

# AD HOC WORKING GROUP ON FURTHER COMMITMENTS FROM ANNEX I PARTIES UNDER THE KYOTO PROTOCOL

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CONTACT GROUP ON OTHER ISSUES (LULUCF)

Non-paper by the co-facilitators of the spin-off group

**Options and proposals on how to address definitions, modalities, rules and guidelines for the treatment of land use, land-use change and forestry**

*Note: The proposals use the text of the annex to decision 16/CMP.1*

## [Option A

### A. Definitions

1. For land use, land-use change and forestry activities under Article 3, paragraphs 3 and 4, the following definitions shall apply:
  - (a) “Forest” is a minimum area of land of [0.05–1.0 hectares] [1.0 hectare] with tree crown cover (or equivalent stocking level) of more than [10–30] [30–50] per cent with trees with the potential to reach a minimum height of 2–5 metres at maturity *in situ*. A forest may consist either of closed forest formations where trees of various storeys and undergrowth cover a high proportion of the ground or open forest. Young natural stands [and all plantations] which have yet to reach a crown density of [10–30] [30–50] per cent or tree height of 2–5 metres are included under forest, as are areas normally forming part of the forest area which are temporarily unstocked as a result of human intervention such as harvesting or natural causes, but which are expected to revert to forest;
  - (b) “Afforestation” is the direct human-induced conversion of land that has not been forested for a period of at least 50 years to forested land through planting, seeding and/or the human-induced promotion of natural seed sources;
  - (c) “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. [Tree crown cover after reforestation should not be smaller than it was originally on this territory.] For the first [and subsequent] commitment period[s], reforestation activities will be limited to reforestation occurring on those lands that did not contain forest on 31 December 1989;
  - (d) “Deforestation” is the direct human-induced conversion of forested land to non-forested land;
  - [(d bis) “Forest biomass decline” is a human-induced activity leading to a decrease in carbon stocks and/or greenhouse gas emissions from forested land remaining forested land. It includes losses of carbon stocks or emissions from both living and non-living biomass and includes both above-ground and below-ground biomass;]
  - (e) “Revegetation” is a direct human-induced activity to increase carbon stocks on sites through the establishment of vegetation that covers a minimum area of 0.05 hectares and does not meet the definitions of afforestation and reforestation contained here. [If elected, the activity includes accounting for direct human-induced activities that decrease

carbon stock on [sites] [land] which have been categorized as revegetation areas and do not meet the definition of deforestation;]

- (e bis) [Option 1: *(insert)* “Devegetation” is a human-induced loss of carbon stocks of vegetation that does not meet the definition of forests. It includes the loss of vegetation on land, whether covered by water or not, and shall include areas of land or land covered by vegetation that is a minimum area of 0.05 hectares. Dev egetation includes both living and non-living biomass and includes above-ground and below-ground biomass, including, inter alia, peat, swamp vegetation, shrubs, grasslands, sea grasses, mangroves and sea weeds;]

[Option 2: *(replace (e) above by)* “Revegetation” is a direct human-induced activity to increase carbon stocks on sites through the establishment [and/or the management] of vegetation that covers a minimum area of [0.05] [0.25] hectares and does not meet the definitions of afforestation and reforestation above [or the definition of forest management below]. If elected, the activity includes accounting for direct human-induced activities that decrease carbon stocks on land which has been categorized as a revegetation area and does not meet the definition of deforestation;]

- (f) “Forest management” is a system of practices for stewardship and use of forest land aimed at fulfilling relevant ecological (including biological diversity), economic and social functions of the forest [in a sustainable manner]. [Human-induced decreases [and increases] in carbon stocks and/or increases in greenhouse gas emissions on forested land remaining forested land shall be included.] [If elected, human-induced decrease in carbon stocks and/or increases in greenhouse gas emissions on forest land remaining forest land shall be accounted for as well];
- (g) “Cropland management” is the system of practices on land on which agricultural crops are grown and on land that is set aside or temporarily not being used for crop production [including, if applicable, commercial plantations such as palm oil or rubber];
- (h) “Grazing land management” is the system of practices on land used for livestock production aimed at manipulating the amount and type of vegetation and livestock produced;

- (i) Option 1:

[“Wetland] [“Peatland] management” is a system of practices for stewardship and use of [wetlands] [peatlands] that have an effect on [greenhouse gas emissions and removals] [carbon stock changes], including drainage of [wetlands] [peatlands] and restoration of drained [wetlands] [peatlands];]

Option 2:

[“Wetland management” is a system of practices for rewetting and draining on land [that covers a minimum area of [0.5 ha] [X ha]] [resulting in accountable greenhouse gas emissions by sources and removals by sinks]. It includes all lands drained and all lands rewetted since the base year, provided that these lands are not included under other mandatory or voluntary activities elected.]

- [(j) “Planted production forest” [is a forest consisting of [introduced] species, which as at 1990 met all the following criteria: [dominated by] one or two species at plantation, even age class, and regular spacing. The “planted production forest”] shall have been established by direct human-induced conversion of non-forest land to forest land [or non-productive forest land to planted production forests] by the planting and/or seeding provisions of an afforestation or reforestation activity;]

