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New market-based mechanism

Technical paper

Summary

This document responds to a request made by the Subsidiary Body for Scientific and Technological Advice for a technical paper on the design and operation of the new market-based mechanism, including on: its design and governance; the elaboration of the possible elements of its modalities and procedures; the meaning of "a net decrease and/or avoidance of global greenhouse gas emissions"; lessons learned from the mechanisms under the Kyoto Protocol that could be relevant to the further elaboration of the possible elements of the work programme to elaborate modalities and procedures for the new market-based mechanism; its relationship with the framework for various approaches and the mechanisms under the Kyoto Protocol; and its relationship to enhanced mitigation ambition. The document concludes with possible implications for the work programme to elaborate modalities and procedures for the new market-based mechanism.

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Contents

I. Introduction

A. Mandate

1. The Subsidiary Body for Scientific and Technological Advice (SBSTA), at its fortieth session, invited Parties and admitted observer organizations to submit, by 22 September 2014, their views on the new market-based mechanism (NMM),[1] including on:

(a) Its design and governance;

(b) The elaboration of the possible elements of its modalities and procedures;

(c) The meaning of "a net decrease and/or avoidance of global greenhouse gas (GHG) emissions";

(d) Lessons learned from the mechanisms under the Kyoto Protocol that could be relevant to the further elaboration of the possible elements of the work programme;[2]

(e) Its relationship with the framework for various approaches (FVA) and the mechanisms under the Kyoto Protocol;

(f) Its relationship to enhanced mitigation ambition.[3]

2. It requested the secretariat to prepare, for consideration at SBSTA 41, a technical paper on the design and operation of the NMM, drawing on the submissions referred to in paragraph 1 above and other relevant materials.[4]

B. Scope of the document

3. This document assesses the technical options for the design and operation of the NMM and identifies possible implications for further consideration by Parties.

4. The technical options referred to in this document have been derived from a number of sources, including submissions from Parties, discussions and documentation under the SBSTA work programme to elaborate modalities and procedures for the NMM, relevant decisions of the Conference of the Parties (COP) and the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP), work under the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) and other relevant materials available in the public domain. It is not possible to include all of the technical options and variants raised in the above-listed material. The attempt has instead been to derive broad technical options from the material that may be useful in illustrating possible ways forward as Parties continue their relevant considerations.

5. Chapter II below outlines the context of the NMM, in particular the consideration thereof to date and what appears to be Parties' current understanding of it. Chapter III sets out and assesses the technical options for the design and operation of the NMM in relation to the matters set out in paragraph 1 above. Chapter IV concludes the document by summarizing possible implications for the work of the SBSTA.

6. This document should be read in conjunction with the accompanying technical papers on the FVA[5] and non-market-based approaches.[6]

[1] As defined in decision 2/CP.17, paragraph 83.
[2] As contained in decision 1/CP.18, paragraph 51.
[3] FCCC/SBSTA/2014/2, paragraph 190.
[4] FCCC/SBSTA/2014/2, paragraph 192.

C. Possible action by the Subsidiary Body for Scientific and Technological Advice

7. The SBSTA may wish to draw on the assessment of the technical options for the design and operation of the NMM, as well as on the possible implications for further consideration by Parties, as contained in this document, when continuing its consideration of the NMM at SBSTA 41 under its agenda item 12(c), with a view to recommending a draft decision for consideration and adoption at COP 20.[7]

II. Context

8. Discussions on the NMM began under the AWG-LCA in the context of "various approaches" to enhance the cost-effectiveness of, and to promote, mitigation actions. COP 17 subsequently defined the NMM as a mechanism, "operating under the guidance and authority of the COP, to enhance the cost-effectiveness of, and to promote, mitigation actions, bearing in mind the different circumstances of developed and developing countries, which is guided by decision 1/CP.16, paragraph 80, and which, subject to conditions to be elaborated, may assist developed countries to meet part of their mitigation targets or commitments under the Convention".[8]

9. The current SBSTA work programme to elaborate modalities and procedures for the NMM was mandated at COP 18 with a view to the SBSTA recommending a draft decision thereon for adoption at COP 19.[9] COP 18 requested that the work programme consider 12 possible elements of the NMM.[10] The subsequent work has included deliberations taking place during sessions of the SBSTA and a workshop on the NMM, which was held on 8 October 2013 in Bonn, Germany.[11]

10. Many Parties refer to a mechanism of a relatively centralized nature, operated under the Convention in a way that is perhaps similar to how the clean development mechanism (CDM) and joint implementation (JI) are operated under the Kyoto Protocol, regulated by a governing body reporting to the COP and with opportunities for Parties to tailor the implementation of the NMM to their specific circumstances. This appears to be consistent with decision 2/CP.17, which refers to only a single mechanism that is to operate under the guidance and authority of the COP.

11. COP 17 specified that the NMM is to be focused on the promotion of cost-effective mitigation and that it may, subject to conditions to be elaborated, assist developed country Parties in meeting part of their targets or commitments under the Convention.[12] The NMM is therefore generally seen as generating credits that correspond to mitigation outcomes and possibly also trading such credits or other units. A number of activity types have been mentioned in the context of the mechanism, including projects and programmes that are familiar from the CDM, but with many Parties also seeing sectors, or "broad segments" of economies, and other specific activity types being included. It is sometimes seen, therefore, that the NMM could have 'windows' that target specific types of activity.

[5] FCCC/TP/2014/9.
[6] FCCC/TP/2014/10.
[7] FCCC/SBSTA/2014/2, paragraph 193.
[8] Decision 2/CP.17, paragraph 83.
[9] Decision 1/CP.18, paragraph 50.
[10] Decision 1/CP.18, paragraph 51.
[11] FCCC/SBSTA/2013/INF.13.
[12] Decision 2/CP.17, paragraph 83.

III. Analysis and options

A. Design and governance

1. Overview

12. Many of the submissions and other materials reviewed in preparing this document express a preference for a centrally run, 'top-down' regulatory role for a governing body, while affording the host Party considerable involvement in guiding and implementing the activities. Some materials have suggested a decentralized 'bottom-up' structure for the NMM, in which the governing body facilitates Parties' involvement by providing guidance on common approaches. Some materials have suggested that the involvement of the host Party will be influenced by the types of approach that it chooses to implement.

