Öko-Institut e.V.
Institut für angewandte Ökologie
Institute for Applied Ecology

Practical experiences with the environmental integrity of the CDM

Review of the EU ETS

Brussels, 15 June 2007

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Overview

Many positive experiences with the CDM!

Focus of presentation:

1. **Flaws and deficiencies**
   - Experiences with demonstrating additionality
   - Experiences with DOEs
   - HFC-23 and N2O
2. **Options to address flaws and deficiencies in the ETS**

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Experiences with demonstrating additionality

- **No objective way to find out whether a project would have happened without the CDM**
  - Current approaches are subjective and intention-based
  - No proposals for more objective approaches (e.g. benchmarks) submitted to the EB
- **Current approaches**
  - Barrier analysis
  - Investment analysis
  - Common practice analysis
- **Challenge: Textbook theory ⇔ Real world experience**

Barrier analysis

- **Barriers used are vague and subjective, "risks" being most popular:**
  - "*Risk of currency exchange rate*"
  - "*Risk of possible future decrease of feed-in tariff*"
  - "*Sand-storms make the use of wind power difficult*"
  - "*Unwillingness of management to invest*"
  - "*Investment costs*"
- **No demonstration that the barrier is <u>prohibitive</u>**
- **No demonstration required that the CDM helps <u>overcoming</u> the barrier**
  - "*The CER revenues help to make the project happen*"

Investment analysis

- **Underlying data usually not provided**
- **Economic impact of CDM on IRR is often small :**
  - Wind, hydro, biomass (without CH4): 1-3%
  - Projects with CH4 component: 10-20% (or larger)
- **No requirement that the CER revenues need to make the project happen – Example:**
  - IRR without CDM: 10.8%
  - IRR with CDM: 13.0%
  - Required hurdle rate: 15.8%
- **Tax benefits ignored – Example:**
  - IRR without tax benefits: 7%
  - IRR with tax benefits: 22%

Experiences with project development

- **PDDs in some countries and sectors are reported to be faked systematically**
  - Famous copy and paste of stakeholder views by Ernst & Young in India
  - Faked Board minutes that the CDM was considered in the decision to proceed with the project
- **Stakeholders not involved or comments not taken into account**
- **Delphi survey by Öko-Institut:**
  - “Many projects would also be implemented without CDM registration” (71%)
  - “In many cases, carbon financing not decisive for investment” (81%)

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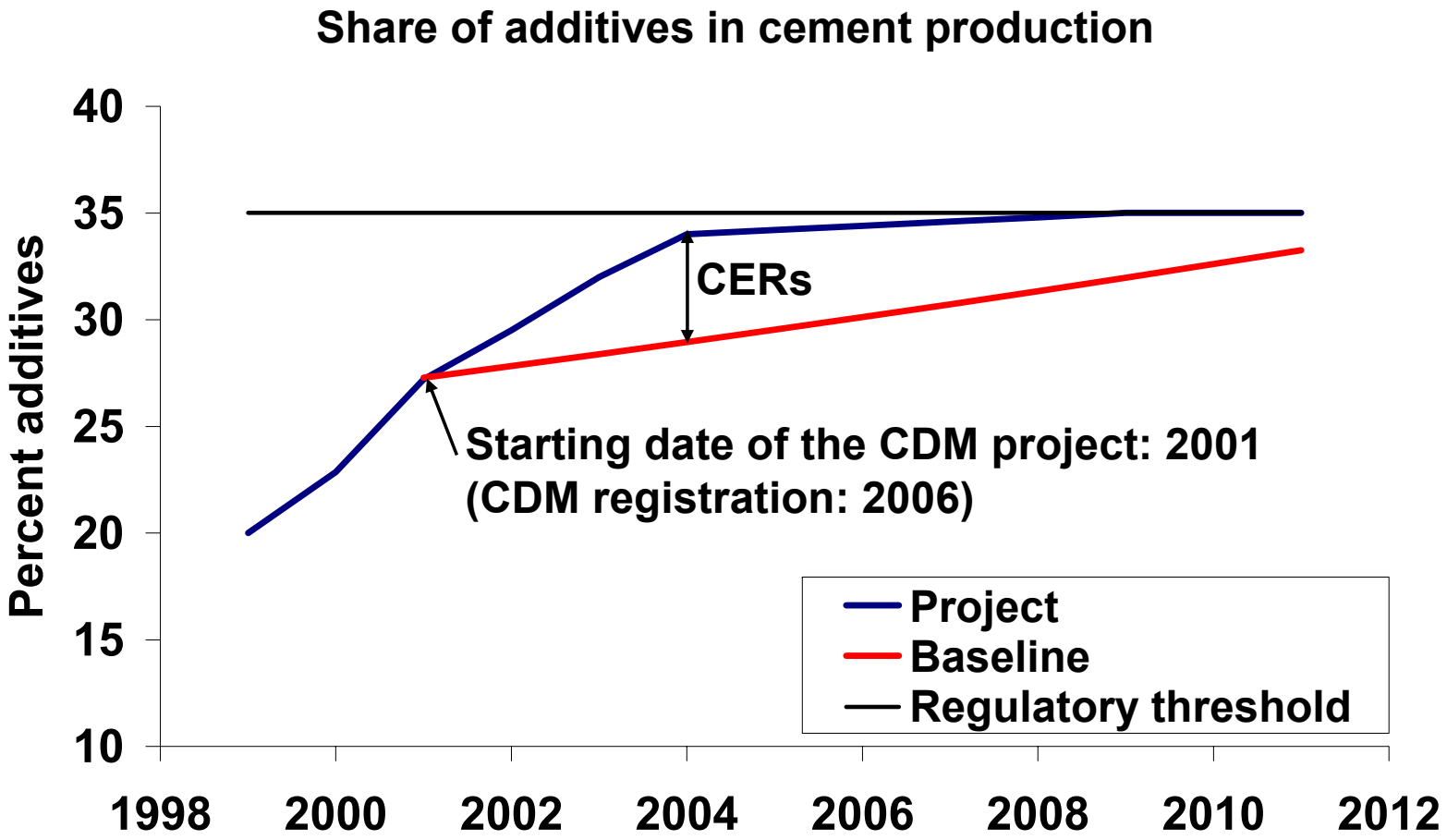
Experiences with the work of DOEs

