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METHODOLOGICAL ISSUES

LAND USE, LAND-USE CHANGE AND FORESTRY: DEFINITIONS AND MODALITIES FOR INCLUDING AFFORESTATION AND REFORESTATION ACTIVITIES UNDER ARTICLE 12 OF THE KYOTO PROTOCOL IN THE FIRST COMMITMENT PERIOD

Options paper on modalities for addressing baselines, additionality and leakage

Note by the secretariat

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I. INTRODUCTION

A. Mandate

1. The Conference of the Parties (COP), by its decisions 11/CP.7 (para. 2 (e))[1] and 17/CP.7 (para. 10 (b)),[2] requested the Subsidiary Body for Scientific and Technological Advice (SBSTA) to develop definitions and modalities for including afforestation and reforestation project activities under the clean development mechanism (CDM) in the first commitment period, taking into account the issues of non-permanence, additionality, leakage, uncertainties and socio-economic and environmental impacts, including impacts on biodiversity and natural ecosystems, and being guided by the principles in the preamble to draft decision –/CMP.1 *(Land use, land-use change and forestry)*,[3] with the aim of recommending a draft decision for adoption by the COP at its ninth session on these definitions and modalities, to be forwarded to the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP) at its first session.

2. The COP, by its decision 17/CP.7 (para. 11), further decided that the decision by the COP at its ninth session, on definitions and modalities for inclusion of afforestation and reforestation project activities under the CDM in the first commitment period, referred to in paragraph 1 above, shall be in the form of an annex on modalities and procedures for afforestation and reforestation project activities for the CDM reflecting, mutatis mutandis, the annex to decision 17/CP.7 on modalities and procedures for the CDM (hereinafter referred as "modalities and procedures for the CDM").

3. The SBSTA, at its sixteenth session, agreed on the terms of reference and an agenda for the work referred to in paragraph 1 above. It invited Parties to submit their views on issues related to modalities.[4] It requested the secretariat to prepare, under the guidance of the SBSTA Chair, an options paper on modalities for baselines, additionality and leakage, based on written submissions from Parties and other inputs from Parties at the seventeenth session of the SBSTA.[5]

B. Scope of the note

4. This options paper, prepared in response to the above mandate, builds on the modalities and procedures for the CDM. It presents possible options on how to address issues relating to modalities for baselines, additionality and leakage for afforestation and reforestation project activities in the first commitment period. The final chapter also contains options on how to address cross-cutting issues, in particular those relating to monitoring plans and the crediting period. In accordance with the mandate contained in the terms of reference of the SBSTA, this paper does not propose legal text. Some options are followed by notes in italics which contain questions and/or explanatory comments.

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[1] Contained in document FCCC/CP/2001/13/Add.1.

[2] Contained in document FCCC/CP/2001/13/Add.2.

[3] Contained in document FCCC/CP/2001/13/Add.1, decision 11/CP.7.

[4] See document FCCC/SBSTA/2002/MISC.22 and Add.1–3.

[5] See Annex I of document FCCC/SBSTA/2002/6.

5. This paper should be read in conjunction with the options paper on modalities for addressing non-permanence[6] and the options paper on modalities for addressing socio-economic and environmental impacts, including impacts on biodiversity and natural ecosystems.[7] The three papers aim at facilitating the exchange of views on issues relating to modalities in a workshop to be held in February 2003. Parties are encouraged to refer to the report of the workshop for further elaboration of the options reflected in this document (to be available before SBSTA 18).

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

6. The SBSTA may wish to take note of information contained in this paper when considering modalities relating to baselines, additionality and leakage for including afforestation and reforestation project activities under the CDM in the first commitment period.

II. ISSUES RELATING TO BASELINES

A. Scope of the baseline

1. Definition of the baseline

7. In the modalities and procedures for the CDM, the definition in paragraph 44 states that: "The baseline for a CDM project activity is the scenario that reasonably represents the anthropogenic emissions by sources of greenhouse gases that would occur in the absence of the proposed project activity. A baseline shall cover emissions from all gases, sectors and source categories listed in Annex A {to the Kyoto Protocol} within the project boundary. A baseline shall be deemed to reasonably represent the anthropogenic emissions by sources that would occur in the absence of the proposed project activity if it is derived using a baseline methodology referred to in paragraphs 37 and 38 {of the modalities and procedures for the CDM}."

