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SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE

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Agenda item 4 (d)

**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**

**Draft conclusions proposed by the Chair**

1. The Subsidiary Body for Scientific and Technological Advice (SBSTA) welcomed the information provided in documents FCCC/SBSTA/2002/MISC.22 and Add.1–4 and FCCC/SBSTA/2003/MISC.5. It took note of documents FCCC/SBSTA/2003/4, FCCC/SBSTA/2003/5, FCCC/SBSTA/2003/6, FCCC/SBSTA/2003/7 and FCCC/SBSTA/2003/8 which the secretariat had prepared in accordance with the draft terms of reference and agenda for work agreed by the SBSTA at its sixteenth session (FCCC/SBSTA/2002/6, annex I).
2. The SBSTA made progress in its consideration of definitions and modalities for including afforestation and reforestation project activities under the clean development mechanism (CDM) in the first commitment period. It considered the consolidated text contained in document FCCC/SBSTA/2003/4 and prepared a negotiating text contained in the annex below.
3. The SBSTA requested the secretariat to organize, subject to the availability of supplementary funding, pre-session consultations to give further consideration to issues contained in the draft negotiating text.
4. The SBSTA agreed to continue its work, on the basis of the negotiating text contained in the annex below, at its nineteenth session, in accordance with the agenda for work agreed at its sixteenth session.

Annex

**MODALITIES AND PROCEDURES FOR AFFORESTATION AND REFORESTATION  
PROJECT ACTIVITIES UNDER THE CLEAN DEVELOPMENT MECHANISM [IN THE  
FIRST COMMITMENT PERIOD]**

**A. Definitions**

1. For the purpose of this annex, the definitions in paragraph 1 of the annex to decision 17/CP.7 shall apply. In addition [, for the first commitment period]:

(a) [The definitions of forest [, reforestation] and afforestation in paragraph 1 of the annex to draft decision -/CMP.1 (*Land use, land-use change and forestry*) shall apply. [“Reforestation” is the direct human-induced conversion of non-forested land to forested land through planting, seeding and/or the human-induced promotion of natural seed sources, on land that was forested but that has been converted to non-forested land. For the first commitment period, reforestation activities will be limited to reforestation occurring on those lands that did not contain forest [on 31 December 1989] [on 31 December 1999] [for a period of at least 10 years immediately prior to the registration of the project activity]];

(b) “Carbon pools” are those carbon pools referred to in paragraph 21 of the annex to draft decision 11/CP.7 and are: above-ground biomass, below-ground biomass, litter, dead wood and soil organic carbon;

(c) [The “project boundary” geographically delineates the afforestation and/or reforestation project activity under the control of the project participants. [The project may contain more than one discrete area of land.] Project participants may choose not to include one or more carbon pools within the project boundary if transparent and verifiable information is provided that the implementation of the project will not lead to lower carbon stocks in those pools. [The project boundary shall encompass only those sources of emissions of greenhouse gases listed in annex A of Kyoto Protocol that are expected to appear or increase as a result of the implementation of the afforestation and reforestation project activity];]

Option 1:

(d) “Baseline net greenhouse gas removals by sinks” is the sum of the changes in carbon stocks in the carbon pools within the project boundary expected to reasonably represent what would occur in the absence of the afforestation and/or reforestation project activity under the clean development mechanism (CDM). Project participants may choose not to include a given pool if transparent and verifiable information is provided that such a pool is not a sink;

(e) “Actual net greenhouse gas removals by sinks” is the sum of the verifiable changes in carbon stocks in the carbon pools within the project boundary attributable to the afforestation and/or reforestation project activity under the CDM. Project participants may choose not to include a given pool if transparent and verifiable information is provided that such a pool is not a source;

Option 2:

(d) “Baseline net greenhouse gas removals by sinks” is the sum of the changes in carbon stocks in the carbon pools within the project boundary, minus the emissions of the greenhouse gases in the sectors/source categories listed in annex A to the Kyoto Protocol, measured in CO<sub>2</sub> equivalents (while avoiding double counting) within the project boundary, expected to reasonably represent what

would occur in the absence of the afforestation and/or reforestation project activity under the CDM. Project participants may choose not to include a given pool if transparent and verifiable information is provided that such a pool is not a sink;

(e) “Actual net greenhouse gas removals by sinks” is the sum of the verifiable changes in carbon stocks in the carbon pools within the project boundary, minus the emissions of the greenhouse gases in the sectors/source categories listed in annex A to the Kyoto Protocol, measured in CO<sub>2</sub> equivalents (while avoiding double counting) within the project boundary, attributable to the afforestation and/or reforestation project activity under the CDM. Project participants may choose not to include a given pool if transparent and verifiable information is provided that such a pool is not a source;

Option 3:

(d) “Baseline net greenhouse gas removals by sinks” is the sum of the changes in carbon stocks in the carbon pools within the project boundary expected to reasonably represent what would occur in the absence of the afforestation and/or reforestation project activity under the CDM. Project participants may choose not to include a given pool if transparent and verifiable information is provided that such a pool is not a sink;

(e) “Actual net greenhouse gas removals by sinks” is the sum of the verifiable changes in carbon stocks in the carbon pools within the project boundary, minus the emissions of the greenhouse gases in the sectors/source categories listed in annex A to the Kyoto Protocol, measured in CO<sub>2</sub> equivalents (while avoiding double counting) within the project boundary, attributable to the afforestation and/or reforestation project activity under the CDM. Project participants may choose not to include a given pool if transparent and verifiable information is provided that such a pool is not a source;

Option 4:

(d) “Baseline net greenhouse gas removals by sinks” is the sum of the changes in carbon stocks in the carbon pools within the project boundary [, minus the emissions of the greenhouse gases in the sectors/source categories listed in annex A to the Kyoto Protocol, measured in CO<sub>2</sub> equivalents (while avoiding double counting), within the project boundary] expected to reasonably represent what would occur in the absence of the afforestation and/or reforestation project activity under the CDM;

(e) “Actual net greenhouse gas removals by sinks” is the sum of the verifiable changes in carbon stocks in the carbon pools within the project boundary [, minus the emissions of the greenhouse gases in the sectors/source categories listed in annex A to the Kyoto Protocol, measured in CO<sub>2</sub> equivalents (while avoiding double counting), within the project boundary] attributable to the afforestation and/or reforestation project activity under the CDM;

(f) Option 1: “Leakage” is the [net] increase in greenhouse gas emissions by sources [and/or reductions in removals by sinks] which occurs outside the boundary of an afforestation or reforestation project activity under the CDM, including [negative] changes [in carbon stocks] [in GHG] in other land uses and/or forests which are [measurable and] attributable to the afforestation or reforestation project activity;

Option 2: “Leakage” is the net change in greenhouse gas emissions by sources and removals by sinks that occurs outside the boundary of an afforestation or reforestation project activity which are [measurable and] attributable to the afforestation or reforestation project activity under the CDM;

(g) “Net anthropogenic greenhouse gas removals by sinks” is the actual net greenhouse gas removals by sinks [attributable to an afforestation and/or reforestation project activity under the CDM] minus the baseline net greenhouse gas removals by sinks for the afforestation and/or reforestation project activity under the CDM minus [monitored] leakage due to the afforestation and/or reforestation project activity under the CDM;

(h) [“Factoring out” means excluding from the accounting of actual net greenhouse gas removals by sinks removals resulting from: (i) elevated carbon dioxide concentrations above their pre-industrial level; (ii) indirect nitrogen deposition; and (iii) the dynamic effects of age structure resulting from activities and practices before the reference year;]

(i) [“Removal CER” or “rCER” is a CER issued for afforestation or reforestation project activities under the CDM [, for the first commitment period] subject to the provisions of section K below [that expires five years after the date of issuance];]

(j) [“Temporary removal” or “tRMU” is an RMU converted from a CER from afforestation and reforestation project activities under the CDM subject to the provisions of section K below, that expires at the end of the subsequent commitment period to which the CER converted into the tRMU from afforestation and reforestation project activities under the CDM was issued;]

(k) [“Insured CER” or “iCER” is a CER issued for afforestation or reforestation project activities under the CDM subject to the insurance provisions in section K below;]

(l) [In the modalities and procedures for a CDM contained in the annex to decision 17/CP.7, where it reads CER, it should instead read rCER [and/or iCER]].