13. In relation to the nature of the mechanism, most submissions and materials have discussed the NMM as being a **baseline-and-credit** approach, which could include multiple windows for crediting at different levels of activity or for specific activity types (such as crediting based on REDD-plus[13] activities). Some submissions and materials have also seen the inclusion of **trading** approaches within the NMM.

14. Progress in elaborating the modalities and procedures for the NMM is dependent upon first addressing outstanding issues and clarifying the overall concept of what the mechanism is and hence how it should be designed and how its governance should function. The following issues appear to remain open in that regard:

(a) The scope of the NMM, in relation to:

(i) The level of activities included, such as projects, programmes and/or sectors;

(ii) The types of activity included, such as whether certain activity types are included (e.g. REDD-plus) or excluded (e.g. nuclear);

(iii) The geographical coverage of the NMM, concerning for example which countries are able to participate in the mechanism;

(iv) Whether emissions trading, in addition to crediting against baselines, should be integrated into the NMM;

(b) The degree of centralization or decentralization in the governance of the NMM, for example concerning the relative roles of the governing body and the participating Parties in the governance of the mechanism;

(c) The appropriate time frame for commencing the operation of the NMM, for example whether the mechanism is to be operational before 2020 as well as thereafter.

2. Options

15. This section sets out several options for the design and governance of the NMM. They are derived from the wide range of ideas and options contained in the submissions and other materials reviewed in the preparation of this document. It is hoped that the options illustrate how the various elements of an NMM could potentially be combined. At the same time, it is hoped that the options presented here are sufficiently concrete to allow them to be assessed and challenged, in order that Parties may converge on a consensus with regard to the design and governance of the mechanism. It is however understood that this

[13] Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

concreteness is achieved at the expense of presenting all of the variants raised in the submissions and other materials that were reviewed.

16. The options for the design and governance of the NMM are as follows:

(a) Option 1: a centrally governed baseline-and-crediting mechanism;

(b) Option 2: a facilitative 'bottom-up' baseline-and-crediting mechanism;

(c) Option 3: a centrally governed baseline-and-crediting and trading mechanism.

Option 1: a centrally governed baseline-and-crediting mechanism

17. In a baseline-and-crediting system, credits are issued on the basis of the extent to which verified emission reductions are lower than a counterfactual crediting threshold (also known as a baseline level). Credits are generally issued on an ex post basis, after appropriate measurement, reporting and verification (MRV) of the reductions in emissions. In most existing crediting mechanisms, the baseline aims to represent the level of emissions that would most likely have occurred in the absence of the incentive provided by the crediting mechanism. Much of the challenge in effectively implementing a baseline-and-crediting system lies in establishing the credibility of such crediting thresholds in a manner that allows them to be accepted internationally.

18. The major design options for baseline-and-crediting systems can be distinguished as:

(a) **Option 1(a)**: project/programme crediting against absolute baselines, under which specific activities, or programmes of similar activities,[14] are assigned a baseline specific to the activity. Such baselines are generally determined by one of the following: (i) historical emissions from the activity; (ii) emissions from the most economically attractive alternative technology; or (iii) emission levels of the best achievable technology or a specified top percentile of technologies in a specific time period. Credits are issued to the individual activities on the basis of how far their actual emissions are below the baseline;

(b) **Option 1(b)**: sectoral crediting against absolute baselines, which would be set for the total emissions from all emitters within the sector boundary. The baselines could be determined using: (i) historical emission data for the sector; (ii) projected 'business as usual' emission estimates, with or without consideration of existing, planned or likely policies; or (iii) emission levels of the best achievable technology or a specified top percentile of technologies. Emitters would need to measure and report their emissions, which would be subject to verification. Credits would be issued only to the extent that the total emissions of the sector were below the sectoral emission baseline;[15]

(c) **Option 1(c)**: project/programme crediting against intensity-based baselines (also known as performance benchmarks), which would be set in relation to the entire sector but could be applied to specific activities or programmes of similar activities. Such performance benchmarks could be determined using any of the methods described for options 1(a) and (b) above. However, they would be expressed as the emission intensity of the product (e.g. in tonnes of carbon dioxide equivalent (t CO_2 eq) per MWh or t cement/steel/paper) or service (e.g. in t CO_2 eq per passenger kilometre). Credits would be issued to the producers of the products or services on the basis of the difference between

[14] For example fuel switching, installation of energy-efficient equipment, construction of low-emission power generation plants or reforestation of a piece of land.

[15] Generally, the submissions and other materials reviewed have discussed a 'no-lose' approach, under which there would be no penalty if aggregate emissions exceeded the sectoral emission baseline, although it would be possible to require a sector to compensate for any emissions in excess of the baseline.

their actual emission intensity and the performance benchmark, multiplied by the volume of their production of the given product or service.

19. Sectoral crediting against absolute baselines, option 1(b) above, has the benefit that the allowed upper limit of emissions from a sector would generally be known. However, such crediting suffers from the challenge of appropriately transmitting incentives to individual entities within the sector. This is because entities face uncertainty as to whether other entities will reduce their emissions, whether the sector-wide emissions will be below the baseline, and the level of credits that will be disbursed to them.

20. Conversely, options 1(a) and (c) above are able to directly transmit incentives to individual entities as they would be in primary control of their emissions and hence the level of credits that they receive. The allowed upper limit of emissions from such entities, or indeed from the sectors that they operate in, would however not be known with certainty.

21. Within this centrally governed NMM, the governing body would supervise the day-to-day operation of the mechanism under the guidance and authority of the COP. The governing body would be mandated by the COP to develop and approve common rules, procedures and methodologies that apply to all Parties, while still taking into account individual national circumstances. As a centralized governance model, option 1 could draw upon the extensive experience gained through the CDM and JI.