8. During SBSTA 17, and in previous submissions, Parties presented a variety of views regarding the definition of baselines. Some Parties consider that the definition of the modalities and procedures for the CDM could be retained with minor drafting changes, but others propose to expand or change the definition. The following options capture the different views expressed by Parties:

Option 1: The baseline definition is adapted to cover removals by sinks; for example, the term "emissions by sources" is replaced by "removals by sinks". Details on baseline methodologies and calculation are dealt with in other chapters.

(Note: If this option is selected, reference to gases in Annex A to the Kyoto Protocol should be kept, but reference to sectors in Annex A should be deleted. See paras. 9–10 below on carbon pools.)

Option 2: The baseline definition is adapted to cover removals by sinks and additional clarification is provided, for example, that non-CO_2 greenhouse gas fluxes and emissions associated with a afforestation or reforestation CDM project activity are included and that natural emissions and removals, occurring in the absence of the project activity, shall be tracked. Details on baseline methodologies and calculation are dealt with in other chapters.

(Note: See also paras. 9–10 below on carbon pools.)

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[6] See document FCCC/SBSTA/2003/5.

[7] See document FCCC/SBSTA/2003/7.

Option 3: The baseline definition is adapted to cover removals by sinks in the absence of the afforestation or reforestation CDM project activity. The baseline scenario shall be updated at regular intervals to account for changes due to cultural traditions, trends in land-use patterns, and changes in socio-economic conditions, as well as policies at national and regional levels.

(Note: This option may not be required if some of the options in section C below on the calculation of the baselines are selected.)

Option 4: The baseline is defined as a scenario that represents the net changes in carbon stocks and greenhouse gas emissions that would have taken place on the project land in the absence of the project.

(Note: If this option is selected, there might be a need to consider further options on the calculation of and establishment of methodologies for the baseline, such as tracking historical land uses, practices and trends; current estimates of the carbon stocks on the project land; future trends at sectoral and national levels; sources of project financing; the project intent; and provisions for periodically reviewing the baseline assumptions.)

Option 5: The baseline is defined as the scenario that represents the most likely prospective land use at the time the project starts.

(Note: If this option is selected, under baseline calculation the scenario may need to refer to national and regional policies and barriers that have been overcome in undertaking the project.)

2. Carbon pools covered in the baseline

9. The existing provision in decision 11/CP.7[8] stipulates that: "Each Party included in Annex I shall account for all changes in the following carbon pools: above-ground biomass, below-ground biomass, litter, dead wood, and soil organic carbon. A Party may choose not to account for a given pool in a commitment period, if transparent and verifiable information is provided that the pool is not a source."

10. Although Parties did not extensively discuss the issue of carbon pools at SBSTA 17, submissions by Parties suggest the following options:

Option 1: Above-ground biomass, below-ground biomass, litter, dead wood, and soil organic carbon pools shall be included in the baseline unless the proponent is able to provide transparent and verifiable information that the excluded pool is not a source.

Option 2: Above-ground biomass, below-ground biomass, litter, dead wood, and soil organic carbon pools shall be included in the baseline.

(Note: In considering both options, Parties may need to reflect on how non-CO_2 greenhouse gases should be taken into account when setting the baseline.)

[8] Paragraph 21 of the annex to draft decision -/CMP.1 (*Land use, land-use change and forestry*).

B. Baseline methodology

11. The modalities and procedures for the CDM, in paragraph 48[9], stipulate that: "In choosing a baseline methodology for a project activity, project participants shall select from among the following approaches the one deemed most appropriate for the project activity, taking into account any guidance by the executive board, and justify the appropriateness of their choice:

(a) Existing actual or historical emissions, as applicable; or

(b) Emissions from a technology that represents an economically attractive course of action, taking into account barriers to investment; or

(c) The average emissions of similar project activities undertaken in the previous five years, in similar social, economic, environmental and technological circumstances, and whose performance is among the top 20 per cent of their category."

12. Submissions by Parties and views expressed during SBSTA 17 can be summarized in the following options:

Option 1: The approaches in paragraph 48 (a) to (c) for choosing a baseline methodology are retained and amended only by references to removals by sinks.

