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**AD HOC WORKING GROUP ON FURTHER COMMITMENTS
FOR ANNEX I PARTIES UNDER THE KYOTO PROTOCOL**

Twelfth session

Bonn, 1–11 June 2010

Item 3 of the provisional agenda

Consideration of further commitments for Annex I Parties under the Kyoto Protocol

Documentation to facilitate negotiations among Parties

Note by the Chair*

Addendum

Land use, land-use change and forestry

This addendum is a draft decision text on options and proposals on how to address definitions, modalities, rules and guidelines for the treatment of land use, land-use change and forestry, for consideration by the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at its twelfth session. It has been prepared pursuant to paragraph 27 (a) of document FCCC/KP/AWG/2010/3.

* This document was submitted after the due date owing to the short interval between the eleventh and twelfth sessions of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol.

Land use, land-use change and forestry

The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol,

Affirming that the implementation of land use, land-use change and forestry activities included under the provisions of the Kyoto Protocol shall be consistent with the objectives and principles of, and any decisions taken under, the Convention and its Kyoto Protocol,

Having considered decision 16/CMP.1,

1. *Affirms* that the principles contained in paragraph 1 of decision 16/CMP.1 continue to govern the treatment of land use, land-use change and forestry activities in the second and subsequent commitment periods of the Kyoto Protocol;
2. *Decides* that anthropogenic greenhouse gas emissions by sources and removals by sinks shall be accounted for in accordance with the annex to this decision;
3. *Also decides* that the information referred to in paragraph 2 above shall be reviewed in accordance with relevant decisions under Article 8 of the Kyoto Protocol;
4. *Agrees* to consider, at its [sixth] session, the need to revise decisions of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol that are relevant to the annex contained in this decision, including those related to reporting and review under Articles 5, 7 and 8 of the Kyoto Protocol;
5. *Also agrees* that it is desirable to move towards complete coverage of managed lands when accounting for the land use, land-use change and forestry sector, while addressing technical challenges and the need to focus on accounting for anthropogenic emissions by sources and removals by sinks;
6. *Requests* the Subsidiary Body for Scientific and Technological Advice to initiate a work programme to explore ways of moving towards more comprehensive accounting of anthropogenic emissions by sources and removals by sinks from land use, land-use change and forestry, including through a more inclusive activity-based approach and a land-based approach, and to report to the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its seventh session on the outcomes of this work programme;
7. *[Requests* the Subsidiary Body for Scientific and Technological Advice to provide guidance for the provision and review of transparent and verifiable data on emissions from the harvested wood products pool, taking into account emission estimation methodologies, as revised and refined by the Intergovernmental Panel on Climate Change, and the fact that the best available data for use in estimating emissions arising from wood harvested by a Party prior to 31 December 2007 [and since 1990] may be data provided in guidance issued by the Intergovernmental Panel on Climate Change;]
8. *Requests* the Subsidiary Body for Scientific and Technological Advice to initiate a work programme to consider and, as appropriate, develop and recommend modalities and procedures for

possible additional land use, land-use change and forestry activities under the clean development mechanism (e.g. revegetation, forest management, cropland management, grazing land management, wetland management, soil carbon management in agriculture and other sustainable land management activities), with a view to forwarding a draft decision on this matter to the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol for adoption at its seventh session;

9. *Further requests* the Subsidiary Body for Scientific and Technological Advice to initiate a work programme to consider and, as appropriate, develop and recommend modalities and procedures for alternative approaches to addressing the risk of non-permanence under the clean development mechanism (e.g. how to take responsibility for reversals, insurance, buffers and/or credit reserves, exceptions for low-risk activities, and applying a discount factor to the total emission reductions achieved), with a view to forwarding a draft decision on this matter to the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol for adoption at its sixth session;

10. *Invites* the Intergovernmental Panel on Climate Change to revise and develop, as necessary, of supplementary methodologies for estimating 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 of the Kyoto Protocol, related to the annex to this decision, on the basis of, inter alia, chapter 4 of its *Good Practice Guidance for Land Use, Land-Use Change and Forestry*;

11. *Requests* the Subsidiary Body for Scientific and Technological Advice to consider, following the completion of methodological work by the Intergovernmental Panel on Climate Change outlined in paragraph 11 above, the revised supplementary methodologies related to the annex to this decision, with a view to forwarding a draft decision on this matter to the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol for adoption at its [xxth] session;

12. *Adopts* the definitions, modalities, rules and guidelines relating to land use, land-use change and forestry activities under the Kyoto Protocol contained in the annex to this decision for application in the second commitment period.

