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Possible changes to the modalities and procedures for the clean development mechanism

Technical paper

Summary

This document provides a technical analysis by the secretariat of possible changes to the modalities and procedures for the clean development mechanism (CDM) in the areas specified in decision 4/CMP.9 and of the implications thereof, as requested by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its ninth session. The possible changes analysed in this document are based on the inputs from Parties, stakeholders and the Executive Board of the CDM to date on the review of the CDM modalities and procedures.

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I. Introduction

A. Mandate

1. Pursuant to decision 3/CMP.1, the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) initiated the first review of the modalities and procedures for the clean development mechanism (CDM modalities and procedures).[1]

2. The CMP, through decision 4/CMP.9, requested the secretariat, drawing on the discussions that took place at the thirty-ninth session of the Subsidiary Body for Implementation (SBI), to prepare a technical paper, by 19 March 2014, on the following issues relating to possible changes to the CDM modalities and procedures, including their implications, for consideration by the SBI at its fortieth session:

(a) The membership and composition of the Executive Board of the clean development mechanism (the Board), including similarities to and differences from other intergovernmental bodies within the UNFCCC process;

(b) The liability of designated operational entities (DOEs) to compensate for the issuance of certified emission reductions (CERs) resulting from significant deficiencies in validation, verification and certification reports;

(c) Provisions for programmes of activities (PoAs);

(d) Length of the crediting period;

(e) Requirements for the demonstration of additionality;

(f) The further elaboration of the role of designated national authorities (DNAs) of Parties included in Annex I (Annex I Parties) and Parties not included in Annex I (non-Annex I Parties);

(g) The simplification and streamlining of the project cycle for certain project categories.

B. Scope of the paper

3. This paper presents an analysis by the secretariat of possible changes to the CDM modalities and procedures, including their implications, for the issues referred to in paragraph 2 above. The analysis is based on issues identified in the informal note by the co-chairs of the informal consultations on agenda item 7(a) at SBI 39 on the consolidated list of possible changes to the CDM modalities and procedures,[2] which compiled the following inputs:

(a) Submissions from Parties;[3]

(b) Recommendations of the Board;[4]

(c) Report on the workshop on the review of the CDM modalities and procedures, held in Bonn, Germany, on 8 and 9 June 2013;[5]

[1] Decision 3/CMP.1, annex; decision 4/CMP.1, annex II; decision 5/CMP.1, annex; and decision 6/CMP.1, annex. Unless otherwise specified, references to paragraph numbers of the CDM modalities and procedures in this technical paper refer to decision 3/CMP.1, annex.

[2] <http://unfccc.int/files/adaptation/application/pdf/sbi39_i7a_15nov1300_note_by_co-chairs_v2.pdf>.

[3] FCCC/SBI/2013/MISC.1 and Add.1.

[4] FCCC/SBI/2013/INF.1.

(d) Oral interventions made at the informal consultations and written submissions received from Parties during SBI 39.

4. In addition, reference is made, where appropriate, to analysis undertaken by or on behalf of the Board. The list of all possible changes analysed in this technical paper is contained in annex I.

5. It should be noted that the scope of this technical paper does not include analysis as to the transitional measures that would be necessary for the clean development mechanism (CDM) and its registered project activities and PoAs to make the transition from the current CDM modalities and procedures to new rules.

C. Possible action by the Subsidiary Body for Implementation

6. In accordance with decision 4/CMP.9, the SBI may wish to consider the analysis contained in this technical paper at SBI 40, in conjunction with views to be submitted by Parties and admitted observer organizations in accordance with the same decision. In this regard, the SBI may wish to take into account the issues of transition referred to in paragraph 5 above when considering the issues below, as well as paragraph 4 of decision 3/CMP.1, which sets out that any revision of the CDM modalities and procedures shall not affect CDM project activities already registered.

II. Analysis by the secretariat of possible changes to the modalities and procedures for the clean development mechanism

A. Membership and composition of the Executive Board of the clean development mechanism

1. General considerations

7. The submissions from Parties, the workshop report and the co-chairs' informal note referred to in paragraph 3 above expressed a number of areas where changes in relation to membership and composition of the Board could be made. In this regard, it could be noted that such changes would have precedent value in relation to other constituted bodies under the UNFCCC process.

8. The rules relating to membership of and service on the Board are contained in the following: CDM modalities and procedures, paragraphs 7−12, 14 and 15; the "Rules of procedure of the Executive Board of the clean development mechanism";[6] the "Terms of reference in relation to the membership of the Executive Board of the clean development mechanism";[7] the "Terms of reference of the support structure of the CDM Executive Board";[8] and the "Code of conduct".[9]

9. The Board comprises 10 full members and 10 alternate members: one member from each of the five United Nations regional groups, two other members from Annex I Parties,

[5] FCCC/SBI/2013/INF.6.
[6] Decision 4/CMP.1, annex I.
[7] Decision 3/CMP.6, annex I.
[8] <http://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20130604103122805/panels_proc02.pdf >.
[9] <http://cdm.unfccc.int/Reference/Standards/meth/gov_stan01.pdf>.

two other members from non-Annex I Parties and one representative of the small island developing States. This amounts to six non-Annex I and four Annex I seats. Each member is accompanied by an alternate member from the same group.

10. The difference between members and alternate members is that only members: (a) can be chair or vice-chair of the Board; (b) have the right to vote or make a request for review of a request for registration of a project activity or PoA, or a request for issuance of CERs; and (c) are counted for quorum. Both members and alternate members attend Board meetings, take part in the discussions of the Board, and may act as chair or vice-chair for panels and working groups established to support the Board. As they act in their personal capacity, a member and an alternate member for a single seat may take different positions on a matter under consideration; this approach is based on the understanding that the contributions of alternate members enrich the discussion and the work of the Board.

11. The voting rules of the Board stipulate that decisions are to be taken by consensus, but where attempts at consensus are exhausted, decisions shall be put to a vote. Upon a vote, a decision is taken if a three-fourths majority of the members present and voting at the meeting vote in favour of the motion. Assuming 10 members are present and voting, this means that eight members need to agree in order to take a decision that is put to the vote. According to internal records, the average number of times the Board votes in a year is 5.2.[10]

12. Quorum is required to adopt the agenda for a Board meeting and take decisions during the meeting. It is also a long-established practice of the Board to ensure that all discussions at the Board are quorate at all times, in order to ensure the legitimacy of the process. Quorum is reached by the presence of at least two thirds of the members (overall quorum), representing a majority of the members from Annex I Parties (i.e. four out of six) and a majority of the members from non-Annex I Parties (i.e. three out of four) (regional quorums). As such, the minimum participation is seven members or acting members (alternate members acting for absent members) – three members from Annex I Parties and four members from non-Annex I Parties. In practice, achieving and maintaining quorum is rarely a problem at the Board as it is counted from a total of 20 individuals and not 10, because alternate members can act as members if the member for the same seat is absent.

13. Annex II provides a comparison between UNFCCC bodies on voting, quorum, and membership rules, as well as on term length and gender balance.

2. Possible changes and implications

(a) Removing the distinction between members and alternate members

14. **Possible change**: a view was expressed by several Parties and in the workshop report that the distinction between members and alternate members is not necessary. It was proposed that all members be made full members.

15. **Implications**: removing the distinction would, in effect, create a 20-member Board. The impacts on quorum and voting are outlined below:

(a) Overall quorum: based on the current overall quorum rule, the quorum for a 20-member Board (i.e. 20 full members) would be 14. This means that for a meeting to be quorate, 14 people out of 20 would be required to be present, that is, double the current quorum of 7 out of 20 (see para. 12 above), which could, therefore, make it more difficult to hold meetings;

[10] Between 2006 and 2013.

(b) Regional quorum: removing the distinction between members and alternate members does not affect regional quorum proportions (see para. 12 above). Following current rules, the regional quorum thresholds would be 5 (out of 8) for Annex I Parties, and 7 (out of 12) for non-Annex I Parties. In a Board of 20 full members, and under current rules, 14 members would be needed for overall quorum, but the regional quorums would amount to only 12. As such, and maintaining current quorum rules, doubling the size of the Board would 'disconnect' the number for overall quorum from the numbers for regional quorums. To avoid this increased complexity two measures could be taken:

(i) The overall quorum could be lowered to three fifths of members (i.e. 12 out of 20), in order to match it with the total for regional quorums (i.e. 5 and 7), which would also make overall quorum easier to achieve and maintain;

(ii) The overall quorum could follow current rules (i.e. 14 out of 20), and the regional quorums could be increased by one each for Annex I Parties and non-Annex I Parties (i.e. 6 and 8), although this would not resolve the issue of making overall quorum easier to achieve;

(c) Voting majorities: if the current voting rules are retained, and all members are present and voting, 15 members would be required to vote in favour in order for a motion to be approved. 15 out of 20 is a slightly lower decision threshold in proportion than for the current 10-member Board, as a three-fourths majority of 10 is 8.[11] It should be noted that the 'blocking minority' proportion (the relative number of members needed to vote against to ensure that the vote fails) does not change; on a 10-member Board the blocking minority is 3 out of 10, while on a 20-member Board it is 6 out of 20.

(b) Providing seats to private-sector and other organizations

16. **Background**: while members and alternate members of the Board serve in their personal capacity and do not represent any government, institution or sector, the CMP acknowledges[12] that the expertise of the Board should cover the perspectives of the public and private sectors and relevant non-governmental communities. Currently, members and alternate members nominated by the regional constituencies may come from the private sector and relevant non-governmental communities. However, there is no dedicated seat for non-governmental organizations (NGOs), the private sector or environmental organizations that would guarantee the expertise and awareness of the perspectives of these groups on the Board.

17. Proposals were made by several Parties and in the workshop report to allocate seats to representatives of the private sector and NGOs. Currently, no constituted body under the UNFCCC process allocates full membership to individuals nominated by non-Parties, but the Advisory Board of the Climate Technology Centre and Network (CTCN)[13] does have representation from the business and industry, research and independent, and environmental NGO constituencies (one seat each); they are non-voting members, and their attendance is not required to establish quorum. The Consultative Group of Experts on National Communications from Parties not included in Annex I to the Convention (CGE) has three seats for intergovernmental organization representatives; these are full seats and decisions are taken by consensus.[14]

18. **Possible change**: allocate seats for the private-sector and NGO nominations. The allocation of seats could be done through either of the following:

[11] As three fourths of 10 is 7.5 and must be rounded up to a whole number.
[12] As footnote 7 above.
[13] Decision 25/CP.19.
[14] Decision 3/CP.8, annex.

(a) Creating additional, non-voting seats (as in the CTCN Advisory Board and the CGE);

(b) Creating additional (voting) seats.

19. **Implications**: providing the private sector and NGOs with the possibility of filling a seat on the Board could enhance cooperation with such stakeholders and increase business and investment and environmental expertise on the Board. Measures to avoid conflict of interest would be required and could be achieved in the same way as for current members. In terms of quorum and voting:

(a) Allocating non-voting seats would not affect quorum or voting rules;

(b) Allocating (new) voting seats would affect quorum and voting. If, for example, three new member seats (and three new alternate member seats) were added, this would create a 13-member Board. Current quorum rules would mean that nine members would be required for overall quorum. As the current (Annex I and non-Annex I Party) regional quorum rules would remain unchanged, there would be a 'disconnect' between overall and regional quorums, similar to the situation described in paragraph 15(b) above. In relation to voting, and assuming that all members are present and voting, the current rule of a three-fourths majority would require 10 out of 13 members to vote in favour. This composition thus slightly lowers the voting majority and slightly increases the blocking minority proportion, as 10 out of 13 members (rather than 8 out of 10) must agree in order to take a decision by vote.

(c) Allocating a seat for least developed countries

20. **Possible change**: several bodies under the UNFCCC process (including the Adaptation Fund Board, the Technology Executive Committee and the Standing Committee on Finance) have seats for persons nominated by least developed country Parties (LDCs), as shown in annex II. Drawing on this practice, a seat could be included for LDCs on the Board. This could be achieved through either of the following:

(a) Reallocating a current seat (for example, one of the two non-Annex I Party seats) as an LDC seat;

(b) Creating an additional seat.