22. The specific modalities of the governing body would however differ across the options set out in paragraph 18 above:

(a) Under options 1(a) and (c), which involve baselines for specific projects and programmes, the governing body would typically have the authority to approve baselines, assess the results of activities and issue the final credits. This would still allow for the tailoring of baselines to specific sectors and national circumstances, through opportunities for host Parties to participate actively in data collection and in proposing baselines. This is currently the case, for example, with standardized baselines under the CDM;

(b) In contrast, option 1(b) involves crediting being conducted at the sector-wide level and would require the mandatory participation and MRV of all entities and emissions within a sector. This would necessitate enforcement at a national level. As a result, while the governing body could potentially be granted the authority by the COP to approve baselines, assess results and issue the resulting credits, in practice the effective operation of this approach would require a high level of involvement by the host Party in jointly implementing and enforcing the mechanism with the governing body.

23. There would be numerous means of tailoring even a centrally governed baseline-and-crediting NMM to national circumstances and involving host Parties in the operation of the mechanism, for example through:

(a) The promotion of activities under the NMM in identified priority development areas of their economies, through the approval and/or support of such activities;

(b) The preparation and proposal of baselines for identified priority areas;

(c) Active roles for Parties in ensuring the required participation and MRV of entities and emissions in identified priority sectors.

24. The centrally governed baseline-and-crediting mechanism considered under option 1 would potentially have a number of distinguishing characteristics vis-à-vis options 2 and 3. In particular, option 1 could be expected to:

(a) Provide for stronger coordination and harmonization in the development of standards and processes, leading to less fragmented carbon markets and easier access for private-sector participants operating in multiple host Parties;

(b) Ensure robust environmental integrity and credibility through strong and coherent international oversight and transparency;

(c) Provide for greater economies of scale in the operation of the mechanism, greater opportunities to scale up the mitigation achieved through the NMM and greater liquidity in the market, leading to less volatility in the price of credits;

(d) Place fewer regulatory, technical and administrative burdens on host Parties, in particular where Parties do not engage in sectoral crediting against absolute baselines, leading to improved economies of scale in the provision of services and the avoidance of duplication in the work of Parties;

(e) Provide opportunities to build upon existing institutions and capacity developed through the mechanisms under the Kyoto Protocol, both internationally and within participating host Parties.

Option 2: a facilitative 'bottom-up' baseline-and-crediting mechanism

25. This option would retain the design focus on the baseline-and-credit approaches described for option 1. Generally speaking, the same design options described in paragraph 18 above could be implemented for a facilitative bottom-up mechanism.

26. Where option 2 would differ from option 1 would be in the role of the governing body established by the COP vis-à-vis the nature and degree of the functions and responsibilities assumed by host Parties. As discussed in paragraph 23 above, the centralized mechanism under option 1 provides opportunities for host Parties to involve themselves in the operation of the NMM. Option 2 could extend those opportunities further, within a framework set by the COP and further elaborated by the governing body, by:

(a) Host Parties assuming authority to approve baselines, assess emission reductions and/or issue the resulting credits;

(b) Host Parties assuming authority to establish their own systems and processes.[16]

27. The governing body would facilitate such 'bottom-up' roles by establishing guidance for host Parties on either or both of the roles outlined in paragraph 26 above. Such guidance could take the form of either a set of minimum mandatory standards or a set of voluntary best practice guidelines. The governing body could also provide capacity-building support to host Parties in the implementation of their roles under the NMM.

28. To fulfil their functions and responsibilities, host Parties would need to establish regulatory, technical and administrative capacity at the national level that may go significantly beyond that required for the centralized model described for option 1. This would involve, depending on the extent of the functions assumed, the preparation and adoption of regulations, the definition of technical standards, the establishment of assessment criteria, the conduct of assessments, the maintenance and connectivity of a registry, the conduct of issuance, the establishment of enforcement measures, the establishment of liability frameworks, etc.

[16] For the purpose of illustrating the difference between these suboptions, it may be worth noting that the CDM ascribes these functions to its Executive Board.

29. The facilitative 'bottom-up' baseline-and-crediting mechanism considered under option 2 would potentially have a number of distinguishing characteristics vis-à-vis options 1 and 3. In particular, option 2 could be expected to:

(a) Provide greater autonomy for host Parties in the calculation and issuance of credits under the NMM, which may lead to more effective tailoring of the mechanism to specific sectors or national circumstances;

(b) Provide for less harmonization and compatibility in the development of standards and processes, leading to more fragmented carbon markets and potentially more barriers to private-sector participants operating in multiple host Parties;

(c) Introduce perceived or real risks to the environmental integrity, credibility and transparency of the mechanism;

(d) Place greater regulatory, technical and administrative burdens on host Parties, some of which would be duplicated across multiple host Parties.

Option 3: a centrally governed baseline-and-crediting and trading mechanism

30. This option would have a governance structure similar to that described for option 1. It would include the baseline-and-crediting approach described for option 1, but would also include a centrally governed emissions trading system in its design.

31. Such emissions trading could be applied at different levels:

(a) At the international level, in a manner similar to emissions trading under Article 17 of the Kyoto Protocol. This would necessitate national targets and units to be established at the international level. If this were to take shape, it appears more likely that it would be addressed under the FVA;

(b) At the sectoral level, within a host Party, through either absolute or intensity-based emission targets. Sectoral emissions trading requires the mandatory participation of all emitters within the defined sectors that meet defined criteria. It also requires mandatory MRV in accordance with established rules, mandatory surrender of emission units at the end of each compliance period, and penalties in the case of non-compliance.

32. In the light of those options, it is difficult to visualize a role for the governing body with respect to emissions trading. If such trading were to take shape at the international level, it appears more likely that it would be addressed under the FVA. With respect to sectoral emissions trading, the necessary authority to require and enforce actions by non-state actors lies only with national governments, where it can be established through national legislation. Furthermore, it is difficult to see Parties allowing the governing body to approve their sectoral caps or to decide which other trading systems they should link to.

33. The principal benefit of undertaking domestic emissions trading through the NMM may be that the international units issued would be automatically eligible for international transfer and use to meet international mitigation commitments. However, it is expected that this issue will be addressed under the FVA.

B. Elaboration of possible elements of the modalities and procedures of the new market-based mechanism

1. Overview

34. This section addresses the broad elements that are likely to need to be covered in the modalities and procedures for the NMM in order to allow for its effective implementation.

The specifics of what needs to be included, and how, are ultimately dependent upon choices made with respect to the design and governance of the mechanism.