Option 2: The approaches in paragraph 48 (a) and (b) for choosing a baseline methodology are retained but approach (c) is deleted as not applicable.

Option 3: The approaches for choosing a baseline methodology are modified to take into account:

(a) The natural emissions and removals that would otherwise occur; or

(b) The net greenhouse gas removals by sinks due to use of the land that represents an economically attractive course of action, taking into account barriers to investment or other barriers.

Option 4: A baseline methodology must be developed to determine the most likely prospective land use at the time the project starts. (The most likely land uses may include, for example, agriculture (pasture or crops), natural regeneration and, in some cases, forestry.)

(Note: Option 4 does not specify how to quantify the uptake.)

[9] The Executive Board of the CDM has provided further clarifications to paragraph 48 of the modalities and procedures for the CDM. See paragraph 6 of "Guidance by the executive board to the panel on guidelines for methodologies for baselines and monitoring plans", contained in annex 3 of the report of the Executive Board at its fifth meeting (http://unfccc.int/cdm/ebmeetings/eb005/repann3.PDF).

C. Calculation of baselines

1. Validation stage

13. The modalities and procedures for the CDM, in paragraphs 45 to 47, stipulate that:

(Paragraph 45) "A baseline shall be established:

(a) By project participants in accordance with provisions for the use of approved and new methodologies, contained in decision 17/CP.7, the present annex and relevant decisions of the COP/MOP;

(b) In a transparent and conservative manner regarding the choice of approaches, assumptions, methodologies, parameters, data sources, key factors and additionality, and taking into account uncertainty;

(c) On a project-specific basis;

(d) In the case of small-scale CDM project activities which meet the criteria specified in decision 17/CP.7 and relevant decisions by the COP/MOP, in accordance with simplified procedures developed for such activities;

(e) Taking into account relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector."

(Paragraph 46) "The baseline may include a scenario where future anthropogenic emissions by sources are projected to rise above current levels, due to the specific circumstances of the host Party."

(Paragraph 47) "The baseline shall be defined in a way that CERs cannot be earned for decreases in activity levels outside the project activity or due to *force majeure*."

14. Views by Parties are reflected in the following options:

Option 1: The baseline calculation is retained with only minor revisions and amendments (for example by replacing the term "emissions by sources" by "removals by sinks", and "local fuel availability, power sector expansion plans," by "…").

Option 2: The baseline calculation is retained with minor revisions and amendments but paragraph 45 (d) is deleted.

Option 3: The baseline calculation is retained with technical changes, paragraph 45 (d) is deleted, paragraph 45 (e) becomes 45 (d) and a paragraph 45 (e) bis is added specifying additional factors to be taken into account: historical land uses, practices and trends; cultural traditions; socio-economic conditions; current estimates of the carbon stocks on the project land; future trends at sectoral and national levels; sources of project financing; and the project intent.

Option 4: Option 3 above is elaborated by the addition of a paragraph 45 (b) bis which provides for a review of assumptions used in the baseline scenario at least every [X] years, with adjustments to the scenario being made as appropriate. The baseline scenario shall be updated at regular intervals to account for changes due to cultural traditions, trends in land-use patterns, changes in socio-economic conditions, and policies at national and regional levels.

2. Monitoring stage

15. The modalities and procedures for the CDM, in paragraph 53, stipulate that: "Project participants shall include, as part of the project design document, a monitoring plan that provides for, {inter alia}:

(b) The collection and archiving of all relevant data necessary for determining the baseline of anthropogenic emissions by sources of greenhouse gases within the project boundary during the crediting period."

16. Proposals made by Parties can be summarized in two options:

Option 1: The current provision of the modalities and procedures for the CDM is retained but "emissions by sources" is replaced with "removals by sinks".

Option 2: In addition to option 1, a provision is added that the monitoring plan shall specify techniques and methods for sampling and measuring individual carbon pools that reflect commonly accepted principles and criteria concerning forest inventory, soil sampling and ecological surveys. Sample plots shall be established and maintained for evaluating changes in forest carbon pools and non-CO_2 GHG fluxes throughout the project lifetime. The emissions and removals in control sites shall be measured at the same time.

III. ADDITIONALITY

A. Definition of additionality

17. The modalities and procedures for the CDM, in paragraph 43, stipulate 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."

