Strengthening Cooperation for a Sustainable Transport in North America

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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 trinational intervention is crucial to facilitate and catalyze actions with a national, regional impact and global impact.
Total CO₂ transport emissions in three North American cities (2010)

CO₂ annual transport emissions

- Mexico: 21,000,000 Ton/year (2010)
- New York: 11,000,000 Ton/year (2010)
- Vancouver: 1,500,000 Ton/year (2010)

CO₂ transport emissions per capita

- Chilango: 1.80 CO₂ t per capita
- Yankee: 1.60 CO₂ t per capita
- Vancouverite: 1.50 CO₂ t per capita
CO₂ EMISSIONS IN MÉXICO FROM FOSSIL FUEL BURNING [Gg]

Thousands

CO₂eq emissions from Transpor Sectort

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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

Source: INE, Fifth National Communication to UNFCCC
**Motorization**

*Source: BBVA (2010)*
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

- Prevent or eliminate unnecessary trips

- Change to clean and more efficient modes

- Deploy clean technologies and fuels

(A)void

(S)hift

(I)mprove
Factors that affect emissions

E = \left[ \sum_j F_{ej} \cdot F_{aj} \right]
Towards a sustainable development
- Poverty alleviation
- Inclusive green growth
- Preservation of natural capital

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

A Virtuous Sustainable Transport Cycle

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

Access enhancement
- Work and school
- Recreation and social life
- Goods and services
La expansión urbana es un fenómeno mundial.
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
PM$_{2.5}$ emissions in Mexico City

PM$_{2.5}$ emissions in Mexico City Metropolitan area

- Base line
- Reducing activity of private trips
- New tecnologies
- Ecodriving
- Retrofit


PM$_{2.5}$ emissions (t/yr)
BC transport emissions in Mexico City

BC emissions in Mexico City Metropolitan area

- Base line
- Reducing activity of private trips
- New technologies
- Ecodriving
- Retrofit
CO₂ emissions in Mexico City

CO₂ emissions in Mexico City Metropolitan Area

- Base line
- Retrofit
- New technologies
- Ecodriving
- Reducing activity of private trips
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).
Final Remarks

- By escalating efforts to address sustainable transport challenges in North America, the CEC will be making an 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.
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”
    - “Chatarrización”
    - “Modernización de la Flota de Carga”

- National Training Program on Ecodriving,
  - First phase: Mexico/US Border, Trainers Training
INICIATIVA NACIONAL DE CAPACITACIÓN MASIVA EN CONDUCCIÓN ECO EFICIENTE PARA UN TRANSPORTE LIMPIO

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