- [(k) “Equivalent forest” means an area of forest that will achieve at least the same carbon stock over the same period as would have occurred had the area of harvested “planted production forest” been re-established;]
- [(l) “Force majeure” means, for the purposes of this decision, an extraordinary event or circumstance that is beyond the control of Parties [and may include wildfire, severe pest outbreak, flooding, landslide, volcano, earthquake, severe wind storm] [or other forms of climatic variability and extreme weather events]. [Force majeure is not intended to excuse negligence or other malfeasance on the part of a Party];] *(This definition applies to option 1, paragraphs 19 bis to 19 quarter.)*
- [(m) “Time out” is a period of time when accounting for land has been suspended as a result of a force majeure];
- [(n) “Certified sustainable forest management” is socially just [, economically viable] and ecologically responsible management of forests that has been certified. Such certification will be considered by the Subsidiary Body for Scientific and Technological Advice and subsequently approved by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol and based on the criteria provided for in this annex;]
- [(o) “Harvested wood products” [are carbon-based products derived from forests and include timber, wood, ply and chipboard, but do not include sawdust, cardboard, wood chips, paper or other short-lived wood-based products. They do not include combustible products used as fuel, such as fuel wood or other fuel types such oils, hydrocarbons or alcohols derived from forest products;]
- [(p) “Harvested wood product management” is [the system of practices that result in the short-term or long-term storage of carbon stocks in harvested wood products within the country of origin of forests where the wood products were grown] [a system of practices that results in the storage of carbon stocks in harvested wood products];]
- [(q) “Importing harvested wood products” is the system of practices associated with importing harvested wood products from Parties not included in Annex I;]
- [(r) “Non-Annex I wood products” includes wood products originally grown in Parties not included in Annex I and shall include [carbon removed in wood and other biomass from forests] [all carbon-based products derived from forests and shall include timber, wood, ply, chipboard, sawdust, cardboard, wood chips, paper]. [It shall include combustible products used as fuel, such as fuel wood or other fuel types such oils, hydrocarbons or alcohols derived from forest products].]

**[A bis: Consideration of land use, land-use change and forestry**

[Option 1:

1 bis. National accounts should include emissions and removals from anthropogenic sources only, consistent with the way the UNFCCC pursues its objective and with the treatment of other sectors.

1 ter. For the purposes of describing mitigation commitments for the [second] commitment period, land use, land-use change and forestry [should] be included in mitigation commitments and baselines [should] include all mandatory and elected sources of anthropogenic emissions and removals in the sector, including deforestation.

1 quarter. Robust estimation methods [will] be used to ensure confidence in the emissions and removals from land use, land-use change and forestry. Parties should be transitioning towards higher level (tier 2 and tier 3) accounting methodologies.

1 quinquies. For the third commitment period, land use, land-use change and forestry accounting [should] use an approach based on the Convention’s land use categories to provide a comprehensive

framework and enhanced capacity for comparing the land use accounts of all Parties that undertake mitigation commitments.]]

[Option 2:

*Delete section A bis.<sup>1</sup>*]

### **B. Article 3, paragraph 3**

2. For the purposes of Article 3, paragraph 3, eligible activities are those direct human-induced afforestation, reforestation and/or deforestation activities that meet the requirements set forth in this annex and that started on or after 1 January 1990 and before 31 December of the last year of the commitment period.

[2 bis. Parties [shall] include emissions and removals from deforestation, afforestation and reforestation in their baseline towards the determination of their assigned amount for the [second] commitment period.]

3. For the purposes of determining the area of deforestation to come into the accounting system under Article 3, paragraph 3, each Party shall determine the forest area using the same spatial assessment unit as is used for the determination of afforestation and reforestation, but not larger than [1 hectare] [0.00005 per cent of total forest area in the country.<sup>2</sup> Parties shall provide transparent and verifiable information on how the time-series consistency of the reported Article 3, paragraph 3, activities is maintained in case of changing the spatial assessment unit for determining forest area for second commitment period].

[3 bis. In the case of “planted production forests” [established before 1 January 1990 only], conversion of forest land to non-forest land shall be considered harvesting, and shall not be considered deforestation, where an “equivalent forest” is established elsewhere on non-forest land that would have qualified for afforestation or reforestation. “Equivalent forest” shall not be included in a Party’s assessment of emissions and removals from afforestation and reforestation activities and must be included in a Party’s accounting of forest management under Article 3, paragraph 4, if elected.]

4. [Option 1: Debits arising from harvesting<sup>3</sup> a unit of land that was subject to afforestation or reforestation between 1 January 1990 and 31 December 2007, and has not since been harvested, shall not be greater than credits accounted for in total on that unit of land since 1 January 2008.]

[Option 2: *delete the paragraph*]

5. Each Party included in Annex I shall report, in accordance with Article 7, on how harvesting or forest disturbance that is followed by the re-establishment of a forest is distinguished from deforestation. This information will be subject to review in accordance with Article 8.

### **C. Article 3, paragraph 4**

[Option 1:

6. [Prior to the start of the second commitment period [and, where relevant, any subsequent commitment period],] a Party included in Annex I [may choose to] [shall] account for anthropogenic greenhouse gas emissions by sources and removals by sinks resulting from [any or all of] the following human-induced activities, other than afforestation, reforestation, deforestation[, and any activity under Article 3, paragraph 4, elected in the first commitment period (*If rules change substantially this may need to be reconsidered*)]: [revegetation [, devegetation]], [forest management,] cropland management, grazing land management, [[wetland] [peatland] management] [harvested wood product management].

6 bis. [All Parties included in Annex I shall account for anthropogenic greenhouse gas emissions by sources and removals by sinks resulting from the activity under Article 3, paragraph 4, forest management

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<sup>1</sup> *(Some elements under A bis may be captured later under section E General)*

<sup>2</sup> Based on total area of forest in 2006.

<sup>3</sup> *Will need consideration in the context of Natural Disturbance rules.*

in the second commitment period [unless transparent and verifiable information is provided that this activity is not a source.]] (*Would imply deletion of forest management from paragraph 6 above.*)

[Option 2:

6. All Parties included in Annex I shall account for anthropogenic greenhouse gas emissions by sources and removals by sinks resulting from all of the following human-induced activities as defined in this annex, other than afforestation, reforestation, deforestation: forest management, cropland management, grazing land management.

6 bis. A Party included in Annex I may choose to account for anthropogenic greenhouse gas emissions by sources and removals by sinks from any or all of the human-induced activities as defined in this annex other than the activities contained in paragraph 6 above.