18. Views by Parties on additionality are covered in the proposed definitions of baselines. The two options are:

Option 1: Additionality exists if the net enhancement of sinks resulting from the afforestation or reforestation CDM project activity is higher than those "that would have occurred in the absence of the registered CDM project activity" (i.e. the baseline).

(Note: If this option is selected, additionality (as in the case in the modalities and procedures for the CDM[10]) would depend on how baselines are defined and calculated, and on how baseline methodologies are selected.)

Option 2: Additionality exists if the net enhancement of sinks resulting from an afforestation or reforestation CDM project activity goes beyond legal requirements or commercial practice.

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[10] On the issue of additionality, the Executive Board of the CDM has reiterated that paragraph 43 of the modalities and procedures for the CDM stipulates that a CDM project activity is additional if its emissions are below those of its baseline. The definition of a baseline is contained in paragraph 44 of the modalities and procedures for the CDM. The Executive Board agreed that no further work is required regarding this issue. See paragraph 5 of "Guidance by the executive board to the panel on guidelines for methodologies for baselines and monitoring plans", contained in annex 3 of the report of the Executive Board at its fifth meeting (http://unfccc.int/cdm/ebmeetings/eb005/repann3.PDF).

(Note: Some of the options in chapter II.B. on baseline methodology may address this concern. For example, one option for an approach to select a baseline methodology could be to consider afforestation and reforestation activities that are required by law or correspond to commercial practice.)

B. Calculation of the quantity sequestered

19. The modalities and procedures for the CDM, in paragraph 59, stipulate that: "Subsequent to the monitoring and reporting of reductions in anthropogenic emissions, CERs resulting from a CDM project activity during a specified time period shall be calculated, applying the registered methodology, by subtracting the actual anthropogenic emissions by sources from baseline emissions and adjusting for leakage."

20. Modalities for calculating the quantity of greenhouse gases sequestered depend on modalities for the calculation of the baseline and leakage, and the monitoring plan. Views by Parties can be summarized in the following options:

Option 1: The quantity sequestered is calculated as the increase in the amount of carbon sequestered in specified pools by the afforestation or reforestation CDM project activity during a specified period measured *ex-post* less the increase in the amount of carbon that would have been sequestered during the same period under the baseline scenario, adjusted for leakage.

Option 2: In addition to option 1, consecutive measurements are used to calculate the average amount sequestered during the crediting period.

Option 3: In addition to option 2, the quantity sequestered is adjusted for non-anthropogenic effects, including CO_2 concentrations above pre-industrial levels and indirect nitrogen deposition.

(Note: See also chapters II.C.2. (on monitoring baselines), IV.C. and D. (on adjustment and monitoring for leakage) and V.A. (on the monitoring plan)).

C. Verification of the quantity sequestered

21. The modalities and procedures for the CDM, in paragraph 62, stipulate that: "In accordance with the provisions on confidentiality in paragraph 27 (h) {of the modalities and procedures for the CDM}, the designated operational entity contracted by the project participants to perform the verification shall make the monitoring report publicly available, and shall {inter alia}:

(f) Determine the reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the CDM project activity, based on the data and information derived under subparagraph {62} (a) {project documentation in accordance with the project design document} and obtained under subparagraph {62} (b) {on-site inspections and review of performance records} and/or {62} (c) {additional data from other sources}, as appropriate, using calculation procedures consistent with those contained in the registered project design document and in the monitoring plan."

22. The proposals by Parties include two main options:

Option 1: The designated operational entity shall calculate the net amount of greenhouse gases sequestered by the afforestation or reforestation CDM project activity using the registered calculation procedure in the monitoring plan and refer to other data as appropriate.

Option 2: In addition to option 1, the designated operational entity shall assess whether any sample plot has been managed in a way that would bias the estimate of the net amount of greenhouse gases sequestered. If evidence of manipulation of any sample plot is detected, the designated operational entity shall adjust the calculated amount of greenhouse gases sequestered accordingly, or, if an adjustment is not possible, not certify the amount of carbon sequestered.

IV. LEAKAGE

A. Definition of project boundary

23. The modalities and procedures for the CDM, in paragraph 52[11], stipulate that: "The project boundary shall encompass all anthropogenic emissions by sources of greenhouse gases under the control of the project participants that are significant and reasonably attributable to the CDM project activity."