## **B. Role of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol**

2. [All provisions of section B of the modalities and procedures for a CDM, contained in the annex to decision 17/CP.7, shall apply to afforestation and reforestation project activities under the CDM.]

## **C. Executive Board**

3. [All provisions of section C of the modalities and procedures for a CDM, contained in the annex to decision 17/CP.7, shall apply to afforestation and reforestation project activities under the CDM [with the exception of provisions under paragraph 5 (e) on recommendations to the COP/MOP relating to simplified modalities, procedures and definitions for small-scale project activities].]

4. [In addition, the Executive Board shall be responsible for converting CERs from afforestation and reforestation project activities under the CDM into tRMUs.]

5. [For those afforestation and reforestation project activities for which iCERs are issued, the Executive Board shall periodically conduct random audits over the period of no less than [X] years after the end of the crediting period of these project activities.]

## **D. Accreditation and designation of operational entities**

6. [All provisions of section D of the modalities and procedures for a CDM, contained in the annex to decision 17/CP.7, shall apply to afforestation and reforestation project activities under the CDM.]

### **D bis [Accreditation of Insurance Providers]**

7. For the purpose of providing insurance for iCERs from afforestation and reforestation project activities under the CDM, an insurance provider shall:

(a) Be accredited, registered or recognized, as appropriate, with a national insurance regulator or supervisor;

(b) Conform to all statutory and administrative regulations set by the national insurance regulator or supervisor with regard to corporate and financial affairs;

(c) Conform to all obligations and regulations provided by the national insurance regulator or supervisor with regard to financial regulation, solvency surveillance, financial reporting, statutory accounting and financial examination, and the filing of financial statements at required intervals.

8. The information detailed in paragraph 7 (a) to (c) above shall be provided to project participants as stated in paragraph 41 below for the purposes of verification and certification and is subject to verification by the designated operational entity contracted by the project participant to perform the verification.]

#### **E. Designated operational entities**

9. [All provisions of section E of the modalities and procedures for a CDM, contained in the annex to decision 17/CP.7, shall apply to afforestation and reforestation project activities under the CDM. In the case of afforestation or reforestation project activities under the CDM a designated operational entity shall verify and certify net anthropogenic greenhouse gas removals by sinks.]

10. [[In the case of afforestation or reforestation project activities under the CDM for which iCERs are issued,] a designated operational entity shall periodically verify and certify that appropriate insurance coverage is in effect for the specified period.]

#### **F. Participation requirements**

11. [All provisions of section F of the modalities and procedures for a CDM, contained in the annex to decision 17/CP.7, shall apply to afforestation and reforestation project activities under the CDM.

12. A Party not included in Annex I (non-Annex I Party) may host an afforestation or reforestation project activity under the CDM if it has selected and reported to the secretariat through its designated national authority for the CDM:

(a) A minimum tree crown value between 10 and 30 per cent;

(b) A single minimum land area value between 0.05 and 1 hectare;

(c) A single minimum tree height value between 2 and 5 metres.

13. This selection of values referred to in paragraph 12 above shall be fixed for all afforestation and reforestation project activities under the CDM in the non-Annex I Party during the first commitment period.]

#### **G. Validation and registration**

14. Validation is the process of independent evaluation of a proposed afforestation or reforestation project activity under the CDM by a designated operational entity against the requirements of afforestation and reforestation project activities under the CDM as set out in decision -/CP.9, the present annex and relevant decisions of the COP/MOP, on the basis of [the project design document] [appendix B].

15. Registration is the formal acceptance by the Executive Board of a validated project as an afforestation or reforestation project activity under the CDM. Registration is the prerequisite for the verification, certification and issuance of [CERs] [rCERs] [and] [or iCERs] relating to that project activity.

16. The designated operational entity selected by project participants to validate a proposed afforestation or reforestation project activity under the CDM, 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:

(a) The participation requirements set out in paragraphs 28 to 30 of the annex to decision 17/CP.7 [and paragraphs 12 and 13 above] are satisfied;

(b) [Comments by local stakeholders have been invited] [Local stakeholders have been involved [at] [in] an early stage in the project design [development]], a summary of the comments received has been provided, and the designated operational entity has received a report on how due account was taken of any comments;

(c) Project participants have submitted to the designated operational entity documentation on the analysis of the [socio-economic] and environmental impacts, including [transboundary impacts] [impacts outside of the project boundary], of the proposed afforestation or reforestation project activity under the CDM [that covers the topics listed in appendix E] and, if [those] [environmental] impacts are considered important by the project participants or the host Party, have undertaken a [socio-economic analysis] [social and [/or]] environmental impact assessment in accordance with the procedures required by the host Party [, as well as all relevant provisions of other multilateral environmental agreements, in particular, the Convention of Biological Diversity (CBD) and its principles for the conservation of biodiversity, the Ramsar Convention on Wetlands, and the United Nations Convention to Combat Desertification (UNCCD)];;

(d) [Project participants have submitted a statement, based the documentation referred to in paragraph 16 (c) above, that covers the topics listed in appendix E below and, if applicable, follows any further elaboration of this list adopted by the host Party's designated national authority for the CDM, that this statement correctly reflects the impacts that can be reasonably expected from the implementation of project activities and that the statement includes a description of planned monitoring and remedial measures to address major impacts.]

(e) [The project activity does not entail the use of alien species or genetically modified organisms;]

(f) The proposed afforestation or reforestation project activity under the CDM is expected to result in net anthropogenic greenhouse gas removals by sinks that are additional to any that would occur in the absence of the proposed afforestation or reforestation project activity, in accordance with paragraphs 22 to 29 below;

(g) [Management activities, including harvesting cycles, and verifications, are planned so that during the crediting period the verified net anthropogenic greenhouse gas removals by sinks are not likely to be biased by a systematic coincidence of verification and peaks in carbon stocks;]

(h) [Project participants have specified the approach proposed to address non-permanence in accordance with paragraph 46 below];

- (i) [Leakage has been addressed in accordance with paragraphs 1(f) and 29 and appendix B;]
- (j) The baseline and monitoring methodologies, [including the methodologies for measuring changes in carbon stocks] selected by project participants, comply with requirements pertaining to:
  - (i) Methodologies previously approved by the Executive Board [in relation to afforestation and reforestation project activities]; or
  - (ii) Modalities and procedures for establishing a new methodology, as set out in paragraph 17 below; and
  - (iii) [Methodologies for factoring out elevated carbon dioxide concentrations above the pre-industrial level and indirect nitrogen deposition;]
- (k) The [project boundaries and] provisions for monitoring, verification and reporting are in accordance with decision -/CP.9, the present annex and relevant decisions of the COP/MOP;
- (l) The proposed project activity conforms to all other requirements for afforestation and reforestation project activities under the CDM in decision -/CP.9, the present annex and relevant decisions by the COP/MOP and the Executive Board;

17. If the designated operational entity determines that the proposed afforestation or reforestation project activity under the CDM intends to use a new baseline or new monitoring methodology, as referred to in paragraphs 16 (j) (i)–(ii) above, it shall, prior to a submission for registration of this project activity, forward the proposed baseline or monitoring methodology, together with the draft project design document, including a description of the project and identification of the project participants, to the Executive Board for review. The Executive Board shall expeditiously, if possible at its next meeting but not more than four months later, review the proposed new baseline or monitoring methodology in accordance with the modalities and procedures of the present annex [[in accordance with][taking into account [, as appropriate]][consistent with] any IPCC good practice guidance [for land use, land-use change and forestry as] [adopted by] [as decided by] the [COP][COP/MOP]]. Once the Executive Board has approved the new baseline methodology, it shall make it publicly available together with any relevant guidance and the designated operational entity may proceed with the validation of the proposed afforestation or reforestation project activity under the CDM. In the event that the COP/MOP requests the revision of an approved methodology, no afforestation or reforestation project activity under the CDM may use this methodology. The project participants shall revise the methodology, as appropriate, taking into consideration any guidance received.