- **Validation reports: Formal but little substantive information**
- **Problematic interpretation of their own role**
  - "*Our task is not to make project developers a difficult life but to help them coping with the rules of the EB*" (2007)
  - *"To be honest, there are virtually no really additional CDM projects around at the moment. There are only a few exceptions."* (2003)
- **Independent Meth Panel review of DOEs additionality assessment in 2006**
  - "*The available documentation provides little evidence of external validation by DOEs of key assumptions and data used for additionality assessment*"
  - "*No indication of any DOE requiring corrective action on additionality*"
- **Highly competitive market**

The EB's policy towards DOEs

- **Spot checks at various DOEs**
- **No suspension so far**
- **Increasing number of projects under review**
  - Phase I (-2005): Practically no rejection of projects
  - Phase II (-03/2007): Installation of RIT => More reviews
  - Phase III: UN secretariat assesses projects => Many reviews

Example: Cement plant in India (0314)



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Example: Hydro power in China (0378)

- **Construction started in 2003**
- **Registered in 2006**
- **ADB loan provided**
- **Report by ADB to its Board:**
  - "*Sensitivity analysis shows that the financial internal rate of return is robust under adverse conditions*."
- **The World Bank's PDD states:**
  - *"The emission reduction sales under the CDM were a condition for the project developer to secure foreign-currency denominated loan"*

Projects in public criticism: HFC-23

- **HFC-23 by-product from HCFC-22 production**
- **HCFC-22 used as refrigerant and feed-stock**
- **Public criticism:**
  - Perverse incentives for increasing HCFC-22 production
  - Huge windfall profits (mitigation costs: 0.30 $/tCO2)
  - No sustainability benefits
- **However:**
  - CERs capped by historic production level 2000-2004
  - Projects are clearly additional
  - Green Investment Scheme (GIS) in China for climate & ozone
- **Option for the future: Benchmarks**
  - Reduction of windfall profits
  - Benefits for global GHG mitigation
  - No perverse incentives / fairness for early movers

Conclusion on “flaws and deficiencies”