ANNEX

Definitions, modalities, rules and guidelines relating to land use, land-use change and forestry activities under the Kyoto Protocol**[Option A****A. Definitions**

1. For land use, land-use change and forestry activities under Article 3, paragraphs 3 and 4 of the Kyoto Protocol, 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) “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. For the second commitment period of the Kyoto Protocol, 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;
 - (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. It includes direct human-induced activities related to emissions of greenhouse gas and/or decreases in carbon stocks on sites which have been categorized as revegetation areas and do 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, and includes emissions by sources and removals by sinks;
 - (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;
 - (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) ["Wetland management" is a system of practices for rewetting and draining on land that covers a minimum area of 1 hectare. It includes all lands that have been drained and/or rewetted since 1990 and that are not accounted for under any other activity, where drainage is the artificial lowering of the soil water table and rewetting is the partial or total reversal of drainage;]
- (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, extraordinary events or circumstances, defined as those events or circumstances whose occurrence or severity was beyond the control of, and not materially influenced by, a Party [and whose associated total annual greenhouse gas emissions by sources and removals by sinks are a minimum of [X per cent][Y to 5 per cent] of the total national emissions included in the base year].

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.

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.

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

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

6. A Party included in Annex I may choose to account for anthropogenic greenhouse gas emissions by sources and removals by sinks resulting from any or all of the following activities: [revegetation,] [forest management,] [cropland management,] [grazing land management and] [wetland 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 following: any activity under Article 3, paragraph 4, elected in the first commitment period; and [revegetation,] [forest management,] [cropland management,] [grazing land management and] [wetland management].

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, that 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 commitment period. *(Delete or revise if all or some activities are mandatory.)*]

7 bis. [Activities elected by a Party under Article 3, paragraph 4, in the first commitment period shall continue to be accounted for in the second commitment period. This 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 above (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 [revegetation,] [forest management,] [cropland management,] [grazing land management,] [wetland 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 [X] times the anthropogenic greenhouse gas emissions by sources and removals by sinks resulting from these eligible activities in the base year of that Party, while avoiding double accounting. *(Forest management would be deleted from this paragraph depending on the option adopted).*

Accounting for forest management

[Option 1 (*caps*):

11. For the second commitment period, additions to and subtractions from the assigned amount of a Party resulting from forest management under Article 3, paragraph 4, and from forest management project activities undertaken under Article 6 shall not exceed the value inscribed in the appendix^[1], times [x].]

¹ [In arriving at the values in the appendix, the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol was guided by the application of an 85 per cent discount factor to account for the removals identified in paragraph 1 (h) of decision 16/CMP.1 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.]

[Option 2 (*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, shall be equal to anthropogenic greenhouse gas emissions by sources and removals by sinks in the commitment period, less [X] times the reference level inscribed in the appendix.²

[11 bis. [Neither credits nor debits shall result if net removals or emissions are [between the reference level and zero] [within X per cent³ of the reference level. In this case, credits or debits outside this range shall be generated by the difference calculated with reference to X per cent above or below the reference level according to whether the net removals or emissions are above or below.]]

11 ter. [For the second commitment period, additions to [and subtractions from] the assigned amount of a Party resulting from forest management under Article 3, paragraph 4, and from forest management project activities undertaken under Article 6 shall not exceed the quantitative limitation inscribed in the appendix, times [x].]

11 quater. [A Party may reconsider its reference level as inscribed in the appendix and described in paragraph 11 above upon changing the methodologies, coverage of carbon pool and/or activity data used in its accounting of emissions by sources and removals by sinks resulting from forest management for the second commitment period. Such reconsideration shall be based on the elements contained in the footnote to paragraph 11 above and be included in the national greenhouse gas inventory report of the Party. This information will be subject to review as part of the expert review of the Party's national greenhouse gas inventory in accordance with relevant decisions related to Article 8 of the Kyoto Protocol.]

D. Article 12

12. Afforestation and reforestation are eligible projects activities under the clean development mechanism in the second commitment period. Activities additional to afforestation and reforestation will be eligible if agreed by any future decision of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol.

13. The modalities and procedures contained in decision 5/CMP.1 for afforestation and reforestation project activities under the clean development mechanism, and in decision 6/CMP.1 for small-scale afforestation and reforestation project activities under the clean development mechanism, shall apply, mutatis mutandis, to the second commitment period. Alternative approaches to addressing the risk of non-permanence may apply in accordance with any future decisions of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol.

² [The forest management reference levels inscribed in the appendix were set transparently, taking into account:

- (a) Removals or emissions from forest management as shown in greenhouse gas inventories and relevant historical data;
- (b) Age-class structure;
- (c) Forest management activities already undertaken;
- (d) Projected forest management activities;
- (e) Continuity with the treatment of forest management in the first commitment period;
- (f) The need to exclude removals in accordance with decision 16/CMP.1, paragraph 1 (h).

