



:FutureCamp



Kyoto Mechanisms and Environmental Taxation
-
Examples and Possibilities for the Transport Sector

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GCET
Session Innovation, Technology and Employment:
Transport

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Agenda

- 1. Introduction: Current Status of CDM and JI**
2. CDM-Methodologies, Programs and Bundling:
Approaches for the Transport Sector
3. Combination Ecotax and FlexMex in Transport: The case
of Switzerland, EU-ETS and Voluntary Approaches
4. Conclusions

Market development CDM & JI

= **international connection**
of the carbon markets through
CDM & JI:

- EU ETS
- all Kyoto countries
- CCX & RGGI

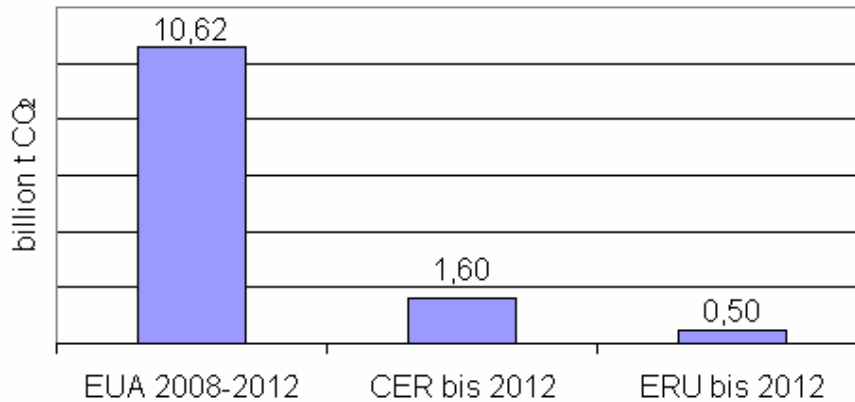
= Actual CDM (28. Sept. 2007):

- registered projects: 800
- issued CER: 82.8 million
- until 2012 expected CER from already registered projects: 1 billion
- **Total expected CER until 2012: approx. 1.6 billion (FC forecast)**

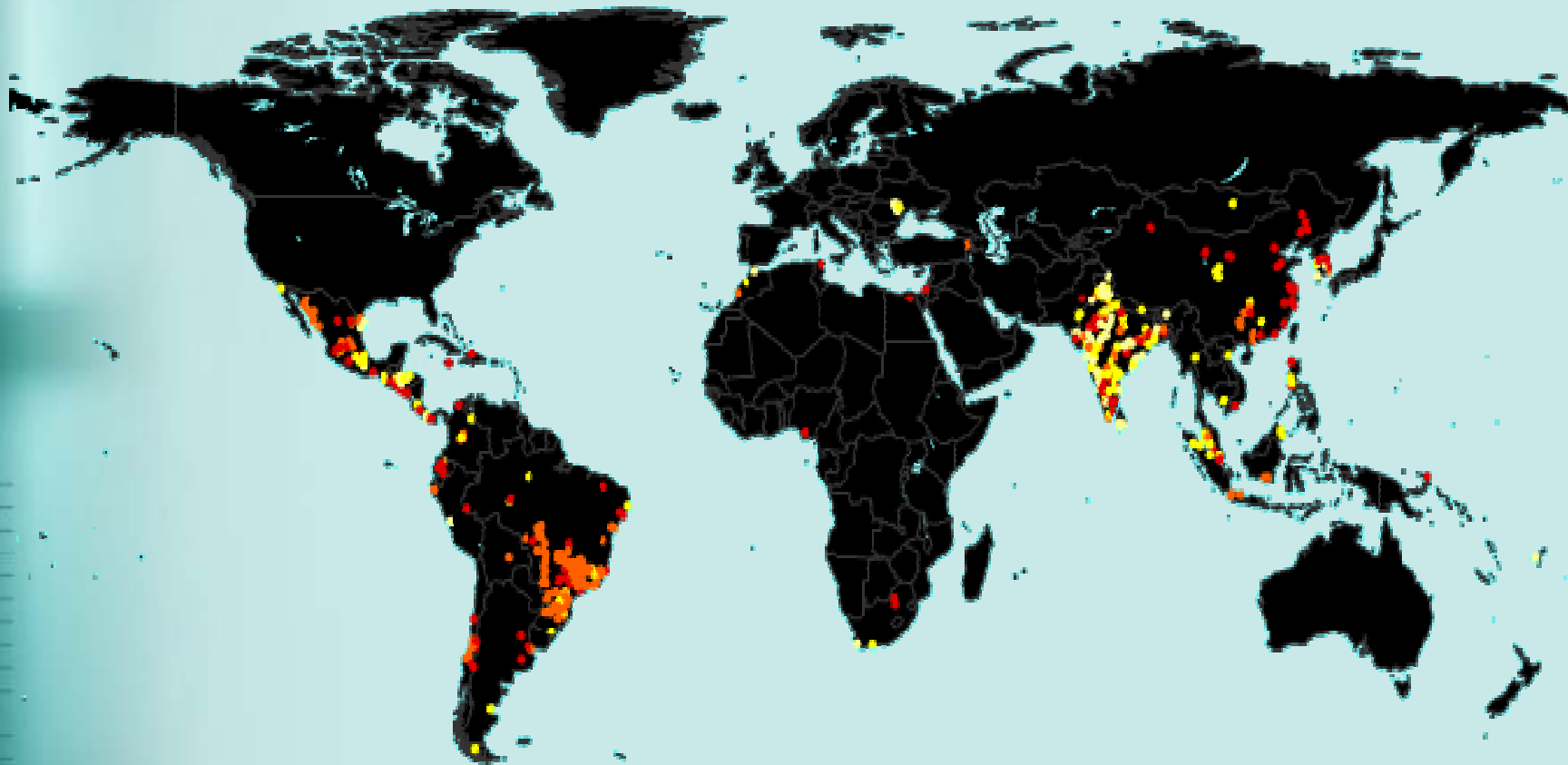
= Actual JI (Sept. 2007):