6 ter. A Party included in Annex I shall choose to account for anthropogenic greenhouse gas emissions by sources and removals by sinks for any or all of the human-induced activities, as defined in this annex, that the Party has elected to account for in the previous commitment period as described in paragraph 6 bis above.]

[6 bis. A Party included in Annex I shall account for anthropogenic greenhouse gas emissions by sources resulting from forest biomass decline, devegetation and harvested wood products imported from a Party not included in Annex I in a manner prescribed in paragraphs 21 octies–duodecies below.]

7. [A Party included in Annex I wishing to account for activities under Article 3, paragraph 4, [in the second commitment period] shall identify, in its report to enable the establishment of its assigned amount pursuant to Article 3, paragraphs 7 and 8, the activities under Article 3, paragraph 4, which it elects to include in its accounting for the second commitment period. Upon election, a decision by a Party will be fixed for the second [and subsequent] commitment period[s]. (*Delete or revise if all or some activities are mandatory.*)]

[7 bis. A Party that elected any or all activities under Article 3, paragraph 4, in the first commitment period shall continue to account for such activities in the second and subsequent commitment periods. Such ongoing accounting shall be incorporated into the calculation of its assigned amount pursuant to Article 3, paragraphs 7 and 8.]

8. During the second commitment period, a Party included in Annex I that selects any [or all] of the activities mentioned in paragraph 6 [and 6 bis above (*in Option 2, paragraphs 6 to 6 ter*), if any,], in addition to those already selected for the first commitment period,] shall demonstrate that such activities have occurred since 1990 and are human-induced. A Party included in Annex I shall not account for emissions by sources and removals by sinks resulting from activities under Article 3, paragraph 4, if these are already accounted for under Article 3, paragraph 3.

9. For the second commitment period, accountable anthropogenic greenhouse gas emissions by sources and removals by sinks resulting from [forest management,] revegetation, [devegetation,] cropland management, grazing land management, [[wetland] [peatland] management] under Article 3, paragraph 4, shall be equal to anthropogenic greenhouse gas emissions by sources and removals by sinks in the commitment period, less [five][X] times the anthropogenic greenhouse gas emissions by sources and removals by sinks resulting from these eligible activities [in the [base year] [base period] of that Party] [during 2012], while avoiding double accounting. (*Forest management would be deleted from this paragraph if one of the other options identified below were adopted*). [The year 2012 shall be used as the reference year, whether or not the Party included in Annex I elected to account for any or all of those elected activities in the first commitment period.]

[9 bis. For the second commitment period, accountable anthropogenic greenhouse gas emissions by sources resulting from forest biomass decline shall be equal to anthropogenic greenhouse gas emissions by sources and removals by sinks associated with forest biomass decline in the commitment period, less five times the anthropogenic greenhouse gas emissions by sources and removals by sinks resulting from forest biomass decline during 2012, while avoiding double accounting. The year 2012 shall be used as the reference year, whether or not the Party included in Annex I elected to account for any or all of those elected activities in the first commitment period.]

[9 ter. Parties [should] include emissions and removals from elected activities in their baseline towards the determination of their assigned amount for the [second] commitment period; and [should] include in their accounts emissions and removals from elected activities in the [second] commitment period.]

10. [Option 1: For the second commitment period, a Party included in Annex I that incurs a net source of emissions under the provisions of Article 3, paragraph 3, may account for anthropogenic greenhouse gas emissions by sources and removals by sinks in areas under forest management under Article 3, paragraph 4, up to a level that is equal to the net source of emissions under the provisions of Article 3, paragraph 3, but not greater than 9.0 megatonnes of carbon times five, if the total anthropogenic greenhouse gas emissions by sources and removals by sinks [in the managed forest] [resulting from forest management under Article 3, paragraph 4,] since 1990 is equal to, or larger than, the net source of emissions incurred under Article 3, paragraph 3.]

[Option 2: Delete the paragraph]

### ***Accounting for forest management***

[Option 1 (caps):

11. For the second commitment period [only], additions to and subtractions from the assigned amount of a Party<sup>4</sup> resulting from forest management under Article 3, paragraph 4, [after the application of paragraph 10 above] and resulting from forest management project activities undertaken under Article 6 shall not exceed the value inscribed in the appendix<sup>5</sup>] below, times [five][x].]

[Option 2 (discount factor/s):

[Option 2.1:

11. For the second commitment period [only], additions to and subtractions from the assigned amount of a Party<sup>6</sup> resulting from forest management under Article 3, paragraph 4, [after the application of paragraph 10 above] and resulting from forest management project activities undertaken under Article 6, shall be subject to the application of a [X per cent] discount factor [as inscribed in the appendix below].]

[Option 2.2:

11. For the second commitment period [only], a discount rate of [X] per cent shall be applied during the accounting phase to all carbon credits and carbon debits, which result from activities under Article 3, paragraphs 3 and 4, and from forest management under Article 6 beginning with the onset of the second and subsequent commitment periods.]]

[Option 3 (reference levels):

11. For the second commitment period, accountable anthropogenic greenhouse gas emissions by sources and removals by sinks [resulting from forest management under Article 3, paragraph 4][from forest land] shall be relative to a reference level. The [forest management][forest land] reference levels [inscribed in Annex F were set]<sup>7</sup> [will be set] transparently, taking into account:

- (a) Removals or emissions from forest management as shown in GHG inventories and relevant historical data;

<sup>4</sup> In accordance with decision -/CMP.1 (“Modalities for the accounting of assigned amounts”).

<sup>5</sup> [In arriving at the values in the appendix below, the Conference of the Parties was guided by the application of an 85 per cent discount factor to account for the removals identified in paragraph 1 (h) of decision -/CMP.1 (“Land use, land use change and forestry”) and a 3 per cent cap on forest management, using a combination of data provided by Parties and by the Food and Agriculture Organization of the United Nations. Consideration was also given to national circumstances (including the degree of effort needed to meet Kyoto commitments and the forest management measures implemented). The accounting framework established in this paragraph shall not be construed as establishing any precedent for the second and subsequent commitment periods.]