35. The appropriate level of detail of the modalities and procedures will also need to be determined, for example limiting the modalities and procedures to the level of institutions and principles that require political decisions to be made by the COP, while allowing more scope for the governing body to determine matters of a more practical implementation nature. This would allow greater flexibility in the mechanism to be able to learn from experience and respond to changing circumstances.

2. Possible elements

36. The following possible elements of the modalities and procedures for the NMM have been drawn from the submissions and other materials considered in the preparation of this document, as well as from the modalities and procedures for the CDM and JI, both of which offer valuable experience with the types of issue needing to be addressed:

(a) **Purpose**: Provisions could elaborate on the purpose given in decision 1/CP.17, paragraph 83, within the context of contributions towards the ultimate objective of the Convention, and set out the scope of activities under the NMM and the use of credits or other units created under the mechanism;

(b) **Definitions of terms**: Provisions could define the terms used in the modalities and procedures;

(c) **Governance and institutional arrangements**: Provisions could set out the functions and responsibilities of actors in relation to the NMM, including those of the COP, governing board, Parties and other participants, and also set out arrangements for means of redress or appeal against decisions of the Board. Provisions could also set out key modalities relating to the governing body, such as membership, competencies and terms of service, and the secretariat's provision of support to the mechanism;

(d) **Participation requirements**: Provisions could set out eligibility criteria that Parties need to meet in order to participate in the NMM on a voluntary basis. These may be differentiated by Parties hosting activities and other Parties involved in activities or using the resulting credits in fulfilment of commitments. Provisions could also address the participation of public and/or legal entities in the NMM;

(e) **Registration and MRV requirements**: Provisions could set out cornerstone elements of processes for conducting the registration and MRV of activities under the NMM, including the roles and responsibilities of different actors and the principles to be applied through standards. These provisions could be limited to elements or principles that Parties consider necessary to determine at a political level through the COP, while leaving their practical implementation to be determined by the governing body. Where windows are established in the NMM to implement different types or levels of activity, these would require consideration within the content and structure of these provisions;

(f) **Issuance and accounting requirements**: Provisions could set out cornerstone elements of processes for issuing credits and of rules for their accounting. These would need to address registries established for the NMM as a whole, as with the CDM registry, or by Parties individually or jointly. The provisions would need to be made consistent with the accounting framework for assessing progress made towards achieving mitigation objectives under the Convention;

(g) **Administrative and other arrangements**: Provisions could set out modalities for funding the administrative expenses of the NMM, including in its initial phase, and to assist Parties with the costs of adaptation, for example through the establishment of shares of proceeds. They could also set out the time frame for the

operation of the NMM, including in relation to the possible recognition of early action or a 'prompt start' of the mechanism.

37. It is apparent that the initial guidance on the CDM, JI and emissions trading under the Kyoto Protocol, as agreed at COP 7 through the Marrakesh Accords and later adopted at CMP 1 by decisions 2/CMP.1, 3/CMP.1, 10/CMP.1, 11/CMP.1 and 13/CMP.1, appears to form a useful reference point when considering the modalities and procedures required for the NMM.

C. Meaning of a "net decrease and/or avoidance of global greenhouse gas emissions"

1. Overview

38. The issue of a "net decrease and/or avoidance of global GHG emissions" has a long history in the discussions on various approaches to enhance the cost-effectiveness of, and to promote, mitigation actions. In deciding to consider establishing one or more market-based mechanisms, COP 16 listed it as an issue to be taken into account.[17] COP 17 emphasized that various approaches must achieve it and stated that the NMM is to be guided by it.[18] Furthermore, in requesting the SBSTA to conduct the work programme referred to in paragraph 9 above, COP 18 requested that the issue be considered as part of it.[19]

39. Despite the number of references to the concept, there is still no common view among Parties as to what it is, how much of it may be needed or what measures could be introduced to achieve it. Those issues are addressed in this section.

40. The issue began as a reflection on the CDM, which generates emission reductions and removals which, once issued as certified emission reductions (CERs), are transferred to a Party included in Annex I to the Convention (Annex I Party) under the Kyoto Protocol and added to the overall assigned amount of that Party. This means that the CERs may be used by the Annex I Party to increase its emissions, or at least to reduce its emissions by less, while still complying with its Kyoto Protocol target. To the extent that the Annex I Party uses the CERs for compliance with its Kyoto Protocol target, this cancels out the initial reduction in emissions in the Party not included in Annex I to the Convention. This has led to calls for the CDM to "go beyond offsetting" by incorporating measures to introduce "net mitigation".

41. In fact, the CDM already has a component of net mitigation, but it is difficult to quantify and hence often goes unnoticed. This net mitigation stems from a number of factors, including that: the methodologies for calculating emission reductions are inherently conservative; emission reductions continue after the crediting lifetime of projects; the 'multiplier effect' of projects often means that technology or capacity that has entered the country via the CDM is used more broadly; CERs are not always issued for all emission reductions generated by projects; and some CERs are cancelled for voluntary purposes.

42. The presence of such factors in the CDM is not due to calls for net mitigation, but is in fact largely inevitable within any crediting system. It is not possible to reliably measure all of the factors and take them into account in the issuance of CERs (not at a reasonable cost, at least). This results in emission reductions that remain uncredited, and also generally not estimated. Such emission reductions are not assigned to any project participants or Parties and they simply go to the benefit of the environment. That said, there may be

[17] Decision 1/CP.16, paragraph 80(e).
[18] Decision 2/CP.17, paragraphs 79 and 83.
[19] Decision 1/CP.18, paragraph 51(c).

different views as to whether such net mitigation is sufficient or if further net mitigation should be integrated into such crediting systems.

2. Options

43. In general terms, a net decrease and/or avoidance of global GHG emissions refers to the number of credits from an activity used to offset other emissions being lower than the actual emission reductions or avoidance resulting from the activity. In this context, "net" refers to the actual emission reductions/avoidance minus the portion used as offsets.

44. There are a number of measures that may strengthen the net mitigation in the NMM, or in fact in any market-based mechanism. Broadly speaking, net mitigation can be strengthened by adjustments on either the supply or demand side, or on both sides.

