

Can transport benefit from Clean Development Mechanism?

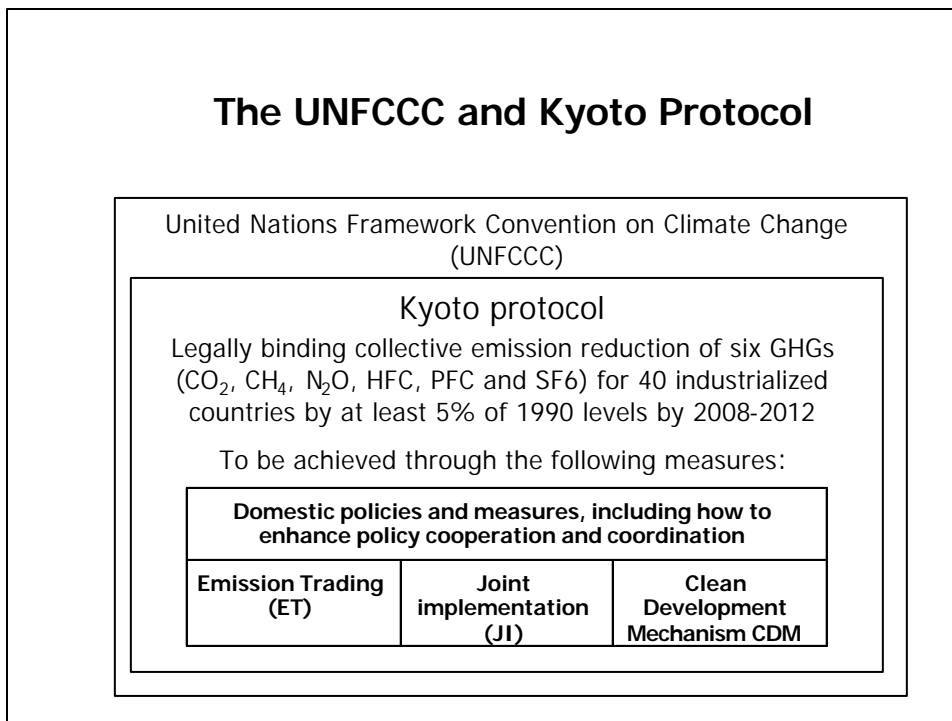
Promotion of Renewable Energy, Energy Efficiency
and Greenhouse Gas Abatement (PREGA)
(TA 5972 - REG)

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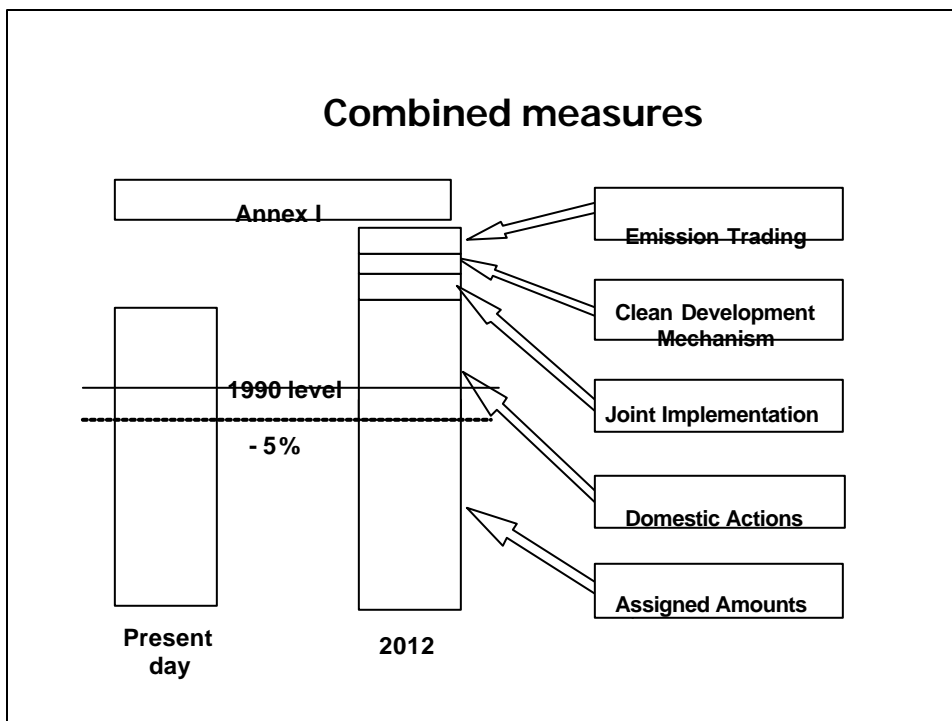
Based on material from e.g.:

- OECD
- IEA
- EECG
- IPCC

The UNFCCC and Kyoto Protocol



Combined measures



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Clean Development Mechanism

CDM is a mechanism to:

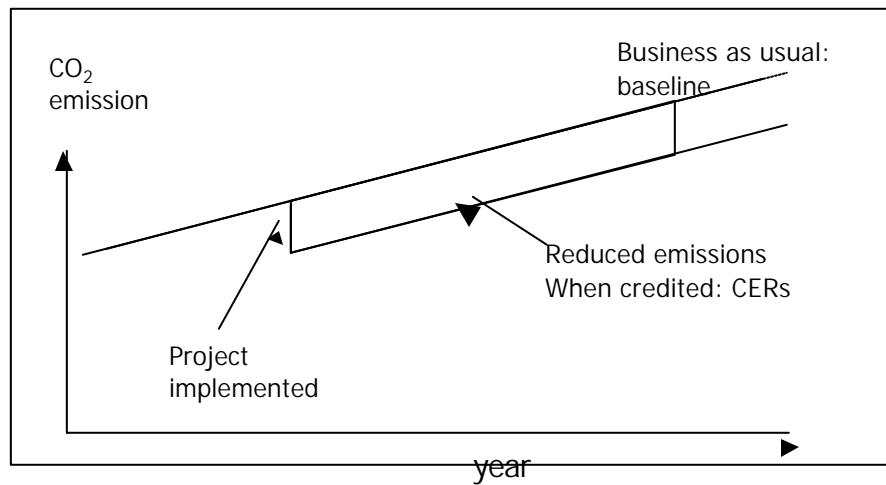
- Assist Annex I parties (developed countries) in achieving compliance with their emissions limitation and reduction commitments through certified emission reductions (CERs)
- Assist non-Annex I (developing countries) countries in achieving sustainable development

CER:

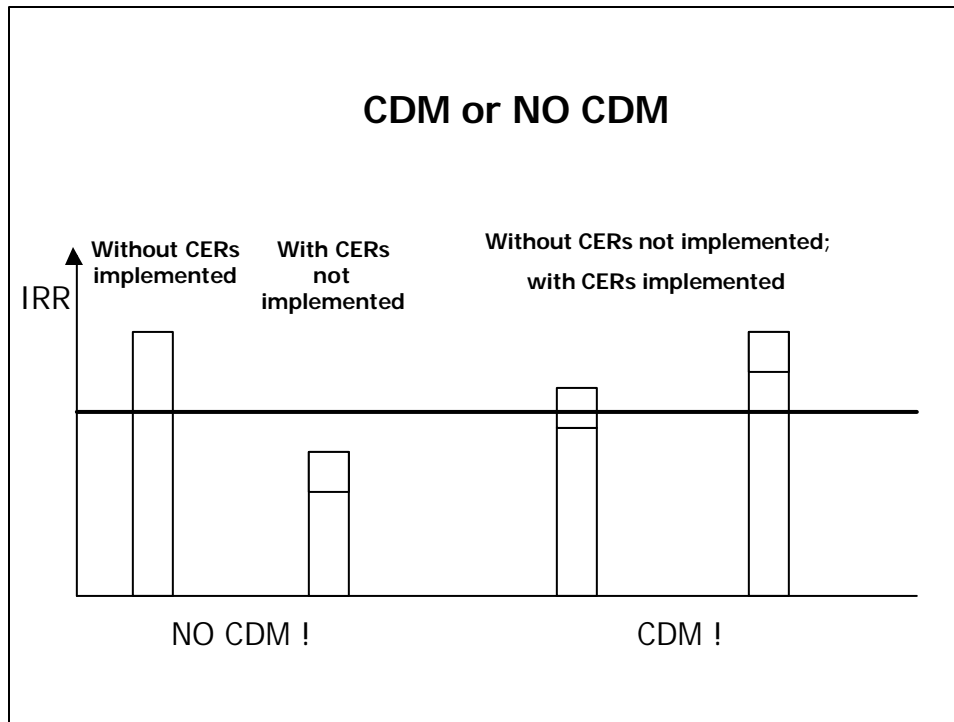
- Reductions in GHG emissions that would not have occurred in the absence of the certified project activity
- CERs represent money: 1 – 20 US \$ per tonne CO₂ reduced

NOTE: CDM is not a grant

How to calculate credits?



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Transport sector and CO₂

- In 1999 transport sector 24% of the global energy related carbon dioxide emissions
- Absolute increase since 1990 of 1017 million tones and a share gain of 2.4 %
- CO₂ emissions from transport sector are projected to grow at the rate of 2.5% each year through 2020
- In developing countries even higher 4.0 %

Causes

- Many reasons for the growth rate. Two important ones make it difficult to reduce CO₂ emission in transport sector:
 - Transport linked to almost all other economic activities
 - Limited in fuel choices compared to other energy using sectors
- Makes it challenging on one hand, but also difficult on the other hand

Transport and CDM

- With respect to CDM a major obstacle is the establishment of a baseline ("that would have occurred in the absent of the project") e.g. historical and current data deficiencies, forecasting uncertainties etc
- These problems occur also for other sectors, but especially the transport sector:
 - Emissions from individual sources are relatively small
 - Dispersed nature of emissions
 - Linkage to other economic activities (project boundary)
 - Its strong relationship with human behavior makes it difficult to evaluate
- One of the solutions is to standardize baselines

Opportunities for CDM projects in transport sector

- Five elements that can be changed to reduce emissions:
 - Increasing vehicle efficiency (e.g. technology, traffic management)
 - Change greenhouse gas intensity of fuel used (from petrol to LPG)
 - Reduce of transport activity (e.g. town planning, road tolls)
 - Switch mode of transport (increase public transport as light rail)
 - Increase capacity per vehicle (e.g. load factor freight sector, car sharing)
- The first two categories are less affected by behavioural aspects, as well as the last one: less difficult to develop a baseline

Conclusion

- Although it will not be easy to develop and implement CDM projects in the transport sector, there are challenging opportunities.
- Major problems are related to baseline establishment and project boundaries
- However, the amount of subsidies in the transport sector are numerous. It might be that in case of high cost of subsidies, projects that should reduce GHG emissions are comparatively costly to implement. They thus "would have not happen anyway" and therefore might qualify as CDM project

