New market-based mechanism for mitigation Views submitted by the World Bank Group

Introduction

The World Bank Group appreciates the opportunity to contribute to Parties' important work under item E (Various Approaches) of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA; CP.17):

- *Matters referred to in paragraphs 83 and 84 [work programme to elaborate modalities and procedures for a new market-based mechanism], including experience, positive and negative, with existing approaches and mechanisms, as well as lessons learned.*

Our suggestions draw from insights and lessons derived from the World Bank Group's carbon finance experience across many different types of projects and sectors around the world over the past decade[1], as well as on its more recent work on readiness for new carbon market mechanisms. We are pleased to share views and ideas from the perspective of a practitioner working with partners from both developed and developing countries with a specific objective in mind: making market mechanisms work on the ground and contribute to global greenhouse gas (GHG) mitigation in a way that is consistent and supportive of the sustainable development goals and aspirations of our client countries. We hope this can be a constructive input to Parties' deliberations under the above-mentioned work programme.

This submission is not meant to be exhaustive and is made without any prejudice to other – non market-based -- mechanisms to mitigate GHG emissions. Market mechanisms are one tool to help meet quantified greenhouse gas (GHG) emission reduction objectives. Complementary and supplementary policies are undoubtedly also needed to meet the climate change challenge.

The submission is divided into three sections: (i) key insights and lessons from experience with market-based mechanisms; (ii) recommendations for a new market-based mechanism (NMM); and (iii) considerations for its elaboration.

The World Bank Group is ready to expand on elements of this submission as may be needed. We are pleased to contribute to this important work undertaken by the AWG-LCA.

[1] Reports and information on our experience are available on the World Bank carbon finance website: www.wbcarbonfinance.org.

I. Key insights and lessons from experience with the Kyoto Protocol market-based mechanisms

The following are some of the key insights from the World Bank's carbon finance experience across many different types of projects and sectors around the world over the past decade:

1. ***A clear policy framework coupled with ambitious long-term targets are necessary for the formation of a well-functioning market and an effective price signal*.** If emission targets are too lax and not enforceable currently or in the future (and thereby useful as an early action tool), market mechanisms cannot stimulate significant GHG reductions.

2. ***Crediting mechanisms provide an incentive to sustain emission reductions over time*,** as payments for emission reductions are performance-based.

3. ***Crediting mechanisms can offer developing countries a valuable additional revenue stream for climate-friendly activities that also support sustainable development*** (e.g., improving energy access and energy services; reducing local pollution; improving livelihoods, etc.) and lead to technology transfer and technology diffusion.

4. ***Good governance, a transparent and consistent regulatory process, predictability and due process*** are essential to build trust and investors' confidence in a market instrument.

5. ***Environmental integrity is essential*.** Maintaining environmental integrity of the mechanism is important for the overall climate regime, but also for providing confidence and credibility to carbon markets.
   - ***Crediting baselines are key to the environmental integrity*** of a crediting mechanism. They determine the amount of creditable emission reductions and, combined with the market price for emission credits, determine the carbon revenues. Crediting baselines need to be set to ensure balance between (i) environmental integrity (and conservativeness) and (ii) environmental effectiveness (i.e., ability to stimulate GHG-reducing activities).
   - ***Demonstrating additionality under the Clean Development Mechanism (CDM) has proven challenging to implement and to evaluate objectively in practice***. The CDM experience has shed light on the inherent and practical challenges and uncertainties of determining the scenario representing "what would have occurred otherwise", which is by essence hypothetical and counter-factual, thus making it difficult to prove additionality with absolute certainty. The diversity of factors considered and approaches taken in individual investment decisions by different entities in different circumstances has made the task of assessing a project's additionality based on investment analysis very challenging from a global perspective, and constantly subject to questioning (leading to some criticisms of the CDM in some instances). This has contributed to a high CDM regulatory risk, which in turn has made it difficult to use expected carbon finance revenues to strengthen the financial viability of projects and to help incentivize potential financiers and lenders to leverage the necessary underlying finance.
   - ***It is important to address perverse incentives upfront and to align market mechanisms with countries' GHG mitigation objectives and policies***. At the time of their establishment, the Kyoto Protocol's market-based mechanisms gave rise to concerns

regarding the possibility of them providing perverse incentives to governments not to implement climate-friendly policies, and to private entities not to adopt climate-friendly technologies and processes, in order to benefit from higher baselines or allocations. Under the project-by-project approach, it has seemed difficult to ensure a transparent and consistent treatment of national policies, making it challenging at times to use the CDM/JI as effective means to support host countries' climate-friendly policies. Acknowledging these risks up-front and proposing transparent means to address them as well as focusing on building synergies with host country policies may contribute to a more inclusive and constructive discussion and enhance the effectiveness of the market mechanism.