18. A revision of a methodology shall be carried out in accordance with the modalities and procedures for establishing new methodologies as set out in paragraph 17 above. Any revision to an approved methodology shall be applicable only to project activities registered subsequent to the date of revision and shall not affect existing registered project activities during their crediting periods.

19. The designated operational entity shall:

- (a) Prior to the submission of the validation report to the Executive Board, have received from the project participants written approval of voluntary participation from the designated national authority of each Party involved, including confirmation by the host Party that the proposed afforestation or reforestation project activity under the CDM assists it in achieving sustainable development[, and [complies with][takes into account][is consistent with] its legislation on environmental and social impacts];

- (b) In accordance with provisions on confidentiality contained in paragraph 27 (h) of the annex to decision 17/CP.7, make the project design document publicly available;
- (c) Receive, within [30] [60] days, comments on the validation requirements from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available;
- (d) After the deadline for receipt of comments, make a determination as to whether, on the basis of the information provided and taking into account the comments received, the proposed afforestation or reforestation project activity under the CDM should be validated;
- (e) Inform project participants of its determination on the validation of the project activity. Notification to the project participants will include confirmation of validation and date of submission of the validation report to the Executive Board, or an explanation of reasons for non-acceptance if the proposed afforestation or reforestation project activity under the CDM, as documented, is judged not to fulfil the requirements for validation.
- (f) Submit to the Executive Board, if it determines the proposed afforestation or reforestation project activity under the CDM to be valid, a request for registration in the form of a validation report including the project design document, the written approval [of the host Party] [voluntary participation from the designated national authority of each Party involved] as referred to in paragraph 19 (a) above, and an explanation of how it has taken due account of comments received;
- (g) Make this validation report publicly available upon transmission to the Executive Board.
20. The registration by the Executive Board shall be deemed final eight weeks after the date of receipt by the Executive Board of the request for registration, unless a Party involved in the proposed afforestation or reforestation project activity under the CDM or at least three members of the Executive Board request a review of the proposed afforestation or reforestation project activity under the CDM. The review by the Executive Board shall be made in accordance with the following provisions:
- (a) It shall be related to issues associated with the validation requirements;
- (b) It shall be finalized no later than at the second meeting following the request for review, with the decision and the reasons for it being communicated to the project participants and the public.
21. A proposed afforestation or reforestation project activity under the CDM that is not accepted may be reconsidered for validation and subsequent registration after appropriate revisions, provided that this afforestation or reforestation project activity follows the procedures and meets the requirements for validation and registration, including those relating to public comments.
22. A CDM afforestation or reforestation project activity is additional if net anthropogenic greenhouse gas removals by sinks are increased above those that would have occurred in the absence of the registered CDM afforestation or reforestation project activity[, and it goes beyond institutional and regulatory requirements and common practice in the region].
23. The baseline for a proposed afforestation or reforestation project activity under the CDM is the scenario that reasonably represents the actual net greenhouse gas removals by sinks that would have occurred in the absence of the proposed project activity [, taking into account the provision of paragraph 25, below]. A baseline shall be deemed to reasonably represent [the baseline net greenhouse gas removals by sinks of] a proposed afforestation or reforestation project activity under the CDM if it is derived using a baseline methodology referred to in paragraphs 16 and 17 above.



24. The baseline net greenhouse gas removals by sinks for a proposed afforestation or reforestation project under the CDM shall be established:

(a) By project participants in accordance with provisions for the use of approved and [/or] new baseline methodologies, contained in decision -/CP.9, the present annex and relevant decisions of the COP/MOP [and the Executive Board];

(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, [taking into account [natural] site-specific factors [or variables], and initial carbon stocks within the project boundary];

(d) [In the case of afforestation and reforestation project activities under the CDM that [remove at most 15 kilotonnes of CO<sub>2</sub> equivalent per year] [or] [are implemented in an area of less than [XX] hectares,] in accordance with simplified procedures developed for such activities;]

(e) Taking into account relevant national and/or sectoral policies, [plans] and circumstances, [including historical land uses, practices and trends; the economic situation in the agriculture and forestry sectors; [future] trends at the sectoral and national levels; national forest programmes [and their degree of implementation]; [cultural traditions]; [and socio-economic conditions];

25. The baseline shall be [defined] [calculated] in a way that [does not result in crediting avoided emissions from reduction or cessation of previous land-use activities and] [[rCERs] [and/or iCERs] cannot be earned for increases in greenhouse gas removals by sinks outside the project activity].

26. In choosing a baseline methodology for an afforestation or reforestation project activity under the CDM, 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 [shall] justify the appropriateness of their choice:

(a) [Existing actual or historical [changes in carbon stocks] [greenhouse gas emissions by sources and removals by sinks], as applicable];

(b) Greenhouse gas [emissions by sources and] removals by sinks from a land use that represents an economically attractive course of action, taking into account barriers to investment;

(c) [Greenhouse gas [emissions by sources and] removals by sinks from the most likely land use at the time the project starts;]

(d) [The average actual net removals by sinks of similar afforestation or reforestation project activities undertaken in the previous five years, in similar social, economic, environmental and technological circumstances];

(e) [Control plots outside the project area with ecological and management conditions similar to those of the project area, chosen to represent the baseline net greenhouse gas removals by sinks.]

27. Option 1: The crediting period for a proposed afforestation or reforestation project activity under the CDM shall be [a maximum of ][Y] years which may be renewed [, but may not be extended beyond 31 December 2012. Such a renewal may occur] at most [Z] 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. The crediting period shall begin at the start of the afforestation or reforestation project activity under the CDM.

Option 2: The crediting period shall begin at the start of the afforestation or reforestation project activity under the CDM. The crediting period for a proposed afforestation or reforestation project activity under the CDM shall be either:

(a) [A maximum of ][Y] years which may be renewed [, but may not be extended beyond 31 December 2012. Such a renewal may occur] at most [Z] 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] [5] [X] years.

Option 3: The crediting period for a proposed afforestation or reforestation project activity under the CDM shall be [[a maximum] [5] [X] years]. The crediting period shall begin at the start of the afforestation or reforestation project activity, under the CDM.

28. [An afforestation or reforestation project activity under the CDM is to be designed in such a manner as to minimize [and/or control] leakage [, and to include methods to control this leakage, whose implementation can also be monitored]. [The monitoring plan shall include provisions for monitoring or estimating leakage.]]

29. [Significant leakages shall be prevented by adapting the project design, or they shall be estimated in order to adjust for them. If significant leakages can neither be prevented nor estimated, leakage shall be assumed to be equal to the net anthropogenic removals by sinks.]

#### **H. Monitoring**

30. 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 the actual net greenhouse gas removals by sinks during the crediting period [within the project boundary]. The monitoring plan shall specify techniques and methods for sampling and measuring individual carbon pools [and greenhouse gas fluxes] included in the actual net greenhouse gas removal by sinks [that reflect commonly accepted principles and criteria concerning forest inventory, soil sampling [and ecological surveys]]. [Permanent sample plots shall be established and maintained for evaluating changes in forest carbon pools and greenhouse gas fluxes throughout the crediting period;]

(b) The collection and archiving of all relevant data necessary for [determining] [estimating or measuring] the baseline net greenhouse gas removals by sinks during the crediting period [within the project boundary]. The monitoring plan shall specify techniques and methods for sampling and measuring individual carbon pools [and greenhouse gas fluxes] included in the baseline net greenhouse gas removals by sinks [that reflect commonly accepted principles and criteria concerning forest inventory, [soil sampling] [and ecological surveys]]. [Where control sites are used for the baseline, the emissions and removals in control sites shall be measured at the same time as in the permanent sample plots;]

(c) The identification of all potential [causes and] sources of, and the collection and archiving of data on, [monitored][ positive and negative] leakage [outside the project boundary which is

significant and reasonably attributable to the project activity] during the crediting period [and all relevant data necessary for demonstrating that [negative] leakage has been prevented by the project design];

(d) The collection and archiving of all [information] relevant [for the provisions of paragraph 16 (c) above] [data necessary for [the analysis of] [monitoring] [the socio-economic and] environmental impacts of the afforestation or reforestation project activity [and any remedial measures implemented as part of the project activity]];

(e) [[Collection of information on] the implementation of the measures to minimize the risk of non-permanence of the afforestation or reforestation project activity;]

(f) [Collection of transparent and verifiable information to demonstrate that each carbon pool that the project participants have chosen not to account for is not a source and that emissions of each gas excluded from the baseline net greenhouse gas removals by sinks have not increased;]

(g) [Changes in circumstances within the project boundary that affect legal title to the land, rights of access to the carbon pools, or the status of the net anthropogenic greenhouse gas removals by sinks;]

(h) Quality assurance [and quality control procedures] for the monitoring process;

(i) Procedures for the periodic calculation of the net anthropogenic greenhouse gas removals by sinks due to the afforestation or reforestation project activity and documentation of all steps involved in those calculations [including procedures to factor out removals from natural and indirect effects], [and for the periodic review of implementation of activities and measures for the limitation and/or prevention of [negative] leakage].

