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Design of the post-2012 climate regime: Sectoral approaches for GHG reduction

Incentives for mitigation investments

New Market Mechanisms: Creating demand and safeguarding incentives

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Project overview

- Discussion paper: Incentives for mitigation investments
  - Perspectives GmbH, Hamburg
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    - Axel Michaelowa
  - Öko-Institut, Berlin
    - Martin Cames
    - Sean Healy

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  Design of the post-2012 climate regime:
  Sectoral approaches for greenhouse gas mitigation

- http://www.uba.de/uba-info-medien-e/4145.html

Background

- **Aim of sectoral approaches**
  - Overcome the flaws of project-based mechanisms
    - High transaction costs
    - Lack of environmental integrity
    - Limits in addressing all kinds of mitigation measures
  - Reduce distortion of competitiveness due to carbon leakage
  - Allow a gradual transition from non-Annex I to Annex I or dissolve the bipolar world of the Convention and the Kyoto Protocol
  - Enhance the coverage of global carbon market to allow for an increased the level of ambition

- **Role of developing country governments**
  - Project-based: supervising, economic responsibility remains with the project developer
  - Sector-based: more active role, ensure that the emission reductions are actually achieved

Differences to project-based

- **Cover all activities or installations within a certain sector boundary**
  - Increase the mitigation potential
  - Enhance the portfolio of technical mitigations measures
  - Increase environmental integrity by reducing the risk of leakage
  - Reduce transaction costs because the determination of a baseline only has to be carried out once
  - Mitigation activities would only be initiated at activities with the worst emission performance although all activities will be covered
- **Require governments to play a different role**
  - Private entities cannot take responsibility for an entire sector
  - Developing country government needs to take that responsibility
  - Needs to ensure that the envisaged greenhouse gas mitigation is actually achieved
  - Sectoral approaches are closer to IET than to the CDM

Differences & similarities

Issue	IET	NMM	CDM
Coverage	Economy wide	All acitivites in selected sectors	Selected activities
Monitoring	Inventory	Sectoral inventory	Project
Verification	ERT	IRT	DOE
Economic responsability	Government	Government	Private entities
Type of commitment	Binding	Binding/no lose	No lose
Type of unites	Allowances	Allowances/credits	Credits
Baselines	BAU scenarios	Sectoral BAU secnarios	Hist. emiss., benchm., etc.
Thresholds/targets	Absolute	Absolute/indexed	Indexed
Development	Ex-ante/top-down	Learning by doing/bottom-up	Learning by doing/bottom-up
Purpose	Emission reduction (ER)	Offsetting & ER	Offsetting

Potential challenges

- **Free-riding and sectoral underperformance**
  - May specifically apply to sectoral crediting with a no-lose target
  - Only if the entire sector meets the target, will credits be issued
  - Uncertainty as to whether competitors contribute to achieving the target

- **Ex-ante investments/ex-post credits**
  - Investments to reduce emissions are required prior to the crediting period
  - Credits can only be issued once emission reductions have been MRV-ed

- **Lack of experience**
  - Investors might doubt whether they receive incentives in the case of underperformance
  - In particular foreign investors might act cautiously

Addressing challenges

- **Lack of experience**
  - Govenments would need to provide guarantees for investors
  - Without effective regulation thresholds will not be met
  - CDM with 10 years of experience cannot be directly compared with a newly established markets-based mechanism

- **Ex-ante investments/ex-post credits**
  - Emission reduction purchase agreements (ERPAs)
  - Upfront payment but rebate on the credit price
  - Revenues can be used to cover costs for incentives or measures

- **Free-riding and sectoral underperformance**
  - Free-riding: only if non-reducing activities also receive incentives
  - No-lose target: domestic regulation may need to be mandatory
  - Private entities can be involved directly, indirectly or not at all

Options for direct involvement

- **Guaranteed sectoral credit revenues**
  - Activities would receive internationally fungible units for emission reductions below their baseline
  - Governments would need to buy units in the case of a shortfall due to activities with emissions above their baseline
  - Emissions above the baseline may be penalised

- **Domestic mandatory emissions trading scheme**
  - Domestic cap would be set at the sectoral threshold
  - Domestic units can be exchanged for futures of sectoral credits
  - Exchanged units would have to be cancelled
  - Domestic ETS would need to accept internationally fungible units for compliance to ensure that the domestic price does not exceed global carbon prices

Options for direct involvement

- **Tradable intensity standard** (as suggested by CCAP)
  - Developing country governments establish a domestic benchmark equal to the sectoral intensity threshold
  - Activities which beat the benchmark would receive internationally recognised credits
  - Activities which exceed the benchmark would have to purchase internationally recognised units
  - Government would receive
    - Sectoral credits for emissions below the benchmark
    - International fungible units for emissions above the benchmark
  - Both together would allow for the sectoral threshold to be met exactly

Other options for providing incentives

- **Subsidies**
  - Feed in tariffs or investment subsidies for renewables
  - Renewable would replace fossil generation
  - Sectoral credits can be used to cover the costs

- **Taxes and subsidy reductions**
  - Emissions above the baseline or all emissions could be taxed
  - Tax and sectoral credits revenues could be redistributed
  - Redistribution should not disincentivise emission reduction

- **Standards and regulation**
  - Mandatory requirement to install emission mitigation equipment
  - Credit revenues could be used to subsidise investment
  - Only if marginal mitigation costs are similar across the sector

Conclusions

- Under sectoral approaches developing country governments need to take economic responsibility for achieving the thresholds
- Sectoral approaches are therefore more similar to international emissions trading than the CDM
- How to provide incentives to private entities is at the developing country's discretion
- Even under a no-lose target at UNFCCC level, mandatory policies may be required at the domestic level
- Several options are available in terms of how incentives for mitigation investment could be provided to private entities
- These options may include direct or indirect integration of private entities in the international carbon market and pure domestic regulations such as standards, subsidies, feed-in tariffs, taxes, etc.

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Thanks for your attention!

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