

# Low Carbon Transport in Asia – Strategies for Optimizing Co-benefits: The Way Forward

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## A Few Grim Forecasts on Transportation and Climate Change

- **Bellagio Declaration 2009**
  - Transport-related CO<sub>2</sub> emissions are expected to increase 57% from 2005 to 2030, with transport sector in developing countries expected to contribute about 80% of this increase.
- **World Bank report 2007**
  - By 2020 road accidents may become the third largest cause of death in developing countries.
- **ADB report 2006 (Energy Efficiency and Climate Change: Considerations for On-Road Transport in Asia)**
  - CO<sub>2</sub> emissions from the Asian transport sector will treble over the next 25 years (3.4 times for China and 5.8 times for India).
  - Air pollution and congestion from transport would rise to levels that seriously hamper the movement of people and goods.
  - Number of cars and SUVs could grow by as much as 13 and 15 times in India and China.
- **WHO report 2006**
  - Increased pollution in Asia causes as many as 537,000 premature deaths each year, as well as a rise in cardiopulmonary and respiratory illnesses

# Focus of this Book Project

- Can we continue with **BAU scenario** or envision a **Low Carbon Transport (LCT) scenario** for developing Asia? – (Frameworks)
- Which policies are crucial to achieve LCT? Can we design **climate-centric transport policies**? What barriers are there & how can we overcome? (Case studies)
- What can be done to **recognize and reward co-benefits from LCT**? (Future climate regime)
- Food for thought: Should we just follow others or can we suggest any **Asia-specific LCT solutions**?

## Some Key Messages

- Rapid motorization — and rapid increases in transport-related GHG emissions — are unavoidable in developing Asia. **Focusing solely on technologies or pushing Asian DCs to mandate LCT solutions developed elsewhere may not work!** For example, imposing vehicle and fuel economy standards alone will not stop the growing emissions due to rebound effects.
- All over developing Asia, abatement of air pollution and mitigation of climate change have generally been treated separately. Designing co-control policies and promoting cross-policy synergies are therefore crucial.
- In developing Asia, LCT solutions are perceived to be costly and the best strategy to allay such fear is to maximize co-benefits, which may include
  - Cutting road congestion costs
  - Cutting accident costs
  - Lowering air pollution risks
  - Reducing traffic noise
  - Improving the livability of communities
- Co-benefits approach can ease adoption and enhance effectiveness of LCT solutions.

# Challenges for LCT

- To achieve LCT and to capture co-benefits, mainstreaming climate concerns in transport planning and vice-versa (mainstreaming transport in climate policy/negotiations) is crucial first step.
- Our case studies in Asia show that there are many barriers to overcome.
  - Conceptual
  - Methodological (including data deficits & absence of harmonized methodologies)
  - Technical
  - Financial
  - Political
  - Institutional
  - Incentives-related

# The Way Forward - 1

- Enhance capacity to estimate, quantify and incentivize co-benefits – both climate and non-climate, and health and non-health benefits – of LCT policies and measures (PAMs).
- Recognize and reward LCT PAMs and projects that capture co-benefits both
  - Within the climate regime through
    - Sector/policy-based CDM
    - Relaxing additionality
  - Outside the climate regime through
    - Allocating more CTF/ODA funds to bring about transformational changes including behavioral changes
    - More effective and context-specific road pricing

## The Way Forward - 2

- Strengthen capacity of policymakers to implement comprehensive and Asia-relevant LCT strategies rather than stand-alone PAMs in terms of
  - Integrating land use and transport policies more effectively
  - Increasing investment in public transport and non-motorized transport (enhancing the quality and choices of alternative transportation modes, & setting targets for market share for public transport and NMT in urban areas)
  - Reallocating road space to prioritize low emission modes (improved traffic flow)
  - Enhancing freight efficiency & lowering emission intensity of cars and trucks (improved fuel efficiency standards & diversification of automotive fuels)
  - Encouraging behavioral changes such as car pooling through appropriately designed congestion charges

## The Way Forward - 3

- Conduct further research on Asia-relevant LCT PAMs urgently focusing on
  - Frameworks, models, data, and metrics (including standardization of methodologies)
  - Costs of action and inaction, feedbacks and rebound effects
  - Mechanisms to scale up LCT solutions in diverse Asian contexts
  - Freight subsector and particulate matter
  - Ways to avoid lock-in of the transport sector into climate unfriendly mode