31. A monitoring plan for a proposed afforestation or reforestation project activity under the CDM shall be based on a previously approved monitoring methodology or a new methodology appropriate to the afforestation or reforestation project activity, in accordance with paragraphs 16 and 17 above, that:

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

(b) Reflects good monitoring practice appropriate to the type of afforestation or reforestation project activity, [[in accordance with][taking into account [, as appropriate]][consistent with] any IPCC good practice guidance [for LULUCF as] [adopted by] [as decided by] the [COP][COP/MOP]];

(c) [Takes into account uncertainties by proper choice of monitoring methods to be used, especially number of samples, to achieve sufficiently reliable estimates of net anthropogenic greenhouse gas removals by sinks;]

(d) [In the case of afforestation and reforestation project activities under the CDM that [remove less than 15 kilotonnes CO<sub>2</sub> equivalent per year ] [or] [are implemented in an area of less than [XX] hectares, follows simplified monitoring procedures developed for such activities.]]

32. [If an insurance approach is used to address non-permanence, project participants shall provide to the designated operational entity contracted by the project participant to perform the verification a monitoring report in accordance with the registered monitoring plan set out in paragraph 30 above:

(a) At least every five years during the crediting period of the project for the purpose of verification and certification; and

(b) At least every five years for at least [10] years after the end of the crediting period for the purpose of surveillance of the carbon benefits of the afforestation or reforestation project activity.

33. If the project participant fails to provide to the designated operational entity contracted by the project participant to perform the verification a monitoring report in accordance with paragraph 32 (a) and (b) above, as appropriate, the designated operational entity shall notify the Executive Board of the failure. Upon receipt of such notification of failure, the Executive Board shall:

(a) Flag all iCERs previously issued for the afforestation or reforestation project;

(b) Notify Parties that the flagged iCERs, identified by serial number, are ineligible for transfer to another Party, banking, or transfer to a retirement account.

34. The flagging shall be considered final after 30 days in accordance with paragraph 78 below. The replacement of flagged iCERs shall occur no later than 120 days after the flagging of iCERs has become final in accordance with paragraphs 79 and 80 below.]

35. Project participants shall implement the monitoring plan contained in the registered project design document.

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

37. The implementation of the registered monitoring plan and its revisions, as applicable, shall be a condition for verification, certification and the issuance of [rCERs] [CERs][or iCERs].

38. The project participants shall provide to the designated operational entity contracted by the project participants to perform the verification, a monitoring report in accordance with the registered monitoring plan set out in paragraph 30 above for the purpose of verification and certification.

#### **I. Verification and certification**

39. Verification is the periodic independent review and ex post determination by the designated operational entity of the monitored actual net greenhouse gas removals by sinks achieved by an afforestation or reforestation project activity under the CDM [since the start of the project] during the verification period. Certification is the written assurance by a designated operational entity that, during a specified time period, an afforestation or reforestation project activity under the CDM achieved the net anthropogenic greenhouse gas removals by sinks as verified.

40. [The initial verification and certification of an afforestation or reforestation project activity under the CDM [may be undertaken at a time selected by the project participants,] [shall be carried out at the end of commitment period][but at least five years after the start of the project activity]. Thereafter, verification and certification shall be carried out every five years [or the end of the first commitment period, whichever comes first] [until the end of the crediting period].

41. [In the case of afforestation or reforestation project activities under the CDM for which iCERs are issued, the designated operational entity shall verify documentation provided by the project participants to prove that:

(a) Insurance has been acquired for any CERs that would be issued corresponding to the net anthropogenic greenhouse gas removals by sinks determined in paragraph 43 and 44 below;

(b) Insurance will become effective upon issuance of the CERs by the Executive Board, and that:

- (i) The insurance coverage will remain valid during the crediting period until the subsequent verification and certification by the designated operational entity contracted by the project participant to perform the verification or;
- (ii) The insurance coverage will remain valid after the crediting period until the subsequent verification of the data contained within the monitoring report by the designated operational entity contracted by the project participant to perform the verification;

*(Note: The period after the crediting period for which the insurance coverage remains valid needs to be specified)*

(c) Insurance coverage is valid for any iCERs that were issued corresponding to the net anthropogenic greenhouse gas removals by sinks in the past;

(d) The insurance provider conforms to the accreditation requirements provided in paragraph 7 (a)–(c) above.]

42. In accordance with the provisions on confidentiality in paragraph 27 (h) of the annex to decision 17/CP.7, the designated operational entity contracted by the project participants to perform the verification shall make the monitoring report publicly available, and shall:

(a) Determine whether the project documentation provided is in accordance with the requirements of the registered project design document and relevant provisions of decision -/CP.9, the present annex and relevant decisions of the COP/MOP [and the Executive Board];

(b) Conduct on-site inspections, as appropriate, that may comprise, inter alia, a review of performance records, interviews with project participants and local stakeholders, collection of measurements, observation of established practices and testing of the accuracy of monitoring equipment [and assessment of leakage management measures] [and an assessment of the conformity of project implementation with the statement referred to in paragraph 16 (d) affirming that the project addressed the topics as outlined in appendix E];

(c) [Determine whether the socio-economic and environmental impacts were monitored in accordance with the monitoring plan of the registered afforestation and/or reforestation project activity under the CDM;]

(d) [Determine whether there have been any changes in circumstances within the project boundary that affect legal title to the land, rights of access to the carbon pools, [or any other circumstances that may affect the viability of the project activity] [or the status of the net anthropogenic greenhouse gas removals by sinks];]

(e) [Review the management activities, including harvesting cycles and management of sample plots, to determine that the verified actual net greenhouse gas removals by sinks are not likely to be biased;]

(f) If appropriate, use additional data from other sources;

(g) Review monitoring results and verify that the monitoring methodologies for the [estimation] [calculation] of [baseline net greenhouse gas removals by sinks], actual net greenhouse gas

removals by sinks [, factoring out natural and indirect effects] [and] [leakage] [and error adjustment factor] have been applied correctly and that their documentation is complete and transparent;

(h) Recommend to the project participants appropriate changes to the monitoring methodology [for any future crediting period, if necessary];

(i) Determine the net anthropogenic greenhouse gas removals by sinks, using monitored or other data referred to in paragraph 42 (f), above, as appropriate, and calculation procedures consistent with those contained in the registered project design document;

(j) Identify and inform the project participants of any concerns relating to the conformity of the actual afforestation or reforestation project activity under the CDM and its operation with the registered project design document. Project participants shall address the concerns and supply relevant additional information;

(k) Provide a verification report to the project participants, the Parties involved and the Executive Board. The report shall be made publicly available.

43. The designated operational entity shall, based on its verification report, certify in writing that, [during the specified time period] [since the start of the project] [since the last verification], the afforestation or reforestation project activity under the CDM achieved the net anthropogenic greenhouse gas removals by sinks. [In the case of afforestation or reforestation project activities under the CDM for which iCERs are issued, it shall certify in writing that suitable insurance coverage is in effect for the iCERs already issued and for any new iCERs expected to be issued for the current verification period.] It shall inform the project participants, Parties involved and the Executive Board of its certification decision in writing immediately upon completion of the certification process, and make the certification report publicly available.