<sup>6</sup> In accordance with decision -/CMP.1 (“Modalities for the accounting of assigned amounts”).

<sup>7</sup> A process for setting reference levels would need to be established.

- (b) Age-class structure;

[The following elements [where relevant] [could also be] taken transparently into account:]

- (c) Forest management activities already undertaken;
- (d) Projected forest management activities;
- (e) Continuity with treatment of forest management in the first commitment period.

*Placeholder ensuring that harvested wood products shall be treated consistently in the reference level and in the estimation of emissions and removals from forest management during the commitment period.*

*Placeholder ensuring that reference levels [were][will be] set consistently with the provisions for dealing with natural disturbances and force majeure events set out in paras X to Y.*

*11 bis. The difference between net removals or emissions and the reference level during the commitment period shall be credited towards or debited against commitments, according to the direction of the difference.*

*11 ter. [Neither credits nor debits shall result if net removals or emissions are [between the reference level and zero] [within X percent<sup>8</sup> of the reference level. In this case credits or debits outside this range shall be generated by the difference calculated with reference to X percent above or below the reference level according to whether the net removals or emissions are above or below.]]*

12. [A Party may request the Conference of the Parties to reconsider its numerical values as contained in paragraph 10 above and in the appendix to paragraph 11 above [(Option 1)], with a view to the Conference of the Parties recommending a decision for adoption to the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, no later than two years prior to the beginning of the first commitment period. Such a reconsideration shall be based upon country-specific data and the elements of guidance and consideration in the footnote to paragraph 11 above [(Option 1)]. These shall be submitted and reviewed in accordance with relevant decisions related to Articles 5, 7 and 8 of the Kyoto Protocol, and in accordance with the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*, any future elaboration of these guidelines, or parts of them, and any good practice guidance on land use, land-use change and forestry in accordance with the relevant decisions of the Conference of the Parties. (Consider deletion, due to specific need for the first commitment period.)]

#### **D. Article 12<sup>9</sup>**

*Note: Further discussion on how to address non-permanence is needed. Proposals under consideration are reflected in document FCCC/KP/AWG/2009/INF.2.*

13. The eligibility of land use, land-use change and forestry project activities under Article 12 is

[Option 1: limited to afforestation and reforestation.]

[Option 2: *Expand the list of activities (to be decided at a later date)*]

[13 bis. For afforestation and reforestation project activities to be eligible under Article 12 the land must have been non-forested in 1990 and remain non-forested until the start of the second commitment period. Land that did not contain forest on 31 December 1989 and which has subsequently been allowed to revegetate or reforest prior to the start of the second commitment period and subsequently devegetated or deforested prior to the second commitment period shall not be eligible under Article 12.]

[13 ter. Land that was natural grassland or shrubland in 1990 shall not be eligible under Article 12.]

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<sup>8</sup> X% refers to a percentage of the reference level. Assumes the same value would apply for all Parties.

<sup>9</sup> Note: This annex does not include proposals from Parties contained in document FCCC/KP/AWG/2009/MISC.11 and Add.1 on Article 12.

14. [For the second commitment period, the total of additions to a Party's assigned amount resulting from eligible land use, land-use change and forestry project activities under Article 12 shall not exceed [one] [x] per cent of base year emissions of that Party, times [five][X].]

15. [The treatment of land use, land-use change and forestry project activities under Article 12 in future commitment periods shall be decided as part of the negotiations on the third commitment period.] *(This paragraph may need further amendment; the proposal for paragraph 15 bis is related.)*

[15 bis. Accounting for afforestation and reforestation project activities under Article 12 as described in decision 19/CP.9 shall apply, mutatis mutandis, for the second and subsequent commitment periods.]

## **E. General**

### [Option 1:

16. Each Party included in Annex I shall, for the purposes of applying the definition of "forest" as contained in paragraph 1 (a) above, select a single minimum tree crown cover value between 10 and 30 per cent, a single minimum land area value between 0.05 and 1 hectare and a single minimum tree height value between 2 and 5 metres. The selection of a Party shall be fixed for the duration of the second [and subsequent] commitment [period] [periods]. The selection shall be included as an integral part of its report to enable the calculation of its assigned amount pursuant to Article 3, paragraphs 7 and 8, in accordance with decision 19/CP.7, and shall include the values for tree crown cover, tree height and the minimum land area. Each Party shall justify in its reporting that such values are consistent with the [definition used in the first commitment period] [information that has historically been reported to the Food and Agriculture Organization of the United Nations or other international bodies,] and if they differ, explain why and how such values were chosen [and what implications it may have on the consistency of the accounting].]

### [Option 2:

16. Each Party included in Annex I shall, for the purpose of applying the definition of "forest" as contained in paragraph 1 (a) above, apply the definition of forest selected in the first commitment period.

16 bis. Those Parties included in Annex I that did not select a definition of forest for the first commitment period shall, for the purpose of applying the definition of "forest" as contained in paragraph 1 (a) above, select a single minimum tree crown cover value of between 10 and 30 per cent, a single minimum land area value of between 0.05 and 1 hectare and a single minimum tree height value of between 2 and 5 metres.

16 ter. The selection by a Party of a definition of "forest" shall be fixed for the duration of the second commitment [period]. The selection shall be included as an integral part of the Party's report to enable the calculation of its assigned amount pursuant to Article 3, paragraphs 7 and 8, in accordance with decision 19/CP.7, and shall include the values for tree crown cover, tree height and minimum land area. Each Party shall justify in its reporting, that such values are consistent with the information that has historically been reported to the Food and Agriculture Organization of the United Nations or other international bodies, and if they differ, explain why and how such values were chosen.]