6. ***It is important not to let perfection be the enemy of the good*.** One of the lessons from the CDM is the need to move from seeking to measure every single ton of GHG emission reduced (at each project site) towards estimating - with proper justification and conservativeness - the total GHG impact of a creditable activity. This can help keep transaction costs manageable and can be done while safeguarding environmental integrity. Too high transaction costs erode the carbon price signal and thus the impact of market mechanisms. In the case of CDM and JI, it is important to note that transaction costs are not size-dependent, thus putting smaller operations and poorer countries and regions at a disadvantage.

7. ***Upfront financing is a major barrier for many climate-friendly activities in developing countries*.** The above-mentioned regulatory risk has made it very difficult thus far to use expected carbon revenues as an indicator of a project's financial viability to help leverage the necessary underlying finance, either through pre-payments of expected carbon revenue streams with appropriate guarantees or by using future carbon revenues as collateral for debt.

8. If well-designed and enforceable as a matter of contract**,** market-based mechanisms can ***help stimulate private sector investments in GHG mitigation activities and leverage other sources of financing***. High regulatory risk, substantial transaction costs, and uncertainty about the long-term carbon market act as disincentives and barriers for private sector investments in GHG abatement projects. The financial sector has similarly been unable to sufficiently service project companies with the intention to earn carbon finance revenue, particularly in emerging markets.

9. ***Enabling early action and piloting can provide a valuable foundation for a new mechanism and encourage participation in the context of still evolving rules*.** The CDM's "prompt-start" was key to kick-start the experimentation and innovation with the CDM and generated important early methodological as well as process and operational insights.

10. ***Investing in capacity building and readiness should not be overlooked*.** The past decade has shown us that capacity building is indispensable, takes time and needs to be sustained. Scarce human resources can constitute a significant obstacle to the development and implementation of market-based mechanisms in developing countries.

II. Features of a new market-based mechanism (NMM)

There may be different views on what may constitute a new market-based mechanism (NMM). Our submission is focused on some of the key elements and considerations for the development of a new crediting mechanism. Under such mechanism, a crediting baseline defines the threshold below which emissions need to be in order to be eligible to generate credits that can be issued and transferred to an acquiring party for compliance or other purposes.

Given the aims of a NMM outlined in the texts from CP.16 and CP.17 and the lessons from practical experience with market instruments, we believe the following features should guide the development of the NMM and its modalities and procedures:

1. **Robustness and environmental integrity** - As any market-based instrument, a new market mechanism under the UNFCCC needs to be robust to instill confidence that it is indeed achieving its objective, i.e., a net decrease and/or avoidance of global GHG emissions. As such, it is understood that crediting baselines will be set at levels below business-as- usual[2], consistent with the need for increased levels of mitigation ambition. Environmental integrity also demands that the NMM avoid any double-counting of emission reductions.

2. **Scaled-up net GHG reductions and a beyond-project-by-project approach** – A NMM should be designed to provide incentives for global GHG reductions at larger scale, in line with the need for increased mitigation and sequestration of GHGs to meet the overall objective of addressing climate change[3]. One important feature of the NMM is its broader scope, going beyond the project-by-project approach, aimed at broad segments of the economy which imply higher levels of aggregation, covering, for example entire sectors, sub-sectors or geographic areas.

3. **Transparency and regulatory predictability** – A NMM must be sufficiently transparent and predictable and enable the provision of clear incentives to mitigate/avoid emissions[4] beyond the crediting baseline and to limit transaction costs associated with participating in a NMM. Such clarity and regulatory predictability is essential for the enhancement of the bankability of targeted climate-friendly actions and for their contribution to the removal of upfront financing barriers faced by many climate-friendly mitigation actions in developing countries, including those actions that are assessed to have an overall negative marginal abatement cost (e.g., energy efficiency actions), but face barriers to their implementation.

