

UNFCCC Regional Collaboration Centre Workshop

How can pre-2020 tools lay the foundation for implementing market mechanisms post 2020?

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(A) INTRODUCTION

Concept of the Market Mechanism (SDM)

PA Article 6.4.

(c) To contribute to the reduction of emission levels in the host Party, which will benefit from mitigation activities resulting in emission reductions that can also be used by another Party to fulfil its nationally determined contribution;

Prohibition of Double Counting

PA Article 6.5.

Emission reductions resulting from the mechanism referred to in paragraph 4 of this Article [i.e. internationally transferred mitigation outcomes = ITMOs] shall not be used to demonstrate achievement of the host Party's nationally determined contribution if used by another Party to demonstrate achievement of its nationally determined contribution.

Similarity to CDM – e.g. Share of Proceeds

- 1) The SDM has close resemblance to the CDM (In fact, it was initially referred to as “CDM+” by some Parties.)
- 2) This similarity is notable about the provision that mirrors the rules for share of proceeds of the CDM. This is PA Article 6.6 that reads:

The Conference of the Parties serving as the meeting of the Parties to this Agreement [CMA] shall ensure that a share of the proceeds...cover administrative expenses as well as to assist developing country Parties that are particularly vulnerable...to meet the costs of adaptation.

Implications for Host Party Governments

- 1) In order for the host Party to benefit from the market mechanism under the PA, the mitigation activity for which ITMOs are approved need to be additional.**
- 2) This is not only for the sake of the integrity of the market mechanism. It is crucial for the interest of the host Party.**

Implications for Host Party Governments - continued

- 3) Creation of ITMOs from non-additional projects increases the GHG reduction that must be made to achieve a country's NDC. This point is illustrated by an example:**
- **The project's GHG reduction contribution: 100**
 - **Share of the reduction: 55% for the host Party and 45% for another Party (i.e. 45 for ITMO)**

Implications for Host Party Governments

- continued

	(I) BAU emissions	(II) Emission reduction by the Project	(III) ITMOs	(IV) Projected emissions (I)-(II)+(III)	(V) NDC target (set or calculated)	(VI) Required reduction (IV)-(V)
Additional w/o ITMOs	1,200	The Project will not be implemented without ITMOs	n/a	1,200	900	300
Additional with ITMOs	1,200	100	45	1,145	900	245
Non- additional w/o ITMOs	1,100	Included in BAU	n/a	1,100	900	200
Non- additional with ITMOs	1,100	Included in BAU	45	1,145	900	245

Financial Support (PA Article 9) as a Separate Concept from Market Mechanism

1. Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention.

9. The institutions serving this Agreement... shall aim to ensure efficient access to financial resources... for developing country Parties, in particular for the least developed countries and small island developing States, in the context of their national climate strategies and plans.

(B) CONTRIBUTION THROUGH ACCUMULATED EXPERTISE AND INFRASTRUCTURE

Modalities and Procedures (M&P)

- 1) Significant parts of CDM M&P can be applied to the SDM in view of the similarity between the two mechanisms.
- 2) This will include, but not limited to:
 - Evaluation of a project's qualification (validation);
 - Method of emission reduction calculation to be applied to the project; and
 - MRV

Modalities and Procedures (M&P) - continued

- 3) Naturally, this does not mean that there is no need for the current CDM M&P to change. It cannot be denied that the current M&P sometimes pursues accuracy and conservativeness more than reasonable and necessary.

In such cases, the current CDM M&P is to be improved on.

Modalities and Procedures (M&P) - continued

- 4) Furthermore, the SDM will be different from the CDM in that the seller countries have reduction targets embodied their NDCs. Whether and how additionality rules can be simplified under such circumstances is another challenge.
- 5) Nonetheless, it is appropriate for the SDM M&P to draw on CDM M&P. Indeed, such an approach is desirable for the sake of efficiency and for minimizing confusion among the participants in the market mechanism.

Registry

- 1) Essential for avoidance of double counting.
- 2) Neither the CDM nor JI has directly relevant experience.

CDM: CER issuance has no effect on the seller country's registry.

JI: Issuance of ERUs is accompanied with simultaneous cancellation of the same number of AAUs. The SDM does not have AAUs to cancel.

Registry - continued

- 3) However, the current CDM registry produces and transmits accurate records about CERs to be credited to the buyer country's national registry. This function can be directly applicable for ITMOs transferred in.
- 4) Given ITMOs transferred out are identical in amount to those transferred in, It should not be difficult to expand the system to enable it to feed the amount of ITMOs transferred out to the seller country's national registry.