21. **Implications**: an LDC seat on the Board could increase the Board's knowledge and expertise on LDC matters. In terms of quorum and voting:

(a) Reallocating a non-Annex I Party seat to a specific constituency of non-Annex I Parties would not affect quorum or voting rules;

(b) Adding a new seat would affect quorum and voting rules. If a new member (and thus a new alternate) seat were added, the size of the Board would increase to 22 persons. If the current two-thirds overall quorum rule were maintained, overall quorum would rise to eight.[15] Assuming that the current (Annex I and non-Annex I) regional quorum rules would remain unchanged, there would be a 'disconnect' between overall and regional quorums, similar to the situation described in paragraph 15(b) above. In relation to voting, and assuming that all members are present and voting, the current rule of a three-fourths majority would require 9 out of 11 members to vote in favour. This composition thus slightly raises the voting majority and slightly decreases the blocking minority proportion, as 9 out of 11 members (rather than 8 out of 10) must agree in order to take a decision through the vote.

[15] 11 x 2/3, rounded up to a whole number.

(d) Improving transparency in the nomination process

22. **Background**: currently, as with other bodies under the UNFCCC process, constituencies that nominate members and alternate members for the Board do so by submitting the name and information of an individual to the secretariat. The secretariat publishes the names, and the CMP is then requested to consider the nominations and elect those nominees as members or alternate members of the Board. Suggestions were made by several Parties and in the workshop report to make the process for nomination more transparent.

23. **Possible change**: make the nomination process more transparent by, for example:

(a) Introducing a process of nominating more than one candidate from which a final nominee is selected. This would allow for scrutiny by stakeholders. As an example, each constituency could be requested to nominate two or three candidates per seat and make public the names and the information on relevant experience of those candidates through the secretariat, with a body, for example the CMP Bureau, selecting a final nominee for that seat from among the available candidates;

(b) Publishing the information on relevant experience. Information on the candidates/nominees could be published on the UNFCCC website before the nomination/election process.

24. **Implications**: introducing candidates for each seat at the UNFCCC level (rather than within a constituency) and/or publishing the relevant information on candidates/nominees would increase the transparency of the nomination process. On the other hand, the process would take longer to complete (potentially needing to start in conjunction with the mid-year sessions of the subsidiary bodies) and sufficient planning would be needed for constituencies to collect candidates, provide information in advance and allow the higher body, for example the CMP Bureau, to meet and agree on the final nominee for each seat.

(e) Limiting total length of service and terms on the Board

25. **Background**: rule 4 of the rules of procedure of the Board states that members and alternate members of the Board are elected for a period of two years and are eligible to serve a maximum of two consecutive terms, not counting terms as alternate member. This means that a member may serve two terms as a member, immediately followed by one or more terms as an alternate member and then immediately followed by two more terms as a member, with the possibility of repeating this cycle further. This means that individuals can serve on the Board indefinitely by rotating between serving as a member and as an alternate member, and for more than four years in a row. The average number of years per individual on the Board is three, and the longest consecutive number of years that one individual has served to date is nine years.

26. **Possible change**: suggestions were made by several Parties and in the workshop report to limit the total length of service of individuals on the Board, so as to balance continuity with continuous refreshment. Two complementary changes were suggested by Parties and stakeholders to address this, as presented below:

(a) Establish a maximum length of service for individuals on the Board. It would be possible to set the maximum length of service by an individual during his/her lifetime to match the two consecutive terms currently in rule 4 (i.e. four years) or for a longer total lifetime period (for example, eight years – two sets of two consecutive terms);

(b) Delete the rule that “terms as alternate members do not count”, and specify that terms as alternate members do count in order to ensure that one person does not serve on the Board for more than two consecutive terms (four years). Clearly specify within the

CDM modalities and procedures that terms as an alternate member do count towards the limit on two consecutive terms.

27. **Implications**: the changes would not affect quorum or voting rules. Such new rules would, from their adoption, preclude individuals from serving on the Board for more than the set maximum period of time. The change would reduce the dependency of the CDM on particular individuals. On the other hand, it may limit the number of candidates available for nomination and election to the Board.

(f) Improving gender balance

28. **Background**: since the establishment of the Board, the gender representation has been unequal. This has also generally been the case for other constituted bodies under the UNFCCC process (see annex II).[16] With the exception of the years between 2005 and 2007, where eight women (three members and five alternate members) were on the Board, the average female representation has seldom risen above 4 out of 20. Similarly low levels of female membership can be identified in the panels, working groups and the roster of experts established to support the Board and its functions. Reference in the rules of procedure of the Board relating to the composition of these panels and working groups is made only to regional balance. The rules of procedure of the Board do not make reference to gender balance, but decisions of the Conference of the Parties (COP) and the CMP[17] have encouraged Parties and constituencies to nominate women to constituted bodies.[18]

29. Proposals were made by several Parties and in the workshop report to take measures to improve the gender balance of the Board. While it is possible to continue to reiterate the encouragement in various COP and CMP decisions, it would also be possible to take concrete actions as described below.

30. **Possible change**: introduce quotas for women's representation on the Board through, for example:

(a) Each seat being required to nominate at least one woman when nominating the member and alternate member for that seat;

(b) Or requiring that nominations for particular seats (including alternate members), on a rotating basis, be reserved for women (for example, one of each of the two Annex I and two non-Annex I Party seats, and two or three of the five of regional group seats being reserved for women on a rotating basis between regional groups).

31. **Implications**: a quota system for women's representation on the Board would raise the average female participation, in line with the requests in the relevant COP and CMP decisions. It would not affect quorum or voting rules, but could increase the complexity of the nomination process and limit the candidates available to provide the expected time commitment and skills and expertise to serve the Board as requested by the CMP.[19]

(g) Ensuring competence

32. **Background**: a need for detailed skills requirements and for a breadth and balance of different skill sets on the Board was highlighted by several Parties and in the workshop report. The rules of procedure of the Board state that members and alternate members shall possess appropriate technical and/or policy expertise. The CMP further elaborated the required expertise through the terms of reference in relation to the membership of the

[16] See document FCCC/CP/2013/4 for figures for 2013 across all bodies.
[17] FCCC/KP/CMP/2012/13, paragraph 39.
[18] Decisions 2/CMP.5, 36/CP.7 and 23/CP.18, endorsed by the CMP.
[19] As footnote 7 above.

Board. The CMP has agreed that, overall, the Board's shared expertise should cover the public and private sectors and relevant non-governmental communities, and should leverage technical, legal and economic expertise relevant to the CDM.[20]

33. During the nomination process, it is the nominating constituency that assesses whether the individual meets the competence requirements. As a result, the assessment of competence is likely to vary between constituencies. Furthermore, constituencies are not required to select their nominees while taking other nominees or current members and alternate members into account, so there is no process that ensures a breadth of skill sets on the Board.

34. **Possible changes**, which may be combined, are set out below:

(a) Further elaborate the competence requirements concerning technical expertise, skills and/or qualifications required by members/alternate members, in line with the terms of reference in relation to the membership of the Board;

(b) Introduce a candidate selection process: establish a process of multiple candidates for each seat from which nominees are selected, to ensure an overall balance of skills. As an example of how this might be introduced, each constituency could nominate two or three candidates for a seat and a body, such as the CMP Bureau,[21] could select the most competent candidate for that seat, with regard also to the balance of skill sets across the Board. Such a process could be part of the potential new process referred to in paragraph 23(a) above;

(c) Increase transparency: publish relevant experience of nominees on the UNFCCC website before the nomination/election process. The secretariat could show publicly on the UNFCCC website how a nominee's skill set relates to particular functions of the Board. Compare skill sets of nominees so that the 'suite' of skills of the Board can be seen by all constituencies and the public. Such a change could also be part of the possible change to the nomination process referred to in paragraph 23(b) above.

35. **Implications**: revising the set of technical expertise, skills and/or qualifications required by members/alternate members defined by the CMP[22] as proposed in paragraph 34(a) above may increase the competence of members/alternate members. In relation to the process proposed in paragraph 34(b) above, more discussion between constituencies would be necessary in order to ensure a breadth of skill sets on the Board. This process would take longer to complete, as stated in paragraph 24 above. This approach would allow for the competency of members and alternate members on the Board to be balanced, and support a holistic set of skills. In relation to the possible change proposed in paragraph 34(c) above, more public information about what the experience of the individual means for the functioning of the Board overall would support the credibility of the Board and be more transparent.

(h) Protecting against conflict of interest

36. **Background**: concerns were raised by some Parties and in the workshop report that some Board members and alternate members have roles that may make it difficult for them to act impartially, such as working for a DNA, being a Party delegate who negotiates matters related to the CDM or other market mechanisms at sessions of the COP and the CMP, or individuals involved in public or private institutions that develop CDM project activities or PoAs or purchase and trade CERs.

[20] As footnote 7 above.

[21] Selection based on competency would, logically, need to be carried out by a body that has its own related competency requirements.

[22] As footnote 7 above.

37. Currently, the rules and principles on conflict of interest are primarily set out in the rules of procedure of the Board and in the code of conduct. While these regulations provide a set of principles and a definition of a conflict of interest, neither is specific in regard to which roles put a member or alternate member at risk of having, or being perceived to have, a conflict of interest in relation to matters discussed by the Board.

38. **Possible changes** are set out below:

(a) Develop eligibility requirements that preclude individuals, during their tenure as member/alternate member of the Board, from any of the following groups from serving on the Board: (i) being involved in the UNFCCC negotiation process (in any way, or in relation to market mechanisms or in relation to the CDM only); (ii) working for a DNA; and (iii) working for a public- or private-sector institution that develops CDM project activities or PoAs, invests in the CDM or trades CERs;

(b) Enact further measures to mitigate real or perceived conflict of interest risks in the processes of the Board, and to act on any declared conflict of interest. These could include further strengthening the provisions in the CDM modalities and procedures and in the code of conduct.

39. **Implications**: overall, the possible changes would enhance the independence and impartiality of the Board and the perception of it as such. Specifically, excluding Party delegates from acting as Board members or alternate members (or vice versa) would ensure that Parties, when negotiating CDM matters, are respecting a proper separation of authority, as the CMP oversees the Board and the Board is accountable to the CMP. Excluding employees of DNAs would limit the risk that particular countries are perceived to have unfair treatment in the CDM. Excluding developers and investors in the CDM and traders of CERs would also ensure that no group of stakeholders is seen as having unfair influence in the CDM. In particular, for the proposed changes in paragraph 38(a) above, such changes would require a more rigorous selection process by constituencies, and a second-level review of nominees might also be appropriate, perhaps similar to or in conjunction with the nomination process referred to in paragraphs 23(a) and 34(b) above. Similarly, a procedure to remove a member or alternate member would be needed to deal with a member or alternate member becoming ineligible after election. However, it should also be noted that the possible changes may make it harder for certain groups of Parties to find potential members and alternate members. With regard to the possible changes reflected in paragraph 38(a) above, elected members/alternate members would be required to cease any activity related to the CDM during their tenure at the Board.

(i) Professionalizing chair and vice-chair roles

40. **Background**: the expected time commitment of members and alternate members of the Board is set out in decision 3/CMP.6, annex I. The annual time requirement appears to have peaked and is currently decreasing.[23] In relation to the panels and working groups, the current trend is also a decreasing number of meetings per year.[24] The maximum time commitment of any member was estimated at 210 days (a member chairing a panel), which would be the majority of a working year. However, given the current trends, time requirements are currently at the low end of the ranges described in the same annex (110 days for the member chairing a panel).

[23] In 2007 and 2008 there were eight meetings each, of 2–5 days' length. In 2009, 2010 and 2011 there were seven meetings each and in 2012 and 2013 there were six meetings each (all 2–5 days long).

[24] From five to four meetings, with some panels in 'sleeping mode': the Afforestation and Reforestation Working Group and the Carbon Capture and Storage Working Group meet only when workload requires.

41. **Possible change**: one Party suggested that the chair and vice-chair of the Board and of its panels and working groups should be elected on a full-time basis, with other members being elected on a part-time basis so as to allow for increased professionalization and dedication of Board members and alternate members.

42. **Implications**: having some members or alternate members acting in a full-time capacity may increase the timeliness and consistency of the decision-making of the Board and enhance the preparedness of members and alternate members, who may sometimes struggle to prepare for meetings of the Board, panels and working groups due to other commitments. However, there could be insufficient work for the chairs and vice-chairs to justify the cost of professionalizing these roles, especially given current trends. Costs would be considerable if the role were to be remunerated at or beyond the daily subsistence allowance that all members and alternate members receive, and 'employment' of members and alternate members in this way would set a precedent with serious financial implications for the operation of all other bodies under the UNFCCC process. There would also be legal implications regarding the employment status of any full-time chair/vice-chair. Furthermore, the change could risk undermining the separation of the roles between the Board and the support structure (the secretariat). Constituencies would also be required to nominate individuals who could resign from their current role, if elected as chair or vice-chair (of the Board, a panel or working group), which would increase the dependency on a small sub-set of individuals and may make members and alternate members less willing to stand as chairs and vice-chairs.

