

# Proposals for Market-Based and Non-Market-Based Mechanisms for Negotiations under AWG-LCA

Naoki Matsuo<sup>1</sup>

## Motivation and objective of the Proposal

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The COP Decision at Cancun on AWG-LCA process invites submission of views on new market and/or non-market mechanisms from the Parties and accredited observers by Feb. 21, 2011 in

**D. Various approaches, including opportunities for using markets, to enhance the cost-effectiveness of, and to promote, mitigation actions, bearing in mind different circumstances of developed and developing countries.**

Here we submit our proposals representing our views.

Proposal for new market-based mechanism:

## **"Sustainable Development Indexed Mechanism"**

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### *Background*

CDM and other market-based mechanisms internalize the value of GHG emission reductions into market. They have been established through many efforts as promising tools to foster many activities to reduce GHG emissions. We believe that they should also be used for the compliance of the quantified target under the UNFCCC/LCA process, although a further continuous reform is needed.

However, we learned through experiences of CDM that it is difficult to establish non-GHG values through the GHG emission reduction crediting scheme only. The current market mechanisms try to motivate private companies to reduce GHG only; they have not provided any incentives to realize non-GHG values such as to foster technology transfer.

Various efforts have been made to incorporate non-GHG values through other channels, but not yet sufficient.

Given that the UNFCCC recognized that the climate mitigation is an element of sustainable development, it is desirable to create some non-GHG market value for sustainable development within mitigation actions.

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<sup>1</sup> Climate Experts, Ltd. and PEAR Carbon Offset Initiative, Ltd. ([n\\_matsuo@climate-experts.info](mailto:n_matsuo@climate-experts.info))

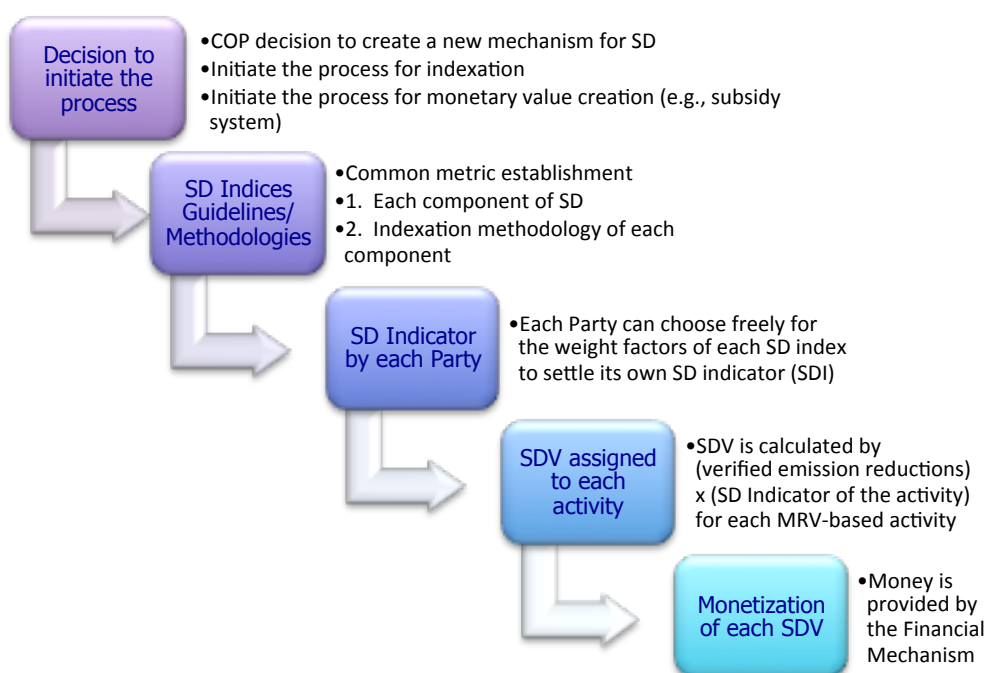
Strategy: Menu Approach

There are a variety of concepts on how to support sustainable development. It is almost impossible to have a *common metric* to represent the value that can be shared by all Parties. Therefore, we propose that each Party should have sovereignty over what is the appropriate *metric* to support its own sustainable development.

On the other hand, it is meaningful to *initiate a discussion (not negotiation) process* for the components of the sustainable development and how to index them as well as how to integrate them into a single indicator. It would be better to have a common methodological framework/guidelines<sup>2</sup> but we can leave a room for discretion for each Party to decide a weight factor of each index (as well as an option of the indexing methodology), which can be called *menu approach*.

Based on the discussions (possibly for a year), each Party may decide its own sustainable development indicator and submit it to the associated supervisory body to give it an appropriate market value.

It should be noted that such value is not limited to be used for CDM but also can be applicable to any activities of MRV-based instruments (in the sense of GHG emission reductions) under the UNFCCC.



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<sup>2</sup> Although we have common/standardized methodology to index each component of the sustainable development, we may have several options such as Tier 1, 2, 3 in the IPCC GHG Inventory Guidelines based on each Party's situation. In addition, the methodologies/guidelines will be reviewed/ revised regularly.

Followings are an example of methodological aspects to be discussed.

Indexing<sup>3</sup> the value of each SD component

For creating the market-based value, we need an indicator (called *SDI* hereafter), which specifies the significance of the value.