- **expected ERU until 2012: 500 million**

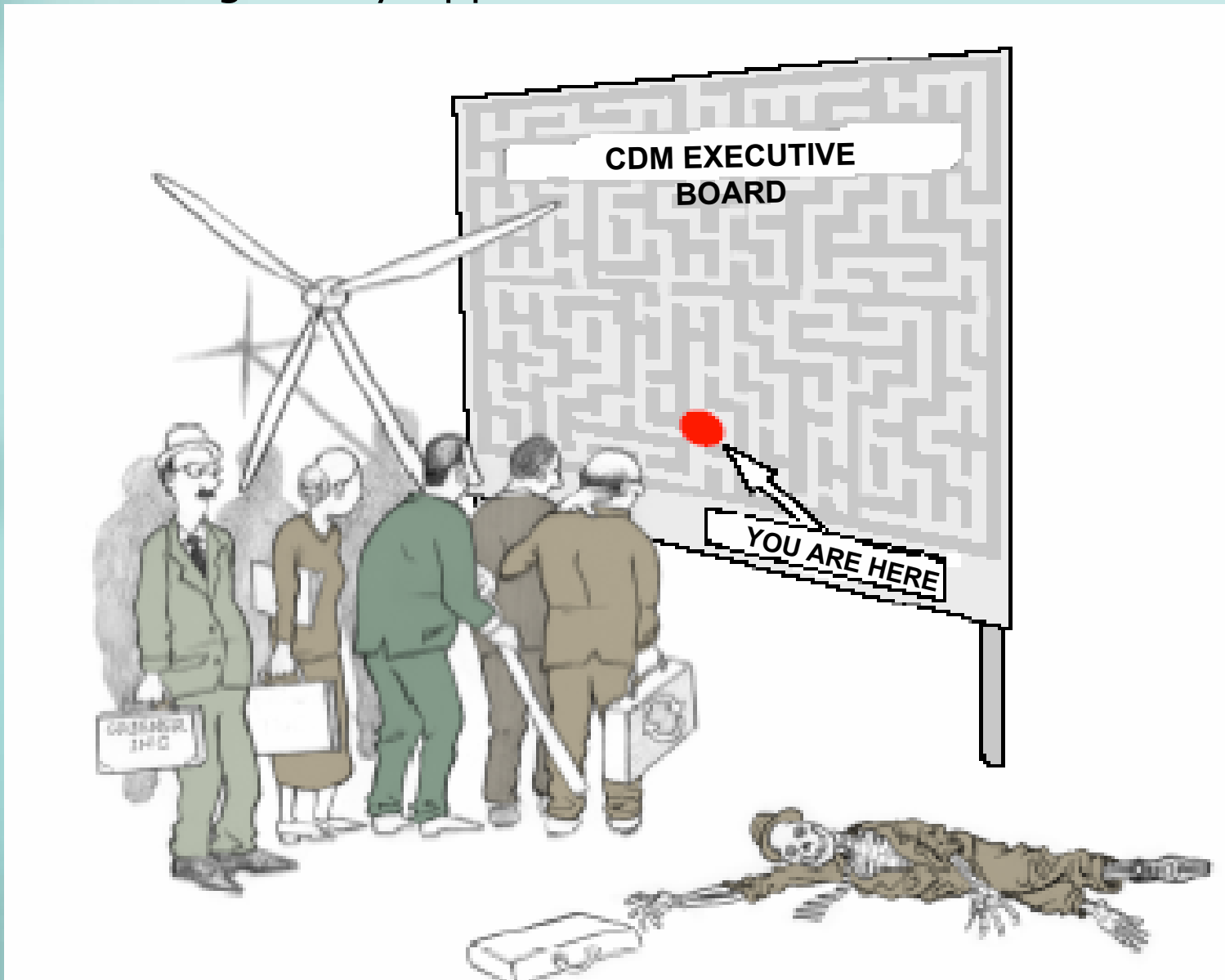
Forecast CO₂-Volumes



Map of Registered CDM Projects



CDM: Regulatory Approach – Difficult but it works





First interim Conclusions

- == The „Carbon-Market“ is already working, driven by the EU-ETS
- == The „FlexMex“ of the Kyoto-Protocol also started to work – CDM and JI are reality
- == The institutional basis is existing, on UN-Level as well as in the very most investing and host countries
- == The regulatory necessities and approaches for CDM projects are demanding – to difficult for utilization in transport?

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Approved Methodologies

Large scale

= AM0031 "Baseline Methodology for Bus Rapid Transit Projects"

GHG reductions via:

- Improved fuel-use efficiency through new and larger buses
- Mode switching due to the availability of a more efficient and attractive public transport system
- Load increase by having a centrally managed organisation dispatching vehicles
- Potentially a fuel switch to low carbon fuels

Small-scale

= AMS.III-C. "Emission reductions by low-greenhouse gas emitting vehicles"

- For electric vehicles – emissions from the production of electricity constitute the project emissions
- For hybrid vehicles (that can run on fossil fuels and electricity) – emissions from the fossil fuel are included in the direct emissions and from electricity used

Registered projects

= Only one registered project: „*BRT Bogotá, Colombia: TransMilenio Phase II to IV*“

- Host country: Columbia
- Investor country: Netherlands

= Goal: establishment of a sustainable mass urban transport system based on a Bus Rapid Transit

= Emission reductions: 246,563 t CO₂/year
→ Improved fuel efficiency of the buses per person

= Reg. date: December 2007

Bundling and Programme of Activities (PoA)

= **Bundling** - bringing together of several small-scale CDM projects to a single CDM project