B. Liability of designated operational entities to compensate for the issuance of certified emission reductions resulting from significant deficiencies in validation, verification and certification reports

1. General considerations

43. Paragraphs 22−24 of the CDM modalities and procedures provide that where the accreditation of a DOE is suspended or withdrawn and if significant deficiencies are identified in the relevant validation, verification or certification report(s) for which the DOE was responsible, the Board is required to decide whether a different DOE shall be appointed to review, where appropriate correct, such deficiencies. If such a review reveals that excess CERs were issued, the DOE whose accreditation has been suspended or withdrawn is required to acquire and transfer, within 30 days of the end of the review, an amount of reduced tonnes of carbon dioxide equivalent equal to the excess CERs issued, as determined by the Board, to a cancellation account maintained in the CDM registry by the Board. These rules imply principles of strict (i.e. no requirement for fault of the DOE) and unlimited liability of DOEs to compensate for an error in a validation, verification or certification report that results in excess CERs being issued. The unstated objectives of these paragraphs appear to be protecting the environmental integrity of the CDM and, potentially, performance management of DOEs.

44. In decision 3/CMP.6, the CMP requested the Board to adopt a procedure to address this issue and provided further guidance in decision 8/CMP.7. It should be noted that in decision 3/CMP.6, the CMP requested the Board, in adopting such a procedure, to review and amend some of the key features of paragraphs 22−24 of the CDM modalities and procedures, including the linkage with the suspension of accreditation of DOEs as the condition to prompt the process in question. This implies that the CMP may have shifted the emphasis of the process away from performance management of DOEs.

45. During 2010−2012, the Board developed and revised a draft procedure to operationalize the principles with respect to this subject in the CDM modalities and

procedures, taking into account the further guidance from the CMP. During this period, the Board also consulted with DOEs and other stakeholders on the draft procedure, including on alternative approaches to addressing liability and on the availability to DOEs of insurance against such liability. The Board recommended a draft procedure to the CMP for consideration and adoption at its eighth session. However, the CMP did not adopt the draft procedure at that session but noted in decision 5/CMP.8 that Parties may wish to address the issue as part of the review of the CDM modalities and procedures.

46. As summarized above, despite a number of years of consideration and considerable work, the CMP and the Board have been unable, in practice, to implement paragraphs 22−24 of the CDM modalities and procedures.

47. Notwithstanding this, under the rules relating to accreditation, DOEs must operate in accordance with usual business operating requirements for auditing bodies, such as the requirement to have appropriate insurance to cover legal liabilities, in addition to complying with CDM rules and requirements and applicable national laws. In addition, many aspects of the rules of validation and verification require a conservative approach to be followed by DOEs in respect of the anticipated emission reductions or removal enhancements for any given project activity or PoA.

48. Based on the analysis referred to in paragraphs 43 and 44, introducing measures to address the issue of significant deficiencies could potentially have one or both of the following two objectives: (a) to maintain the environmental integrity of the CDM by compensating the imbalance between issued CERs and actually achieved emission reductions or removal enhancements; and (b) to ensure DOEs remain accountable for the quality of their work. The design of such measures would depend on which of these two objectives has higher priority and how the objectives are balanced against each other.

2. Possible changes and implications

(a) Limiting the scope of liability

49. **Possible change**: limit the scope of liability to a fixed number of years or monetary/CER terms. In the CDM modalities and procedures, liability is unlimited in time or amount. The workshop report proposed that the scope of liability be reduced to a quantifiable level. This could be achieved in the following manner:

(a) Limiting liability to a fixed number of years into the past. In order to determine the cut-off date, aspects such as the following may help Parties to decide what would be appropriate: how long is reasonable to require company records to be kept; how soon an insured company must make a claim on its insurance after an insured event occurs; at which time the rules for validation, verification and certification became sufficiently comprehensive to enable the Board to prove that there was a significant deficiency by a DOE;

(b) Capping liability in monetary/CER terms. For example (only), the total liability owed by a DOE in any case could be capped to: an amount proportionate to the fees earned by the DOE for that project activity or PoA; an amount equivalent to the annual issuance for that project activity or PoA; or a fixed amount of CERs scaled to the size of the excess issuance, such as a total liability cap of 500,000 CERs per large-scale project activity or PoA.

50. **Implications** are as follows:

(a) Limiting how far back into the past liability may be accrued by a DOE would mean that if a significant deficiency occurred before the specified date (for example, more than six years ago), the DOE could not incur liability for the significant deficiency. This

would mean that the risk of liability of the DOE for a particular validation, verification or certification would expire a certain number of years (in this example, six years) after it finished that work. This would allow the DOE to manage its risk as it would know which work could no longer cause it liability under these rules;

(b) Limiting the maximum monetary or CER value of any liability would allow a DOE to manage its potential liability more easily, including aspects such as making it easier to obtain insurance, as the maximum total liability can be calculated;

(c) However, it should be noted that setting either time and/or value caps on liability means that if the liability exceeds/precedes the limit, the environmental harm caused by the deficient validation, verification or certification would not be compensated, and units representing emission reductions or enhanced removals issued in excess of the level of CERs that ought to have been issued would remain in circulation. Therefore, maintaining full environmental integrity could not be guaranteed.

(b) Changing the threshold of designated operational entity behaviour that triggers liability

51. **Possible change**: change the threshold of DOE behaviour that triggers liability. In the CDM modalities and procedures, liability is strict (no-fault). Some Parties and the workshop report have suggested that liability could be limited to a fault-based requirement as follows:

(a) Liability could be imposed only in circumstances where the actions or omissions of the DOE in preparing the validation, verification or certification report failed to meet the standard expected of a professional in their field of expertise (professional negligence), or amounted to fraud;

(b) Alternatively, a scale of liability could be established, with maximum liability reserved for significant deficiencies caused by the professional negligence or fraud of the DOE, while lower liability could be applicable to non-intentional errors that were not professional negligence.

52. **Implications** are as follows:

(a) Attributing liability on the basis of either professional negligence or fraud would allow a DOE to manage the risk of liability by ensuring that it operates to a professional standard. Such an approach would, therefore, incentivize high-quality performance of DOEs, unlike the current rules in the CDM modalities and procedures, which do not have the same effect as they impose liability on DOEs regardless of fault;

(b) As the CDM is a voluntary mechanism rather than a legal system akin to national law, this approach might mean that the principles of due process to be followed in such cases should be elaborated further in the CDM modalities and procedures by revising the principles set out in its paragraphs 22−24. Aspects such as the right of the DOE to receive all information in relation to the case against it and the right to a hearing would be important. Further, the potential connection between any eventual appeals body currently under consideration by the SBI[25] and DOE liability could be noted;

(c) However, capping liability based on the standard of performance of the DOE could imply that the process to address significant deficiencies is based on the objective of performance management of DOEs, and might not ensure the environmental integrity of the CDM.

[25] Under the agenda item “Procedures, mechanisms and institutional arrangements for appeals against the Executive Board of the clean development mechanism”.

(c) Creating a reserve of certified emission reductions

53. **Possible change**: create a reserve of CERs. The Board, during its work in 2012, concluded that there may be DOEs that are unable to secure market-based insurance or take other appropriate financial measures to protect them against the cost of funding liability. In this regard, the Board noted the potential relevance of a CER or reserve pool structure within the CDM, which had been raised in a number of submissions by stakeholders to the Board in 2010−2012. In such a reserve, a small proportion of CERs could be levied at their issuance, much like the share of proceeds for assisting in meeting costs of adaptation. These CERs could be put together in the CDM registry to serve as a reserve in which a DOE could pay to cancel CERs if an excess issuance of CERs due to the significant deficiencies of the DOE were identified. This would, in effect, act as a form of mutual self-insurance for DOEs, while being resourced from all project participants. It may be possible to cap the fund's growth and/or include modalities for replenishing the fund over time, if required.

54. **Implications**: creating a reserve of CERs such as described above could be an effective measure to maintain the environmental integrity of the CDM. However, it could also be seen as a measure that moves the cost of ensuring the environmental integrity of DOE activities in the CDM from DOEs to the project participants. It may, therefore, dis-incentivize DOEs from ensuring that they meet professional standards at all times. Although a requirement that DOEs must pay to cancel CERs from the reserve may mitigate such risk, it would raise issues of where the payment should go to and what the price of cancelling a CER in the reserve should be (for example, fixed, or as compared with the market price of CERs).

(d) Deducting certified emission reductions from later issuance

55. **Possible change**: deduct CERs from later issuances of the relevant project activity or PoA. Together with the possible change referred to in paragraph 53 above, the workshop report includes this option as an alternative solution for managing the risk of issuance of excess CERs. This could be implemented by introducing a CMP provision in relation to the CDM registry that links future issuance requests for the relevant project activity or PoA and the excess CERs that need to be compensated.

56. **Implications** are as follows:

(a) This possible change attempts to meet the objective of maintaining the environmental integrity of the CDM at the specific project activity or PoA level, instead of spreading the burden of compensation to the entire CDM system. While at the CDM system level this measure affects the project activity or PoA concerned, the entity that should bear the cost for compensation could be individually arranged between the project participants or the coordinating/managing entity and the DOE responsible for the significant deficiencies;

(b) This possible change could work as intended only if the project activity or PoA concerned continues to monitor emission reductions or removal enhancements and requests for issuance of CERs in the future. The finding of significant deficiencies could discourage the project participants or coordinating/managing entity from doing so (depending on the arrangement with the DOE on the compensation), or the project activity or PoA may cease its operation for other reasons in the future. If the project participants or the coordinating/managing entity stop monitoring and requesting issuance before the CERs due for compensation are fully deducted, the objective of maintaining the environmental integrity of the CDM would not be fully met.

(e) Deleting paragraphs 22−24 of the modalities and procedures for the clean development mechanism

57. **Possible change**: delete paragraphs 22−24 of the CDM modalities and procedures, and do not replace them. Although no Party raised this possible change in its submission, and it was not directly discussed at the workshop, this possible change is identified from the situation itself. The fact remains that it has not proved possible for Parties to agree on how paragraphs 22−24 should be implemented, notwithstanding the work of the Board, and yet the CDM has operated in the absence of implementation of these paragraphs.

58. **Implications**: by deleting paragraphs 22−24 of the CDM modalities and procedures, Parties would decide to rely on existing CDM rules and regulations, including the following:

(a) The CMP has adopted a decision in relation to the materiality standard under the CDM in relation to verification.[26] This decision demonstrated that in terms of calculating emission reductions or removal enhancements, Parties have agreed that there is an acceptable degree of uncertainty about emission reduction or removal enhancement calculations, and that non-material aspects of emission reduction or removal enhancement calculations do not need to be considered, which could be seen as a different principle from that in paragraphs 22−24. Based on this, the CMP could, instead of trying to address the issue of significant deficiencies, review whether the principles of materiality in verification could be extended to validations, in order to establish principles that underpin the substantive activities of DOEs;

(b) The Board has developed and implemented various standards and procedures, such as the CDM accreditation standard,[27] the CDM validation and verification standard,[28] the CDM accreditation procedure[29] (in particular, regular on-site surveillances, performance assessments and spot-checks) and the DOE performance monitoring procedure.[30] These could be considered sufficient to ensure a high standard of DOE performance; therefore. paragraphs 22−24 may not be needed for that purpose;

(c) It has become possible to voluntarily cancel CERs within the CDM registry.[31] It could be noted that this possibility allows DOEs to directly address errors that they identify themselves in their own past work that resulted in excess issuance of CERs by voluntarily cancelling CERs. As such, it may be that the CDM has evolved to such a point that liability of DOEs to cancel CERs or other Kyoto Protocol units in respect of excess CERs issued as a result of significant deficiencies in validation, verification and certification reports no longer needs to be addressed.

C. Provisions for programmes of activities

1. General considerations

59. The CDM modalities and procedures currently do not include provisions for PoAs. The key decision in relation to PoAs is 7/CMP.1, where paragraph 20 states that “project activities under a programme of activities can be registered as a single clean development mechanism project activity”. Since then, the CMP has adopted several decisions

[26] Decision 9/CMP.7.

[27] <http://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20131022164604736/accr_stan01_ver05.pdf>.