In the case of GHG emissions, “CO<sub>2</sub>-equivalent” is the indicator, which is selected by the COP. Each index represents the physical quantity (mass) of each GHG. In order to convert each GHG index into a single indicator (CO<sub>2</sub>e), COP has chosen GWPs as the relative weight factors for conversion.<sup>4</sup>

Once we have agreed (politically) on methodological aspects of the indicator (SDI) to specify the sustainable development components quantitatively, we can then create new market-internalized values (called SDV) as to be discussed later.

First of all, we can set the necessary process as follows:

1. List several components of the sustainable development to be indexed.
2. Discuss and establish methodologies to index each component. Several indexing methodologies may co-exist for one component.
3. The components and indices are to be reviewed every two years.

Then, each Party is to choose the relative weight factors specific to the activities in the country.

The following table is a simplified *example*:

<b>SD component</b>	<b>Index</b>		<b>Country specific relative weight factors</b>	<b>Activity specific SDI</b>
Description	Description			
Technology	Cutting-edge: 100% BAT: 75%	Categories specified by the Party	20%	
Targeting the poor	Directly: 100% Indirectly: 50%	Can be categorized by income level	40%	
Energy security	RE: 100% EE: 100% Fuel switch: x% (dependent on fuel)	Portion of fuel-switch is determined by each Party	10%	

<sup>3</sup> Here we define “index” as a parameter to specify the significance of each element. We also define “indicator” for a conversion of indices with some rules (by specifying weight factors).

<sup>4</sup> For setting weight factors, we can leave some room for discretion to be determined politically: (1) whether we use emissions of each GHG and radiative forcing-based GWP, (2) which document or material will be referred, and (3) which time-horizon will be applied.

Bio-diversity	Graded A, B, C	Host country expert judgment	5%	
Other local environment	Ditto	Ditto	5%	
Gender	Ditto	Ditto	5%	
...	...	...	...	
<b>Total</b>	<b>Each index is normalized to 1</b>		<b>100%</b>	<b>– %</b>

**Table: Sustainable development index for a country (example)**

Sustainable development indicator *SDI* is defined as:

$$SDI = \sum_{SD \text{ component (country-specific)}} (\text{weight factor})_{\text{country-specific}} * (\text{indexed value})_{\text{common}}$$

for each activity. It is noted that  $0 \leq SDI \leq 1$ .<sup>5</sup>

Since we are considering (sustainable development components of) climate mitigation-related value, we set the new value (*SDV*) as

$$SDV = (\text{GHG emission reductions}) * SDI.$$

where *SDI* is the indicator to be determined above for each activity.

### Creating a New Value

Once we can define the indicator *SDI* and *SDV* above, how can we value them in the market? Here we show two options:

[Option 1: Tradable commoditization]

Setting a target on *SDV* for each Annex I country to attain and making *SDV* tradable. This option needs an intensive negotiation process for target setting and includes large uncertainties for the market price.

[Option 2: Subsidy]

A fund should be established to provide money that is proportional to the *SDV* of the relevant activity to the implementer. The fund is contributed as a part of the financial support by the developed countries specified by the Copenhagen Accord/Cancun Agreement. A fixed amount per a unit of *SDV* must be preferable for activity implementers to hedge the risks.<sup>6</sup>

<sup>5</sup> This does *not* mean that the value is less than that of emission reductions. This only shows the relative significance to the fully-contributing fictitious activity

<sup>6</sup> Another option is to fix the total amount of the budget. This option may not be preferable for activity implementers due to the unpredictable unit price of *SDV*.

[Option 3: Preferential treatment of the financial assistance of the activity]

For implementation of the activity, finance is important. Therefore, some channel for an international preferential financing scheme should be established or incorporated into the programmes of the existing financial institutions based on the *SDI* (not *SDV*).<sup>7</sup>

It should be noted that Option 3 can be used together with Option 1 or 2.

#### Targeted Activities and Supervisory Body

Since *SDV* requires “the amount of emission reductions” as the mechanism under the UNFCCC, the targeted activities are those with MRV processes for GHG emission reductions. In this sense, we can start this value-making mechanism for CDM, JI and NAMA. If other mechanisms with MRV are introduced under AWG-LCA, *SDV* will be applied to activities under such new mechanisms. In order to encourage early actions, on-going CDM projects can be credited by these indicators.

A supervisory body of this mechanism, which will approve methodologies for MRV, should be established under the COP. For CDM, JI, current MRV processes can be used. For NAMA, some standardized methodologies to be developed can be applied.

It should be noted that for this mechanism, the concept of additionality is NOT necessary because the concept of this mechanism does not aim to create the value for the emission reductions itself.<sup>8</sup> It may be preferable to define emission reductions as the gap between with/without the activity. This implies that business-as-usual activities for sustainable development can obtain *SDV* if they reduce GHGs by using the methodologies of CDM/JI/NAMA without additionality check.

#### Proposal for non-market-based mechanism: “HFC 23 Destruction Fund”

CDM does not cover emission reduction efforts by new HCFC 22 plants. It means that non-covered plants do not have an incentive to destroy HFC 23, thus all of them are released to atmosphere without recovery.

As is well known, this technology is quite cost-effective and huge amount of emissions can be reduced easily. Equipment that costs only a few million dollars can reduce several million tCO<sub>2</sub>e *per annum*. Therefore, it is effective to establish a fund contributed by developing countries to install and operate such HFC 23 destruction equipment in HCFC 22 plants that have not been covered by CDM.

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<sup>7</sup> It should be noted that the amount of required finance is not linked to the amount of emission reductions.

<sup>8</sup> The reason why additionality of environmental integrity concept is needed for CDM is that CER implies emission increase in developed countries.