

Transport Day 2013 at COP 19

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INFRAS

MRV for Transport NAMAs

Measuring performance and GHG
emission reductions

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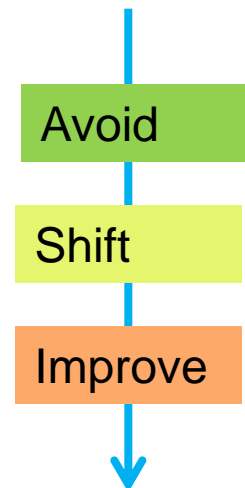


Lessons from CDM in Transport (1)

- CER carbon revenues from CDM *have always been* very small compared to typical investment/cost
 - Many small, dispersed systems – Relatively high cost for MRV
 - In many host countries, transport systems are very dynamic (high growth rates), determination of emission level in absence of CDM (baseline) is difficult
- > Limited number of CDM projects in transport sector

Lessons from CDM in Transport (2)

- The effect of efficiency **improvements** relatively easy to determine (efficiency gains times activity rate)
- The effect of **shifts** between transport modes is more difficult to quantify and leads to more demanding baseline and monitoring requirements
- The effect of measures that **avoid** transport services is even more difficult to quantify (no CDM meth)



NAMAs in Transport



A taxonomy of NAMAs

Credited NAMAs

Mitigation actions in host country, which generate emission credits or offsets that can be sold in the global carbon market

Supported NAMAs

Mitigation actions supported by finance, technology and capacity building from developed countries

Unilateral NAMAs

Autonomous actions undertaken by host countries without outside support or financing

Approach to MRV of NAMAs

Credited NAMAs

Generate international units that allow to emit more
-> More or less same issues as with CDM

Unilateral & Supported NAMAs

Absence of crediting allows for **different approaches** to MRV

MRV in *non-crediting* transport NAMAs

- For unilateral and supported NAMAs MRV can be **less stringent and simpler**
- High **uncertainties** in emission reduction estimates in transport are less a problem if no crediting
- **Broad range of MRV** approaches can be used (including modelling, deemed savings, etc.)
- Opportunities for ***Avoid*** and ***Shift*** strategies
- Ultimate MRV for these NAMAs is national GHG inventory in **National Communications** and **Biennial Update Reports (BURs)**

Elements of an MRV system

- **Host country** ownership and support, willingness to quantify & demonstrate progress and GHG reduction
- **Resources** (staff, skills, time, money)
- **Regulatory** and **institutional** framework (access to data, responsibilities)
- **Data availability** on technologies used in developing countries, emission factors, age structure of vehicles, shares of transport modes, O-D, etc.
- Adequate traffic **models**, **EF database**
- Intelligent use of **ICT** and GSM to monitor traffic

-> ideally, MRV system should not only focus on the specific NAMA intervention, but should

- (i) be **embedded into the transport policy** context
- (ii) be **sustainable** and allow for *ex-ante* and *ex-post*

Example Elements for MRV

Handbook on Emission Factors for Road Transport HBEFA

Select all parameters for your case. Then specify a name for this set and let the program calculate the emission factors.

Select VEHICLE CATEGORIES

☒ PC ☐ LCV ☐ HGV ☐ Urban Bus ☐ Coach ☐ MC

Select COMPONENTS (Pollutants)

☒ regulated ☐ Fuel consumption ☒ CO2 rep. ☐ others

Select YEARS

Select aggregation level of output:

☒ per veh-category
☐ per veh-category and technology/fuel type
☐ per veh-category and emission concept
☐ per veh-category and subsegment

Name of parameter set:

enter name (no blanks, no special cases):

☐ Specify parameters for COLD START EXCESS EMISSION FACTORS

☐ Specify parameters for EVAPORATION EMISSION FACTORS

OPTION: apply correction for AC (air cond.)? ☐

Please select one or several component(s)

Components available

FC	fuel consumption
HC	total hydrocarbons
CO	carbon monoxide
NO2	nitrogen dioxide
NOx	nitrogen oxides (in NO2 equivalents)
CO2(rep.)	carbon dioxide (reported/ fossil)
CO2(total)	carbon dioxide (total/ ultimate)
PN	particle number

Select one or several traffic situations...

select Area:
☒ Rural
☐ Urban

select Level Of Service:
☒ Freeflow
☐ Heavy
☐ Saturated/Congested
☐ Stop+go

Speed Limit:

	30	40	50	60	70	80	90	100	110	120	130	>130
Motorway-Nat.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Semi-Motorway	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TrunkRoad/Primary-Nat.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Distributor/Secondary	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Distributor/Secondary(sinuous)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Local/Collector	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Local/Collector(sinuous)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Access-residential	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Return

enter comment:

Standardization

Should every city or company have its own standard or should there be one global standard for MRV?


- **One standard** makes efforts comparable, assures same metrics to assess efficiency of measures
- Example from CDM shows: bottom up approach to MRV standard may be fast, but on the long term **top-down approach** may be more efficient and consistent
- Possible approach: in analogy to **IPCC Guidelines** for National Inventories under UNFCCC – provides **tiered approach**, party can choose level of MRV details adequate to its **national circumstances**

Conclusions (1)

- Tackling of **transport GHG** emissions is key to reaching 2°C (1.5°C) target
- CDM is a valuable **toolbox** for future MRV for NAMAs, but needs to expand
- Leaving “credited NAMAs” for international offsets aside opens up methodological approaches providing **new opportunities for *Avoid* and *Shift* strategies**
- Improvement of **data availability** on transport systems in developing countries is key (EF, traffic, modal split, O-D data, etc)

Conclusions (2)

- Make sure MRV approaches are **standardized** and **consistent** with e.g. national inventory
- **Embed MRV** in regular transport policy making
- Collecting data and MRV of policies is good practice
-> developing ***MRV culture***
- Using **performance indicators** and targets rather than focussing too much on (highly debatable) tCO2
- **Pilot projects** are instrumental in testing new approaches (MRV, baseline, measurability)

A group of five people are seated in a black motorized rickshaw with a canopy. The rickshaw is parked on a gravel path. In the background, a white wall features a large sign that reads 'Lago de Taal'. To the left of the rickshaw, a small wooden signpost is visible with the text 'BAYAN TIRAN' and 'ANG HILMAN'. The scene is set in a lush, green environment with trees and bushes.

Thank you!
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