[28] <http://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20131010181547480/accr_stan02.pdf>.

[29] <http://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20130729144313632/accr_proc01.pdf>.

[30] <http://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20130604165417702/accr_proc02.pdf>.

[31] Decision 8/CMP.7.

specifically for PoAs,[32] but has neither exempted PoAs from any of the current provisions of the CDM modalities and procedures, nor amended the CDM modalities and procedures to include the specific features of PoAs. Procedures on PoAs have been developed by the Board.

60. Submissions from Parties and the workshop report have pointed to the need to include provisions on PoAs in the CDM modalities and procedures to address the unique features of PoAs. They have also listed some of the aspects of PoAs that would deserve specific inclusion in the CDM modalities and procedures.

61. The following paragraphs analyse how the introduction of provisions specific to PoAs would affect the CDM modalities and procedures (in a specific section covering all the PoA-related issues or adapting the current provisions without creating a new section to cover the PoAs requirements). They also analyse which substantive changes would be needed in the CDM modalities and procedures to adapt to the current existing regulations of PoAs developed by the Board.

2. Possible changes and implications

(a) Add provisions on programmes of activities into the modalities and procedures for the clean development mechanism

62. **Background**: the absence of specific rules for PoAs in the CDM modalities and procedures has the following effects:

(a) As the CDM modalities and procedures were adopted with single project activities as the focus, they do not cover the aspects of PoAs that have no parallel in single CDM project activities. These matters generally have not been covered in later CMP guidance either, meaning that for PoAs, key rules and definitions are present only at the level of the Board, in standards and procedures developed by the Board. For example, there is no definition at the CMP level of the coordinating/managing entity, or of generic and specific component project activities (CPAs). Similarly, there are no rules on the duration of PoAs, the process of including CPAs into a PoA, the specific monitoring requirements for PoAs or any rules relating to multi-country PoAs;

(b) The direct application of the existing CDM modalities and procedures, which were adopted without PoAs in mind, to PoAs and their CPAs imposes limitations on PoAs that may not be optimal given the particular features of PoAs.

63. **Possible change**: insert a specific section on PoAs into the CDM modalities and procedures that sets out the key principles, definitions and rules that are specific to PoAs and that clarifies the application of other sections in the CDM modalities and procedures to PoAs (e.g. stating which paragraphs are disapplied for PoAs or how paragraphs are adapted to PoAs) or simply adapt the current CDM modalities and procedures without creating a specific section to cover the specific features of the PoAs (on the substantive changes that the current CDM modalities and procedures would need to suit PoAs; see paras. 65–67 below). The section on PoAs could, at a minimum, include principles in relation to:

(a) Definitions such as coordinating/managing entity, PoA and CPA (specific and generic);

(b) Validation requirements for PoAs;

[32] Further CMP decisions on PoAs include decision 1/CMP.2 (para. 16), decision 2/CMP.3 (paras. 3 and 16), decision 2/CMP.4 (para. 38), decision 2/CMP.5 (para. 36), decision 3/CMP.6 (para. 4), decision 8/CMP.7 (para. 8), decision 5/CMP.8 (paras. 33 and 34) and decision 3/CMP.9 (paras. 12 and 19, inter alia).

(c) The inclusion of CPAs into a PoA;

(d) Written approval/authorization from new host Parties during the crediting period of the PoA;

(e) Duration of PoAs and duration of crediting periods of CPAs;

(f) The monitoring and verification of PoAs.

64. **Implications** are as follows:

(a) A specific section on PoAs in the CDM modalities and procedures would set the principles and definitions for PoAs at the same level of decision-making under the Kyoto Protocol as single CDM project activities, namely, at the CMP level. This would create certainty and stability as to the key aspects of PoAs. However, in elaborating more detailed rules, the Board would have less flexibility to elaborate and improve the regulatory framework for PoAs;

(b) Elaborating CMP principles and definitions on PoAs in the CDM modalities and procedures would improve clarity and facilitate PoAs for stakeholders, which in turn may support the implementation of PoAs. However, from the user perspective, the necessary disapplication or amendment to some parts of the existing CDM modalities and procedures in respect of PoAs could cause stakeholders some confusion. Such changes may, therefore, create a need for capacity-building in order for stakeholders to understand the changes.

(b) Possible substantive changes to take into account programmes of activities

65. **Background**: the direct application of the CDM modalities and procedures for single CDM project activities to PoAs has presented some challenges to the development of standards and procedures for PoAs. The Board has, in its regulations for PoAs, provided for flexible approaches to address the needs of PoAs. The following paragraphs address the changes that the current provisions of the CDM modalities and procedures would require to reflect the flexible approaches adopted by the Board, should the CMP wish to take that approach.

66. **Possible change**: adapt specific paragraphs of the CDM modalities and procedures to suit PoAs. The current provisions that would need to be adapted are the following:

(a) Paragraph 37(b) and (c) of the CDM modalities and procedures: these provisions do not acknowledge the existence of CPAs at the stage of validation and require that the environmental impact assessment and the local stakeholder consultation are done at the time of registration of the project activity (they also do not include any mention of the inclusion of the CPAs after the registration of the PoA). To address this issue, the Board has allowed for a flexible manner as to how particular validation requirements must be taken into account by allowing the coordinating/managing entity to determine the level (either PoA or CPA) at which certain validation requirements are met. In particular:

(i) Assessment of environmental impacts and local stakeholder consultation may be carried out for a PoA either at the time of registration of the PoA for all CPAs or at the time of inclusion of a CPA, for that CPA;

(ii) Likewise, for additionality and baseline setting, paragraphs 43 and 45 of the CDM modalities and procedures link the determination of additionality and the baseline scenario to the specific CDM project activity. In the case of PoAs, additionality and baseline scenario setting could refer to generic CPAs and/or specific CPAs rather than to the PoA, notwithstanding that PoAs are registered as a single project activity;

(b) Paragraphs 35 and 36 of the CDM modalities and procedures only cover registration of CDM project activities, while the inclusion of CPAs into a PoA could be seen as a specific (and simplified) process akin to a form of registration. Under the current Board procedures for PoAs, inclusion of a CPA is done by the DOE. The principles of this process could be referred to in the CDM modalities and procedures. The principle of liability of the DOE for erroneous inclusion of CPAs could also be set out;

(c) Paragraph 49 of the CDM modalities and procedures establishes the duration of the crediting period. The Board has differentiated between the lifetime of PoAs (which can be longer than the sum of the crediting periods of a given CPA) and the duration of the crediting periods of CPAs (which follow para. 49 of the CDM modalities and procedures). The rules on the crediting period could be amended for PoAs to reflect that nuance (note that chapter II.D of this technical paper deals with the length of crediting period generally);

(d) PoAs may have several host Parties (unlike single CDM project activities),[33] initially registering with one or more host Parties and, during its operation, expanding to additional host Parties. The CDM modalities and procedures could include the principles and process for obtaining written approval/authorization from new host Parties during the crediting period of the PoA;

(e) Section H and paragraphs 61−63 of the CDM modalities and procedures require the monitoring and verification of all emission reductions achieved by a project activity during a specified time period ("verification period" in para. 61). For PoAs, these requirements are difficult to implement, as it is very challenging in practice for PoAs to ensure that all CPAs follow the same timing for verification. These paragraphs could be adapted to allow CPAs to have different monitoring and verification schedules, with timings to be chosen by the coordinating/managing entity.

67. **Implications**: adapting the relevant parts of the existing CDM modalities and procedures to take into account the principles, definitions and rules for PoAs would introduce decisions at the CMP level but would increase the degree of detail, limiting the ability of the Board to elaborate and improve the regulatory framework for PoAs. This may also be less easy to use for stakeholders. The implications of the possible changes are as follows:

(a) Changes that incorporate rules already adopted by the Board would change the hierarchy of the relevant rules (from the Board to the CMP level). Where the rules allow for flexibility, that principle of flexibility would be given stability by its inclusion in the CDM modalities and procedures;

(b) In relation to the process for inclusion of CPAs:

(i) Adding the DOE review process for inclusion of CPAs to the CDM modalities and procedures would simply place the rules at the CMP level rather than the Board level as discussed in paragraph 67(a) above;

(ii) If Parties decided that even the review of the DOE is not necessary and that coordinating/managing entities could include further CPAs without external review, this would create a different principle from the current Board-level one. This approach may put the environmental integrity of PoAs at risk as there would be no external review of the CPA before it starts to operate. Further, it might, in practice increase wasted transaction costs, as project participants could start running CPAs that are fundamentally inadequately designed to achieve verification and this would not be discovered until verification, by which time monitoring costs have been incurred;

[33] Decision 2/CMP.3, paragraph 3.

(c) Formalizing the rules in the CDM modalities and procedures relating to PoAs with multi-host Parties would provide all stakeholders, including DNAs, with transparency and predictability. It would also recognize that PoAs add CPAs during the operation of the PoA, including by expanding to new host Parties;

(d) Introducing a provision to allow CPAs to have different monitoring and verification schedules, with timings to be chosen by the coordinating/managing entity, could provide flexibility by allowing the PoA and CPAs to be developed and operated in the optimal time frames for the coordinating/managing entity and project participants. The change would recognize that synchronizing monitoring and verification across activities dispersed in different countries is very difficult to implement in practice. However, the change could increase the administrative complexity of PoAs.

D. Length of the crediting period

1. General considerations

68. The crediting period for CDM project activities[34] is limited to 7 years twice renewable or 10 years non-renewable. In practice, project participants consistently choose the maximum period available (i.e. not less than 7 or 10 years), and two thirds of project activities have 7-year, twice renewable crediting periods.

69. The environmental integrity of emission reductions is pointed out by several Parties, the Board and in the workshop report as the key reason for revising the length of crediting periods. Parties pointed to the rapid advancement and diffusion of technologies, which could render the additionality demonstrated and baseline scenario identified at the time of registration invalid over the course of the crediting period(s). In its recommendations, the Board also highlighted the importance of certainty of investment in the context of the duration of project activities.

70. In relation to seven-year, twice renewable crediting periods, it should be noted that under the CDM modalities and procedures, the baseline must be revalidated at the renewal, but additionality is not required to be reassessed. This provision is connected to the length of the crediting period, insofar as shortening each crediting period could be seen as one way to mitigate the absence of the reassessment of additionality at renewal of the crediting period. The reassessment of additionality at the renewal of the crediting period is covered in chapter II.E below.

2. Possible changes and implications

(a) Shortening the length of each crediting period and/or reducing the possibility of renewal

71. **Possible change**: shorten the length of each crediting period and/or reduce the possibility of renewal. Several suggestions have been made in Party submissions, including: limiting the crediting period to 7 or 10 years; shortening the length to 5 years renewable twice, or 7 years non-renewable; or limiting the crediting period to 10 years for large project activities, and to 7 years for small project activities, renewable once.

72. **Implications**: shortening the length of crediting periods could affect project activities in terms of environmental integrity, financial viability and mitigation delivery as follows:

[34] Other than afforestation and reforestation project activities.

(a) Environmental integrity: shortening renewable crediting periods would allow for more frequent reassessment of the baseline, thus providing increased assurance that emission reductions are real and additional;

(b) Financial viability: shorter overall crediting periods would reduce the volume of CERs issued over the life of a project activity, thus reducing the CDM-related revenues available to the project activity. In addition, requiring more frequent baseline reassessments could increase transaction costs. Combined, these effects could reduce a project activity's financial viability, in particular for project types that are more dependent on CER revenue.[35] This could reduce the number of such project activities;

(c) Mitigation potential: shortening crediting periods could reduce the mitigation delivered by some CDM project activities and PoAs. Some projects, once in operation, will continue to reduce emissions independently of CER revenues. Others, however, require ongoing CER revenues to continue reducing emissions. For the latter, shortening crediting periods could reduce the overall mitigation delivered.

(b) Introducing a flexible approach to determining the length of crediting periods

73. **Possible change**: introduce a flexible approach to determining the length of crediting periods. This could be established in individual methodologies, and/or through the use of criteria based on factors such as technology, project type, project scale, barriers, lifetime of equipment, country contexts and others. In this case, the Board, rather than the CMP, would become the decision maker for determining the length of crediting periods.