24. Options relating to project boundaries are presented in this chapter because issues relating to leakage depend on the definition of the project boundary and because Parties, in their submissions, mainly discussed the issue of project boundary in this context. It is, however, recognized that the definition of project boundary has important implications for the definition and calculation of the baseline and of the quantity of greenhouse gases sequestered.

Option 1: Add "and removals by sinks" after "anthropogenic emissions by sources" in the text of paragraph 52 of the modalities and procedures for the CDM.

Option 2: The project boundary is the boundary of the vacant land that would be afforested or reforested by the CDM project activity.

Option 3: The project boundary includes the pools whose carbon content, which is under the control of the project participants and is significant and reasonably attributable to the afforestation or reforestation CDM project activity, is expected to be affected by the afforestation or reforestation CDM project activity.

B. Definition of leakage

25. The modalities and procedures for the CDM, in paragraph 51[12], define leakage as: "the net change of anthropogenic emissions by sources of greenhouse gases which occurs outside the project boundary, and which is measurable and attributable to the CDM project activity".

26. Many Parties submitted proposals relating to leakage. Some considered the current provisions as adequate, and others proposed extended provisions and/or different ones. Main options for the definition of leakage may be summarized as follows:

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[11] The Executive Board of the CDM has requested its panel on guidelines for methodologies for baselines and monitoring plans to develop specific proposals, for consideration by the Board, on how to operationalize the terms "under the control of", "significant" and "reasonably attributable" in paragraph 52 of the modalities and procedures for the CDM. The recommendations of the panel are to be considered by the Board at its seventh meeting, scheduled to take place from 20–21 January 2003 (see para. 10 (e) of the report at http://unfccc.int/cdm/ebmeetings/eb005/repann3.PDF).

[12] The Executive Board of the CDM has provided further clarification to paragraph 51 of the modalities and procedures for the CDM (see para. 10 (d) of "Guidance by the executive board to the panel on guidelines for methodologies for baselines and monitoring plans", contained in annex 3 of the report of the Executive Board at its fifth meeting (http://unfccc.int/cdm/ebmeetings/eb005/repann3.PDF)).

Option 1: Leakage is defined as the net emissions by sources and/or removals by sinks of greenhouse gases outside the project boundary, including carbon stock loss in other land uses and/or forests which is a result of the afforestation or reforestation CDM project activity.

Option 2: Leakage is defined as net emissions of greenhouse gases outside the project boundary due to the afforestation or reforestation CDM project activity, including emissions associated with a previous activity, such as agriculture, shifted elsewhere, reductions in the rate of afforestation and reforestation activities elsewhere, and emissions due to changed deforestation rates elsewhere.

C. Adjustment for leakage

27. The modalities and procedures for the CDM, in paragraph 50, stipulate that: "Reductions in anthropogenic emissions by sources shall be adjusted for leakage in accordance with the monitoring and verification provisions in paragraphs 59 and 62(f) {of the modalities and procedures for the CDM}, respectively."

28. Main options for the adjustment for leakage may be summarized as follows:

Option 1: The net increase in the quantity of carbon stocks in the specified pools must be reduced by the amount of leakage.

Option 2: In addition to option 1, an afforestation or reforestation CDM project activity for which leakage is expected to be large {"large" would need to be defined} or not easily measurable or attributable is to be rejected.

Option 3: In addition to option 1, an afforestation or reforestation CDM project activity is to be designed in a manner to minimize leakage. This is to be achieved by involving local participants in the project design, developing projects that are unlikely to lead to market displacement, ensuring that the project activity does not change the life cycle of production, and developing a suitable leakage baseline.

(Note: The reference to "leakage baseline" may entail the need to define a "baseline boundary". The current modalities and procedures for the CDM do not contain a provision for a "baseline boundary". Although the chapter on calculation of emission reductions in appendix B of the modalities and procedures for the CDM could be interpreted such that a baseline boundary could be defined,[13] the Executive Board has, in the CDM project design document, decided not to interpret it in this way.)

Option 4: Specified discount factors are applied to the net increase in the carbon sequestered to account for leakage (for example, leakage may be minimal for afforestation or reforestation on land with very little arboreal vegetation and no activity displacement).