Points (c), (d) and (e) above were applied where relevant.

[The forest management reference levels also took into account the need for consistency with the provisions for addressing force majeure contained in paragraphs 19 bis to 19 septies by excluding emissions by sources and removals by sinks due to force majeure.]]

³ "X per cent" refers to a percentage of the reference level. It assumes the same value would apply for all Parties.

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

E. General

15. 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. 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.

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 in light of decisions on forest management.)*

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.

Force majeure

[Option 1: *delete section on Force Majeure*]

[Option 2: *(paragraphs 19 bis through 19 septies)*]

19 bis. Each Party shall, for the purposes of applying the definition of force majeure, select a single minimum value for total annual greenhouse gas emissions by sources and removals by sinks in the range [Y to 5 per cent] of the total national emissions included in the base year. The selection made by the Party shall be fixed for the duration of the [commitment period]. Each Party shall explain why and how the value was chosen.]

19 ter. Where force majeure 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 activities under Article 3, paragraph 4, a Party included in Annex I may, at the end of the commitment period, or annually during the commitment period, [exclude from accounting the associated total annual [CO₂] [greenhouse gas emissions] until they have been balanced by subsequent removals], [or] [carry over the associated [CO₂] [greenhouse gas emissions] to the subsequent commitment period] provided

that no land-use change has occurred on those lands. Emissions associated with the harvesting of salvage wood shall not be [excluded] [or] [carried over].

19 quater. A Party included in Annex I that applies the provisions of force majeure shall calculate the emissions and removals subject to the provisions contained in paragraph 19 bis above, showing that these emissions and removals comply with the definition of force majeure, and provide information:⁴

- (a) Showing that all lands subject to the provisions contained in paragraph 19 ter above are identified, including the geo-referenced location, year and type of force majeure;
- (b) Showing that no land-use change has occurred on lands subject to the provisions contained in paragraph 19 ter above and describing how lands monitoring will identify any future land-use changes on those lands;
- (c) That demonstrates that the occurrence or severity of the events or circumstances was beyond the control of, and not materially influenced by, the Party, by demonstrating efforts to manage or control, where practicable, the events or circumstances that led to the application of the provisions contained in paragraph 19 ter above;
- (d) That demonstrates efforts taken to rehabilitate, where practicable, the carbon stocks on the lands subject to the provisions contained in paragraph 19 ter above;
- (e) Describing the system in place to ensure the monitoring and reporting of emissions and subsequent removals occurring on lands subject to the provisions contained in paragraph 19 ter above;
- (f) That demonstrates that removals by sinks on lands after force majeure has occurred do not enter the accounting until they equal the [CO₂][greenhouse gas] emissions excluded owing to force majeure;
- (g) That demonstrates consistency with the treatment of force majeure in reference levels established for forest management;
- (h) Showing that emissions associated with the harvesting of salvaged wood were not [excluded] [or] [carried over].

19 quinquies. The supplementary information described in paragraph 19 quater above shall be included in the national greenhouse gas inventory reports of Parties. Actual emissions and removals and those described in paragraph 19 quater above shall be included in the common reporting format tables provided by Parties. All information and estimates referred to in paragraph 19 quater above will be subject to expert review as part of the expert review of the national greenhouse gas inventory reports submitted by Parties.

19 sexies. [Parties included in Annex I must ensure that their reporting continues to provide estimates of emissions by sources and removals by sinks until the greenhouse gas emissions due to force majeure have been balanced by subsequent removals, and ensure unbiased accounting by maintaining consistency with the treatment of reference levels established for forest management.]⁵

19 septies. The lands subject to force majeure must re-enter the accounting when the excluded greenhouse gas emissions and subsequent removals have been balanced on those lands.]

⁴ Not all of the information listed below may be needed in the case of carry-over.

⁵ This may not be needed in the case of carry-over.

20. National inventory systems established under Article 5, paragraph 1, shall ensure that areas of land subject to land use, land-use change and forestry activities under Article 3, paragraphs 3 and 4, are identifiable, and information on these areas shall 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 demonstrates that the pool is not a source.

21 bis. [When accounting for greenhouse gas emissions by sources and removals by sinks, Parties included in Annex I may remove the impacts of inter-annual variability.]

Harvested wood products

[Option 1: *Delete section on Harvested Wood Products.*]

[Option 2: *(paragraphs 21 ter through 21 novies)*]

21 ter. Emissions from carbon in wood removed from forests accounted for under Article 3 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. Accounting⁶ shall be confined to harvested wood products⁷ originating from harvested forest for which emissions and removals have been included in the accounting of the Party.