74. **Implications**: this approach would increase the flexibility of the definition of crediting periods so as to address the concerns mentioned in paragraph 72 above. It could also lead to the development of methodologies that target rapidly advancing technologies. The flexibility could, however, reduce consistency across project activities and project types, thus increasing complexity. It would add complexity in particular to PoAs that use more than one baseline and monitoring methodology, as it could lead to varying crediting periods among CPAs. In addition, the following are implications that could be expected for some of the factors that could determine the length of the crediting period:

(a) Project type, barriers: such an approach could provide flexibility to adapt crediting periods to the specific needs of different project types and respective barriers, helping to address issues of environmental integrity, financial viability and mitigation delivery, as outlined in paragraph 72 above;

(b) Lifetime of equipment: currently, project activities and CPAs under a PoA that use equipment with a lifetime that is shorter than the length of the crediting period have to ensure the replacement of the expired and non-operational project equipment (e.g. project activities installing compact fluorescent lamps). If the crediting period is shortened to the maximum of the end of lifetime of the equipment, this could discourage project proponents from developing new project activities or PoAs that comprise short-lifetime equipment. It should be noted that a number of types of project activities and PoAs where the lifetime of the equipment is relatively short generally include those project types that are perceived as significantly contributing to sustainable development.

[35] This includes biogas and methane destruction projects without energy production (landfill, wastewater); energy-efficiency project activities in which the major benefits are shared by end users (compact fluorescent lamps, cookstoves); and industrial gas abatement projects (hydrofluorocarbons, nitrous oxide, sulphur hexafluoride).

E. Requirements for the demonstration of additionality

1. General considerations

75. Additionality of emission reductions or removal enhancements under the CDM is a fundamental Kyoto Protocol principle (see Article 12, para. 5(c)). Accordingly, paragraph 43 of the CDM modalities and procedures state that "A CDM project activity is additional if anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the registered CDM project activity" (i.e. baseline emissions). However, the current CDM modalities and procedures set out only the principle and do not provide specific approaches or a specific process for the demonstration of additionality. The CMP has provided guidance in various CMP decisions[36] but otherwise, the elaboration of the principle has been done largely at the level of the Board. Some Party submissions have noted a need to set out existing Board-level principles within the CDM modalities and procedures themselves, as well as proposing changes to those principles and other principles of the demonstration of additionality.

2. Possible changes and implications

(a) Introducing provisions on additionality assessment into the modalities and procedures for the clean development mechanism

76. **Background**: the workshop report expressed the view that requirements for the demonstration of additionality could be introduced into the CDM modalities and procedures. Submissions have also suggested the possibility of incorporating the work done by the Board on the rules for the determination of additionality. Such work includes, for example, step-wise demonstration of additionality through the Additionality Tool[37] and positive lists for types of project activities that are deemed additional.[38]

77. **Possible change**: introduce the requirements for the demonstration of additionality into the CDM modalities and procedures by taking rules developed by the Board as a basis. This could be achieved by setting out summary rules on additionality demonstration adopted by the Board and noting that these approaches can be used to demonstrate additionality by project activities and PoAs.

78. **Implications** are as follows:

(a) Introducing requirements for the demonstration of additionality into the CDM modalities and procedures could provide clarity and certainty with regard to the project activities and PoAs that could be registered under the CDM and provide stakeholders with transparency on this key principle of the CDM;

(b) However, including all the current rules developed by the Board in relation to additionality could leave the Board with limited flexibility to respond to changes in circumstances. In addition, too much detail in relation to the particular conditions for the application of certain methods for demonstrating additionality could be contrary to the general approach of the CDM modalities and procedures, namely, to set out principles and require the Board to develop criteria and detailed rules.

79. **Possible change** (alternative to the possible change referred to in para. 77 above): introduce the key principles of demonstration of additionality elaborated by the Board into

[36] Decision 1/CMP.2, paragraph 15(a); decision 2/CMP.4, paragraph 36; decision 2/CMP.5, paragraph 24; decision 3/CMP.6, paragraph 44; and decision 8/CMP.7, paragraphs 17–19.

[37] <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf>, <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-02-v5.0.0.pdf>.

[38] <https://cdm.unfccc.int/Reference/Guidclarif/meth/methSSC_guid05.pdf>.

the CDM modalities and procedures. The key principles could set out a non-exhaustive list of approaches for demonstration of additionality, without limiting the list to those approaches only.

80. **Implications**: introducing the principles for demonstration of additionality (rather than listing all the approaches for demonstration of additionality) would provide stakeholders with clarity and stability as to additionality demonstration while at the same time recognizing that the role of the Board, as supervisory body for the operation of the CDM, includes elaboration of the relevant processes and rules for the demonstration of additionality.

(b) Principles for demonstration of additionality that could be included

81. Below is a list, based on submissions from Parties, of approaches to demonstration of additionality that could be included as principles in the CDM modalities and procedures.

(i) *Standardized approaches*

82. **Background**: the Board has worked on a number of standardized approaches for both baseline-setting and demonstrating additionality, such as standardized baselines, as well as on other standardized approaches such as market penetration rates and technology-specific benchmarks and global positive lists. Some submissions indicated that these standardized approaches could be included in the CDM modalities and procedures.

83. **Possible change**: include, as a principle, the statement that standardized approaches can be used to facilitate the demonstration of additionality, that the Board may elaborate the criteria of standardized approaches and that use of a standardized approach would amount to a demonstration of additionality.

84. **Implications** are as follows:

(a) Generally, recognizing that standardized approaches can be used to demonstrate additionality would place the principle of standardized approaches at the CMP rather than the Board level, thus providing stability and predictability. However, defining the principles of standardized approaches at the CMP level may limit the flexibility of the Board to accommodate new, unforeseen circumstances;

(b) The change could allow the Board to derive an intensity-based benchmark for a given sector, which would allow individual project activities and PoAs within that sector to implement a number of different emission reduction measures and process improvements undertaken in a given sector and claim emission reductions when the resulting emission intensity is below the additionality benchmark level. However, it is a complex exercise to define in a systematic and objective way the 'business as usual' and baseline emissions;[39]

(c) Standardized approaches may have an impact on the environmental integrity of the CDM. On the one hand, standardized approaches could be seen to ensure environmental integrity where they require the application of standardized conservative baselines (e.g. based on benchmarks) to account for technology and context-specific factors and for uncertainties across a population of similar project activities. On the other hand, not assessing the additionality for each project activity individually may also be perceived to lower the assurance that each project activity is additional.

(ii) *Positive lists*

85. **Background**: by decision 5/CMP.8, the CMP encouraged the Board to further extend the simplified modalities for the demonstration of additionality, including positive

[39] For example, because of difficulties in: (a) gathering representative statistical information; (b) data availability; (c) variation in operational aspects; and (d) vintage.

lists, to a wider scope of small-scale project activities, while ensuring environmental integrity. Positive lists adopted by the Board to date include the types of project activities that can be deemed to be automatically additional based on assessment criteria that ensure a high probability of the additionality of the project activities. One Party suggested that positive lists could include large-scale project activities for implementing renewable power (excluding large hydropower projects activities) and power efficiency.

86. **Possible change**: include a principle that states that positive lists can be used to facilitate the demonstration of additionality, that the Board may elaborate the criteria for the inclusion of project types in positive lists and that inclusion in a positive list would amount to a demonstration of additionality. In addition, a principle may be set out that the Board is required to carry out an impact assessment and/or set up graduation criteria for positive lists prior to any expansion or exclusion in order to ensure that additionality is not compromised.

87. **Implications**: recognizing the principle of positive lists for project types that are deemed to be additional and mandating the Board to develop criteria and carry out an impact assessment of any expansion of the positive lists could allow for more straightforward validation and registration processes for those types of project activities. However, setting out the principle of positive lists at the CMP level may limit the flexibility of the Board to accommodate new, unforeseen circumstances.

(iii) *Consideration of national and sectoral policies*

88. **Background**: Currently, despite paragraph 45(e) of the CDM modalities and procedures, which requires the baseline to be established taking into account relevant national and/or sectoral policies and circumstances, there is a divergence of view as to how project participants and DOEs are required to account for relevant and sectoral policies in the assessment of baseline and additionality. This issue has been discussed on numerous occasions over the years by the Board, and the CMP gave guidance in a decision.[40] Views differ on whether that CMP guidance requires that national and sectoral policies be taken into account when assessing additionality and the baseline, or can be excluded from one or other of these assessments. On the one hand, it is argued that if national and sectoral policies and the benefits accrued from them are not included in the calculations of additionality, emission reductions achieved could be perceived to be non-additional, if the national or sectoral policy leads to an artificially increased baseline of the project activity. On the other hand, if the benefits of national and sectoral policies are included in the calculation of additionality, project activities may not be able to demonstrate that they are additional for the purposes of the CDM; this in turn may encourage host Parties to refrain from adopting national or sectoral policies in line with the ultimate objective of the Convention, as doing so could render CDM project activities impossible to be developed in their country. The current rules developed by the Board do not require project participants and DOEs to take into account national and sectoral policies in the demonstration of additionality, although they may do so if they wish to.

89. **Possible change**: clarify in the CDM modalities and procedures how national and sectoral policies are to be taken into account.

90. **Implications**: setting out more clearly the view of the CMP on this matter in the CDM modalities and procedures could clarify whether/how national and sectoral policies are to be included in the demonstration of additionality and may help to resolve the divergent views.

[40] Decision 2/CMP.5, paragraphs 9−12.

(iv) *Dynamic baselines*

91. **Background**: at the moment, the CDM modalities and procedures do not enable a dynamic baseline approach. However, it may be that the demonstration of additionality could be strengthened by allowing the evolving conditions in which a project activity operates (e.g. conditions in the country or technological progress) to be reflected in the baseline.

92. **Possible change**: introduce principles that allow for the establishment of a dynamic baseline[41] for specific types of sector. This could be achieved by regular review and update or through pre-established automatic baseline adjustments (for example, autonomous improvement factors).

93. **Implications**: introducing into the CDM modalities and procedures principles that allow for the establishment of a dynamic baseline could allow some project types to be eligible for CDM notwithstanding fast-evolving conditions in the country. However, it is also likely that requirements to adjust the baseline during the crediting period would increase the transaction and administration costs for such project activities and may create uncertainty as to the return on investment if a baseline adjustment renders a project activity 'non-additional' during its operation. Introducing a dynamic baseline that involves data assimilation could result in higher transaction costs. However, incorporation of an autonomous improvement factor fixed ex ante could mitigate that risk, notwithstanding that selection of the appropriate factor may be difficult in practice.

(v) *Common practice analysis*

94. **Background**: common practice analysis is a supplementary step to the demonstration of additionality for large-scale project activities. In some CDM methodologies, registered CDM project activities are required to be included in the assessment of baseline or additionality by the project participant for its proposed project activity. However, the approach for inclusion or exclusion of other CDM project activities is not consistent.

95. **Possible change**: set out the principle of common practice analysis, based on existing decisions by the Board, and clarify whether and when registered CDM project activities must be included in the common practice analysis when demonstrating additionality.

96. **Implications**: The inclusion of registered project activities in the common practice analysis by project participants is likely to result in conservative assessment of additionality because these other registered CDM project activities would not have been implemented in the absence of the CDM at the time of their investment decisions. However, in some sectors in some countries, common practice analysis may not be representative if a significant portion of all new facilities are CDM project activities. As a result, the exclusion of registered CDM project activities would not give a realistic and robust assessment of the common practice in the absence of the CDM. This could be concluded to imply that common practice analysis alone is inconclusive with regard to additionality demonstration.

(vi) *'First of its kind'*

97. **Background**: 'first of its kind' is an approach to demonstrating additionality that was elaborated by the Board. Some Parties have suggested that the CDM modalities and procedures should exclude it on the basis that environmental integrity cannot be assured, while the workshop report suggests that the principle should remain.

[41] For example, baseline and monitoring methodology AM0070: manufacturing of energy efficient domestic refrigerators.

98. **Possible change**: eliminate the first-of-its-kind criterion from the determination of additionality. However, it should be noted that the principle is not included in the CDM modalities and procedures, although it has been referred to in a number of CMP decisions.[42]

99. **Implications** are as follows:

(a) First, the CMP could, if it wishes to stop the Board from using first-of-its kind analysis, simply provide the Board with guidance with regard to revising its additionality standards to remove that step. It would not be necessary to specifically exclude the principle in the CDM modalities and procedures. However, if the CMP wished to set the principle of excluding this form of demonstration of additionality, it could include that exclusion in the CDM modalities and procedures. This would provide stakeholders with clarity;

(b) In practical impact terms, if the first-of-its-kind analysis is eliminated, the additionality of these project activities is likely to become more difficult to demonstrate, as such project activities would have to follow the standards for demonstration of additionality. Disallowing the use of first-of-its-kind analysis may increase the transaction costs for the project activities that would otherwise have benefited from it.

