

PM_{2.5} emissions in Mexico City Metropolitan area



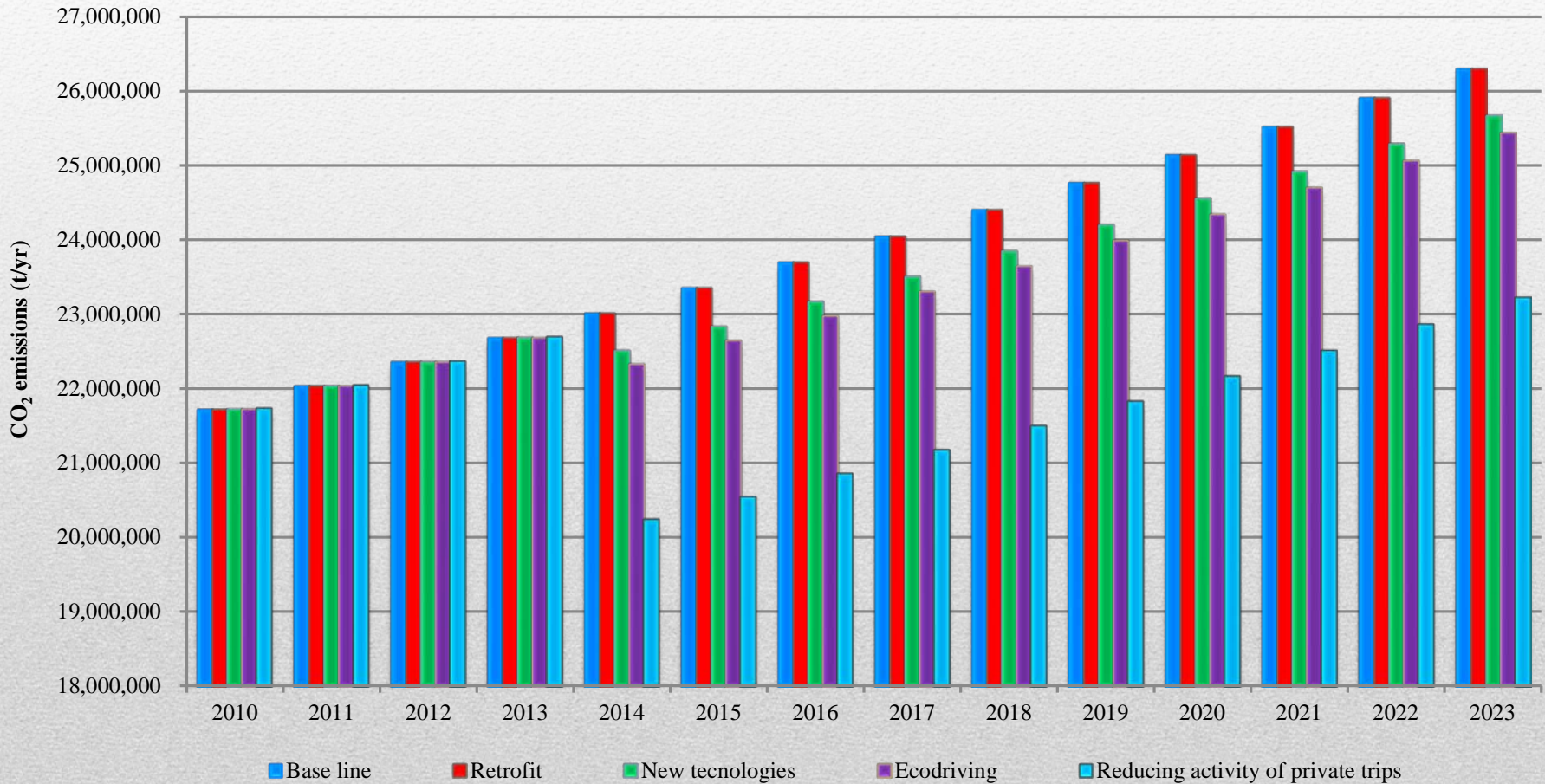
BC transport emissions in Mexico City

BC emissions in Mexico City Metropolitan area



CO₂ emissions in Mexico city

CO₂ emissions in Mexico City Metropolitan Area



Ideas for future work

- Initiatives to reduce short lived climate pollutants on a regional scale.
 - Eco driving policies and training courses in North America for freight and public transport
 - Reinforcement of funding mechanisms to support sustainable transport (and other) interventions, including
 - new cap and trade programs between cities in the region (like the case of California – Quebec)
 - Couple other finance streams to sustainable transport initiatives
 - Enhance knowledge into transboundary air pollution impacts and sources including ozone precursors, short lived climate pollutants and other pollutants impacting agricultural yield (NH_3 , sulphates, nitrates and their precursors).
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Final Remarks

- By escalating efforts to address sustainable transport challenges in North America, the CEC will be making a outstanding contribution to a green, inclusive growth and reduce poverty.
 - CEC work should tri-national efforts to acknowledge and effectively address sustainable transport challenges as part of national, North America and global agendas.
 - The path is clear for a sustainable transport. It comprises:
 - a clear and common understanding of issues and solution alternatives,
 - an objective assessment of costs and benefits,
 - Definition of priorities
 - Involvement of key stakeholders and
 - Development of capacities.
-

International CAI Activities on Sustainable Transport

- Provides knowledge products and services to:
 - enable governments and key stakeholders to design, implement and assess sustainable transport interventions.
 - Strengthen policies and management systems to address air quality and climate change challenges.
 - Articulates an international and multidisciplinary network comprising specialists and practitioners from governments, private sector, civil society and universities.
 - Collaborates with leaders organizations to build consensus and catalyze investments and decisions to improve access to clean and sustainable alternatives on sustainable transport, energy and urban development.
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Current CAI Initiatives in Mexico

- Evaluation of fuel subsidies elimination on:
 - emissions,
 - air quality,
 - health effects and economic implications.
 - Contributions to National Development Plan.
 - Assessment of Travel Demand Management Options for the MCMA.
 - Freight Management
 - Preparation of a Nationally Appropriate Mitigation Action on Freight Logistics for Mexico.
 - Development of the MRV system for programs:
 - “Transporte Limpio”,
 - “Chatarización”,
 - “Modernización de la Flota de Carga”
 - **National Training Program on Ecodriving,**
 - **First phase: Mexico/US Border, Trainers Training**
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INICIATIVA NACIONAL DE CAPACITACIÓN MASIVA EN CONDUCCIÓN ECO EFICIENTE PARA UN TRANSPORTE LIMPIO

PRIMERA FASE: FRONTERA NORTE



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