#### **J. Issuance of [CERs] [rCERs] [and iCERs]**

44. The certification report shall constitute a request to the Executive Board for issuance of [CERs] [rCERs] [or iCERs] equal to the verified amount of net anthropogenic greenhouse gas removals by sinks achieved by the afforestation or reforestation project activity under the CDM [during the [verification] period] [since the start of the project] [subject to verification in accordance with paragraph 40 below].

45. The issuance of [CERs] [rCERs] [or iCERs] for afforestation and reforestation project activities under the CDM shall [be subject to the provisions of] [follow the same procedures for issuance of CERs as prescribed in] paragraphs 65–66 of the modalities and procedures for a CDM, contained in the annex to decision 17/CP.7.

#### **K. Addressing non-permanence of afforestation and reforestation project activities under the CDM**

46. [The project participants shall [select one of ] [use] the following approach[e]s to address non-permanence of an afforestation or reforestation project activity under the CDM:

(a) [Issuance of rCERs for the net anthropogenic greenhouse gas removals by sinks achieved by the project activity since the project start date in accordance with paragraphs 47–59 below;]

(b) [Issuance of CERs converted into tRMUs for the net anthropogenic greenhouse gas removals by sinks achieved by the project activity during each verification period, in accordance with paragraphs 60–76 below;]

(c) [Issuance of iCERs, for which appropriate insurance coverage for a period of Y years beyond the end of the last crediting period shall be maintained for the net anthropogenic greenhouse gas removals by sinks achieved by the project activity during each verification period, in accordance with the provisions of paragraphs 77–80 below.]]

1. Provisions governing rCERs

47. All provisions in the annex to draft decision -/CMP.1 (*Modalities for the accounting of assigned amounts*) and in annexes I–III to decision 22/CP.8 that pertain to CERs shall also apply to rCERs unless stated otherwise in this annex.

48. Each Annex I Party shall ensure that its net acquisitions of rCERs do not exceed the limits established for that Party as set out in paragraph 14 of the annex to draft decision -/CMP.1 (*Land use, land-use change and forestry*).

49. [An rCER may be used to demonstrate compliance with commitments [for the first commitment period] [[only] for the commitment period during which it was issued.] [An rCER may not be carried over to a subsequent commitment period.]]

50. Each rCER shall have an expiry date (month and year) as an additional element in its serial number. The expiry date shall be [the end of the [60th ][240th] month after the month in which the rCER was issued] [the end of the subsequent commitment period to which the rCER was [issued] [retired or cancelled]]. Upon expiry an rCER shall not be transferred between registries or within a registry.

51. An rCER may not be transferred to cancellation accounts of Annex I Parties referred to in paragraph 12 (d) and (e) of the annex to draft decision -/CMP.1 (*Modalities for accounting of assigned amounts*).

52. The national registry of each Annex I Party shall include a separate cancellation account for each commitment period for the purpose of replacing rCERs [at the end of the first commitment period].

53. An Annex I Party that holds rCERs in its retirement account or the separate cancellation account referred to in paragraph 52 above for a given commitment period shall, prior to [at the end of the first commitment period] [the expiry date of each such rCER,] transfer to the cancellation account referred to in paragraph 52 above for [the current commitment period] [an equivalent number of] an AAU, CER, [iCER, ]ERU, [RMU] [or rCER].

54. [The assessment, after the expiration of the additional period for fulfilling commitments, of the compliance of an Annex I Party with its commitments to replace rCERs for an afforestation or reforestation project activity under the CDM retired or cancelled in the previous commitment period, shall be based on the comparison of the quantity of rCERs that have been retired in the previous commitment period with the quantity of AAUs, CERs, [and/or] ERUs, [and/or] RMUs] transferred into the relevant cancellation account.]

55. Upon receipt of a record of a proposed transaction involving rCERs, the transaction log shall conduct an automated check to verify that there is no discrepancy with regard to the requirements of paragraphs 47 to 51 above.

56. Each Annex I Party shall report, in a standard electronic format, information on rCERs from its national registry for the previous calendar year, [distinguishing between units valid for different commitment periods]:

- (a) The number of rCERs retired or cancelled, [including information on their expiry dates];

(b) [The number of rCERs that expired in the retirement account or the separate cancellation account referred to in paragraph 52 above for the previous commitment period, including information on their expiry dates;]

(c) The number of AAUs, CERs, [iCERs, ] [or] ERUs, [or] RMUs [or rCERs] transferred to the cancellation account specified in paragraph 52 above to replace [expiring] rCERs [expiring at the end of the first commitment period] [, including information on the dates of cancellation and, in case of rCERs, their expiry dates].

57. The information reported under the provisions of paragraph 56 above shall be reviewed as part of the review of information pursuant to annex II of decision 22/CP.8.

58. In its report to the secretariat upon expiration of the additional period for fulfilling commitments referred to in paragraph 49 of the annex to draft decision -/CMP.1 (*Modalities for accounting of assigned amounts*), each Annex I Party shall include information on the total quantity and serial numbers of rCERs in its retirement account.

59. In its compilation and accounting database referred to in paragraph 50 of the annex to draft decision -/CMP.1 (*Modalities for accounting of assigned amounts*), the secretariat shall annually record for each Annex I Party the following information for the previous calendar year and to date for the commitment period, following completion of the annual review under Article 8, including the application of any corrections, and resolution of any relevant questions of implementation:

(a) The number of rCERs retired or cancelled [, including information on their expiry dates];

(b) [The number of rCERs that expired in the retirement account or the separate cancellation account referred to in paragraph 52 above for the previous commitment period, including information on their expiry dates;]

(c) The number of AAUs, CERs, [iCERs, ] [or] ERUs, [or] RMUs [or rCERs] transferred to the cancellation account specified in paragraph 52 above to replace expiring rCERs, including information on the dates of cancellation [and, in the case of rCERs, their expiry dates].]

## 2. Provisions governing tRMUs

60. Each Annex I Party shall ensure that its net acquisitions of tRMUs do not exceed the limits set out in paragraph 14 of the annex to draft decision -/CMP.1 (*Land use, land-use change and forestry*).

61. A tRMU may be used to demonstrate compliance with commitments only in the commitment period during which it was issued; tRMUs may not be carried over to a subsequent commitment period.

62. Each tRMU shall have an expiry date (month and year) as an additional element in its serial number. The expiry date shall be the end of the subsequent commitment period to which the tRMU was issued. Upon expiry, a tRMU shall only be transferred to the cancellation account in the CDM registry of the commitment period for which it was used for retirement.

63. A tRMU may not be transferred to cancellation accounts of Annex I Parties referred to in paragraph 12 (d) and (e) of the annex to draft decision -/CMP.1 (*Modalities for the accounting of assigned amounts*).

64. An Annex I Party may use tRMUs to demonstrate compliance by transferring valid tRMUs to its retirement account in the CDM registry for the commitment period.