(vii) *Technology types*

100. **Background**: the current CDM modalities and procedures are technology neutral,[43] apart from in relation to nuclear facilities.[44] Some Parties proposed that the technologies that can be developed in CDM project activities be limited. Technologies that were proposed for exclusion were: industrial gas projects (hydrofluorocarbon-23 (HFC-23) destruction projects and nitrous oxide reduction project activities from adipic acid production), efficiency measures at coal-fired plants without carbon dioxide capture and storage, large hydroelectric project activities and project activities implementing expensive technologies that could be expected to be developed without the incentives provided by the CDM. However, other Parties expressed a different view from the above.

101. **Possible change**: introduce provisions into the CDM modalities and procedures that limit the technologies that are eligible for use by a project activity under the CDM.

102. **Implications**: this possible change could avoid perverse incentives to apply technologies where operational costs are much lower than the value of the resultant CERs. On the other hand, the scope of project types of the CDM would be reduced, which could have an impact on the potential future supply of CERs under the CDM. It could also be expected that excluding these sectors without any alternative mechanism to mitigate emissions would cause an increase in the overall emissions to atmosphere, given that for some project activities, CERs are the only source of revenue.

(viii) *Renewal of crediting period*

103. **Background**: currently, in accordance with paragraph 49(a) of the CDM modalities and procedures, where a project activity has selected a renewable crediting period, only the baseline is revalidated at the time of a request for renewal of a crediting period and additionality is not reassessed. Some Parties have suggested that the environmental

[42] For example, decision 2/CMP.5, paragraph 24(b).

[43] Note also that the Subsidiary Body for Scientific and Technological Advice concluded its consideration of the eligibility of new hydrochlorofluorocarbon-22 facilities under the CDM, without being able to agree whether such project activities are eligible, thus preventing such facilities from registering as CDM project activities pending any further guidance from the CMP. See document FCCC/SBSTA/2013/5, paragraphs 115 and 116.

[44] Decision 17/CP.7 recognized that Annex I Parties are to refrain from using CERs generated from nuclear facilities to meet their commitments under Article 3, paragraph 1.

integrity of the CDM would be enhanced if the additionality of a project activity were also reassessed at the renewal of the crediting period.

104. **Possible change**: introduce a requirement in the CDM modalities and procedures to assess the additionality of the project activities at the time of the renewal of the crediting period.

105. **Implications** are as follows:

(a) The reassessment of additionality at the renewal of a crediting period might strengthen the credibility of the CDM by ensuring that changes in the conditions of the project activity are reflected each time it submits a request for renewal;

(b) However, the reassessment of additionality of a project activity at the time of the renewal of a crediting period could also mean that some project activities may not be able to demonstrate that they continue to be additional. As a result, such project activities would cease to generate CERs, which could reduce their financial viability, increase average transaction costs per CER and increase risks for the project activities as compared with a renewal that only revalidates the baseline.

F. Further elaboration of the role of designated national authorities

1. General considerations

106. In Party submissions and at the workshop, a number of Parties and stakeholders suggested enhancing the role of DNAs in the CDM. Areas of focus in the submissions and discussions were generally in relation to governance, transparency and technical aspects. The value of including a section on the role of the host Party in the CDM modalities and procedures was also raised in the Board's recommendations. These issues are analysed below.

2. Possible changes and implications

(a) Clarifying the roles of designated national authorities

107. **Background**: despite the key role of DNAs in the CDM, as the authority that oversees the participation in the CDM of the Party concerned, the roles and responsibilities of DNAs are not clearly defined in the CDM modalities and procedures. This situation may have led to different views as to the role that DNAs play and may also result in an underestimation of the resources and the expertise needed for DNAs to function adequately. By contrast, the roles of the Board and of DOEs are well defined in the CDM modalities and procedures.

108. Currently, section F of the CDM modalities and procedures sets out participation requirements: Parties participating in the CDM are required to designate a national authority (i.e. DNA), and the CDM modalities and procedures make it clear that Parties must act through that DNA (rather than through other functions of the State) in relation to the CDM. However, there is only limited elaboration of the role of DNAs in the CDM modalities and procedures: written approval must come from the DNA of each Party involved in the CDM project activity; and the Parties involved are entitled to request a review of the requests for registration of the project activity and requests for issuance of CERs, acting through the DNA. Over the life of the CDM to date, the Board, through its procedures, has further elaborated the roles of DNAs, including receipt of notification of prior consideration of the CDM, the right to propose specific microscale renewable technologies and measures as automatically additional, and the right to propose special underdeveloped zones in the countries of the DNAs. Further, DNAs may be involved in

setting technical values and developing standardized baselines for application in their own countries.

109. **Possible change**: develop a new section in the CDM modalities and procedures that sets out the key roles of DNAs participating in the CDM and the principles that apply. Consider elaborating those principles to cover the elements set out in paragraphs 111–130 below, which include potential new roles of DNAs, as appropriate.

110. **Implications** are as follows:

(a) Governance: a set of principles elaborating the role of DNAs could support consistent governance of the CDM at a Party level, because such principles would serve as a reference point for DNAs seeking to develop national rules in relation to the CDM. Such principles would make it clear to stakeholders what roles and actions they can expect from DNAs. Clarifying the governance of the CDM at the national level would improve the transparency and predictability of the CDM;

(b) Participation in the CDM: it is a key principle of the CDM that participation is voluntary. Nonetheless, participation by Parties requires that they act through their DNAs to approve the participation of public and private entities (para. 40(a) of the CDM modalities and procedures), and that Parties remain responsible for the participation of public and private entities that they approve (para. 33 of the CDM modalities and procedures). Further elaboration of the role of DNAs could be seen as adding to the list of the obligations that DNAs/Parties must fulfil if they wish to participate in the CDM;

(c) Need for DNA capacity-building: as noted, the Board, through its procedures, has elaborated the role of DNAs, in particular technical functions. If DNAs were to be given further roles, or existing roles and requirements set out in the CDM modalities and procedures were clarified, it is likely that there would be a need to support DNAs to adapt to the new responsibilities through particular capacity-building activities.

(b) Increasing transparency at the designated national authority level

111. **Background**: under the CDM modalities and procedures, there are no clear requirements for DNAs to make publicly available information such as the regulations that apply for the approval of project activities and PoAs. By contrast, the Board and the secretariat are under particular obligations in relation to making information public, subject to confidentiality and security imperatives. While in many jurisdictions, the DNAs may be required to make such information publicly available under national laws, there is a lack of consistency in the level of available information across Parties. This lack of transparency can cause difficulty for stakeholders and Parties seeking to understand the CDM approval and oversight processes in certain jurisdictions. In some cases, the lack of information can make it difficult for project participants and coordinating/managing entities to demonstrate additionality or assess the contribution of their project activity or PoA to sustainable development.

112. **Possible change**: introduce a requirement that DNAs make publicly available and maintain up-to-date information relating to, for example:

(a) Process and criteria for approval/authorization of project activities and PoAs and for participation of public/private entities;

(b) Criteria used by the DNA to assess the contribution of a project activity or PoA to sustainable development;

(c) The relevant laws, regulations and guidelines that apply to the national approval processes, including elements such as the applicable rules relating to environmental impact assessment and local stakeholder consultation;

(d) Information that project participants and coordinating/managing entities may require in order to establish baselines and demonstrate additionality, such as relevant national policies, sectoral plans, development and conservation strategies.

113. **Implications**: establishing a requirement that DNAs make public information relating to the CDM in their countries could increase transparency, predictability and efficiency of the CDM. However, such a requirement may increase the burden on DNAs, many of which have limited resources, and capacity-building and support may be needed to support such change.

(c) Allowing designated national authorities to validate clean development mechanism project activities and programmes of activities

114. **Background**: one Party suggested that DNAs should be able to validate proposed project activities in certain situations. Under the current CDM modalities and procedures, this function is carried out by DOEs, which are accredited by the Board and designated formally by the CMP (paras. 3(c) and 5(f) of the CDM modalities and procedures), as third-party bodies that assess project activities and PoAs.

115. **Possible change**: provide that a DNA may undertake the validation function for certain types of project activities and PoAs (e.g. those that are deemed automatically additional) using a checklist, on condition that the DNA is able to satisfy the standards required of DOEs, including those on conflict of interest, impartiality and technical competence, while also ensuring that the project participants or the coordinating/managing entities can choose whether to use a DNA or a DOE, and the DOE can use the same checklist.

116. **Implications**: allowing DNAs to validate certain types of project activities and PoAs could facilitate the validation process and reduce transaction costs for project participants and coordinating/managing entities. On the other hand, the Board oversees the CDM, and DOEs are under the authority of the Board, whereas DNAs are under the authority of Parties, and Parties supervise the Board through the CMP. As such, an organization that is both DNA and DOE could find itself in a difficult position under the institutional architecture of the CDM. DOEs must comply with the accreditation standard elaborated by the Board based on appendix A to the CDM modalities and procedures, which require DOEs to have, inter alia, measures in place to prevent conflict of interest and ensure impartiality, as well as sufficient technical competence to assess project activities and PoAs. As such, it seems likely that the issues of conflict of interest and impartiality would be a problem for DNAs, in particular, considering that DNAs also have the right to request a review of proposed project activities and PoAs and the issuance of CERs for them. Given the limited resources of some DNAs, the quality assurance of such validation may be compromised in some cases. Furthermore, DNAs assuming such validation-type functions could distort the market for validation services.

(d) Handling of complaints or stakeholder comments on registered clean development mechanism project activities and programmes of activities

(i) *Complaints channelled through the Board*

117. **Background**: some Parties suggested that there was a need for a process to receive complaints regarding specific CDM project activities and PoAs and their impacts, which could then be directed to the relevant DNAs for investigation and assessment. Under the CDM modalities and procedures there are currently no rules on how DNAs should deal with complaints or allegations relating to a particular CDM project activity or PoA. It has been the case that stakeholders have communicated to the Board information that relates to issues regarding a particular registered CDM project activity or PoA that are not related to

its emission reductions or removal enhancements. Such cases have included allegations of violence, human rights abuses and fraud. In some cases, the Board has communicated with the relevant DNA in order to provide it with the information.

118. **Possible change**: include in the CDM modalities and procedures a provision allowing the Board or the secretariat to receive information on complaints regarding issues that are not related to the emission reductions or removal enhancements of a registered CDM project activity or PoA for forwarding to the relevant DNA for investigation and assessment. Provisions to enable the Board to receive information in relation to the CDM project activity or PoA based on the investigation and assessment of the DNA could also be included.

119. **Implications**: on the one hand, such a change may provide stakeholders with clarity as to the respective roles of the Board and the DNA, but on the other hand, it may create an expectation among stakeholders that the Board could have a role in an issue that is essentially a national-level issue.

(ii) *Stakeholder consultation*

120. **Background**: one group of Parties proposed that stakeholders be given the right to comment on all aspects related to registered CDM project activities or PoAs as set out in the project design documents (PDDs) at the verification stage.

121. **Possible change**: introduce a global stakeholder consultation process at the verification stage, allowing comments to be related to any aspects of the PDD and requiring the DOE that conducts the verification to forward the comments on the issues that are not related to emission reductions or removal enhancements to the relevant DNA for investigation and assessment. Provisions to enable the Board to receive information in relation to the CDM project activity or PoA based on the investigation and assessment of the DNA could also be included.

122. **Implications**: on the one hand, the change would create a new opportunity for stakeholders to comment on registered CDM project activities and PoAs. It would also provide an additional source of information for DNAs on the implementation of the CDM project activities and PoAs hosted in their own countries. On the other hand, the change would add a step to the verification process, and be likely to increase time and transaction costs.

(e) Further elaborating the requirements for the content and form of letters of approval

123. **Background**: the current CDM modalities and procedures do not elaborate the content or form for written approval/authorization (referred to as "letter of approval" in this technical paper) from DNAs in respect of participation, and in the case of host Parties, the contribution of the project activity or PoA to sustainable development. References to written approval are found only in paragraph 40(a) and (f). The Board, through its procedures, has elaborated the provision that a letter of approval shall confirm: (a) that the Party is a Party to the Kyoto Protocol; (b) that the participation in the proposed project activity or PoA is voluntary; (c) that the project participants are authorized to participate in the project activity or PoA, and, in the case of a PoA, the coordinating/managing entity is authorized to coordinate the PoA; and (d) in the case of host Parties, that the project activity or PoA assists the host Party in achieving sustainable development. A number of Parties and the Board have proposed that the CDM modalities and procedures should contain more detailed provisions in relation to letters of approval.