D. Monitoring leakage

29. The modalities and procedures for the CDM, in paragraph 53, stipulate that: "Project participants shall include, as part of the project design document, a monitoring plan that provides for {inter alia}:

[13] See the CDM project design document at http://unfccc.int/cdm/cdmpdd.htm.

(c) The identification of all potential sources of, and the collection and archiving of data on, increased anthropogenic emissions by sources of greenhouse gases outside the project boundary that are significant and reasonably attributable to the project activity during the crediting period."

30. Main options for monitoring leakage may be summarized as follows:

Option 1: The monitoring plan must include provisions to monitor all potential sources of leakage.

Option 2: The monitoring plan must include provisions to monitor potential sources of leakage that are significant and reasonably attributable to the afforestation or reforestation CDM project activity.

V. CROSS-CUTTING ISSUES

A. Monitoring plan

31. The modalities and procedures for the CDM, in paragraphs 53 to 54, stipulate:

(Paragraph 53) "Project participants shall include, as part of the project design document, a monitoring plan that provides for:

(a) The collection and archiving of all relevant data necessary for estimating or measuring anthropogenic emissions by sources of greenhouse gases occurring within the project boundary during the crediting period;

(b) The collection and archiving of all relevant data necessary for determining the baseline of anthropogenic emissions by sources of greenhouse gases within the project boundary during the crediting period;

(c) The identification of all potential sources of, and the collection and archiving of data on, increased anthropogenic emissions by sources of greenhouse gases outside the project boundary that are significant and reasonably attributable to the project activity during the crediting period;

(d) The collection and archiving of information relevant to the provisions in paragraph 37(c) {of the modalities and procedures for the CDM (environmental impacts)};

(e) Quality assurance and control procedures for the monitoring process;

(f) Procedures for the periodic calculation of the reductions of anthropogenic emissions by sources by the proposed CDM project activity, and for leakage effects;

(g) Documentation of all steps involved in the calculations referred to in paragraph 53(c) and (f) above."

(Paragraph 54) "A monitoring plan for a proposed project activity shall be based on a previously approved monitoring methodology or a new methodology, in accordance with paragraphs 37 and 38 above {of the modalities and procedures for the CDM}, that:

(a) Is determined by the designated operational entity as appropriate to the circumstances of the proposed project activity and has been successfully applied elsewhere;

(b) Reflects good monitoring practice appropriate to the type of project activity."

32. Monitoring plans are relevant for addressing uncertainties, environmental and social impacts, non-permanence and calculation of baseline and removals by sinks. Views by Parties on the monitoring plan included proposals for its definition and for the process of validating a monitoring methodology and a monitoring plan. With regard to the definition of a monitoring plan, options can be summarized as follows:

Option 1: Modify the current provisions requesting that project participants prepare a monitoring plan that specifies how they plan to collect and archive the data needed to calculate the net increase in CO_2 stored in each of the specified pools and non-CO_2 greenhouse gas fluxes, the net increase in removals of greenhouse gases by sinks that would have occurred in the absence of the project, and leakage. The monitoring plan must reflect an approved monitoring methodology or a new methodology, appropriate to the afforestation or reforestation CDM project activity, that reflects good monitoring practice. The monitoring plan must include quality assurance and control procedures.

Option 2: In addition to option 1, include techniques and methods for sampling and measuring individual carbon pools that reflect commonly accepted principles and criteria concerning forest inventory, soil sampling and ecological surveys. Sample plots shall be established and maintained for evaluating changes in forest carbon pools and non-CO_2 greenhouse gas fluxes throughout the project lifetime. The sample plots must be selected and managed in a way that does not bias the estimate of the carbon sequestered. The emissions and removals in control sites shall be measured at the same time.

(Note: Options 1 and 2 would need to be further elaborated depending on how Parties want to define the treatment of non-CO_2 greenhouse gases.)