   Moreover, transparency and regulatory predictability, along with overall confidence in the robustness of the NMM, are critical to the generation of carbon assets that can be valued in a carbon market, that can be recognized for compliance purposes, and that can enable the leveraging of new private and public climate-friendly investments.

[2] For many countries, the determination of such BAU levels should take into account their specific development needs and level, by, for example, reflecting situations of suppressed energy demand.

[3] It goes without saying that in order for even the best designed NMM to succeed in contributing to the scaling-up of global net reductions of GHG emissions, it needs to be accompanied by higher levels of mitigation ambitions that are necessary to generate a demand for the NMM.

[4] Throughout this submission, net decreases and/or avoidance of GHG emissions, also refer to the inclusion of net sequestration ofCO_2 by sinks.

4. **Practicality, feasibility and simplicity** – The mechanism should be practical and implementable in the context of different broad segments of the economy (e.g., different sectors or subsectors, or even geographic areas) in a diverse group of developing countries.

   Keeping the NMM modalities and procedures practical and simple will be important to support the mitigation actions in the sectors/sub-sectors that have been successfully implemented under the current mechanisms (e.g., power generation), as well as those sectors with high emissions but that have been left out (e.g., transport, agriculture, forestry) or that are substantially underrepresented such as energy efficiency. The NMM must be elaborated keeping in mind the reality of incomplete data sets and the need to keep costs of monitoring, reporting and verification to a manageable level in order to encourage net reduction and/or avoidance of GHG emissions. The NMM modalities and procedures should focus on assessing the GHG performance at an aggregate level in a sufficiently robust and transparent manner, without requiring tracing or attributing each ton of GHG reduced and/or avoided to individual actions within the sector/sub-sector/geographic area.

5. **Role of host governments and compatibility with host country sustainable development policies and priorities as well as GHG objectives** – The NMM is being developed in the context of many developing countries elaborating their low-emissions development strategies which are central to sustainable development. It is also the case that several developing countries have made mitigation pledges and are elaborating domestic GHG targets. The NMM should work to provide incentives to assist host countries in furthering these targets and objectives within their specific regulatory and policy contexts. It will be important to enable the recognition of complementarity of the NMM with other policy tools and the possibility of blending different sources of financing. It thus follows that the NMM should involve host governments[5] in its elaboration and in regulatory approval procedures.

6. **Long-term sustainability** – The NMM should lead to net decreases and/or avoidance of GHG emissions that can be sustained over the longer term. This means that the NMM should aim to incentivize mitigation and sequestration activities that can be financially, technically and environmentally solid, as well as politically and socially palatable (e.g., that can be supported by stakeholder groups) to ensure their take-up and longevity.

7. **Uniformity of crediting procedures for both emission removal and emission reduction activities** – The NMM should generate credits that are fungible across sectors, made possible through uniform crediting and accounting procedures. In the context of land-use activities, this would mean adopting approaches to address non-permanence[6].

8. **Engagement of private sector** – The NMM should be designed such that it will facilitate and incentivize the private sector – both on the supply side (financing and implementation of activities) and on the demand side (purchase of credits for compliance under national/regional emissions trading schemes, as appropriate, or for other purposes).

[5] Several developing country governments are already actively engaged in the examination of a NMM.

[6] The experience with temporary crediting approach adopted activities in the land use sector under the CDM highlights the dampening effect of temporary credits on investments in emission removal activities in the land-based sector, and on the demand for credits from that sector.

Achievement of cost-effectiveness of GHG mitigation through the NMM will be key to engage the private sector on a consistent basis.

III. Considerations for the elaboration of a new market-based mechanism

Countries interested in using a NMM in furthering their GHG mitigation objectives will likely follow common steps while taking into account their particular national circumstances. The following are some considerations for the elaboration of a NMM.