124. **Possible changes**, which are complementary and may be combined, are set out below:

(a) Define “letter of approval”: define the term “letter of approval”, including that it must be issued by the DNA acting for the Party, and that it constitutes the acceptance by the Party of the participation of the relevant project participants in the project activity or PoA, and, in the case of a PoA, of the coordination of the relevant coordinating/managing entity for the PoA, and the Party’s agreement to be responsible for such participation in accordance with paragraph 33 of the current CDM modalities and procedures;

(b) Set out the information to be included in a letter of approval: include a list of information that must, as a minimum, be included in a letter of approval. The list could include the elements previously elaborated by the Board, as well as other information;

(c) Require the conditions by which a letter of approval is issued and may be withdrawn to be set out in the letter of approval: require that a letter of approval must specify the national laws and regulations under which it is issued, any applicable conditions for its issuance and the grounds under which the DNA would or could withdraw or suspend the approval/authorization (see also paras. 126–130 below);

(d) Specify the time period of validity of the letter of approval: require that the DNA specify whether the letter of approval expires, and if so, when.

125. **Implications** are as follows:

(a) Support DNAs in performing their functions: elaborating rules on approval/authorization at the CDM modalities and procedures level would assist DNAs to ensure that their domestic procedures and processes for approval/authorization are comprehensive;

(b) Transparency: the changes would result in greater clarity for all stakeholders as to the role of DNAs in issuing letters of approval and the conditions under which they are issued;

(c) Predictability: predictability for investors and other stakeholders could be increased by setting out the rules on approval/authorization at the CDM modalities and procedures level through the set-up of well-defined and clearer procedures, conditions and requirements for the host Party approval/authorization;

(d) Flexibility/sovereignty: most DNAs already have processes in place that specify how letters of approval are issued and under what conditions. Introducing further requirements may require DNAs to review and revise their procedures, including relevant national regulations. It may also reduce the flexibility of DNAs to establish procedures that respond to their particular circumstances.

(f) Elaborating the key principles for designated national authorities withdrawing or suspending letters of approval

126. **Background**: the current CDM modalities and procedures do not contain provisions regarding how a letter of approval may be withdrawn or suspended by the DNA, should the circumstances warrant such action. This lacuna has led to different interpretations among Parties and stakeholders: some consider that letters of approval cannot be withdrawn, while others consider that DNAs may withdraw them.

127. In decision 8/CMP.7, the CMP requested the Board to assess the implications of the withdrawal or suspension of letters of approval and make recommendations to be considered by the CMP. The Board recommended in its annual report to the CMP for its eighth session that if a Party withdraws or suspends a letter of approval, the Party shall, as soon as possible, inform the Board of when the withdrawal or suspension will take effect, and of any other relevant implications of the withdrawal or suspension for the particular CDM project activity or PoA. The CMP noted, in decision 5/CMP.8, that Parties might

wish to address the issue as part of the review of the CDM modalities and procedures. Some Parties and stakeholders have also suggested that the requirements and process for the withdrawal or suspension of letters of approval should be elaborated.

128. During 2013, two letters of approval from a DNA in an Annex I Party were withdrawn, and the Board, at its seventy-sixth meeting, adopted a procedure focused solely on the administration and effects of withdrawals of approval/authorization.[45]

129. **Possible change**: elaborate the key principles in accordance with which DNAs of the Parties involved in a registered CDM project activity or PoA may withdraw or suspend letters of approval for the project activity or PoA. Proposals from Parties, stakeholders and the work of the Board during 2012 on this matter form the basis for the potential specific principles below. The following list is not exhaustive and Parties may wish to elaborate further or develop other principles:

(a) Transparency and predictability: the principle could be that the conditions that could lead to the withdrawal or suspension of approval/authorization are transparently communicated at the time of approval/authorization and as such the DNA must set out in each letter of approval the conditions under which that approval/authorization could be withdrawn or suspended. The CDM modalities and procedures principle could also include a requirement to make general conditions for withdrawal and suspension publicly available;

(b) Good faith: the principle of good faith action by a DNA under the CDM would imply that the DNA should not withdraw or suspend a letter of approval arbitrarily. Furthermore, good faith would imply that, given the multilateral nature of the CDM, withdrawal or suspension of a letter of approval should occur only when there are no other solutions – as an action of last resort. This would imply that the identified problem with the CDM project activity or PoA cannot be resolved through national-, regional- or local-level enforcement or action and only the withdrawal or suspension of the letter of approval can solve the identified problem;

(c) Notification and notice period: as there may be many affected stakeholders, a principle could be the requirement for prior notification to affected stakeholders, the Board and other Parties involved in the CDM project activity or PoA and a minimum period before the withdrawal or suspension comes into effect;

(d) Due process: aspects of due process would imply that the DNA should be required to state the reasons for the withdrawal or suspension so that all affected stakeholders (including the project participants) are aware of these reasons. It may also be appropriate to require DNAs to have a national process (whether administrative or other) that allows for appeal against a decision to withdraw or suspend a letter of approval;

(e) Due process: aspects of due process would also imply that participants in the CDM project activity or PoA and other Parties involved should be entitled to benefit from emission reductions or removal enhancements achieved by the project activity or PoA up to the effective date of the withdrawal of a letter of approval. In such cases, where the withdrawal comes from the DNA of the host Party, Parties may wish to specify that the project activity or PoA be entitled to request issuance of CERs up to the effective date of the withdrawal of the letter of approval;

(f) Specific principles for suspension: as suspension of a letter of approval creates a situation of prolonged uncertainty for project participants and other Parties involved, Parties may wish to set out in the CDM modalities and procedures requirements that relate to suspension, such as a requirement for the DNA to state what must be achieved by the project participants or the coordinating/managing entity in order for the suspension

[45] <http://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20131111130016249/reg_proc10.pdf>.

to be lifted and what happens if the suspension is still in place when the crediting period for the CDM project activity or PoA expires (in case of suspension by a host Party), or a project participant voluntarily withdraws from the project activity or PoA (where the suspension is from another Party involved).

130. **Implications** are as follows:

(a) Predictability: setting out the principles of withdrawal and suspension of letters of approval would provide predictability and may help to resolve the divergence of views about whether letters of approval may be withdrawn or suspended and the absence of clarity as to the conditions under which it could occur;

(b) Altered investment risk: input to the Board in 2012 and the discussion at the workshop indicated that the unconditional nature of letters of approval has been a key prerequisite for investment in CDM project activities and PoAs. Elaborating principles for withdrawal or suspension of letters of approval would alter the investment risk of CDM project activities and PoAs;

(c) Non-retroactivity: any new principles would be applicable only to new letters of approval, but it may be that DNAs could seek to apply new rules to existing approvals/authorizations, which could increase uncertainty for existing CDM project activities and PoAs.

G. Simplification and streamlining of the project cycle for certain project categories

1. General considerations

131. Transaction costs can have an important effect on the financial viability of CDM project activities. Small-scale project activities and project activities in underrepresented countries are considered to be particularly susceptible to transaction costs, while at the same time these project activities are seen to result in higher sustainable development co-benefits.

132. The CMP has undertaken considerable work to streamline and simplify the project cycle for all project types, in particular for small projects. At its first session, the CMP adopted simplified modalities and procedures for small-scale CDM project activities,[46] as well as rules on bundling and the concept of PoAs.[47] It later also adopted the principles for standardized baselines.[48] The CMP has requested the Board to work on other measures to streamline and facilitate the project cycle and reduce transaction costs, such as by elaborating simplified rules for microscale CDM project activities.[49] In addition, the Board has undertaken work on the use of positive lists[50] and on default emission factors, default baselines and simplified monitoring plans.[51]

133. Some Parties and stakeholders are of the view that there is room at the level of decisions of the CMP for further simplification and streamlining of the project cycle for

[46] Decision 4/CMP.1, annex II.
[47] Decision 7/CMP.1, paragraphs 20 and 21.
[48] Decision 3/CMP.6, paragraphs 44−52.
[49] Decision 2/CMP.5, paragraph 24(c); decision 3/CMP.6, paragraphs 38 and 39; and <https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20130604135630984/methSSC_guid22.pdf>.
[50] The current list, as at the time of publication of this technical paper, can be found at <https://cdm.unfccc.int/Reference/Guidclarif/meth/methSSC_guid05.pdf>.
[51] For example, the small-scale methodologies AMS-I.L., AMS-II.J. and AMS-III.AR.

certain types of CDM project activities without compromising the environmental integrity and conservativeness of emission reductions or removal enhancements.

2. Possible changes and implications

(a) Streamlining the validation process

134. **Background**: currently, the validation of all CDM project activities and PoAs is undertaken using the same method and applies similar requirements and levels of scrutiny, independently of the project type or category. Suggestions were made by several Parties and in the workshop report to simplify the validation process. For the reasons explained in this section, and as noted by Parties in their submissions, the possible changes proposed below could apply only to those project types where the changes do not pose significant risks to environmental integrity and where the benefit in terms of reduced transaction costs is significant. This is the case in particular for project activities or PoAs using standardized baselines or positive lists.

135. **Possible change**: for project activities and PoAs using standardized baselines and/or positive lists,[52] replace the validation requirement with a simplified PDD or PoA design document (PoA-DD) template[53] to be submitted at registration. The CDM modalities and procedures could allow this approach while requiring the Board to establish criteria to determine under which conditions a project activity may be exempted from ex ante validation. Project activities using the simplified PDD template, or PoAs using the simplified PoA-DD template, could then be automatically registered, following an information completeness check. In relation to this matter, one Party made a suggestion that DNAs be allowed to validate project activities; see paragraphs 114–116 above.[54]

136. **Implications** are as follows:

(a) Removing the requirement to conduct validation could facilitate the registration and reduce transaction costs for project activities and PoAs that meet the criteria. The proposed change could also reduce the dependence of the project participants and the coordinating/managing entities on expert knowledge in relation to the CDM project cycle, and thus could support the preparation of CDM documentation in underrepresented areas in particular;

(b) Removing the requirement to conduct validation would also mean, however, limited scrutiny of individual project activities and PoAs until they are subjected to verification. This would potentially result in greater regulatory risk for the project participants, and may also produce greater risks to the credibility and environmental integrity of the emission reduction or removal enhancement estimates of the project activity or PoA. These risks could be mitigated at least in part by sufficiently standardizing the regulatory requirements and the means of compliance with the relevant standards and methodologies for the project types in question;

(c) As a result of the possible change, the CDM modalities and procedures might also need to include the requirements for global and local stakeholder consultation and

[52] Technologies/measures in the positive lists that are automatically additional can, as at the time of publication of this technical paper, be found at <https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20130604135630984/methSSC_guid22.pdf> and <https://cdm.unfccc.int/Reference/Guidclarif/meth/methSSC_guid05.pdf>.

[53] Also referred to as a “checklist” in the submissions.

[54] Also note that validation by the secretariat would give rise to issues similar to conflict of interest as noted above for the DNA.

analysis of the environmental impacts of the project activities and PoAs that are exempted from ex ante validation. The elaboration of criteria could be entrusted to the Board.

137. **Possible change** (alternative to the possible change referred to in paragraph 135 above): for project activities and PoAs using standardized baselines and/or positive lists, postpone the validation by conducting the validation in conjunction with the first verification. The CDM modalities and procedures could be amended to allow for this approach and require that the Board establish the criteria under which a project activity or PoA may have its validation deferred to the first verification.

138. **Implications**: postponing the validation could facilitate the registration and reduce transaction costs for project activities and PoAs that meet the criteria. This change would also allow project details to emerge over time, as the project activity or PoA moves closer to implementation. On the other hand, the same issues as described in paragraph 136(b) and (c) above would arise.

(b) Review the classification of scales under the various modalities and procedures

(i) *Small-scale and microscale thresholds*

139. **Background**: under the CDM modalities and procedures, project activities have been grouped into large-scale and small-scale project activities, as defined in decision 17/CP.7, paragraph 6(c) and decision 1/CMP.2, paragraph 28. In addition, the CMP has recognized the scale known as 'microscale' through decision 2/CMP.5, paragraph 24(c) and decision 3/CMP.6, paragraphs 38 and 39.[55] The classification of a project activity is significant as it determines which set of modalities and procedures apply, and consequently, whether the project activity may benefit from the more simplified approach in the modalities and procedures for small-scale CDM project activities (decision 4/CMP.1, annex II). Suggestions were made by one Party and in the workshop report to review the thresholds for small-scale and microscale CDM project activities.