- no loss of distinctive characteristics of each project activity
- projects can be arranged in one or more sub-bundles
- each project retaining its distinctive characteristics, e.g. technology/ measure, location, application of simplified baseline methodology
- number of projects activities has to be defined

= **Programme of Activities** - combine many small, diverse emission reduction programmes in one project

- uniform system of incentives
- uniform monitoring
- clearly defined framework for all participants
- Unlimited number of project activities

Bundling towards Programme of Activities (PoA)

Bundling ¹	Programme of Activities ²
Number of project activities defined at the beginning	Number of project activities unlimited
New project activities cannot join the project	Every new project activity requires an additional PDD
Calculated / approximated amount of emission reductions	Assumed amount of emission reductions
Project examples	
<p>CDM: Umbrella Fuel-Switching Project in Bogotá and Cundinamarca, Colombia ER = 32,667 t CO₂ p.a. 8 local companies, located in the Colombian Department</p>	<p>J1: Pilot programmatic Joint Implementation project in North Rhine-Westphalia (JIM.NRW) - Energy efficiency measures in steam production and heat production ER approx. 244,400 t CO₂ p.a. Expected ~ 110 measures</p>

¹ General principles for bundling, Annex 21, EB 21

² Guidance on registration of project activities under a programme of activities as a single CDM project activity, Annex 38, EB 32

Second interim Conclusions

== The regulatory necessities and approaches for CDM projects are demanding – to difficult for utilization in transport?

- Still demanding, but possible to do!
- Especially „Bundling“ and „Programmatic CDM“ seems to be promising!

== The examples given show that interest in (host) developing countries is existing, the same is true, e.g. for East Europe

== Bot are there additional current approaches existing targeting the situation in more industrialized countries?