65. The Executive Board of the CDM shall notify the Annex I Party whenever a tRMU in the retirement account of that Party in the CDM registry expires.
66. Upon notification of expiration of tRMUs the Annex I Party shall:
- (a) Transfer to the retirement account in the national registry of the Annex I Party for the commitment period for which the expired tRMUs were used, equivalent units of AAUs, CERs, ERUs or RMUs to replace expired tRMUs; or
  - (b) Transfer to its retirement account in the CDM registry for the commitment period for which the expired tRMUs were used, equivalent valid units of tRMUs to replace expired tRMUs.
67. Expired tRMUs can be replaced only by valid units of tRMUs, referred to in paragraph 66 (b) above, for a maximum of [7] [X] previous and consecutive commitment periods or 35 years, whichever occurs first.
68. Upon the Annex I Party's notification of transfer referred to in paragraph 66, expired tRMUs held in the retirement account in the CDM registry shall be transferred to the cancellation account of the Annex I Party in the CDM registry for the commitment period for which the tRMUs were used.
69. Upon receipt of a record of a proposed transaction involving tRMUs, the transaction log shall conduct an automated check to verify that there is no discrepancy with regard to the requirements of paragraphs 60–61 above.
70. Each Annex I Party shall report, in a standard electronic format, the following information on tRMUs from its national registry for the previous calendar year, distinguishing between units valid for different commitment periods:
- (a) The quantity of tRMUs in each holding account at the beginning of the year;
  - (b) The quantity of tRMUs acquired from each transferring registry identified separately from acquisitions of others CERs;
  - (c) The quantity of tRMUs transferred from each transferring registry identified separately from transfers of other CERs;
71. Each Annex I Party shall report on any discrepancies identified by the transaction log pursuant to paragraph 43 of the annex decision -/CPM.1 (*Modalities for the accounting of assigned amounts*), specifying whether the relevant transactions were completed or terminated and, in the case where transactions were not terminated, the transaction number(s) and serial numbers and quantity of tRMUs concerned. The Annex I Party may also provide its explanations for not terminating the transaction.
72. Each Annex I Party shall report the serial numbers and quantity of tRMUs held in the national registry at the end of that year that are not valid for use towards compliance with commitments under Article 3, paragraph 1, pursuant to paragraph 43 (b) of the annex to the decision -/CPM.1 (*Modalities for the accounting of assigned amounts*).
73. The information reported under the provisions of paragraph 70 above shall be reviewed as part of the review of information pursuant to annex II of decision 22/CP.8.
74. In its report to the secretariat upon expiration of the additional period for fulfilling commitments referred to in paragraph 49 of the annex to draft decision -/CMP.1 (*Modalities for accounting of assigned amounts*), each Annex I Party shall include information on:

- (a) The quantity of tRMUs transferred to its retirement account in the CDM registry, including the serial numbers and information on their expiry dates;
- (b) The quantity of tRMUs that expired in its retirement account in the CDM registry for the previous commitment period, including the serial numbers and information on their expiry dates;
- (c) The quantity of tRMUs transferred from its retirement account in the CDM registry to its cancellation account in the CDM registry in the previous commitment period, including the serial numbers and information on their expiry dates;
- (d) The quantity of AAUs, CERs, ERUs or RMUs transferred to the retirement account in national registry specified in paragraph 66 (a) above to replace expiring tRMUs;
- (e) The quantity of tRMUs transferred to the cancellation account in the CDM registry specified in paragraph 66 (b) above to replace expiring tRMUs, including the serial numbers and information on their expiry dates;

75. The Executive Board shall make available to the expert review team the information contained in the accounts referred to in appendix D paragraph 3 with information on transactions referred to in paragraph 74 (a), (b), (c) and (e) above.

76. In its compilation and accounting database referred to in paragraph 50 of the annex to draft decision -/CMP.1 (*Modalities for accounting of assigned amounts*), the secretariat shall annually record for each Annex I Party the information referred in paragraph 74 above for the previous calendar year and to date for the commitment period, following completion of the annual review under Article 8, including the application of any corrections, and resolution of any relevant questions of implementation.]

### 3. Provisions governing iCERs

77. In the event that verification finds a reduction in the actual net greenhouse gas removals by sinks during a verification period or that suitable insurance coverage is no longer in effect, the Executive Board shall:

- (a) Flag iCERs previously issued for the afforestation or reforestation project activity, equivalent to the verified amount of the reduction in the actual net greenhouse gas removals by sinks;
- (b) If the verified amount of the reduction in the actual net greenhouse gas removals by sinks is less than the outstanding number of iCERs, flag iCERs, identified by serial number, starting with the most recently issued iCERs, until the total verified amount of the reduction in the actual net greenhouse gas removals by sinks is flagged;
- (c) Notify Parties that the flagged iCERs, identified by serial number, are ineligible for transfer to another Party, transfer to a retirement or cancellation account, or carry-over.

78. The flagging of iCERs shall be considered final 30 days after receipt of the certification report showing a reduction in the actual net greenhouse gas removals by sinks during a verification period, unless a Party involved in the project activity or at least three members of the Executive Board request a review of the proposed flagging of iCERs. If a review is requested, it shall be conducted in accordance with paragraph 65 of the modalities and procedures contained in the annex to decision 17/CP.7.

79. The insurance provider shall replace flagged iCERs no later than 120 days after the flagging of the iCERs has become final with AAUs, CERs, ERUs, or RMUs in a manner consistent with the Kyoto Protocol and Marrakesh Accords. The replacement units shall be sourced from the holding account of

the insurance provider. Flagged iCERs must be transferred to a cancellation account established for the purpose by the Executive Board in the CDM registry no later than 15 days after the flagged iCERs have been replaced.]

80. In the event that the insurance provider is unable to partially or fully replace flagged iCERs issued for afforestation or reforestation projects within 120 days due to bankruptcy, insolvency or legal protection from creditors, the Annex I Party in possession of the flagged iCERs shall assume the responsibility for the replacement obligation.]

*(Note: Treatment of units in replacement accounts that are cancelled needs to be elaborated)*

## APPENDIX A

[Standards for the accreditation of operational entities in relation to afforestation and reforestation project activities under the CDM

1. Paragraphs 1 and 2 of appendix A of the annex to decision 17/CP.7 on standards for the accreditation of operational entities shall apply, with the following changes:

(a) Paragraph 1 (f) (ii) is replaced with “Issues, in particular environmental and socio-economic, relevant to validation, verification and certification of afforestation and reforestation project activities under the CDM, as appropriate”;

(b) Paragraph 1 (f) (iii) is replaced with “The technical aspects of afforestation and reforestation project activities under the CDM relevant to environmental and socio-economic issues, including expertise in the setting of baseline net greenhouse gas removals by sinks and monitoring of emissions and removals”;

(c) Paragraph 1 (f) (v) is replaced with “Methodologies for accounting of greenhouse gas emissions by sources and removals by sinks”.]

## APPENDIX B

[Project design document for afforestation and reforestation project activities under the CDM

1. The provisions of this appendix shall be interpreted in accordance with the present annex on modalities and procedures for afforestation and reforestation project activities under the CDM.

2. The purpose of this appendix is to outline the information required in the project design document. A project activity shall be described in detail in a project design document, taking into account the provisions for afforestation and reforestation project activities under the CDM as set out in the present annex, in particular, section G on validation and registration and section H on monitoring; the description shall include the following:

(a) A description of the afforestation or reforestation project activity comprising the project purpose; a technical description of the project activity, including how technology and know-how will be transferred, if appropriate; a description of the physical location and boundaries of the project activity; specification of the gases whose emissions will be part of the project activity; and specification of the carbon pools that will be part of the project activity;

(b) A description of legal title to the land, rights of access to the sequestered carbon, risk management plan, measures to minimize the risk of non-permanence, measures to minimize leakage, insurance cover, and the carbon-stock-accounting approach selected;

(c) A proposed baseline methodology in accordance with the present annex on modalities and procedures for afforestation and reforestation project activities under the CDM including:

(i) In the case of the application of an approved methodology:

– A statement of which approved methodology has been selected;

– A description of how the approved methodology will be applied in the context of the proposed project activity.

- (ii) In the case of the application of a new methodology:
    - A description of the baseline methodology and justification of choice, including an assessment of strengths and weaknesses of the methodology;
    - A description of key parameters, data sources and assumptions used in the baseline estimate, and assessment of uncertainties;
    - Projections of the baseline net greenhouse gas removals by sinks for the proposed project activity;
    - A description of how the baseline methodology addresses potential leakage, including the methodology and data sources used, and the magnitude, geographical extent and timing of leakage.
  - (iii) Other considerations, such as a description of how national and/or sectoral policies and circumstances have been taken into account and an explanation of how the baseline was established in a transparent and conservative manner.
- (d) Start date for the project activity, with justification, and the number of crediting periods during which the project activity is expected to achieve net anthropogenic greenhouse gas removals by sinks;
- (e) Statement of which approach for dealing with non-permanence was selected and, when the iCER approach was selected, details of the insurance coverage and the insurance provider;
- (f) Description of the baseline net greenhouse gas removals by sinks in the absence of the project activity;
- (g) Socio-economic and environmental impacts of the project activity:
  - (i) Documentation on the analysis of the socio-economic and environmental impacts, including transboundary impacts, addressing the topics listed in appendix E below;
  - (ii) If any socio-economic or environmental impacts are considered significant by the project participants or the host Party, conclusions and all references to support documentation of a socio-economic impact assessment and/or an environmental impact assessment that has been undertaken in accordance with the procedures as required by the host Party;
  - (iii) A description of planned monitoring and remedial measures to address significant impacts identified by the socio-economic impact assessment and/or an environmental impact assessment referenced in paragraph 2 (g) (ii) above.
- (h) Information on sources of public funding for the project activity from Annex I Parties which shall provide an affirmation that such funding does not result in a diversion of official development assistance and is separate from and is not counted towards the financial obligations of those Parties;
- (i) Stakeholder comments, including a brief description of the process, a summary of the comments received, and a report on how due account was taken of any comments received;

