



Energy research Centre of the Netherlands

## Post-2012 mechanisms for transport

Stefan Bakker (ECN; and Cornie Huizenga (ADB/IDB)

*In collaboration with Ecofys, Wuppertal Institute, Embarq, Transport Research Laboratory*  
SLoCaT Annual Meeting, 24 May 2010



Partnership on Sustainable  
Low Carbon Transport



## Study context

- Goal: provide recommendations for post-2012 mechanisms to be suited for transport sector
- Initiated by ADB and IDB, as part of the SLoCaT partnership
- Case studies by TRL, Ecofys, Embarq and Wuppertal Institute
- September 2009 – June 2010
- COP15: interim results – June 2010 final results
- Input into formulation of detailed guidelines for NAMAs and other mechanisms

## Emission reductions in transport: Avoid – Shift - Improve

- Most studies and mitigation efforts focus on improving energy and carbon efficiency
  - Biofuels, electric vehicles, energy efficiency
- Measures to reduce transport demand (avoid) and shift to more efficient modes are increasingly acknowledged
- Increased availability of GHG emission scenarios for developing countries/cities: emission reductions of 20-30% below BAU by 2020 appear manageable

## Relevance of Existing Climate Instruments on Transport Sector

	Year of 1 <sup>st</sup> project	No. of Projects	Funding [\$ million]	Reported emission reductions [MtCO <sub>2</sub> -eq/yr]
CDM	2006	24*	567 (CERs)**	2.7
GEF-4	2006	37	201 (grants)	3.1***
CTF	2009	7	600 (loans)	10****

\*in pipeline (registered, requesting registration and at validation); \*\* expected total undiscounted revenues at 10 \$/CER, 3x7 years crediting; \*\*\* direct impact, assuming 10 years lifetime; \*\*\*\* assuming a life time of 10-20 years depending on type of investment  
Source: Bakker and Huizenga, forthcoming

Transport GHG emissions developing countries 2005:  
3,100 MtCO<sub>2</sub> (IEA/OECD, 2009)

## Transport Funding and GHG and Co-benefit assessment requirements

	Size of funding	GHG emission reduction assessment requirements		Co-benefits assessment
National and local funds	*****	-	No GHG assessment requirements in place	Varies per country, generally low
Development bank funding	*****	*	Methodologies under development, not applied yet	Environmental/Social Externalities not included
Climate Funds: CDM	**	*****	Very strict, at entry and during project	Depends on country
-GEF	*	**	New Methodology for 2011, only at project entry	New methodology recognizes but does not reward
-CIF/CTF	***	**	Emphasis is on sector transformation, detailed GHG assessment not at project entry but ex-post	Qualitative assessment
-NAMAs (supported)	??? (total \$ 100 billion by 2020)	* - **** ?	Not clear yet, but some ex-ante and ex-post assessment required	Not decided yet

## Future instruments: NAMAs

- Voluntary, in context of sustainable development
- Unilateral – supported – credited
- Scope:
  - policy, programme, project,
  - Nationally appropriate – national or local level)
  - enabling activities (capacity building, policy support) Ex-ante emission reduction estimate required
- Less strict MRV requirements than CDM
  - no offsets, but need to validate impact
- Funding based on incremental costs plus enabling activities
- Copenhagen Accord: \$ 10 billion/yr (mit/adapt) to 2012; \$ 100 billion by 2020

## **CITS Case studies: 1 Standardized baseline, 3 NAMAs**

- Hefei (China): standardized baselines for (public transport)
- Jakarta: transport demand management: road pricing, parking policies and BRT enhancement
- Belo Horizonte (Brazil): integrated mobility plan – BRT/metro, NMT, landuse and parking policies
- Mexico City: optimisation of conventional bus system – institutional framework, implementation of changes, data gathering, public awareness



## NAMAs for the transport sector – issues (1)

- Stand-alone or linked to (sector) policy at national or local level
- Incremental cost for avoid and shift measures often low to negative (particularly if co-benefits are included), but implementation difficult
  - Focus of funding mainly on barrier removal cost, or can capital cost be considered as well ?
- Co-benefits dilemma. Without co-benefits less transport climate change mitigation programs, yet funding and MRV complications argue against rewarding co-benefits

## NAMAs for the transport sector – issues (2)

- MRV: measuring impact on GHG emissions:
  - Modeling of GHG emissions,
  - City level GHG inventories / fuel sales
  - Focus on proxy indicators?
  - Assessing sector transformation?
  
- Current data availability hampers all MRV approaches

## Transport-NAMAs: recommendations (1)

- Thinking about (transport) climate instruments needs to be more impact oriented: 15-30% below BAU by 2020 (non-Annex 1) and 70-90% below 1990 by 2050 (global)
- Transport-window in the NAMA funding in order to ensure significance of funds
- NAMAs need to be seen less a stand alone measures and more as complementary instrument to domestic funding (public-private) and MDBs

## Transport-NAMAs: recommendations (2)

- Considering trend towards “blended” funding there is a need for harmonization of objectives of NAMAs vis-à-vis other climate mechanisms (CDM, GEF, CTF) and other funding sources: local funding - MDB funding
- Harmonization of GHG methodologies for all funding sources:
  - What is being measured and how (GHGs - sector trends – co-benefits)
  - When is it being measured: ex-ante – during projects – ex-post?
  - Commonly accepted baselines