Option 1: supply-side adjustments

45. Adjustments on the supply side would generally be for the purpose of reducing the number of credits issued to below the actual reduction/avoidance that has occurred. Most methods would be implemented by adjusting downward the upfront calculation of the reduced/avoided emissions. Careful judgement would be required in determining the appropriate adjustment, given that the actual reduction/avoidance is not known with certainty. In some cases, adjustments may be made for the purpose of reducing the risk that emission reductions/avoidance may have been overestimated.

46. A number of options are possible for downwardly adjusting the upfront calculation of the reduced/avoided emissions:

(a) **Option 1(a)**: Increasing the conservativeness of baselines, for example by setting conservative default parameters, results in baselines being set below what is considered to be the 'business as usual' level;

(b) **Option 1(b)**: Reducing the length of crediting periods means that the crediting of reduced/avoided emissions ceases even though the actual reduction/avoidance continues during the remaining technical lifetime of the activity;

(c) **Option 1(c)**: Taking into account domestic mitigation policies (existing and/or planned) when setting baselines has the effect that credits are only issued for reduction/avoidance that goes beyond the levels already required by domestic policies;

(d) **Option 1(d)**: Using dynamic baselines provides for a means of periodically aligning and/or adjusting the crediting baseline or thresholds, taking into account changes in technological advancement and/or the penetration of the deployed technology;

(e) **Option 1(e)**: Excluding certain technologies or sectors from crediting may avoid potential risks of perverse incentives or non-additionality.

47. Alternatively, under an **option 1(f)**, discount factors could be applied at the point of issuing the credits, after the calculation of the emission reductions/avoidance, to reduce the amount of credits issued. Discounting on the supply side would need to be conducted by the issuer of the credits, which may well be the regulator of the NMM, in accordance with agreed rules. Discount rates could be uniformly applied in all issuance cases, for example specifying that 100 t emissions reduced/avoided would give rise to 75 credits, or could potentially be varied, for example for different activity types or different Parties.

48. As the calculation of emissions reduced/avoided would remain unaffected by the discounting, the impact of the adjustment on net mitigation would be known and it would be possible to aggregate the net mitigation achieved per activity type, sector, country, etc.

This would improve the transparency of the net mitigation. It would also allow for the net mitigation amounts to be tracked and attributed to Parties if deemed appropriate.

49. It should be stressed that a degree of net mitigation resulting from factors such as those discussed in paragraph 41 above will always be present. Although the degree of such net mitigation is unlikely to be known with great certainty, it constitutes a form of net mitigation and could be taken into account when considering the appropriate level of net mitigation to implement through upfront calculations or the discounting of issuance.

Option 2: demand-side adjustments

50. Adjustments on the demand side could be applied at the point of using the credits in fulfilment of commitments through discount factors that reduce the amount of offsetting that can be achieved with a given number of credits. For example, it may be determined that 100 credits, representing 100 t emissions reduced/avoided, may only offset 75 t emissions of the offset user. In this example, 75 credits would be retired against the commitment and the remaining 25 credits should be cancelled immediately to remove any risk that they may be used a second time in fulfilling a commitment.

51. Such demand-side discounting would need to be conducted at the point of use, by a Party in demonstrating the fulfilment of it international commitments or by a regulator of a domestic emissions trading system when entities surrender credits in compliance with their targets. The discount rates could be agreed internationally or could be set by the Party, in which case they would likely differ among Parties and would not require specific provisions to be embedded in the rules of the NMM.

52. As with the application of discount rates on the supply side, this approach would improve the transparency of the level of net mitigation achieved, but there will always be a degree of net mitigation resulting from the factors discussed in paragraph 41 above. This could be taken into account when determining the appropriate level of discounting to apply.

53. The difference between discounting on the supply and demand sides may not be as great as it may appear. It would be reasonable to expect that applying the same discount rate on the supply or demand side will filter through to the same or at least a similar value for the seller and buyer. Using the above example, issuing 75 credits instead of 100 would be reflected in reduced supply and higher credit prices. Similarly, on the demand side, receiving 75 t offsets for 100 surrendered credits could be expected to increase demand for credits and raise credit prices.[20]

Apportionment of reduced or avoided emissions

54. Net mitigation needs to be seen in the context of who claims the reduced/avoided emissions from the activity. The submissions and materials reviewed in the preparation of this document refer, overall, to the actual reductions/avoidance of emissions achieved via an activity being apportioned in up to three possible ways:

(a) A portion claimed by the investing Party, through either the Party or its entities being attributed credits under the NMM. These may be used to offset its emissions;

(b) A portion claimed by the host Party as its contribution to the mitigation brought about through the activity. This is sometimes referred to as the host Party's 'own contribution'. This portion may be attributed to the host Party as a quantity of emissions reduced/avoided or as a quantity of credits. It may or may not be part of a commitment, pledge or contribution of the host Party. This portion would constitute net mitigation as

[20] In practice, the values may be slightly higher or lower, owing for example to barriers and information asymmetries in the marketplace.

long as it is not used as an offset to justify higher emissions elsewhere and as long as it does not become a reason not to fulfil another commitment, pledge or contribution;

(c) A portion 'claimed' by the environment, in that it is not attributed to any Party. This portion results from the type of factors discussed in paragraph 41 above and may be extended further by the measures discussed in paragraphs 45–53 above. As this reduction/avoidance of emissions is not used as an offset to justify higher emissions elsewhere, it constitutes a contribution to net mitigation as a result of the activity.

55. The transparency of the discounting approaches, on both the supply and demand sides, can support the apportionment. For example, the Parties or entities involved could agree the apportionment in advance, with portions being determined for the investing and host Parties or their entities, and a portion being dedicated to the environment alone.

56. It is worth noting that, while the first two portions may be known with certainty, the third portion cannot be so clear. Even where the 'claim' of the environment is supported by the transparent use of discount rates, there is always an unknown quantity of uncredited and uncalculated reductions or avoidance of emissions.

57. Consideration should be given to the purpose, conceptually, of separating out this third portion. It is clear that it exists, that it can be strengthened and that this may increase the conservativeness of the NMM. However, it may be the case that the important factor for Parties is that the design of the NMM ensures that net mitigation occurs at a global level, by not all of the reduced/avoided emissions being cancelled out through their use as offsets. It may be of secondary importance to Parties that a portion of the known net mitigation arising from activities is not claimed by either the investing or host Parties.