- (j) A monitoring plan that meets the requirements of paragraph 30 of the present annex:
  - (i) Identification of data needs and data quality with regard to accuracy, comparability, completeness and validity;
  - (ii) Methodologies to be used for data collection and monitoring, including quality assurance and quality control provisions for monitoring, collecting and reporting;
  - (iii) In the case of a new monitoring methodology, a description of the methodology, including an assessment of strengths and weaknesses of the methodology and whether or not it has been applied successfully elsewhere.
- (k) Calculations, including a discussion of how uncertainties have been addressed:
  - (i) A description of formulae used to estimate the baseline net greenhouse gas removals by sinks for the project activity;
  - (ii) A description of formulae used to estimate leakage due to the project activity;
  - (iii) A description of formulae used to calculate the actual net greenhouse gas removals by sinks for the project activity;
  - (iv) A description of formulae used to calculate the net anthropogenic greenhouse gas removals by sinks for the project activity;
  - (v) References to support the above, if any.]

#### APPENDIX C

[Terms of reference for establishing guidelines on baselines and monitoring methodologies for afforestation and reforestation project activities under the CDM

1. All provisions of appendix C to the modalities and procedures for a CDM, contained in the annex to decision 17/CP.7, shall apply to afforestation and reforestation project activities.
2. For the purposes of afforestation and reforestation project activities, in developing the guidance referred to in paragraphs (a) and (b) of appendix C to the modalities and procedures for a CDM, contained in the annex to decision 17/CP.7, the Executive Board shall take into account relevant information contained in any IPCC good practice guidance for land use, land-use change and forestry adopted by COP/MOP.]

#### APPENDIX D

Additional requirements for the CDM registry to address afforestation and/or reforestation project activities

Option 1:

1. The CDM registry established and maintained by the Executive Board shall be used to ensure the accurate accounting of the issuance, holding, transfer and acquisition of rCERs [and iCERs] from afforestation and reforestation project activities under the CDM.

2. All provisions of appendix D to the annex of decision 17/CP.7 that apply to CERs shall also apply to rCERs [and iCERs], unless stated otherwise in this appendix.
3. In addition to the registry accounts specified in paragraph 3 of appendix D to the annex of decision 17/CP.7 the CDM registry shall have a cancellation account to which rCERs that have expired in a holding account in the CDM registry [and iCERs that have been cancelled] are transferred.
4. [Each rCER shall have an expiry date. The expiry date shall be the end of the [60th] [240th] month after the month in which the rCER is issued. The month and the year of expiry shall be included as an additional element in the serial number.]
5. [Each rCER shall have a unique serial number comprising the following elements:
  - (a) First commitment period: an identifier that the rCER applies to the first commitment period only;
  - (b) Party of origin: the Party which hosted the afforestation or reforestation CDM project activity, using the two letter country code defined by ISO 3166;
  - (c) Type: this shall identify the unit as a rCER;
  - (d) Project identifier: a number unique to the afforestation or reforestation CDM project activity and Party of origin.]
6. [All information referred to in paragraphs 9 to 12 of appendix D to the annex of decision 17/CP.7 that applies to rCERs shall include, as an additional element, the expiry date of the rCER.]
7. [An iCER shall be flagged in the event that a verification finds a reduction in the actual net greenhouse gas removals by sinks during a verification period or that suitable insurance coverage is no longer in effect. Such a flag shall be included as an additional element of the serial number of the iCER.]
8. [All information referred to in paragraphs 9 to 12 of appendix D to the annex of decision 17/CP.7 that applies to iCERs shall include, as an additional element, whether the iCER has been flagged.]]

Option 2:

1. The Executive Board shall establish and maintain a CDM registry to ensure the accurate accounting of the issuance, holding, transfer and acquisition of tRMUs converted from CERs from afforestation and reforestation activities under the CDM by non-Annex I Parties. The Executive Board shall identify a registry administrator to maintain the registry under its authority.
2. The CDM registry shall be in the form of a standardized electronic database which contains, inter alia, common data elements relevant to the issuance, holding, transfer and acquisition of CERs. The structure and data formats of the CDM registry shall conform to technical standards to be adopted by the COP/MOP for the purpose of ensuring the accurate, transparent and efficient exchange of data between national registries, the CDM registry and the independent transaction log.
3. In addition to the registry accounts specified in paragraph 3 of appendix D to the annex of decision 17/CP.7 the CDM registry shall have, for each Annex I Party for each commitment period, a retirement account to which tRMUs are transferred for the purpose of retirement, and a cancellation account to which tRMUs that have expired in the retirement account are transferred. Each tRMU shall be held in only one account in one registry at a given time.

4. Upon being instructed by the Executive Board to issue CERs for an afforestation or reforestation project activity under the CDM, the registry administrator shall, in accordance with the transaction procedures set out in decision -/CMP.1 (*Modalities for the accounting of assigned amounts*) and this annex:

- (a) Issue the specified quantity of CERs into a pending account of the Executive Board;
- (b) Forward the quantity of CERs corresponding to the share of proceeds to cover administrative expenses and to assist in meeting costs of adaptation, in accordance with Article 12, paragraph 8, to the appropriate accounts in the CDM registry for holding and transferring such CERs;
- (c) Convert the remaining CERs from afforestation and reforestation project activities under the CDM into tRMUs;
- (d) Forward the RMUs converted from CERs from afforestation and reforestation activities under the CDM to the registry accounts of project participants and Parties involved, in accordance with their request.

5. Each tRMU shall have an expiry date. The expiry date shall be the end of the commitment period subsequent to that in which the tRMU was issued.

6. A CER shall be converted into a tRMU by adding a type of activity identifier (afforestation or reforestation project activity under the CDM) to the serial number and changing the type indicator in the serial number to indicate a tRMU. Other elements of the serial number of the CER shall remain unchanged.

7. The information referred to in paragraph 9 of appendix D of the annex of decision 17/CP.7 shall include the following CDM project activity information, for each project identifier against which the tRMUs have been issued:

- (a) Project name: a unique name for the CDM project activity;
- (b) Project location: the georeferenced location of the project;
- (c) Years of tRMUs conversion: the years in which tRMUs have been converted;
- (d) Expiry date: the month and the year of the beginning of the commitment period subsequent to that in which the tRMU was issued;
- (e) Operational entities: the operational entities involved in the validation, verification and certification of the afforestation and reforestation CDM project activity;
- (f) Reports: downloadable electronic versions of documentation to be made publicly available in accordance with the provisions of the present annex.

8. The information referred to in paragraph 9 of appendix D of the annex of decision 17/CP.7 shall include the following holding and transaction information relevant to the CDM registry, by serial number, for each calendar year (defined according to Greenwich Mean Time) for each commitment period:

- (a) The total quantity of tRMUs in each account at the beginning of the year and at the end of each commitment period;
- (b) The total quantity of tRMUs converted by the Executive Board;



- (c) The total quantity of tRMUs transferred and the identity of the acquiring accounts and registries for each Annex I Party;
- (d) The total quantity of tRMUs cancelled for each Annex I Party;
- (e) The total quantity of tRMUs retired for each Annex I Party;
- (f) Current holdings of tRMUs in each account for each Party.]