17. For the second commitment period, and subject to other provisions in this annex, the additions to and subtractions from the assigned amount of a Party pursuant to Article 3, paragraphs 7 and 8, shall be equal to anthropogenic greenhouse gas emissions by sources and removals by sinks measured as verifiable changes in carbon stocks, and non-carbon dioxide greenhouse gas emissions during the period [1 January 2013] to, [31 December [YY]] resulting from afforestation, reforestation and deforestation under Article 3, paragraph 3, and forest management under Article 3, paragraph 4, that have taken place since 1 January 1990. Where the result of this calculation is a net sink of greenhouse gases, this value shall be added to the assigned amount of that Party. Where the result of this calculation is a net source of greenhouse gas emissions, this value shall be subtracted from the assigned amount of that Party. *(This paragraph may need to be revised to be consistent with e.g. paragraphs 9 and 11.)*

18. Accounting of anthropogenic greenhouse gas emissions by sources and removals by sinks resulting from land use, land-use change and forestry activities under Article 3, paragraphs 3 and 4, shall begin with the onset of the activity or the beginning of the commitment period, whichever comes later.

19. [Once land is accounted for under Article 3, paragraphs 3 and 4, all anthropogenic greenhouse gas emissions by sources and removals by sinks on this land must be accounted for throughout subsequent and contiguous commitment periods.] *(This paragraph will need to be revised if activities in Article 3, paragraph 4, continue to be electable.)*

### *Natural disturbances*

#### [Option 1]:

19 bis. A Party included in Annex I that has elected to account for any or all elected activities under Article 3, paragraph 4, and which has suffered a force majeure<sup>10</sup> during the second commitment period or subsequent commitment periods, may seek approval from the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol to seek a time out and hence eliminate such land from the accounting system for a period of time until the carbon stocks on the explicitly geo-referenced land are returned to the state prior to the force majeure.

19 ter. In deciding whether to approve a time out for a Party, the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol shall take into consideration the following aspects: whether the force majeure fits the definition as prescribed in this decision; how the force majeure was not human-induced; whether the Party can provide verifiable geo-referenced information on the land subject to the force majeure; whether the Party can provide a verifiable estimate of the carbon stocks on the affected land immediately prior to the force majeure; whether the Party has provided an estimate of the time for the time out; and whether the Party is able to maintain an ongoing inventory and assessment of the recovery of carbon stocks until the end of the time out period.

19 quater. Once land has been timed out it shall continue to be reported and accounted for during and beyond the second commitment period until such time as the land has recovered the carbon stocks to the state prior to the force majeure.]

#### [Option 2]:

*(Definition (to be eventually placed under the Definitions section above))*

Option 2.1: “Force majeure” means, for the purposes of this decision, an extraordinary event or circumstance whose occurrence or severity was not materially influenced by a Party and whose associated greenhouse gas emissions by sources and removals by sinks are at least [X percent] of the total national emissions excluding LULUCF in the commitment period;]

Option 2.2: “Natural disturbance” means, for the purposes of this decision, an event or circumstance whose associated greenhouse gas emissions by sources and removals by sinks are non-anthropogenic and not direct human-induced;]

#### *(Method)*

19 bis. A Party included in Annex I where [force majeure][natural disturbance]<sup>11</sup> has occurred during the second or subsequent commitment periods affecting carbon stocks on lands subject to Article 3, paragraph 3, and[, if elected,] land subject to [forest management] [activities]<sup>12</sup> under Article 3, paragraph 4, may,<sup>13</sup> at the end of the commitment period,<sup>14</sup> [or annually during the commitment period] [exclude from accounting the associated greenhouse gas emissions until they have been balanced by subsequent

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<sup>10</sup> As defined in paragraph 1(1)

<sup>11</sup> Implements what we are excluding.

<sup>12</sup> Question: also non-forest 3.4?

<sup>13</sup> Implements the voluntary nature of the provision.

<sup>14</sup> Implements when the provision is activated.

removals]<sup>15</sup>, [or] [carry over the associated greenhouse gas emissions to the subsequent commitment period]<sup>16</sup> provided that no land-use change has occurred on those lands.

19 ter. [A Party included in Annex I must ensure that reporting continues to provide estimates of emissions by sources and removals by sinks that reflect what the atmosphere sees<sup>17</sup> until the greenhouse gas emissions due to [force majeure][natural disturbance] have been balanced by subsequent removals, and that consistency is maintained with the treatment of reference levels established for forest management.]<sup>18</sup>

*(Information)*<sup>19</sup>

19 quater. A Party included in Annex I that wishes<sup>20</sup> to apply the provision in paragraph 19 bis must compile information:

- (a) Showing that all lands subject to paragraph 19 bis are identified, including the location, year[(s)] and type of [force majeure][natural disturbance];
- (b) Showing that no land-use change has occurred on lands subject to paragraph (19 bis);
- (c) That demonstrates efforts to manage or control [where practicable] the events or circumstances that led to the application of paragraph 19 bis;
- (d) That demonstrates the efforts to rehabilitate [where practicable] the carbon stocks on the lands subject to paragraph 19 bis;
- (e) Describing the system in place to ensure the monitoring and reporting of emissions and subsequent removals occurring on lands subject to paragraph 19 bis;
- (f) That demonstrates removals by sinks on the lands after [force majeure][natural disturbance] do not enter the accounting until they balance the greenhouse gas emissions due to [force majeure] [natural disturbance];
- (g) That demonstrates that consistency is maintained with the treatment of [force majeure][natural disturbance] in reference levels established for forest management;
- (h) On the estimated emissions and removals subject to paragraph 19 bis, showing that the emissions and removals [excluded] [or] [carried over] under paragraph 19 bis comply with the definition of [force majeure] [natural disturbance];

*(Process)*

19 quinquies. The supplementary information described in paragraph 19 quater will be included in a Party's national GHG inventory report. Actual emissions and removals and those described in paragraph 19 quater (h) will be included in a Party's common reporting format tables. All information and estimates listed in paragraph 19 quater will be subject to expert review as part of the expert review of the Party's national GHG inventory report.