Registry - continued

- 5) The approach envisaged in 3) assumes that the function of the market mechanism registry extends only up to providing accurate information about market mechanism transactions.
- 6) It presupposes appropriate recording of such information in national registries (for both transferred-in and transferred-out), which will be managed as a separate function.

(C) ASSISTANCE WITH PRE-IDENTIFYING PROBLEMS TO AVOID

Two Major Problems Experienced by CDM

- 1) The CDM experienced two problems seriously detrimental to its effectiveness.**
- 2) It is of note, however, that they are market oversight issues and do not come under the current purview of the CDM Executive Board.**

Two Major Problems Experienced by CDM - continued

2) The two problems are:

- **Industrial gas projects that, despite representing genuine GHG reduction, have been found by many to be inconsistent with the principles the CDM is expected to adhere to; and**
- **Severe oversupply of CERs and a resultant collapse of CER prices to levels that no longer allow the CDM to be effective for non-LDC countries.**

Need for Organizational Clarification

- 1) Similar issues must be prevented for the SDM.**
- 2) It is essential that the CMA, in designating a body to supervise the market mechanism, clarify whether it or some other body is responsible for market oversight as distinguished from ensuring the integrity of emission reductions.**

PA Article 6.4

It [the market mechanism] shall be supervised by a body designated by the Conference of the Parties serving as the meeting of the Parties to this Agreement [CMA]

(D) PROVISION OF A BASIS FOR ANALYZING PRACTICAL IMPLICATIONS

Prices Must be Substantial for the SDM to Be Meaningful

1) Example 1: Biomass power generation

- Ref. 2938 registered in February 2010
- 9.9 MW; capacity factor of 81%
- Grid emission factor 0.5057 tCO₂e/MWh

	CDM (100:0)		SDM (50:50)		
Price (USD / tCO ₂ of reduction)	15	7.5	30	15	7.5
Increase in project IRR (%)	2.37	1.21	2.37	1.21	0.61

Prices Must be Substantial for the SDM to Be Meaningful - continued

2) Example 2: Same as Example 1, except for the grid emission factor of 1 tCO₂e/MWh

	CDM (100:0)		SDM (50:50)		
Price (USD / tCO ₂ of reduction)	15	7.5	30	15	7.5
Increase in project IRR (%)	4.51	2.33	4.51	2.33	1.19

Prices Must be Substantial for the SDM to Be Meaningful - continued

- 3) Example 3: 1.063 MW renewable power generation with biogas extracted from industrial wastewater**
- Ref. 8004 registered in November 2012
 - Reduction of 20,529 tCO₂e from methane avoidance and 4.607 tCO₂e from renewable power generation.

	CDM (100:0)			SDM (50:50)		
Price (USD / tCO ₂ of reduction)	15	7.5	3.75	15	7.5	3.75
Increase in project IRR (%)	10.72	5.67	2.96	5.67	2.96	1.50

Host Country Government's Close Involvement in Additionality Assessment

- 1) Officially, the CDM M&P assigns no role for the host country government to play with respect to additionality assessment (though many governments do get involved in practice).**
- 2) This cannot be the case for the SDM when ITMOs affect the host country's NDC achievement, as seen in (I).**

Host Country Government' Close Involvement in Additionality Assessment - continued

- 3) In this respect, the host country government is urged to draw on its intimate knowledge of the local situation and evaluate real additionality.**
- 4) This should include the following points that, albeit mentioned in most finance textbooks, are often not taken into account in the current additionality assessment process.**

Host County Government's Close involvement in Additionality Assessment - continued

- **At companies with financial resource constraints. which many small and medium sized enterprises (SMEs) in developing countries are, GHG mitigation projects are often not undertaken even when they surpass the hurdle rate, being relegated to lower priority in comparison with investments required for increasing production and sales.**
- **Such projects are additional in reality, though they appear non-additional in terms of an IRR analysis.**

Host County Government's Close Involvement in Additionality Assessment - continued

- **By comparison, at companies with ample financial resources, large projects slightly below the hurdle rate are often implemented for the sake of very substantial absolute amounts of profit they earn for the company.**
- **Such projects are not additional in reality (i.e. they will be undertaken on a BAU basis), though they appear additional in terms of an IRR analysis for failing to reach the hurdle rate.**

Private Sector Financial Needs for GHG Mitigation Activities

		Availability of financing for initial investment costs	
		Available	Not available
Profitability	High enough to compensate for the problems	Case I: Can be implemented on a business-as-usual basis	Case II: Often the key problem for mitigation actions → need for upfront financing. Cannot be results-based.
	Insufficient → needs annual supplementary income to be viable	Case III: Used to be filled by the CDM with its practice of payment against delivery. Can be results-based, but needs to be subsidies not loans.	Case IV: Difficult. Must have either high social value or involve mitigation of high GWP gas (such as methane).

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