D. Lessons learned from the mechanisms under the Kyoto Protocol

1. Overview

58. The mechanisms under the Kyoto Protocol – the CDM, JI and international emissions trading – now have over a decade of implementation experience behind them. This section seeks to identify lessons learned from that experience that may be useful in the development and implementation of the NMM.

2. Possible lessons

59. **Focus the modalities and procedures on high-level requirements**: The original decisions of the CMP on the Kyoto Protocol mechanisms are, in places, more prescriptive than necessary. This is procedurally difficult to change and can unnecessarily restrict and complicate the work of the regulatory bodies. At the same time, the decisions sometimes do not elaborate principles that could potentially guide implementation when issues are faced that were not foreseen at the time of their adoption. It may be useful to concentrate the modalities and procedures for the NMM on principles and criteria that need to be achieved, as well as on the roles in and responsibilities for their achievement, and perhaps provide an overview of the processes foreseen. Ultimately, the criteria for including material in the modalities and procedures could be whether it requires political guidance by the COP and whether the governing body is given sufficient clarity in operationalizing the mechanism.

60. **International oversight is fundamental to credibility, trust and transparency**: The authority of a regulatory body, working in an objective manner on behalf of the UNFCCC to supervise a mechanism, has a substantial impact on the way that a mechanism is perceived. Mechanisms involve activities and credits of substantial value and, in this context, it is almost inevitable that host governments will at times be perceived as having a

conflict of interest. The impact of international oversight is greatest when it extends to the approval of activities and the issuance of credits, as with the current CDM and JI Track 2.

61. **Private-sector engagement is essential for the mobilization of activities**: The CDM and, to a lesser extent, JI saw rapid upskilling and engagement from private-sector entities in order to participate in them. This was driven largely by the integration of CERs into emissions trading systems implemented at the national and regional levels, and recent declines in the demand for CERs from these sources have correspondingly reduced the engagement of the private sector. Nevertheless, the preconditions for the active engagement of the private sector in mechanisms are clear: its engagement is promoted by stability and simplicity in the regulatory framework of the mechanism, predictability of the credits that entities can expect to generate, and low levels of uncertainty at the national level with regard to policy, demand for credits and case-specific decision-making.

62. **Common approaches are preferred over fragmented approaches**: Participants in the CDM, and to a lesser extent JI, have benefited from uniform approaches, processes and standards being available to them, irrespective of where in the world they operate. This significantly reduces the capacity and transaction costs required for entities to operate in multiple jurisdictions. Accordingly, it enables larger economies of scale, increased investment and, ultimately, a greater volume of achievable mitigation.

63. **Save time and effort by building on existing infrastructure**: There has been considerable investment, over more than a decade, in the processes, standards, systems and capacity of the Kyoto Protocol mechanisms. This is especially the case for the CDM. It is likely that any baseline-and-crediting functions under the NMM will need to apply the same or similar infrastructure, and there may be benefit in integrating such infrastructure, or at least aspects of it, directly into the NMM. This would still allow for adjustments to be made for the benefit of further streamlining the implementation of the infrastructure and the activities implemented under it. Such aspects of the infrastructure include:

(a) The modalities and procedures for the CDM and/or JI;

(b) The project cycle developed for activities under the CDM;

(c) Processes for the development and revision of methodologies and tools under the CDM, as well as the methodologies, tools and standardized baselines themselves;

(d) The system for accrediting independent third-party validators and verifiers under the CDM and/or JI;

(e) The registry established under the CDM;

(f) The international transaction log.

64. **The need for greater standardization, objectivity and simplicity**: The CDM is generally seen to exercise a high degree of environmental integrity. This is largely achieved through the detailed development and assessment of project documentation on an activity-by-activity basis. However, this also contributes to the CDM being seen by many as a complex mechanism to work with and this limits participation. Standardizing project parameters in an objective manner across many individual activities, instead of calculating them for each activity, can significantly simplify their implementation. For example, once a relevant standardized baseline is approved, project developers no longer need to undertake the complex task of baseline development. The risk of issuing more credits than appropriate is addressed by ensuring that baselines are sufficiently conservative. For participants in the mechanism, such standardization may imply the generation of fewer credits, but this would be to the benefit of the environment and provides for significantly reduced transaction costs for the participants.

65. **Ensure the leveraging of sustainable development co-benefits**: Mitigation activities often offer sustainable development co-benefits that are more valuable than the mitigation benefits alone. This goes largely unnoticed under the CDM and JI, where they are often not prioritized within activities and are typically not measured, reported or verified in a consistent manner. There are different views on whether this is appropriate, and this amounts largely to a question of the appropriate role of regulatory bodies vis-à-vis Parties in this regard. Nevertheless, one lesson is that neither the CDM nor JI are currently realizing the potential that they offer in promoting sustainable development in host Parties.

66. **Further clarify the non-political nature of regulatory bodies**: Constituted bodies with supervisory and regulatory roles are sometimes perceived as extensions of the COP, with decision-making on matters of policy and technicality sometimes being seen as an extension of political negotiation. This is sometimes due to political issues being left unresolved at the level of the COP and because Parties tend to elect mostly negotiators to the regulatory bodies. It may be helpful for the COP to resolve matters of political guidance more fully, which may allow the regulatory bodies to concentrate on identifying the most effective means of implementing that guidance at the policy and technical levels.

67. **Ensure broad expertise in the membership of regulatory bodies**: A clearer distinction between the political role of the COP and the policy and technical roles of regulatory bodies, as discussed in paragraph 66 above, may require clearer guidance from the COP on means to ensure the appropriate mix of perspectives in the governing body's membership (i.e. those of the public and private sectors as well as of relevant non-governmental communities) and to leverage technical, legal and economic expertise relevant to the mechanism.[21] Governing bodies need to address many issues of a very complex technical and policy nature, for example issues of additionality demonstration, which require a deep understanding of the drivers of decision-making on investments.

68. **Ensure opportunities for early action or a 'prompt start'**: A prompt start of the CDM was facilitated in principle by decision 17/CP.7 through the COP adopting the modalities and procedures of the mechanism. This provided for the CDM Executive Board to commence its establishment of the CDM system immediately after the Marrakesh Accords had been adopted in 2001. The scope of retroactive crediting, for emission reductions achieved prior to the registration of project activities, was ultimately decided by the CMP after it commenced its functions with the entry into force of the Kyoto Protocol.[22] A similar arrangement for crediting such early action could be of benefit to the NMM and strengthen mitigation ambition in the pre-2020 period.