21 quater. Emissions from carbon in wood removed from forests accounted for under Article 12 shall be accounted, 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. Accounting shall be confined to harvested wood products originating from harvested forest for which emissions and removals have been included in the accounting of the afforestation/reforestation project activity.

21 quinquies. Accounting may be on the basis of when emissions occur for the domestically produced and consumed harvested wood products pool only, and may also be on the basis of when emissions occur for the exported harvested wood products pool.

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

21 septies. When a Party accounts for exported harvested wood products 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 on the fate of the wood in the importing country.

21 octies. Emissions from harvested wood products in solid waste disposals sites shall be accounted for on the basis of instantaneous oxidation.

[21 novies. Emissions that occur during the commitment period⁸ from the harvested wood pool arising from wood harvested by the Party prior to 31 December 2007 [and since 1990] shall also be accounted

⁶ Where a ratio is applied for accounting of emissions and removals from forest management, it shall also apply to the harvested products pool (*will be further elaborated in the text pending on the accounting rules to be agreed*).

⁷ Definitions and classifications of wood products provided by the Food and Agriculture Organization of the United Nations shall apply.

⁸ 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 Parties that elected forest management) over the period 2008 to 2012 have already been accounted for on the basis of instantaneous oxidation of carbon in harvested wood products.

for, using the same procedure as above and in line with the latest Intergovernmental Panel on Climate Change guidance, approved by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol.]

21 decies. Parties included in Annex I shall maintain consistency in the treatment of harvested wood products in the reference level and in the commitment period, and in order to do so shall make an accounting adjustment if necessary, and shall report on how the adjustment was made.]]

[APPENDIX (*Option 1, paragraph 11*)]

Party	Mt C/yr^a
Australia	0.00
Austria	0.63
Belarus	[0.00]
Belgium	0.03
Bulgaria	0.37
Canada	12.00
Croatia	0.265
Czech Republic	0.32
Denmark	0.05
Estonia	0.10
Finland	0.16
France	0.88
Germany	1.24
Greece	0.09
Hungary	0.29
Iceland	0.00
Ireland	0.05
Italy	2.78 ^b
Japan	13.00
Latvia	0.34
Liechtenstein	0.01
Luxembourg	0.01
Monaco	0.00
Netherlands	0.01
New Zealand	0.20
Norway	0.40
Poland	0.82
Portugal	0.22
Romania	1.10
Russian Federation	33.00
Slovakia	0.50
Slovenia	0.36
Spain	0.67
Sweden	0.58
Switzerland	0.50
Ukraine	1.11
United Kingdom	0.37

^a As listed in the appendix to decision 16/CMP.1.

^b This figure was changed from 0.18 to 2.78 by decision 8/CMP.2.

[APPENDIX (*Option 2, paragraphs 11–11bis*)]

Party	Reference level (Mt CO₂e/yr)	[Quantitative limitation]
Australia	[-9.16]	
Austria	[-1.52]	
Belarus	[-24.93]	
Belgium	[-3.15]	
Bulgaria	[-6.49]	
Canada	[-105.40]	
Croatia	[xx]	
Cyprus ^a	[-0.18]	
Czech Republic	[-3.99]	
Denmark	[0.32]	
Estonia	[-0.74]	
European Union (27)	[-286]	
Finland	[-13.70]	
France	[-50.98]	
Germany	[0.85]	
Greece	[-3.08]	
Hungary	[-1.25]	
Iceland	[xx]	
Ireland	[-0.09]	
Italy	[-53.45]	
Japan	[0.00]	
Latvia	[-26.03]	
Liechtenstein	[xx]	
Lithuania	[-6.34]	
Luxembourg	[-0.26]	
Malta ^a	[-0.05]	
Monaco	[xx]	
Netherlands	[-1.84]	
New Zealand	[17.05]	
Norway	[-14.20]	
Poland	[-34.01]	
Portugal	[-0.28]	
Romania	[-30.26]	
Russian Federation	[-177.80]	
Slovakia	[-2.15]	
Slovenia	[-2.71]	
Spain	[-19.37]	
Sweden	[-21.84]	
Switzerland	[-1.11]	
Ukraine	[xx]	
United Kingdom	[-3.44]	

^a Cyprus and Malta are member States of the European Union but are not Parties to the Convention that are also Parties to the Kyoto Protocol with a commitment inscribed in Annex B to the Kyoto Protocol.

[Option B**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.]

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 Party⁹ resulting from anthropogenic greenhouse gas emissions by sources and removals by sinks occurring on forest land shall:

⁹ 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)¹⁰ 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.¹¹ *(The same text shall also be included under Option A of this annex.)*

¹⁰ See page 38 of annex V to document FCCC/KP/AWG/2009/8.

¹¹ 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 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

Option 1: request [a review process¹²], 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.*)]

¹² Using guidance to be agreed.