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Combination Ecotax-FlexMex: The case of Switzerland (1/3)

- = This and the next slide are taken from a Swiss Climate Cent Foundation presentation

- = Foundation launched its activities in October 2005
- = Voluntary initiative in the sense of the CO₂ law
- = Founding organisations: Swiss Business Federation, Swiss Association of Small and Medium Sized Enterprises, Swiss Road Federation, Swiss Petroleum Association
- = Board (11 members), Office (5 staff members)
- = Funded by a charge levied on all imports of petrol and diesel at a rate of 1.5 centime per litre
- = Revenue of 100 million francs per year



Combination Ecotax-FlexMex: The case of Switzerland (2/3)

= Aims are:

- To significantly contribute to Switzerland's fulfilment of its climate policy targets
- By investing in GHG reducing projects domestically and abroad
- In a manner as cost-efficient as possible
- Respecting the public's wish for transparency and credibility

= Key parameters of contract with Government

- Total reduction in 2008-12: 9 Mt CO₂
- Thereof Kyoto credits: 8 Mt CO₂ max.
- Thereof domestically: 1 Mt CO₂ min.
- No CO₂ levy on transport fuels raised by Government

= Carbon Purchasing Programme:

- CHF 210 million ► 10 Mt of project-based Kyoto credits
- HFC23, coal mine methane, large hydro, LULUCF excluded
- Diversified portfolio with respect to sourcing, project type, country
- ...



Combination Ecotax-FlexMex: The case of Switzerland (3/3)

= Example shows a **direct** combination by

- Placing a tax in an industrialized country, thus
- Creating an incentive to reduce emissions at home and
- Using the revenue to buy „carbon credits“ from CDM and JI

= Personal evaluation:

- + Approach is strengthening/supporting CDM and its influence in host countries towards buildup of more sustainable economies
- + Very good tool for covering the „governmental Kyoto Risk“ induced by the transport sector
- + Clear focus on environmental target and economic efficiency
- - incentive compared to taxes in other countries rather low, on the other hand also financing projects in Switzerland

= Nevertheless: Example clearly shows that a direct combination is possible and can work in practice

The EU-ETS: Inclusion of Flights

- == The inclusion of flights into the EU-Emission Trading Scheme is decided already (under discussion is „how exactly“ and starting date 2011 or 2012)
- == This is an example for an **indirect** combination as:
 - The inclusion is targeting the airlines by forcing them to hold enough units equivalent to their emissions
 - For the customer the incentive is indirect simply by the price effect of x€/flight (like a tax)
 - How strong this effect on customers will be depends on a lot of factors and especially the behaviour of airlines
- == And: The ETS-Inclusion is not the only approach, at the same time other instruments are used, e.g. emission-dependent airport fees

Voluntary Approaches (2/3)

= Compensation of emissions caused by plane or car:

- Emissions get calculated online
- Online purchase of CO₂ certificates
- Customers e.g. get a „sticker“ for the car, when they offset their emissions
- Examples:



= Actual Example: German Government decided to offset its emissions caused e.g. by traveling, energy use etc. (appr. 700.000 CO₂ per year) by buying CERs and ERUs

Voluntary Approaches (3/3)

- = Examples show that even within voluntary approaches new initiatives are starting – new experience on the issue: „willingness to pay“?
- = Basic Mechanism very similar to the Swiss example
- = Offsetting popular with a lot of companies in the UK, fast growing interest in other states, e.g. France, Germany, US
- = Personal Evaluation:
 - + helps to make more companies and consumers to be more sensitive
 - + financial contribution valuable, helps others to realize projects, e.g. in countries not accessed to the Kyoto Protocol (e.g. Turkey)
 - + as there is a strong relation of those activities to marketing, projects with renewables and/or innovative technologies are preferred
 - - danger that other, more binding instruments are neglected
 - - standards and (depending on the actors) transparency are missing (but improve quickly)
- = **Why not using this approach on an enforced legal basis e.g. for addressing car manufacturers?**

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Conclusions

- = Ecotaxes and the Kyoto FlexMex must not compete to each other
 - Direct and indirect combinations on policy level
 - Targeting transport emissions by project-based Mechanisms
 - For both examples in practice exist
- = „Bundled“ CDM- and JI-Projects and – even more – programmatic approaches under CDM can help
 - to built up institutional and methodological knowledge in developing countries
 - To introduce technologies in markets
- = In case ecotaxes are more difficult to introduce (see, e.g. the German Debate on Ecotaxes ...), similar approaches derived from the Kyoto FlexMex can be used (as „Kyoto“ is popular and „sexy“)
- = In my personal opinion, for **individual** transport it should be decided on a practical basis, which instrument or combination shall be used – it is not a question if one of the instruments is „better“ in principle.

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