*(Further Work)*

19 sexies. The SBSTA is requested to develop, as part of its work programme for the revision of UNFCCC reporting guidelines for Annex I Parties, common reporting format tables and dedicated sections in the national inventory report for the submission of the estimates and information in paragraph 19 quater.

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<sup>15</sup> *Implements what we are excluding.*

<sup>16</sup> *Implements what we carry over to the subsequent commitment period.*

<sup>17</sup> *Probably need a better way to refer to "what the atmosphere sees."*

<sup>18</sup> *Assess if needed for carry-over.*

<sup>19</sup> *Not all of the information listed below may be needed in the case of carry-over.*

<sup>20</sup> *Reinforces the voluntary nature of the provision.*

19 septies. [The IPCC is invited to provide estimation and reporting guidance – need to determine exactly what, if anything, the IPCC should be asked to do].]

20. National inventory systems under Article 5, paragraph 1, shall ensure that [information on the] areas of land subject to land use, land-use change and forestry activities under Article 3, paragraphs 3 and 4, [are identifiable, and information about these areas] should be provided by each Party included in Annex I in their national inventories in accordance with Article 7. Such information will be reviewed in accordance with Article 8.

21. 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 [and harvested wood products]. 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.

### ***Harvested wood products***

[Option 1:<sup>21</sup>

21 bis. Emissions from carbon in wood removed from forests accounted for under Articles 3 and 12 of the Kyoto Protocol shall be accounted for by the producing country, as a default, on the basis of instantaneous oxidation, or on the basis of estimates of when emissions occur, provided that verifiable and transparent data are available<sup>22</sup>.

21 ter. A Party may choose to account on the basis of when emissions occur for its domestically produced and consumed harvested wood products pool only, and may also choose to account on the basis of when emissions occur for its exported harvested wood products pool.

21 quater. Estimates of net emissions from harvested wood products shall specify product categories and underlying assumptions for both domestic and export markets.

21 quinquies. Emissions from harvested wood products in solid waste disposal sites are accounted for on the basis of instantaneous oxidation.

21 sexies. When accounting for exported harvested wood products is on the basis of when emissions occur, estimates shall be reported separately for each country to which the harvested wood products are exported, using nationally specific data<sup>23</sup> on the fate of the wood in the importing country.

21 septies. Accounting shall be confined to harvested wood products<sup>24</sup> originating from harvested forest for which emissions and removals have been included in the accounting of the Party.

21 octies. [Emissions that occur during the commitment period<sup>25</sup> from the harvested wood pool arising from wood harvested prior to 31 December 2007 shall also be accounted for, using the same procedure as above [consistent with the latest IPCC estimation methodologies].]

[Option 2:

21 bis. A Party included in Annex I may choose to account for the use harvested wood products for harvested wood products derived from forests subject to reforestation activities since 1 January 1990 in the country of that Party and which have subsequently been subject to forest biomass decline activities during the commitment period.

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<sup>21</sup> Definitions and classification of wood products provided by the Food and Agriculture Organization of the United Nations shall apply.

<sup>22</sup> Further elaboration is required on a SBSTA process to allow for the provision and review of transparent and verifiable data.

<sup>23</sup> Further elaboration is required on a SBSTA process to allow for the provision and review of transparent and verifiable data.

<sup>24</sup> Where a ratio is applied for accounting of emissions and removals from forest management it shall also apply to the harvested wood products pool (*will be further elaborated in the text depending on the accounting rules to be agreed*).

<sup>25</sup> Noting that emissions from harvested wood products originating from harvests accounted for under Article 3, paragraph 3, and for some parts of Article 3, paragraph 4 (for those countries which elected forest management) over the period 2008 to 2012 have already been accounted for on the basis of instantaneous oxidation of harvested wood products carbon.

21 ter. A Party included in Annex I may also choose to account for the use of harvested wood products for such products derived from elected forest management activities if so elected in the first commitment period or elected forest management activities in the second commitment period.

21 quater. Notwithstanding the provisions included in paragraph x below, imported harvested wood products from another country shall not enter the accounting system.

21 quinquies. The calculation of carbon stock changes for the purpose of accounting for harvested wood products, if so elected, on land that is to be accounted for under either reforested land or elected forest management land shall be based on the total increment of carbon stock growth in the eligible forest minus any changes in soil carbon, minus carbon stocks left over from timber harvest activities, minus carbon stocks from any wood residues from wood mills, minus carbon stocks from wood products used for the purposes of paper, wood chips or other short-lived wood products, minus a carbon release estimate of harvested wood products produced and then destroyed during the commitment period, times a conversion factor from carbon to carbon dioxide equivalent.

21 sexies. Harvested wood products derived from deforestation shall be accounted for on the basis that all carbon biomass deforested is considered to have oxidized in the year when the deforestation took place and shall be accounted for as an emission. All other biomass emissions, such as loss of soil carbon, human-induced fires, etc., associated with the deforestation activity shall be accounted for as an emission.

21 septies. Once a harvested wood product leaves the Party included in Annex I where the forest product was grown, the carbon stocks included in the product shall be accounted for as an emission.]

**[Non-Annex I Party harvested wood products**

21 octies. A Party included in Annex I shall account for importing of harvested wood products that have originated from a Party not included in Annex I in the manner prescribed in paragraphs 21 novies to 21 decies below.

21 novies. Carbon stocks included in wood products that have been imported into a Party included in Annex I and originated in a Party not included in Annex I as a result of deforestation or forest degradation activities in a Party not included in Annex I shall be accounted for as an emission in the importing Party included in Annex I.

21 decies. Notwithstanding paragraph 21 novies above, a Party included in Annex I shall not have to account for emissions from wood products that have been imported into its country and originated in a Party not included in Annex I, if it can be verified that such wood products have been derived from certified sustainable forest management practices.