#### [APPENDIX E

##### Option 1:

1. For the preparation of the project design document, this appendix outlines issues to be addressed in the analysis of environmental and socio-economic impacts of afforestation and reforestation project activities under the CDM, as required under paragraphs X, Y and Z of appendix B of the present annex. This is to facilitate the preparation by the designated national authority of national guidelines, as appropriate, or to be used as a default list if guidelines are not available or are being developed

2. For the analysis of environmental impacts, including possible impacts on biodiversity and natural ecosystems, taking into account relevant multilateral environmental agreements such as the Convention on Biological Diversity, the Ramsar Convention on Wetlands, and the United Nations Convention to Combat Desertification, the following topics are to be addressed:

- (a) Present environmental status of the area, including a description of soils, climate, vegetation, fauna, habitats and rare and/or endangered species as described in national and or global red lists (e.g. IUCN);

- (b) Infrastructural developments if extensive (e.g. construction of roads, nurseries, etc.) and their possible impacts;

- (c) Species selection, origin and processing of reproductive material and silvicultural systems envisaged;

- (d) Soil protection and measures for soil preparation and fertilization;

- (e) Forest protection (e.g pest management, fire control);

- (f) Appropriateness and safety of the use of chemicals;

- (g) Expected effects on the hydrological system (run-off, water table, watershed, reservoir, riparian zone);

- (h) Expected effects on biodiversity and ecosystem integrity within the project area and adjacent ecosystems;

- (i) Monitoring and remedial measures for major project impacts.

3. For the analysis of socio-economic impacts the following topics are to be addressed:

- (a) Present and expectable evolution of rights on tenure and land use;

- (b) The needs of indigenous and forest-dwelling peoples;

- (c) Definition of responsibilities including those of primary stakeholders, project developers and host country authorities;
- (d) Stakeholders' involvement and integration in decision and management processes, access to information on the project and public participation [in accordance with Article 6 of the Convention];
- (e) Benefit-sharing, taking into consideration local communities;
- (f) Effects on local communities and their employment, market access and food production;
- (g) Inclusion of social and cultural impacts of the project, including capacity-building, awareness raising and safety of working conditions.

Option 2:

1. Standard information for environmental impact assessment

1. The purpose of this section is to outline the standard set of information that must be considered for the purposes of an environmental impact assessment of each afforestation or reforestation project activity under the CDM. An environmental impact assessment of each afforestation or reforestation project activity shall be undertaken for the purposes of validation and registration of a project. Environmental impact assessment shall be an ongoing process and shall be included as part of the monitoring process. Methodologies for undertaking the environmental impact assessment shall be included in the project design document.

2. The environmental impact assessment shall be based on a description of the environmental conditions before the start of the project activity, both within the project boundary and in areas outside the project boundary likely to be affected by the project, and the likely changes according to, inter alia, the following potential effects:

- (a) Land forms and soils:
  - (i) Slope, bank or shore instability;
  - (ii) Real, gully or shore erosion;
  - (iii) Loss of nutrients and organic matter;
  - (iv) Decrease or alteration of microflora and microfauna;
  - (v) Decrease in cation-exchange capacity;
  - (vi) Soil compaction;
  - (vii) Laterization;
  - (viii) Rutting and swamping of soils;
  - (ix) Burial of downslope soils as a result of excessive erosion and sedimentation
- (b) Water resources:
  - (i) Decreased infiltration and groundwater recharge;
  - (ii) Increased storm run-off;

- (iii) Decreased base flow, lose dependable year-round discharge;
  - (iv) Local ponding of water;
  - (v) Increased turbidity;
  - (vi) Accelerated eutrophication;
  - (vii) Contamination of waters with hydrocarbons, biocides and wood preservatives;
  - (viii) Increased sediment loads, with a detrimental effects on channel stability, waterlife, useful reservoir life, navigation;
  - (ix) Loss of excess fertilizer from fertilized plantation, which may accelerate the eutrophication;
  - (x) Return water from irrigated plantations which may be saline;
  - (xi) Invasion of crop land, clogging of drainage tiles and withdrawal of water from irrigation ditches by tree roots from shelter belts.
- (c) Climate and air quality:
- (i) Higher ground temperatures;
  - (ii) Local and regional desiccation of the climate;
  - (iii) Release of dust and fumes;
  - (iv) Release of CO<sub>2</sub>.
- (d) Vegetation:
- (i) Possible non-regeneration of high forest;
  - (ii) Possible extinction or depletion of whole species;
  - (iii) Genetic erosion as a result of selective cutting of superior trees;
  - (iv) Undesirable secondary forest growth;
  - (v) Influx of persistent weeds;
  - (vi) Possible mechanical damage and "isolation shock" killing seed trees;
  - (vii) Possible damage to adjacent and cut forest by machinery, wind throw, fires, illegal felling, sedimentation, hydrologic changes and intensified shifting cultivation;
  - (viii) Possible effects on regeneration by changes in the populations of animals that act as pollinators or seed vectors.
- (e) Wildlife and fisheries:
- (i) Possible elimination or depletion of entire rare and endemic species;
  - (ii) Possible death of some animals;

- (iii) Possible elimination or damage to nesting sites, including hollow trees;
  - (iv) Possible elimination of feeding and breeding grounds;
  - (v) Possible damage to or destruction of spawning and nursery areas and bottom organisms (benthos) by logging debris;
  - (vi) Possible displacement of animals by noise and human presence;
  - (vii) Reproductive and other stresses induced by displaced animals in existing animal populations in uncut forest;
  - (viii) Logging creating new browse and habitats which favour some animals but cause some to become pests or disease vectors;
  - (ix) Displacement of some herbivores, and their becoming dependent on agricultural crops;
  - (x) Damage to aquatic habitats from improper disposal of sawdust and other wastes;
  - (xi) Fires from clearing and other operations killing species and destroying or harming important ecological communities;
  - (xii) May serve as new access routes, thereby increasing hunting pressure, poaching, illegal felling and shifting cultivation.
- (f) Protected areas:
- (i) Damage to existing conservation areas (parks, game reserves, protection forests, etc.) either directly or indirectly by affecting the buffer zones around these areas;
  - (ii) Damage to conservation areas that have vague legal status or that are poorly demarcated on the ground;
  - (iii) Disruption of conservation plans by affecting areas that have not yet been legally or administratively set aside.

## 2. Standard information for social impact assessment

3. The purpose of this section is to outline the standard set of information that must be considered for the purposes of a social impact assessment of each afforestation or reforestation project activity under the CDM. A social impact assessment of each afforestation or reforestation project activity shall be undertaken for the purposes of validation and registration of a project. Social impact assessments shall be an ongoing process and shall be included as part of the monitoring process. Methodologies for undertaking the social impact assessment shall be included in the project design document.

4. The social impact assessment shall be based on a description of the social conditions before the project activity begins, both within the project boundary and in areas outside the project boundary likely to be affected by the project, and the likely changes according to, inter alia, the following potential effects:

- (a) General amenity:
  - (i) Reduction in the amenity value of a region through adverse visual effects;

- (ii) Possible as axis for new unplanned settlements;
  - (iii) Unsightliness if poorly maintained or abandoned without proper clean-up;
  - (iv) Dust or other particulate emissions;
  - (v) Generates solid waste;
  - (vi) Noise;
  - (vii) Fire hazards;
  - (viii) Source of accidents;
  - (ix) Interference with local traffic.
- (b) Traditional cultures and subsistence economy:
- (i) Reduction or elimination of traditional shelter, food and other resources of forest dwellers;
  - (ii) Culture shock, and attendant social unrest in remote areas;
  - (iii) Damage to or destruction of sites of religious or other heritage value;
  - (iv) Disruption of local non-cash economy;
  - (v) Acceleration of the erosion of traditional cultural values;
  - (vi) Long-term decrease in fuelwood supply;
  - (vii) Conflict over job opportunities or lack thereof in the forestry sector;
  - (viii) Harassment or illegal hunting of local wildlife used for subsistence by local population;
  - (ix) Land-use conflicts;
  - (x) Friction with local residents.
- (c) Epidemiology:
- (i) Higher incidence of malaria (exposure of stagnant water) and other diseases;
  - (ii) More contact between vectors of arbovirus diseases and man;
  - (iii) Creation of habitats for potential animal vectors of diseases (mainly grasslands invaded by rodents);
  - (iv) Introduction of diseases by forestry workers.]

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