1. Selection of Target Areas (i.e., sector/sub-sector and/or geographic area) for the NMM

The NMM should enable the opportunity to cover different target areas, as long as there is compliance with the modalities and procedures and the objectives of the NMM. Based on experience gained through working with a number of developing countries, we highlight below (in no particular order) some – but likely not all -- important considerations for the selection of target areas for a NMM:

- GHG mitigation potential and costs;
- Synergy with domestic sustainable development policy objectives (e.g., low emission development strategy/mitigation pledge/domestic target, as appropriate);
- Overall suitability for a market instrument, including, for example, data availability, relative ease of monitoring, reporting and verification, responsiveness to price signals;
- Opportunity to create a financial incentive (or incentives) supported by a NMM to stimulate net reductions and/or avoidance of GHG emissions in the target area;
- Local champion(s) with necessary capacity to carry forward action(s) under a NMM;
- Feasibility and financing;
- Sector/local circumstances (e.g., sector structure, relation to other sectors);
- Co-benefits.

2. Defining boundaries

Defining the boundary, i.e., deciding what specific emission source(s) will be included in the mechanism's accounting system, and which are not, is a crucial step.

The scope of a NMM could vary and, for example, cover an entire sector or sub-sector (e.g., the power sector, or a sub-sector of it), or a regional sub-set of installations/activities related to regional initiatives of states or even those of major cities. Coverage may also vary, involving, for example (i) all installations/activities over a certain size threshold; or (ii) all installations with particular features (e.g., using feedstock X or supplying market Y); or (iii) a combination of emission removal and emission reduction activities; or (iv) something else.

In the context of developing countries, it is important to consider how to accommodate increasing activity in the targeted broad segment of the economy (e.g., the consideration of new entrants may be particularly critical in the case of fast-growing economies). In some cases, there would also need to be consideration of cross-sector interactions.

Key issues to address in the determination of the boundary are the need to limit and manage leakage risks and to avoid double-counting of decreased and/or avoided emissions. These risks

need to be addressed in practical and cost-efficient ways. One important step to address double-counting risks is through the establishment of an emissions registry. In this sense, it would be useful to start outlining common features of an emissions registry system to distinguish and track emissions credits and transactions under a NMM and any other mechanism/instrument.

3. Setting crediting baselines

Crediting baselines are at the heart of a NMM and key to safeguarding environmental integrity: they determine the level of environmental ambition of a crediting mechanism (i.e., its net global GHG sink/reduction/avoidance benefits). Crediting baselines are also critical to determining the quantity of credits that can be expected from eligible activities. This means that an overly stringent crediting baseline – resulting in a low volume of credits - may not provide sufficient incentive (depending on the price of credits) for incentivizing mitigation/sequestration at the level of an entire sector/sub-sector. However, an overly lax crediting baseline - resulting in a larger volume of credits – may compromise overall environmental integrity (and market confidence). Finding the appropriate balance is the key challenge.

There are different approaches for the determination of crediting baseline emission levels, including:

- Projections, based on historical and expected trends in emissions; or
- Determining emissions from a specific technology or based on modeling approaches ; or
- Determining emissions from top performers in the segment of the economy targeted by a NMM (e.g., the average of the top X percent of performance category). This is often referred to as a "benchmark."

The determination of the appropriate level at which to set the crediting baseline typically requires informed judgment, derived, for example, from the approaches outlined above involving empirical information and analysis (e.g., surveys and reports by technical specialists with deep knowledge of the sector, sub-sector, and/or geographic area) and consideration of a country's relevant policies and legal and regulatory framework. The choice of technical parameters (e.g., vintage of data and percentage chosen to select the sample on which to determine the crediting baseline) can be more determinant of a crediting baseline's stringency than the approach selected.

A key challenge in the setting of crediting baselines is addressing the risk of perverse incentives (e.g., postponing policies and/or action in order to benefit from crediting later on). It thus makes sense to recognize up-front and to take into account in a transparent fashion a host country's policy and legislative goals and its particular circumstances in the setting of the crediting baseline. For countries that may be working on the elaboration of a domestic GHG target, it may be appropriate to use a conservative approach to baseline setting to minimize the risk of any double-counting against any such future targets.