21 undecies. All certified sustainable forest management practices shall be approved by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, based on recommendations from the Subsidiary Body for Scientific and Technological Advice, and shall be kept in a registry maintained by the secretariat.

21 duodecies. When making recommendations for the approval of certified sustainable forest management practices, the Subsidiary Body for Scientific and Technological Advice shall take into full consideration the following criteria:

- (a) The practices do not adversely affect indigenous peoples or local communities;
- (b) The practices do not adversely affect biological diversity;
- (c) The practices are legal, as determined by the laws of the country of origin;
- (d) Adequate law enforcement capabilities are in place;
- (e) The practices lead to a long-term, sustainable supply of wood products;
- (f) The practices are independently monitored;

- (g) The practices do not lead to a displacement of emissions to another location, whether within the country of origin or elsewhere.]

[Option 3:

*Delete section on Harvested Wood Products.]*

[21 ter deces. *Insert a provision for limiting the use of the land use, land-use change and forestry sector for compliance with commitments of Annex I Parties.]]*

**[Option B<sup>26</sup>**

**A. Definitions**

*(Definitions of afforestation and reforestation moved to decision 5/CMP.1)*

1. The following definitions shall apply:
  - (a) “Forest” is a minimum area of land of 0.05–1.0 hectares with tree crown cover (or equivalent stocking level) of more than 10–30 per cent with trees with the potential to reach a minimum height of 2–5 metres at maturity in situ. A forest may consist of either closed forest formations where trees of various storeys and undergrowth cover a high proportion of the ground or open forest. Young natural stands and all plantations which have yet to reach a crown density of 10–30 per cent or tree height of 2–5 metres are included under forest, as are areas normally forming part of the forest area which are temporarily unstocked as a result of human intervention such as harvesting or natural causes but which are expected to revert to forest;
  - (b) “Forest land” includes all land with woody vegetation which falls under the definition of forest;
  - (c) “Cropland” includes all arable and tillage land as well as agroforestry systems which do not fall under the category of forest land;
  - (d) “Grassland” includes [all] rangeland and pasture land as well as agroforestry systems which do not fall under the categories of forest land and cropland;
  - (e) “Wetlands” includes land that is covered or saturated by water for all or part of the year, such as peatland, and which does not fall under the forest land, cropland, grassland or settlements categories;
  - (f) “Settlements” includes all developed land, including transportation infrastructure and human settlements of any size, which does not fall under the forest land, cropland, grassland or wetlands categories;
  - (g) “Other land” includes bare soil, rock, ice and all land areas which do not fall under the forest land, cropland, grassland, wetlands or settlements categories.
  - [(h) Option 1: “Force majeure” means, for the purposes of this decision, an extraordinary event or circumstances beyond the control of Parties.  
  
Option 2: “Expected net emissions” is the algebraic sum of anthropogenic emissions by sources and removals by sinks of the greenhouse gases listed in Annex A to the Kyoto Protocol from the sectors which are expected to be accounted for during the relevant commitment period; it is expressed in gigagrams of carbon dioxide equivalent.]

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<sup>26</sup> Proposals for amendments to the Kyoto Protocol related to this option are specified in annex V to FCCC/KP/AWG/2009/8.

## B. Accounting rules for greenhouse gas emissions and removals

2. Option 1: For the purpose of accounting greenhouse gas emissions and removals from land use, land-use change and forestry, a Party shall account for anthropogenic greenhouse gas emissions by sources and removals by sinks on forest land, cropland, grassland, wetlands and settlements as well as greenhouse gas emissions by sources and removals by sinks resulting from land-use changes from the land-use categories forest land, cropland, grassland, wetlands or settlements to any other land-use category.

Option 2: For the purpose of accounting greenhouse gas emissions and removals from land use, land-use change and forestry, a Party shall account for those anthropogenic greenhouse gas emissions by sources and removals by sinks [on forest land and] from land-use changes occurring from the forest land category to other land-use categories and vice versa, and [for the second commitment period [only]] may account for those anthropogenic greenhouse gas emissions by sources and removals by sinks on [forest land,] cropland, grassland, wetlands and settlements as well as greenhouse gas emissions by sources and removals by sinks resulting from land-use changes occurring from cropland, grassland, wetlands or settlements to any other land-use category.

[Option 2 addendum: Where anthropogenic greenhouse gas emissions by sources and removals by sinks on forest land are not accounted for, the accounted anthropogenic greenhouse gas emissions by sources and removals by sinks from the land use, land-use change and forestry sector shall be adjusted for the displaced emissions. Displaced emissions are the anthropogenic greenhouse gas emissions by sources that occur on forest lands and are the consequence of reductions in emissions reported under an accounted category, as in the case of biomass fuel combustion in the energy sector.

*A similar provision shall be included under Option A of this annex to cope with no or partial accounting of forest land:* Where anthropogenic greenhouse gas emissions by sources and removals by sinks on forest land are not completely accounted for because either no election of forest management has taken place or the forest management activity does not cover the whole national area of forest land, anthropogenic emissions by sources and removals by sinks from land use, land-use change and forestry activities shall be adjusted for displacement of emissions. Displaced emissions are the anthropogenic greenhouse gas emissions by sources which occur on forest land and are the consequence of a reduction in emissions reported under an accounted category, as in the case of biomass fuel combustion in the energy sector.]

3. Anthropogenic greenhouse gas emissions and removals from land use, land-use change and forestry shall be estimated using the guidance provided in the *2006 IPCC Guidelines for National Greenhouse Gas Inventories* or any further guidelines for greenhouse gas inventories adopted by [the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol] [Parties] for this purpose.

4. For the purpose of accounting, greenhouse gas emissions by sources and removals by sinks resulting from land use change occurring on forest land, cropland, grassland, wetland or settlement during the commitment period shall be reported under the land category to which the land has been converted.