E. Relationship with the framework for various approaches and the Kyoto Protocol mechanisms

1. Overview

69. The relationship between the NMM, the FVA and the existing mechanisms under the Kyoto Protocol remains open at this stage. The purpose and scope of the NMM and the FVA have not yet been clarified, the discussion on their relationship with the post-2020 climate regime is only now beginning and the future of the Kyoto Protocol mechanisms beyond the second commitment period of the Kyoto Protocol has also not yet been discussed. Nevertheless, the submissions and materials considered in the preparation of this document explored opportunities for synergy between the instruments and how they may complement each other.

[21] See decision 3/CMP.6, paragraph 7, in relation to the terms of the reference of the CDM Executive Board.

[22] See decision 7/CMP.1, paragraph 4, and decision 1/CMP.2, paragraph 4.

70. There are increasing calls for these matters to be seen in the context of the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) and its work to develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention that is to come into effect and be implemented from 2020. This is commonly referred to as the 2015 agreement. In the context of its deliberations on the FVA, non-market approaches (NMAs) and the NMM, SBSTA 40 noted that the work of the ADP is informed by the work of the subsidiary bodies, and also noted that its work on the FVA, NMAs and NMM is being conducted without prejudice to the work of the ADP on the 2015 agreement and pre-2020 ambition.[23]

71. The relationship between the NMM, the FVA and the Kyoto Protocol mechanisms may also be dependent upon any accounting framework applicable to the 2015 agreement. This issue is emerging in discussions under both the FVA and the ADP. It refers to the need for a comprehensive accounting framework that sets out how a Party's fulfilment of a commitment, pledge or contribution under the Convention is to be assessed, including which actions may count towards that fulfilment. If credits or any other units generated under the NMM are to be used for such fulfilment under the 2015 agreement, it will be necessary for them to be taken into account within the accounting framework.

72. In this context, it is worth noting that the Doha Amendment to the Kyoto Protocol establishes a link – at least in one direction – between the NMM and the Kyoto Protocol. The amendment provides for the use of units from market-based mechanisms under the Convention or its instruments to achieve compliance with targets in the second commitment period of the Kyoto Protocol.[24] Many of the submissions pointed to this link as grounds for the view that the NMM must be as stringent in its standards as the Kyoto Protocol mechanisms in order for it not to weaken the targets defined for the second commitment period of the Kyoto Protocol.

2. Options

73. Regarding the **relationship between the NMM and the FVA**, this may depend upon the shape ultimately to be taken by the FVA. For example, the FVA may evolve as a framework for assessing and determining which market-based and non-market-based mechanisms are able to generate mitigation outcomes that are recognized internationally. Alternatively, the FVA may evolve as a set of eligibility criteria for Parties to meet if they wish units from their national mechanisms to be valid for international transfer and use in fulfilling commitments, backed up by a set of mechanism-related aspects of the wider accounting framework for the 2015 agreement.[25]

74. However, in either case, it would be possible for the COP to separately determine that credits generated under the NMM are valid, under the accounting framework of the 2015 agreement, for international transfer and use in fulfilling commitments, without bringing the NMM under the governance of the FVA. In particular, Parties may not deem it appropriate for a mechanism established under the UNFCCC to need to pass through an assessment under the FVA before being allowed to operate as intended.

75. The context for the **relationship between the NMM and the Kyoto Protocol mechanisms** is formed by the time frames of the mechanisms and the instruments to which they are linked. The Kyoto Protocol mechanisms are currently tied to the Kyoto Protocol, for which only first and second commitment periods extending to the end of 2020 have been defined. The Kyoto Protocol mechanisms are established by provisions of the Kyoto Protocol that are not strictly limited to specific commitment periods, but in practical terms

[23] FCCC/SBSTA/2014/2, paragraphs 164, 176 and 188.
[24] Decision 1/CMP.8, annex I, Article 3, paragraph 12 bis.
[25] The possible shape of the FVA is discussed further in document FCCC/TP/2014/9.

the operation of JI and international emissions trading is dependent upon targets and assigned amounts being established. The operation of the CDM, and the issuance of CERs, is not dependent upon either targets or assigned amounts being in place for specific commitment periods.

76. The time frame for the operation of the NMM has not yet been defined, although many Parties link it to the 2015 agreement. Some Parties express a wish for the NMM, as well as the FVA and NMA, to be operational prior to 2020. In the context of the 2015 agreement, this may be referred to as giving recognition to 'early action'.

77. Another matter of time frame is that, in the short to medium term, it can be expected that only certain sectors and countries would be ready to make a step into sectoral crediting or emissions trading, especially where there are significant data collection and capacity needs. Accordingly, there may be a need to maintain project- and programme-level approaches for some time.

78. There appear to be two broad options for the relationship of the NMM with the Kyoto Protocol mechanisms for the period from 2020 onward:

(a) **The coexistence of the NMM, the CDM and potentially JI**: The CDM would most likely continue its current focus on project activities and programmes of activities, while the NMM could focus more exclusively on sector- or policy-based approaches. This may be seen as beneficial in promoting innovation and allowing for a greater variety of approaches, or as an unnecessary fragmentation of the carbon market, leading to higher administrative costs and a greater likelihood of the crediting scopes diverging in their approaches;

(b) **The consolidation of the NMM, the CDM and JI**: The infrastructure and activities under the CDM and JI could be integrated into the NMM, possibly as a separate 'window' under that mechanism. This would bring the infrastructure and activities of the CDM and JI under the same framework as other parts of the NMM and could be expected to bring greater harmonization in the approaches taken.

79. Lastly, it should be noted that international emissions trading under Article 17 of the Kyoto Protocol, as a provision for transferring and acquiring assigned amounts among Parties, is very specific to the legal agreement under which it operates. The equivalent of such trading under the Convention is being considered under the FVA.