140. **Possible change**: increase the thresholds for small-scale (from the current 15 megawatt (MW) installed capacity, 60 gigawatt hours (GWh) annual energy savings and 60 kilotonnes (kt) of annual emission reductions) and microscale project activities (from the current 5 MW installed capacity, 20 GWh annual energy savings and 20 kt annual emission reductions) to a higher value.

141. **Implications**: higher thresholds would allow more project activities and PoAs to make use of the simplified modalities and procedures, thus reducing transaction costs. On the other hand, the proposed change could lead to risks to environmental integrity and conservativeness resulting from the reduced scrutiny of such project activities.

(ii) *Threshold per individual unit*

142. **Background**: the simplified modalities and procedures for small-scale CDM project activities were adopted,[56] which contribute to reducing transaction costs for small-scale project activities. Currently, the thresholds for small-scale and microscale project activities are based on the size of the project activity, and project activities that do not qualify under those thresholds are considered to be large-scale project activities. Currently, no distinction is made between a project activity that comprises numerous small units and collectively reaches the threshold and a project activity that comprises a single facility that alone reaches the threshold. Suggestions were made by one Party and in the workshop report that the thresholds that define large-scale, small-scale and microscale CDM project activities be

[55] These decisions do not apply to afforestation and reforestation CDM project activities.
[56] Decision 4/CMP.1, annex II.

re-examined, in order to ensure equal treatment of project activities that face similar barriers.

143. **Proposed change**: revise the definitions and the thresholds relating to the size of small-scale and microscale project activities to allow for equal treatment regarding similar project activities where individual units are small, irrespective of accumulated size. This could be done by specifying a threshold to individual units in a project activity rather than a threshold for the aggregated size.

144. **Implications**: the change would reduce transaction costs by allowing project activities with numerous small units, irrespective of the cumulative size, to apply the simplified requirements of small-scale and/or microscale project activities. The proposed change could therefore facilitate the design and implementation of such project activities or PoAs. On the other hand, the proposed change could also mean reduced scrutiny of activities that may be generating a large amount of emission reductions or removal enhancements on a cumulative basis.

(c) Possible changes in relation to afforestation and reforestation project activities

145. Currently the modalities and procedures for afforestation and reforestation (A/R) CDM project activities are set out in the annex to decision 5/CMP.1. It should be noted that paragraph 18 of the annex to decision 2/CMP.7 extended the A/R CDM modalities and procedures to the second commitment period of the Kyoto Protocol.

(i) *Land parcel*

146. **Background**: under the A/R CDM modalities and procedures, land eligibility is required to be demonstrated for each individual parcel of land included in the project boundary. Delineation of individual land parcels is time-consuming and costly, and can be difficult where there are no historical data. This requirement can thus constitute a significant barrier to potential A/R CDM project activities that involve small parcels of land.

147. **Possible change**: remove the requirement for delineation of individual land parcels as long as the deforestation of all the parcels within the outer project boundary can be demonstrated to have taken place before the cut-off date of eligibility. The area of deforested land within the project boundary could then be estimated by using statistical methods.

148. **Implications**: allowing statistical estimation of the eligible area within the project boundary could enable more cost-effective validation and monitoring of A/R project activities in fragmented landscapes.

(ii) *Timing of verification*

149. **Background**: under the current A/R CDM modalities and procedures, A/R CDM project activities are required to undergo periodic verifications and certifications at a fixed interval of five years (decision 5/CMP.1, annex, para. 32). This rule applies to all A/R CDM project activities whether they opt for issuance of temporary CERs (tCERs) or long-term CERs (lCERs). The Board was mandated by decision 5/CMP.8, paragraph 37, to make recommendations on alternative approaches for the timing of verifications for consideration by the Parties at CMP 9. The Board was unable to make that recommendation, and continues to work on the issue. Notwithstanding the Board's work on the matter, the issue is set out below.

150. For A/R CDM project activities seeking tCERs, it is unlikely that periodic verification and certification adds value to the CERs, since the tCERs expire and do not carry any residual liability for maintenance of carbon stocks after their issuance. No

provisions exist in the existing A/R CDM modalities and procedures for check and enforcement of the periodic verification and certification requirement for A/R CDM project activities seeking tCERs. It could, therefore, be concluded that the requirement is redundant, and incurs unnecessary costs for the project participants.

151. For A/R CDM project activities seeking issuance of lCERs, the A/R CDM modalities and procedures provide for a procedure for ensuring compliance with the requirement of periodic verifications and certifications. Under the existing rules, non-compliant A/R CDM project activities may suffer a penalty of reversal (cancellation) of the issued lCERs.

152. **Possible change**: revise the requirements for periodic verifications and certifications for A/R CDM project activities as follows:

(a) For A/R CDM project activities for which lCERs are issued, verification and certification subsequent to the initial verification and certification could be carried within five years from the previous verification and certification;

(b) For A/R CDM project activities for which tCERs are issued, verification and certification subsequent to the initial verification and certification could be carried out only once in each commitment period, but not earlier than five years from the previous verification and certification.

153. **Implications** are as follows:

(a) The possible change would provide flexibility in the timing of periodic verifications and certifications of A/R CDM project activities, and this would reduce monitoring costs. It does not appear that the possible change would undermine the environmental integrity of A/R CDM project activities since it would allow for a shorter period between two successive instances of periodic verifications and certifications while capping the maximum period at no longer than five years. In practical terms, it seems likely that this option would allow project participants to combine the CDM inventory with their general forest inventories (for other purposes), which could also reduce the cost to the project participants;

(b) The removal of the “every five years” requirement for A/R CDM project activities seeking issuance of tCERs is likely to simplify the implementation of the rules and reduce transaction costs for A/R CDM project activities, without having a substantial impact on environmental integrity.

154. Other A/R matters under consideration by Parties are as follows:

(a) Currently, project participants of A/R CDM project activities have to demonstrate that the land in question did not contain forests on 31 December 1989, as this was the date agreed by the Parties at the time of the adoption of the relevant modalities and procedures. This restriction means that A/R project activities that aim to reforest areas of land that were deforested after 31 December 1989 are ineligible as A/R CDM project activities. In their submissions, some Parties have suggested that the eligibility criteria should be reviewed so as to allow for more flexibility in relation to the eligibility date. It should be noted that this specific issue is the subject of negotiations under the agenda item of the Subsidiary Body for Scientific and Technological Advice (SBSTA) “Implications of the inclusion of reforestation of lands with forest in exhaustion as afforestation and reforestation clean development mechanism project activities”. Therefore, this technical paper does not consider this issue further;

(b) The non-permanent nature of tCERs and lCERs issued to A/R CDM project activities and the replacement risk associated with them has resulted in a lack of fungibility with other CERs and in limited marketability of these units. Furthermore, stakeholders have

explained that the revalidation of expired A/R CERs also results in higher transaction costs as compared with other project types. Some Parties and stakeholders have suggested that A/R rules be revised so that A/R CDM project activities can be issued permanent CERs, if it is possible to do so without compromising the environmental integrity. It should be noted that the issue of non-permanence of CERs under land use, land-use change and forestry (LULUCF) activities is currently under negotiation under the SBSTA pursuant to decision 2/CMP.7, paragraph 7. Therefore, this technical paper does not consider this issue further;

(c) To date, A/R activities have been the only eligible LULUCF activities under the CDM. It should be noted that the inclusion of additional LULUCF activities under the CDM is currently under negotiation under the SBSTA pursuant to decision 2/CMP.7, paragraph 6. Therefore, this technical paper does not consider this issue further.

Annex I

List of analysed possible changes to the modalities and procedures for the clean development mechanism

Annex II

Comparison of membership and composition of bodies under the UNFCCC process

Body	*Quorum rules (seats)*	*Voting rules (present and voting)*	*Membership rules*	*Term*	*Gender balance*[a]
COP/CMP Bureau	⅔ majority	n/a	11 seats (2 per 5 UNRG, 1 SIDS)	1 year; max 2 consecutive terms	36%
Adaptation Committee	⅔ majority (⅔ AI, ⅔ NAI)	Consensus only	16 members (2 per 5 UNRG, 1 SIDS, 1 LDC, 2 AI, 2 NAI)	2 years; max 2 consecutive terms	20%
Adaptation Fund Board	Simple majority	⅔ majority	16 members (2 per 5 UNRG, 1 SIDS, 1 LDC, 2 AI, 2 NAI) 16 alternates (same regions as members)	2 years; max 2 consecutive terms Terms as members do not count as terms of alternates and vice versa	31%
CDM EB	⅔ majority (majority AI and majority NAI)	¾ majority	10 members (1 per 5 UNRG, 2 AI, 2 NAI, 1 SIDS) 10 alternates (same regions as members)	2 years; max 2 consecutive terms. Terms as alternates do not count	20%
CGE	⅔ majority	Consensus only	24 members (5 Afr, 5 AsP, 5 LAC, 6 AI, 3 intl org) Additional experts selected on ad hoc basis, based on expertise	2 years; max 2 consecutive terms	52%
CTCN Advisory Board	11/16 (approx. ⅔) (min 5 AI and min 5 NAI) Only Party representatives count for quorum	¾ majority	18 voting members (8 AI, 8 NAI, 2 TEC representatives) 6 non-voting members (1 GCF, 1 Adaptation Committee, 1 Standing Committee on Finance, 1 CTCN, 1 ENGO, 1 BINGO, 1 RINGO)	Voting members: 2 years, max 2 consecutive terms Non-voting members: 1 year	13%
Compliance Committee	¾	Plenary: ¾; FB: ¾; and EB: ¾ (majority AI and majority NAI)	10 members each FB and EB (1 per 5 UNRG, 1 SIDS, 2 AI, 2 NAI) 10 alternates each FB and EB (same regions as members)	4 years; max 2 consecutive terms	15%

Body	*Quorum rules (seats)*	*Voting rules (present and voting)*	*Membership rules*	*Term*	*Gender balance*[a]
GCF Board	⅔ of members	Consensus, voting rules still to be adopted by Board	24 members (12 developing countries (3 AsP, 3 Afr, 3 LAC, 1 SIDS, 1 LDC, 1 NAIP other), 12 developed countries) 24 alternates (same regions as members)	3 years, eligible for additional terms	n/a
JISC	⅔ of members (majority AI and majority NAI)	¾ majority	10 members (3 AI-EIT, 3 AI, 3 NAI, 1 SIDS) 10 alternates (same regions as members)	2 years; max 2 consecutive terms. Terms as alternate do not count toward terms as member	40%
LDC Expert Group	No quorum requirement	Consensus (by practice)	12 experts (5 Afr LDCs, 2 Asian LDCs, 2 SIDS LDCs, 3 from Annex II) At least 1 LDC expert and at least 1 Annex II expert shall also be a member of the CGE	n/a	15%
Standing Committee on Finance	No quorum requirement	Consensus only	20 members (10 AI, 10 NAI (2 Afr, 2 AsP, 2 LAC, 1 SIDS, 1 LDC, 2 NAIP other))	2 years, option of additional terms	25%
TEC	⅔ majority (majority AI and majority NAI)	Consensus only	20 members (9 AI, 3 Afr, 3 AsP, 3 LAC, 1 SIDS, 1 LDC)	2 years; max 2 consecutive terms	11%

Abbreviations: AI = Parties included in Annex I, AII = Parties included in Annex II, ADP = Ad Hoc Working Group on the Durban Platform for Enhanced Action, Afr = African States, AsP = Asia-Pacific States, BINGO = business and industry non-governmental organization, CDM EB = Executive Board of the clean development mechanism, CGE = Consultative Group of Experts on National Communications from Parties not included in Annex I to the Convention, CMP = Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, COP = Conference of the Parties, CTCN = Climate Technology Centre and Network, EB = enforcement branch, AI-EIT = Parties included in Annex I with an economy in transition, ENGO = environmental non-governmental organization, FB = facilitative branch, GCF = Green Climate Fund, intl org = international organizations, JISC = Joint Implementation Supervisory Committee, LAC = Latin America and the Caribbean States, LDC = least developed country, max = maximum, min = minimum, NAI = Parties not included in Annex I, RINGO = research and independent non-governmental organization, SIDS = small island developing States, TEC = Technology Executive Committee, UNRG = United Nations regional groups.

[a] Report on gender composition (FCCC/CP/2013/4). Data as at June 2013.