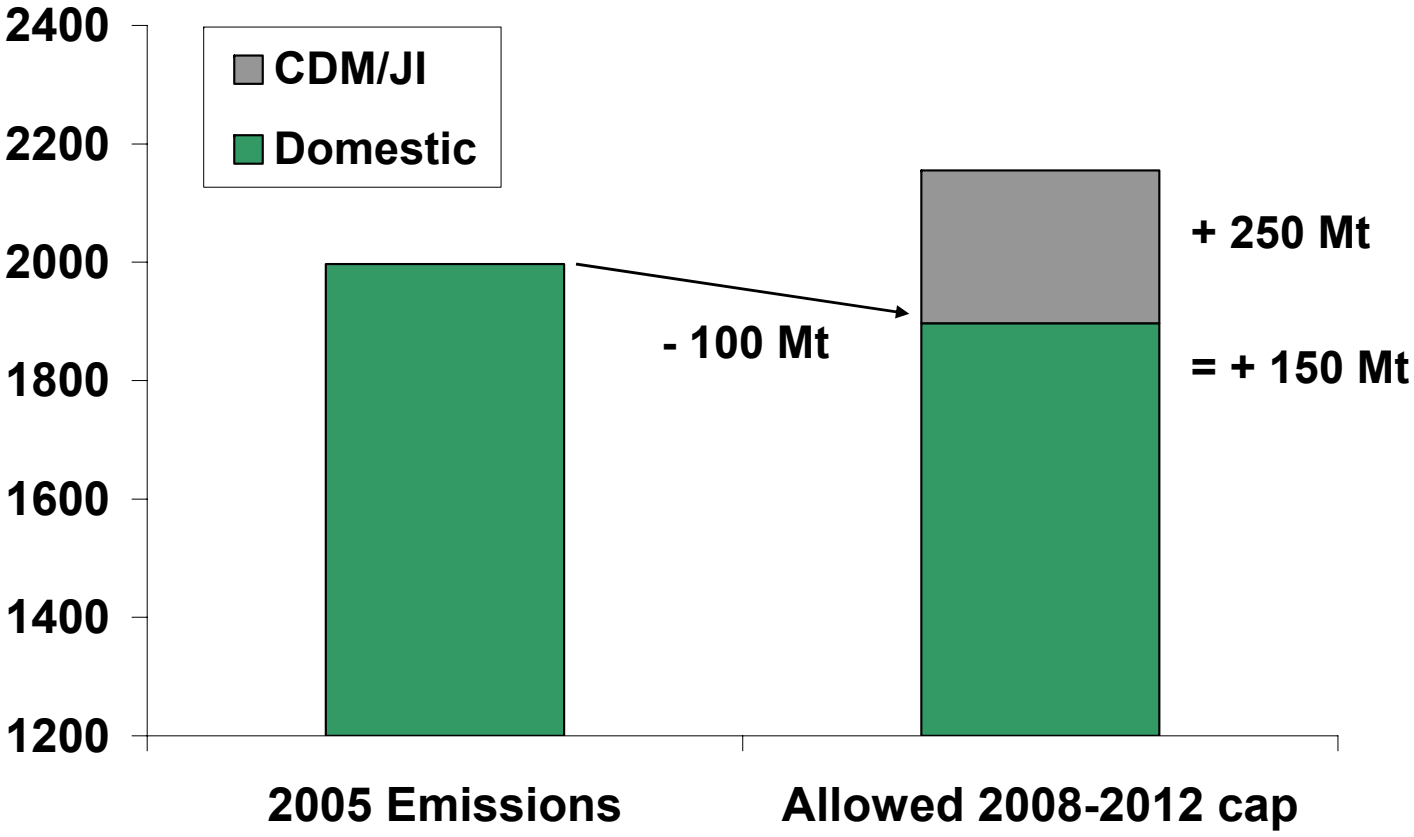
- **Prompt start problems (2001-2005)**
  - Few projects
  - Lack of resources / UN secretariat support / methodologies
- **Current (and past) problems**
  - DOEs performance seems variable and problematic
  - Lack of environmental integrity
  - Many projects are clearly not additional
  - 30-50% hot air in the CDM?
- **Post-2012 challenge: Scaling up flexible mechanisms ⇔enhancing environmental integrity**
  - Proving additionality of “policy CDM” seems difficult
  - Sectoral approaches avoid demonstrating additionality with intention => use of trends & projections

Options for limiting the use of CDM/JI

1. Total cap
2. Positive / negative lists of project types
3. Additional criteria for all projects (earmarking “good” CERs)
4. Discounting CERs against EU allowances

⇒ Combinations possible

Total cap



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Total cap

- **Use of CDM/JI allows companies to increase 2008-2012 emissions above 2005 levels**
  - Risk of long-term lock-in (e.g. new power plants)
- **Implementation of "supplementarity" principle at EU ETS level**
- **Consideration of "hot air" in the CDM**

Positive / negative lists

- **Pros**
  - Simple and objective rule for the market
  - Prioritization of projects possible (e.g. with benefits for sustainable development / positive spill-over effects)
- **Cons**
  - Some problems in the CDM concern all project types
  - Only narrow list of projects would improve integrity (most REN projects are NOT additional!)
  - Positive / negative lists difficult to agree upon
  - Leakage: Excluded projects sold to non-ETS buyers

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Additional criteria for all projects

- **Pros**
  - Some “bad” or non-additional projects could be screened out
- **Cons**
  - Criteria difficult to define
  - Creates two types of CERs
  - Difficult to ensure consistent application of additional criteria by all MS (experience with large hydro dams)
  - Leakage: “Bad” projects sold to non-ETS buyers

Discounting CERs against EUAs

- **Pros**
  - Reduces the amount of hot air
  - Reduces windfall profits for HFC-23 and N2O projects while making them still happen
  - Simple
- **Cons**
  - Good projects with real emission reductions are punished
  - Complicates linking of ETS with other schemes
  - Could reduce the CER supply
  - Difficult to communicate (some tonnes weigh more than others)
- **Different discounts for different project types?**

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Conclusions on ETS options

- **Priority: Solve problems at CER supply side. But:**
  - Difficult for 2008-2012
  - Projects registered now supply credits beyond 2020
- **CDM/JI should be supplemental to action by ETS installations**
  - Supplemental contribution within the EU ETS (X% of 2010 => 2015 reduction), taking into account “hot air”
- **Benchmarks for HFC-23 / N2O projects**
  - If not feasible under the CDM EB: discount CERs
- **Alternative: Exclude project types where additionality is highly unlikely, e.g.:**
  - Use of clinker in cement plants
  - New super-critical coal or combined cycle gas plants
  - Renewable power generation
  - Problem: “Leakage”

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Thank you for your attention!

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