### Option 1:

5. For the second commitment period, accountable anthropogenic greenhouse gas emissions by sources and removals by sinks resulting from land use, land-use change and forestry shall be equal to the anthropogenic greenhouse gas emissions by sources and removals by sinks in the commitment period, less [[five] [X] times] the anthropogenic greenhouse gas emissions by sources and removals by sinks [that take place on [forest land], cropland, grassland, wetlands and settlements in the [base year] [base period]] [reported as the reference level] of that Party, while avoiding double accounting.

6. For the second commitment period [only], additions to and subtractions from the assigned amount of a Party<sup>27</sup> resulting from anthropogenic greenhouse gas emissions by sources and removals by sinks occurring on forest land shall:

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<sup>27</sup> In accordance with decision -/CMP.1 (“Modalities for the accounting of assigned amounts”).

Option A: Be subject to the application of a [x per cent] discount factor.

Option B: Not exceed the value inscribed in the appendix below, times [five] [X].

Option C: (Bar approach/Reference level – text included under Option A of this annex is applied here.)

7. For the second commitment period, and subject to other provisions in this annex, the additions to and subtractions from the assigned amount of a Party pursuant to Article 3, paragraphs 7 and 8, shall be equal to the anthropogenic greenhouse gas emissions by sources and removals by sinks measured as verifiable changes in carbon stocks, and non-carbon dioxide greenhouse gas emissions during the period [1 January 2013 to] [31 December [YY]] occurring on forest land. Where the result of this calculation is a net sink of greenhouse gases, this value shall be added to the assigned amount of that Party. Where the result of this calculation is a net source of greenhouse gas emissions, this value shall be subtracted from the assigned amount of that Party. *(This paragraph may need to be revised to make it consistent with paragraphs 5 and 6 above.)*

Option 2:

5. Any Party included in Annex I should apply as the reference level for the land use, land-use change and forestry sector the aggregate carbon dioxide equivalent anthropogenic greenhouse gas emissions by sources and removals by sinks estimated for the period 20XX–20XX. Taking into account national circumstances, any Party included in Annex I may apply a different reference level for the land use, land-use change and forestry sector from that selected in Article 3, paragraph 3, (as amended)<sup>28</sup> of the Kyoto Protocol. To do so, the Party shall submit, no later than two years before the start of the relevant commitment period, the proposed values and relevant elements in support of such a deviance. The submission should be made together with the Party's annual greenhouse gases inventory submission. Submitted data should be subject to the review procedure, and the agreed reference level should be part of the Party's annual review report on its greenhouse gas inventory.

#### **C. Article 12**

*(Text included under Option A of this annex is applied here.)*

#### **D. General**

8. (Same as Option A, paragraph 16)

9. (Same as Option A, paragraph 19)

10. (Same as *Option A, paragraph 20*)

11. Option 1: *(Same as Option A, paragraph 21)*

Option 2: 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, soil organic carbon and harvested wood products. A Party may choose not to account for a given pool in a commitment period if transparent and verifiable information is provided to show that the exclusion of that pool does not result in discounting a debit.<sup>29</sup> *(The same text shall also be included under Option A of this annex.)*

[Option I]:

12. A Party included in Annex I in which a force majeure has occurred during the second or subsequent commitment periods, affecting carbon stocks on forest land [and [, if elected,] other land categories], may

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<sup>28</sup> See page 38 of annex V to document FCCC/KP/AWG/2009/8.

<sup>29</sup> A debit means that either the average annual net increase in carbon stocks reported in the commitment period is smaller than that reported in the reference period or an average annual net decrease in carbon stocks has been reported in the reference period.

Option 1: request [a review process<sup>30</sup>], at the end of the commitment period, for the emissions and subsequent removals up to the levels prior to the event classified as force majeure to be removed from accounting. The carbon stocks resulting from any land use changes that occur in those areas shall not be removed from accounting and the corresponding emissions shall be fully accounted for.

Option 2: choose to carry over to the next commitment period(s) the non-anthropogenic emissions resulting from the event classified as force majeure.

13. *(Same as Option A, paragraph 19)]*

[Option II:

12. The Parties included in Annex I shall submit a proposed value for the expected net emissions of the land use, land-use change and forestry sector for the following commitment period, together with data which support the selected values. The values and data shall be submitted to the Conference of the Parties serving as the meeting to the Parties to the Kyoto Protocol before an agreement is reached on the quantified emission limitation and reduction commitments for the commitment period to which the data refer.

13. Together with the list of quantified emission limitation or reduction commitments for Parties inscribed in Annex B to the Kyoto Protocol, an appendix to this annex containing a list of expected net emissions from the agriculture, forestry and other land use sector for each Party inscribed in Annex B shall be adopted by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol. The value for the expected net emissions shall be the algebraic sum of anthropogenic emissions by sources and removals by sinks from the land use, land-use change and forestry sector of the greenhouse gases listed in Annex A that are expected to be accounted for during the commitment period to which it is applied; the value shall be expressed in gigagrams of carbon dioxide equivalent.]

14. At the end of the commitment period, any Party included in Annex I shall calculate the difference between anthropogenic greenhouse gas emissions by sources and removals by sinks measured as verifiable changes in carbon stocks, and non-carbon dioxide greenhouse gas emissions during the period 1 January 2013 to 31 December 20XX resulting from land use, land-use change and forestry sector the expected net emissions of that Party inscribed in the appendix to this annex. Where the result of this calculation is a positive value, this value shall be subtracted from the accounted anthropogenic greenhouse gas emissions by sources and removals by sinks from the land use, land-use change and forestry sector of that Party; moreover, an equivalent amount shall be added to the accounted anthropogenic greenhouse gas emissions by sources and removals by sinks from the land use, land-use change and forestry sector in the following commitment period.

15. *(Text included under Option A for harvested wood products is applied here.)*

[16. Insert a provision for limiting the use of the land use, land-use change and forestry sector for compliance with commitments of Annex I Parties.]]

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<sup>30</sup> Using guidance to be agreed.