B. Validation and implementation of the monitoring plan

33. The modalities and procedures for the CDM stipulate that the Executive Board approves new methodologies and possible revisions to them and that the project participants implement the monitoring plan as contained in the project design document, including the monitoring methodology. The modalities and procedures for the CDM, in paragraphs 37, 57 and 56 stipulate, in particular:

(Paragraph 37) "The designated operational entity selected by project participants to validate a project activity, being under a contractual arrangement with them, shall review the project design document and any supporting documentation to confirm that the following requirements have been met:

(e) The baseline and monitoring methodologies comply with requirements pertaining to:

(i) Methodologies previously approved by the executive board; or

(ii) Modalities and procedures for establishing a new methodology, as set out in paragraph 38 {of the modalities and procedures for the CDM}."

(Paragraph 57) "Revisions, if any, to the monitoring plan to improve its accuracy and/or completeness of information shall be justified by project participants and shall be submitted for validation to a designated operational entity."

(Paragraph 56) "Project participants shall implement the monitoring plan contained in the registered project design document."

34. Some Parties expressed the view that the work undertaken by the IPCC on monitoring methodologies for projects should be taken into consideration for afforestation and reforestation project

activities. The two main options for the validation of a monitoring methodology and its implementation are:

Option 1: Maintain the current modalities and procedures.

Option 2: Maintain the current modalities and procedures and redraft paragraph 37 (e) (ii) by explaining that new monitoring methodologies should use, to the extent possible, existing IPCC guidance, and provide justification when using alternative coefficients/values/practice.

C. Crediting period

35. The modalities and procedures for the CDM, in paragraph 49, stipulate that: "Project participants shall select a crediting period for a proposed project activity from one of the following alternative approaches:

(a) A maximum of seven years which may be renewed at most two times, provided that, for each renewal, a designated operational entity determines and informs the executive board that the original project baseline is still valid or has been updated taking account of new data where applicable; or

(b) A maximum of ten years with no option of renewal."

36. Some Parties mentioned that longer crediting periods might promote biological diversity, and others pointed to the need to periodically revise baselines. The two approaches might be combined by proposing a system of renewable crediting periods (as proposed in para. 49 (a) of the modalities and procedures for the CDM) with the possibility of an increased number of renewals. In order to ensure that an afforestation or reforestation CDM project activity has a lifetime conducive to increasing biodiversity, there could be an additional or alternative provision for environmental and social impacts under validation requirements. It is important to differentiate the operational lifetime of a project (which is independent of the "baseline" scenario) from the period for which a project can earn credits (which depends on the baseline). The current modalities and procedures for the CDM allow for project participants to select a crediting period "within the operational lifetime of a project". The Executive Board of the CDM is currently developing guidance on the definition of operational lifetime of a project activity as part of a glossary accompanying the project design document of the CDM.[14]

37. Many Parties have raised the issue of the crediting period in relation to the "validity period" of temporary CERs. If the crediting period is linked to the validity period of a temporary CER, conditions/issues, in addition to those addressed by the existing modalities, might apply. These may include some issues addressed in the options paper on modalities for addressing non-permanence, such as whether the crediting period should not be allowed to be less than a specified duration (for example, the validity period of the temporary CER) and the relation between the duration of the crediting period and the time frame for a commitment period.

38. Options to deal with the crediting period may include:

(Note: Under any of the options below the crediting period could be renewed for subsequent commitment periods if afforestation and reforestation project activities under the CDM are approved for those periods.)

[14] The glossary is expected to be discussed by the Executive Board at its seventh meeting, planned to take place from 20 to 21 January 2003.

Option 1: Delete paragraph 49 (b) and modify paragraph 49 (a) to allow for crediting periods of [a maximum of] 5 years which may be renewed at most [4] [6] [10] times, provided that, for each renewal, a designated operational entity determines and informs the Executive Board that the original project baseline is still valid or has been updated taking account of new data where applicable. As the current modalities and procedures for the inclusion of afforestation and reforestation project activities in the CDM refer only to the first commitment period, the renewal of the crediting period will depend on provisions for a second commitment period.

Option 2: The crediting period is a maximum of five years and can be renewed, but the overall period cannot extend beyond 31 December 2012.

(Note: This allows credits to be issued for sequestration resulting from the afforestation or reforestation CDM project activity prior to 1 January 2008.)

Option 3: The crediting period is a maximum of five years and cannot extend beyond 31 December 2012.

(Note: This option excludes any sequestration resulting from the afforestation or reforestation CDM project activity prior to 1 January 2008. It would only allow for a fixed crediting period without possibility of renewal.)

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