F. Relationship to enhanced mitigation ambition

1. Overview

80. It is often stated that the use of mechanisms such as the NMM by Parties can lead to enhanced mitigation ambition. This section explores the basis for that claim. It also explores whether there is a need for transparency in terms of the extent to which a Party's mitigation ambition has in fact been increased as a result of its access to the NMM and how such transparency could be achieved.

2. Options

81. Some submissions and materials suggested that ambition can be enhanced through the use of mechanisms that increase the scale at which mitigation activities are occurring. The NMM could be expected to increase the extent to which cost-effective mitigation opportunities are taken up, through its channelling of finance, technology and capacity-building and the engagement of the private sector.

82. One aspect of such enhancement of ambition is increased mitigation activity. The impact on global emissions would be greater to the extent that the NMM would result in emission reductions that are not used as offsets that increase emissions elsewhere. Options for ensuring that the NMM results in net mitigation at the global level are discussed in chapter III.C above, which outlines the benefits of ensuring the transparency of how much reduction, removal or avoidance takes place and clearly distinguishing between that which is used to offset emissions, that which is attributed to the host Party's contribution and that which remains unattributed to any Party but is nevertheless beneficial to the environment.

83. A second aspect of the enhancement of ambition is that using the NMM to generate offsets for investing Parties can reduce their costs of complying with the targets that they have taken on. The NMM – as well as any other mechanisms that give access to lower-cost mitigation opportunities abroad – may prompt some Parties to increase their contribution to mitigation, although some submissions have pointed out that this is not automatic and requires a level of political commitment to increasing ambition.

84. The question then arises as to whether, and how, a Party may demonstrate that it is using access to the NMM and other mechanisms to strengthen its mitigation ambition. Some of the submissions and other materials used in preparing this document suggested that Parties with mitigation commitments set at the international level could set higher reduction targets if the additional amount could be achieved outside of their jurisdictions. For example, a Party may express its reduction target in two forms: one target without use of the NMM and other mechanisms; and a more ambitious target with the use of the NMM and other mechanisms.

85. Such separation of targets – with and without the use of mechanisms – would make transparent the extent to which using such international mechanisms has driven an increase in ambition. In practice, some of the reductions achieved internationally may not be used as offsets domestically and others may be. In either case, a Party's ability to reduce emissions will have been strengthened by giving it access to lower-cost mitigation opportunities. This also means that, when looking back on how a Party has fulfilled its higher reduction target, there may not be a clean split in domestic versus international reductions in the same proportion as the difference between the Party's two targets. What will remain important, however, is that the access to such mechanisms is what prompted the Party to make the political step of committing itself to higher mitigation ambition.

IV. Possible implications for the work programme

86. A number of possible implications for the SBSTA work programme on the NMM can be identified as arising from this document and the submissions from Parties and admitted observer organizations, as well as other relevant materials, considered during the course of its preparation. The following should not be seen as a fully comprehensive set of possible implications, but may be seen as an attempt to highlight key issues that may be of importance to the future work of the SBSTA.

87. It should be said that it may not be possible for Parties to take a final decision on the nature of the NMM in advance of more clarity emerging from the discussions under the ADP on the 2015 agreement. It may therefore be worth exploring how, in that context, Parties might be able to provide more clarity on the focus and priority of the SBSTA work programme on the NMM in 2015.

88. There is a need to **determine more clearly the overall concept of the NMM**. This would enable further steps in the work programme to be taken. Much of the material and analysis considered in preparing this document suggests that the NMM could be a baseline-and-crediting mechanism operating under the Convention, with a governing body reporting

to the COP, that provides for a more diverse set of activities than the CDM and potentially more enhanced opportunities for the engagement of the host Party in guiding activities in their territory. It would be important to preserve clear incentives for the engagement of the private sector. There is a need to clarify the scope of the NMM, for example in relation to the level at which activities should occur, the type of activities and their geographical reach. It is also important to clarify whether emissions trading should be incorporated.

89. It may be helpful for the development of the NMM to **remain abreast of developments in the accounting framework under the 2015 agreement**, as many Parties foresee that an NMM in the post-2020 period will need to fit within that wider context.

90. It would also be helpful to keep a **clear and simple distinction between the NMM and the FVA**. The analysis in this document suggests that the NMM may be more suited to an environment of more centralized operation and governance, whereas the FVA may be more suited to decentralized networks. The analysis finds that bringing the scope of the NMM in the direction of decentralization and/or emissions trading may increase the likelihood of overlap between the functions of the NMM and the FVA.

91. The **relationship of the NMM with the CDM and JI** is also in need of clarification. If the CDM and JI are to continue after 2020, it will need to be determined whether they should coexist with the NMM or whether they should be consolidated, perhaps as separate 'windows' within the NMM. Both options would technically be possible. If they are to coexist, the NMM may focus on sectoral baseline-and-crediting activities, and perhaps also on emissions trading, while the CDM and JI may continue their focus on projects and programmes. Consolidation may offer the opportunity for greater harmonization and coherence across the different levels of such baseline-and-crediting activities.

92. There are many **opportunities for the NMM to learn from the CDM and JI**, rather than 'reinventing the wheel', including, where appropriate, to build upon the infrastructure and activities developed for the CDM and JI. Experience with those mechanisms stresses the need in the future to build common or harmonized approaches to mechanisms, provide clear incentives for the participation of the private sector and ensure robust international oversight. Experience has also shown the need to ensure that standardization, objectivity and simplicity are embodied within the NMM.

93. It is also apparent that **the issue of net mitigation in the NMM needs resolution**. This is largely an issue of how much of the benefit resulting from activities should be received by Parties in the form of opportunities to use offsets. The analysis in this document finds that it would be beneficial to use discounting approaches, as these are transparent as to the degree of net mitigation that occurs. It would also be helpful to distinguish when such approaches are used to ensure a benefit to the environment and when they are used to apportion the effort and credit for activities between investing and host Parties.

94. It appears that **further clarity is needed on the issues discussed in paragraphs 86–93 above as input to the preparation of the modalities and procedures for the NMM**. The elements contained in chapter III.B above may be useful in informing the structure and content of the modalities and procedures. It may be helpful to limit the modalities and procedures to the level of institutions and principles that require political decisions to be made by the COP.

Annex

List of key relevant materials drawn upon in preparing this document (excluding Parties' submissions)

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