BAU trends are typically important to enable assessing the environmental stringency of a proposed crediting baseline and whether it is adequate to ensure net reductions/avoidance of global GHG emissions. However, there is no agreed upon definition or approach for the development of BAU emission trends and there can be a range of (legitimate) possible scenarios

and projections which can be sensitive to exogenous factors (e.g., economic growth and international commodity prices). The determination of BAU emission trends is inherently uncertain and will depend on each country's historic trends, development level and potential future changes and national circumstances. It will thus be useful to identify what information (e.g., data and assumptions) may be needed to enable understanding of BAU trends.

4. Monitoring, reporting and verification (MRV)

A robust - and practical - MRV system is essential to assure market participants and stakeholders that emission reductions from the crediting baseline level are of high quality.

The definition of the scope of the NMM to cover sectors/sub-sectors creates a connection between the NMM and a host country's low emissions development strategy and/or country's GHG target. A key aspect of such relationship would thus be to establish a close link between procedures followed in national GHG inventories and national communications and the MRV of sequestration/mitigation of GHG emissions achieved in the same country under the NMM. In turn, this should lead to making the MRV requirements for a NMM simpler and less onerous than under the project-by-project CDM/JI experience, by focussing on a more aggregated approach. For example, in cases of a NMM in countries with GHG targets, it should be more straightforward to carry out MRV at the level of a broad segment of the economy than on the basis of individual projects by basing MRV on the country's GHG inventories. This would safeguard the environmental integrity of the NMM and the overall GHG system.

However, it is important to recognize that not all countries and not all sectors may develop at the same time MRV and inventory capacity of equal quality (or equal degree of certainty). Some NMM sectors/subsectors may involve more uncertainty than others, which would need to be assessed and addressed in a more conservative manner – perhaps drawing from the IPCC Tiered approach. However, the NMM should not, a priori, necessarily exclude such sources and sinks.

In our view, the NMM requires looking at MRV differently than under the CDM/JI, focussing on achieved GHG reductions/sequestrations and not being bogged down with the potentially or often onerous and complex exercise of providing evidence of the attribution of GHG reductions/sequestration to a given measure/policy. This would open the door for considering a broader array of interventions under a NMM.

5. Participation and incentives

At a national level, it would be useful to examine what kind of technical capacity at the host country level may be needed to participate in a NMM. This would help focus capacity building and general market readiness efforts and support.

It is also important to consider how a new mechanism could incentivize the participation of the private sector – which will be critical in many cases to leverage the necessary financing for implementing and sustaining the mitigation/sequestration actions. In this regard, a key challenge for a NMM aimed at crediting GHG performance based on the overall performance of a target area rather than at the level of individual projects may be in designing programs/policies/measures under a NMM that ensure adequate incentives to private entities/installations covered under a NMM.

The recognition of financial intermediation and opportunities for up-front financing could contribute to the scalability of mitigation actions. In this context, public and private (climate) finance and partnerships could play a catalytic role to facilitate the flow of such needed upfront financing for implementing mitigation actions under a NMM.

6. Institutional and regulatory issues

It is important to begin outlining the institutional requirements, particularly at the host country level. The choice of exactly which existing or new institutions may be needed in developing countries should reflect national circumstances, with the aim of building on existing national institutions to leverage existing expertise and to limit costs.

While the CDM may have been able, in general, to consider and assess submissions of project activities without significant involvement of host countries[7] (except for the issuance of letter of approval confirming that the project activity was assisting in meeting host countries' sustainable development), a NMM is expected to involve greater engagement of host countries.

It would be useful to elaborate soon on the key roles and needed capacities of institution(s) that might be involved at the domestic level and/or international level, as appropriate. For example, the following questions could be usefully examined:

- What are the role and responsibilities of the COP, under whose guidance and authority a NMM is to operate?
- What are the roles and responsibilities of host governments?
- What is the process to issue credits?

7. Recognition of early action

It would be extremely valuable to elaborate modalities and procedures to encourage early action and stimulate piloting of the NMM. To benefit from the insights from such early action, it would be important to consider how to collect and integrate the lessons from the early actions in the evolution of the modalities and procedures of the NMM.

Conclusions

The World Bank Group appreciates the opportunity to contribute to Parties' important work on the elaboration of a NMM and remains available to provide technical inputs and assistance to the Parties as needed.

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[7] Some CDM host countries, however, have established elaborate processes for the issuance of their CDM letters of approval.